

MINT CONSTRUCTION + DESIGN

SEPTEMBER 2026

COMPLICATED CANYON CONNECTION

The \$84 million Cottonwoods Connection project will link together Big and Little Cottonwood Water Treatment Plants.

- + Perfect 10: Talisman, MINT Anniversaries
- + USU Monument Valley Academic Building
- + AFCU Performing Arts Center at Utah Tech
- + 2026 Top Utah Engineering Firms

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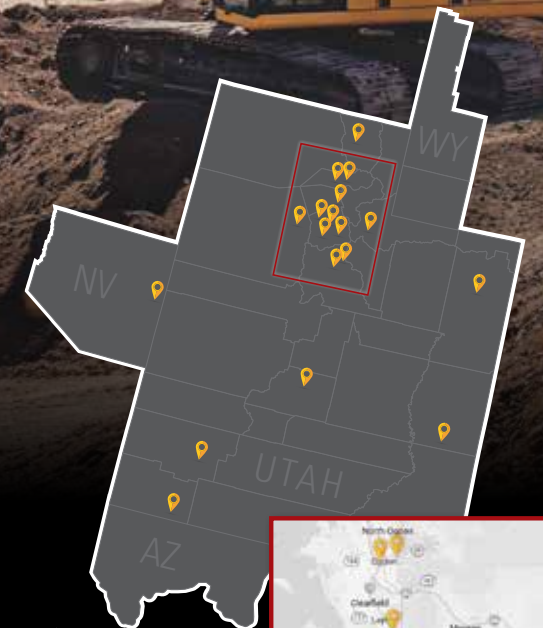
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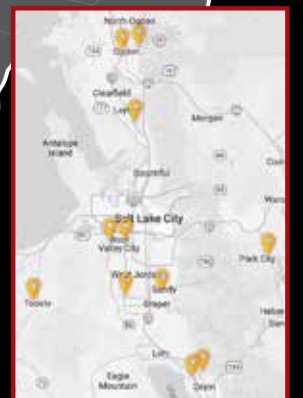


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On the cover: Aerial view of Whitaker Construction's crew working on the challenging Cottonwoods Connection project through the heart of a Cottonwood Heights residential neighborhood. (photo by Dana Sohm, Sohm Photography)



Highlighting Important Underground, Higher Ed Projects

Now I don't know
I don't know
I don't know where I'm a-gonna-go
When the volcano blow
—Jimmy Buffett, “Volcano”, *Volcano* (1979)

Aloha! I'm writing this from the **Big Island of Hawai'i**—officially now my favorite U.S. state—and yesterday (Sept. 7) we drove from where we're staying in Kona on the west side of the island to **Hawai'i Volcanoes National Park** on the east side, in an attempt to see a lava fountain from **Kilauea's** Episode 55.

Scientists have been tracking Kilauea's most recent active cycle since December 23, 2024, with Episode 1 kicking off two days before Christmas with a spectacular 518-foot lava fountain. Alas, we encountered only a meager lava flow—plus a thick blanket of pea soup-like fog that reduced visibility to 20 feet—so we were slightly disappointed with the end result. That said, a less-than-stellar day in Hawaiian paradise beats most top-shelf days at home, as much as I love the Beehive State.

Volcanoes are fascinating—albeit a bit scary. Their sheer power is the stuff of legend, and to see one up close and in person—even if it wasn't spewing forth a huge fountain of lava—was an awesome experience.

The parallel between my introduction and this issue is related to the underground. Lava comes up from underground, and this issue features several important underground construction projects, highlighted by our cover story on the combined \$84 million **Salt Lake Aqueduct Replacement–Cottonwoods Connection** project (SLAR-CC) for the owner partnership of **Metropolitan Water District of Salt Lake & Sandy** and the **Salt Lake City Department of Public Utilities**.

Two main construction contracts make up the bulk of this project: a \$57.2 million contract for Brigham City-based **Whitaker Construction** that runs through Q1 2027, and a \$13.05 million contract for North Salt Lake-based **COP Construction** that wrapped up last fall. This major infrastructure project greatly enhances redundancy as it connects the **Big and Little Cottonwood Water Treatment Plants**, replacing aging infrastructure and improving seismic resilience.

I've said it before, and I'll say it again: there are NO projects more important to the quality of our lives than those improving drinking water system infrastructure—so major props to Whitaker and COP, along with the owners, engineering teams, and subcontractors associated with this critical project.

Higher Education is also a focal point of this issue, and we take a deep dive into four state-of-the-art projects located at four of the state's public universities.

The first is the \$8.1 million **Rice-Eccles Stadium West Tower Fire and Hot Water Loop Replacement**, a complex infrastructure and cosmetic upgrade project that might be considered minor in size and scale, but its importance to the health of the stadium cannot be overstated. Draper-based Fortis Construction replaced several key systems, including the fire-suppression system, sprinkler piping across seven stadium levels, a new fire pump, and a hot-water system. Fortis also gave several areas a "facelift" with fresh paint, new carpet, and new lighting, in addition to improvements to the exterior lighting system and handrails throughout the stadium.

Other higher ed projects include the new \$14 million **Utah State University Monument Valley Academic Building**, a collaboration between **ajc architects** and **Big-D Construction**; the \$18.5 million **Dee Events Center MEP Upgrade** at **Weber State University**, completed by **Lynk Engineers** and **KIER Construction**; and a personal favorite of mine, the \$40 million **America First Performing Arts Center at Utah Tech University**, an adaptive reuse and addition that transformed the 40-year-old M.K. Cox Performing Arts Center into a world-class venue.

Other project features include the **Lehi Civic Center**, a tremendous new community project for Lehi City that was designed by **VCBO Architecture** and built by **SIRQ Construction**, and the **Nephi Readiness Center** for the **Utah Army National Guard**, designed by **Architectural Nexus** and built by **Hogan & Associates**.

Finally, we have three anniversary profiles in this issue: **Big-D Signature's** 25th, **Talisman Civil Engineering's** 10th, and **MiNT Construction's** 10th. Congratulations to these firms on these notable milestones!

Another year is almost in the can! As always, a big thank you to our longtime advertising supporters—we couldn't produce this publication without your help!

Also, a quick reminder of our **2026 Most Outstanding Projects (MOP) of the Year Awards program**. We'll be hosting our MOP Jury event in mid-October, followed by our **MOP Awards Presentation/Breakfast** December 10 from 7:30 a.m. to 10:30 a.m. at Little America Hotel in downtown Salt Lake City. We hope to see you there!

Regards,

Bradley Fullmer



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Vol. 14 No. 5

Coming in October/November issue of UC+D:
Spencer Fox Eccles School of Medicine
40 & Under A/E/C Professionals
Antelope Island Visitor's Center

THE CONSTRUCTION + DESIGN

THE LARGEST INDUSTRY AWARDS EVENT OF THE YEAR

SAVE THE DATE

12.10.26

THURSDAY DEC 10

2026 Most Outstanding Projects Competition

photo by Dana Sohm, Sohm Photography

SUBMISSION DEADLINE: OCTOBER 15th, 2026

UC+D is proud to announce its 14th Annual Outstanding Projects of the Year competition for 2026, which honors the very best commercial construction and design projects in the State of Utah that were 90-100% completed within the 2026 calendar year (Jan. 1 to Dec. 31). Projects will be considered in a wide range of categories including (but not limited to) the following:

Project of the Year
(Overall Most Outstanding Project)
Commercial/Mixed-Use
Commercial/Office
Commercial/Retail
Community/Cultural
Concrete/Structures
Concrete/Tilt-Up
Design/Build
Entertainment
Green/Sustainable

Healthcare (Large)
Healthcare (Small)
Higher Education
Highway Over \$10 M
Highway Under \$10 M
Hospitality/Resort
Industrial
K-12
Mass Transit/Airport
Multi-Family
Municipal/Utility

Private Over \$10 M
Private Under \$10 M
Public Under \$10 M
Publisher's Pick
Renovation/Restoration
Specialty Contracting: Electrical
Specialty Contracting: Masonry
Specialty Contracting: Mechanical
Sports/Recreation
Tenant Improvement
Water/Wastewater

Submittals will be judged by a panel of A/E/C industry professionals and awarded based on a number of criteria.

ELIGIBILITY

1. The project must be located in Utah.
2. The project must be 90-100% completed in 2026
3. Firms can submit multiple projects in multiple categories. The most successful entries include input from various team members, including the A/E firms, general contractor, & owner.

JUDGING CRITERIA

1. Contribution to the Industry and Community
2. Innovation in Design and Construction
3. Overcoming Unique Challenges/Obstacles
4. Safety, Quality and Craftsmanship
5. Aesthetics/Design

SUBMISSION/ENTRY FEE

Additional information about the competition as well as entries may be submitted online at www.utahcdmag.com/mop Questions may be emailed to Ladd Marshall at: lmarshall@utahcdmag.com

PHOTOGRAPHS/DIGITAL IMAGES

Firms should plan on submitting a minimum of twelve (12) photos (max 24), all high resolution files (minimum 5" x 7", 300 dpi, .jpg preferred). Firms can also submit other documents, including renderings, floor plans, etc. Applicants need to ensure they have total permission to copy and submit photographs to *Utah Construction + Design* for publication without limits. Any liability for copyright violations will be borne solely by the applicant.

There is an \$80 entry fee per submitted project. Fees will be invoiced after project submissions are received.

SAVE THE DATE

UC+D will host an
OUTSTANDING PROJECTS AWARDS BREAKFAST, Thursday, DEC. 10th
Registration from 7-8:20 a.m., Breakfast at 8:20 a.m. sharp. Program will run from 9 a.m. to 10:30 a.m.

Fred Duberow Retires After Distinguished 50-year Career

UC+D reports on significant personnel news—highlighted by Jörg Rügemer being named a Professor at the U of U, and Lorianne Bisping earning WIA’s ‘Architect of the Year’.

After a career spanning 50 years in the A/E/C industry, **Fred Duberow**, Principal Water Resource Engineer for Sandy-based **Ensign Engineering and Land Surveying**, recently retired.

Renowned for his sharp engineering acumen, pleasant demeanor, and passion for skiing, Duberow established himself as one of the top water resources engineers in the business.

After graduating in 1968 from Bend Senior High in Bend, Oregon, Duberow moved to Utah to attend the University of Utah. He received a Bachelor of Civil and Environmental Engineering in 1973 and earned his Professional Engineer license in 1978.

Duberow joined Salt Lake-based Eckhoff, Watson and Preator Engineering in 1985—acquired by Stantec in 2000—where he remained for 32 years, ultimately leading its Water Resources division for many years.

He joined Ensign in April 2017 as a Principal, leading master planning and design for resorts, residential and commercial developments, and industrial sites. His work included irrigation storage reservoirs, flood detention basins, water ski lakes, hydraulic modeling, well and booster pump stations, and concrete water storage tanks.

Notable projects include Daybreak Phase I Infrastructure Master Planning; SunCrest Development Infrastructure Master Planning; Snowbasin Ski Resort infrastructure and new water source development; Misty River Ranch potable and secondary water and sewer systems; and Magna Water District’s Zone 3 potable water storage tank.

“I’ve enjoyed my tenure at Ensign; it’s a good company with good people and I’ve had lots of success. It’s been a great journey, and I appreciate coming along for the ride,” said Duberow.

“Fred loved mentoring young engineers and sharing his experiences and approach to unique designs with them,”

said Robert Elder, Principal at Ensign. “He always respected his work colleagues and significantly influenced the betterment of the public systems throughout the communities in Utah where he was involved.”

Jörg Rügemer, Founder and Principal of **Atelier Jörg Rügemer Sustainable Architecture Park City**, was recently promoted to Full Professor of Architecture at the **University of Utah**, where he has taught since 2006, previously as an Associate Professor.

Rügemer holds degrees from universities in the United States and Germany and is a licensed architect in both countries. He is also eligible to practice throughout the European Union and is an International Associate of the American Institute of Architects.

For more than two decades, Rügemer has advanced approaches exploring the relationship between architecture, building science, and environmental responsibility. His teaching and research focus on sustainable architecture, high-performance building systems, and strategies that connect sustainability goals with measurable building performance.

Rügemer’s projects explore site Net Zero and all-electric residential buildings that exceed energy code goals while balancing architectural quality and cost feasibility.

“Throughout my career, I’ve argued and tried to demonstrate through my teaching, research, and built work that [...] design research grounded in practice leads to stronger scholarship, more meaningful teaching, and ultimately better architecture,” he said.

Lorianne Bisping of Salt Lake-based VCBO Architecture was named 2026 ‘Architect of the Year’ by **Women in Architecture Salt Lake City** at this year’s Partini event. For more than two decades, Bisping’s

technical skill, artful designs, and confident leadership have contributed to many of VCBO’s complex projects across the higher education, healthcare, and civic sectors.

With a background in both art history and architecture, she focuses on balancing pleasing aesthetics with practical functionality.

Bisping helps foster industry best practices on the Uniform Building Code Commission, which determines state building standards, and as a member of VCBO’s Means & Methods Committee.

VCBO Architecture announced personnel news, including hiring **John McLaughlin** as a Project Architect. McLaughlin has a decade of experience, most recently with Salt Lake-based ajc architects, where he worked since 2020 and helped design Wasatch Fire District Station 51.

VCBO also recognized **Astra Sun** and **Addison Peabody** for earning their architectural licenses and **Rachel Stein** for achieving her AICP Certification through the American Planning Association.

Sun joined VCBO in 2022 and is now an Architect II, with experience designing healthcare projects including clinics, imaging centers, and hospitals while coordinating with project teams and stakeholders. Peabody joined the firm in 2018 and is now an Architect II in its Honolulu office. His work has largely focused on housing, ranging from high-rise construction to affordable housing, along with public projects. Stein has worked as an Urban Planner for more than four years, with experience on public- and private-sector projects.

Stuart Manning joins Salt Lake-based **Hunt Electric** as Project Director of its ICC division. Manning has 28 years of A/E/C industry experience and has worked on large-scale projects in the public, private, and healthcare sectors.

Manning brings extensive technical

education and experience along with a strong foundation in business and leadership. Commenting on his new role, Manning said he was especially looking forward to ICC’s innovative future, particularly “the opportunities ahead in manufacturing, modular construction, data centers, and mission-critical infrastructure.”

Mindy Rietz, a real estate industry executive, joined Salt Lake-based **Gardner Group** as Partner, Strategic Growth. Previously, she was VP and Commercial Development Lead for Denver-based United Properties, directing development and investment activities for commercial properties. Experienced in commercial portfolio development, development sourcing, and strategic acquisitions, Rietz said her new role will focus on “expanding Gardner’s presence beyond Utah, with an initial emphasis on Denver, Phoenix, and Minneapolis.”

Salt Lake-based **Architectural Nexus** has hired **Brandon Francom** as a Senior Project Architect, with more than 20 years of experience with urban design. Francom grew up in Salt Lake, but his career has taken him across the U.S., including Atlanta, Orlando, Portland, and Seattle. In Salt Lake City, his projects have spanned mixed-use, multifamily, hospitality, urban design, and master planning. Notable work includes the Rocky Mountain Power Headquarters and Power District Masterplan, where he served as a lead designer.

Nate McDonald, **Clyde Companies’** Director of Government & Community Relations, was recognized at the recent 2026 One Utah Summit, where he received a Transformational Leader Award. He was specifically recognized for advancing rural Utah through community relations, public service, and leadership rooted in grit, creativity, and connection.

McDonald has been with Clyde Companies since January 2024, having previously worked in public communications in various capacities, including Deputy Director of Utah Department of Workforce Services from 2021-24.



Fred Duberow



Jörg Rügemer



Lorianne Bisping



John McLaughlin



Astra Sun



Addison Peabody



Rachel Stein



Stuart Manning



Mindy Rietz



Brandon Francom



Nate McDonald



Sid Ostergaard

Sid Ostergaard has joined South Jordan-based **Psomas** as a Senior Planner. He has more than three decades of experience in landscape architecture, urban design, and planning and has led master planning and design projects for major resorts, downtowns, and communities across the U.S. and internationally.

Lehi-based **Overland Construction** welcomed **Adam Wilhelm** to its team as Business Development Manager of its Utah office. He previously worked for Intertek Building & Construction from 2019-2026, gaining expertise in strategic business development while developing a strong network of industry relationships.

“We are excited about the opportunities ahead and look forward to the value Adam will bring to our clients, partners, and projects throughout Utah,” the firm said in a statement.



Adam Wilhelm



Charles G. Cunningham V

After more than two years as Facility Coordinator at the University of Utah, **Charles G. Cunningham V** has joined Salt Lake-based **Archer Mechanical** as a Project Manager.

Cunningham is responsible for leading commercial construction projects from preconstruction through closeout, including project financials, scheduling, quality, safety, and client satisfaction. He will also foster relationships with owners, contractors, subcontractors, and internal teams to deliver plan/spec and design-build projects.>>

Brigg Rasmussen was recently hired as Vice President of Commercial Construction at Salt Lake-based **PEM Build**. He most recently worked as a Senior Superintendent at a prominent Utah Valley-based general contractor, where he developed strong leadership skills.

“Construction has always been about more than the projects themselves—it’s about the people, relationships, trust, and teams that make those projects possible,” he said.

In his new role, Rasmussen will help build PEM Build’s commercial construction division, focusing on business development, scalable processes and systems, and relationships with subcontractors and trade partners.

Désirée Orchard has joined Salt Lake-based **Lloyd Architects** as a Senior Interior Designer. With a decade of design experience at boutique studios and larger firms, her expertise includes custom



Brigg Rasmussen



Désirée Orchard



Manish Acharya



Paige Burt

residential projects and commercial interiors.

“She operates under the philosophy that our built environment profoundly influences our mental well-being, and that living in a home tailored to bring true joy is something everyone deserves,” said Warren Lloyd, President of the firm.

Manish Acharya of Salt Lake-based **Reaveley Engineers** recently earned his Professional Engineer license. Acharya began his career in 2019 with Fast Track International Pvt. Ltd. in Nepal before joining Reaveley in July

2025. He performs structural analysis and design for commercial and institutional buildings, including healthcare and mixed-use developments.

Salt Lake-based **GSBS Architects** announced that **Paige Burt** earned her AICP Certification from the American Institute of Certified Planners, recognizing her expertise and professionalism in the planning field. With a degree in landscape architecture and environmental planning, Burt brings a multidisciplinary background to the firm’s planning department. ■

TEAMWORK

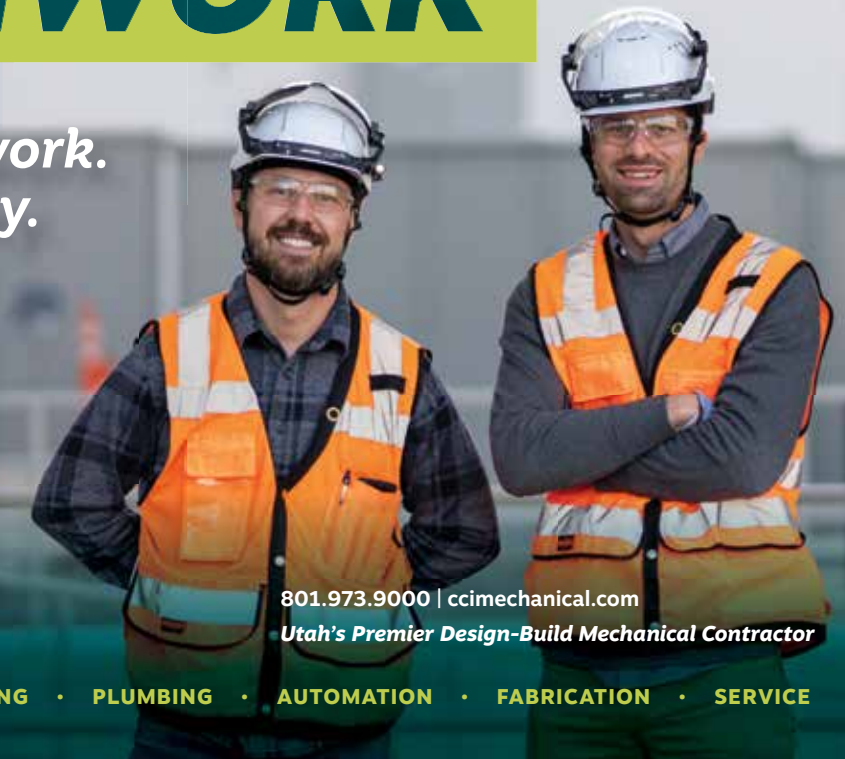
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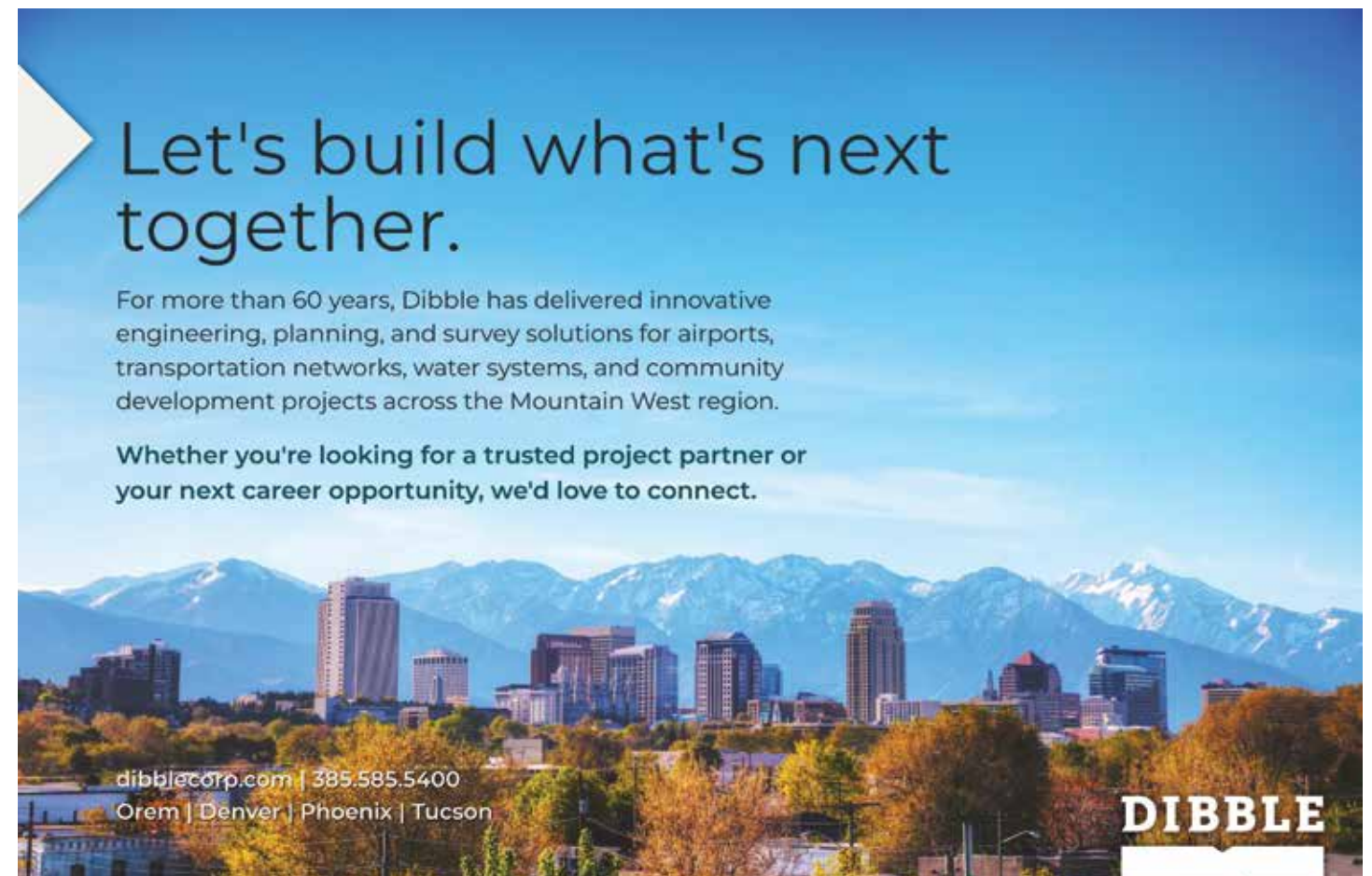
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Building a Stronger Voice for Utah's Underground Utility Industry

By Christine Barnes

NUCA of Utah was established with a clear purpose: to bring Utah's underground utility construction industry together through advocacy, safety, education, workforce development and meaningful industry connections.

Officially chartered by the National Utility Contractors Association in February 2026, NUCA of Utah was the result of months of collaboration and outreach among contractors and industry partners who recognized the value of creating a dedicated Utah chapter. The charter was formally presented during NUCA's National Convention in Tucson, marking an important milestone for the organization.

"Receiving our charter was exciting, but it was really the beginning of what we want to accomplish in Utah," said Glen Perry, President/CEO of North Salt Lake-based COP Construction, who is serving as President of NUCA of Utah for 2026-27. "Our goal is to build an organization shaped by our members that provides meaningful, long-term value to Utah's underground utility construction industry."

In addition to Perry, other chapter leaders include Vice President Morgen Baldwin of Orem-based W.W. Clyde, Secretary/Treasurer Jeremy McAdams of Farmington-based Aldrich CPAs + Advisors, and Associate Vice President Shane Henriod of Salt Lake-based National Trench Safety, along with four other Board of Directors from across the heavy civil industry.

NUCA of Utah has also established a committee structure focused on: Government & Industry Relations; Membership & Events; Safety, Compliance & Training—designed to give members a direct role in developing the chapter's



Glen Perry



Morgen Baldwin



Jeremy McAdams



Shane Henriod

priorities, programs and industry initiatives.

The chapter currently represents more than 30 member firms, with significant opportunity for growth throughout the Beehive State. While utility and excavation contractors are central to NUCA, membership extends to other types of contractors, suppliers, equipment companies, manufacturers, engineers, technology and safety providers, insurance and financial professionals, utilities, municipalities, and other infrastructure stakeholders who can benefit from participation.

"Our goal is to build an organization shaped by our members that provides meaningful, long-term value to Utah's underground utility construction industry."

— Glen Perry

"We aren't looking to simply build a membership list," Perry said. "We want an engaged membership where companies are developing relationships, participating in committees and helping determine what NUCA of Utah becomes."

Since receiving its charter, the chapter has begun building a mix of educational, safety and networking opportunities. Most recently, NUCA of Utah hosted its Underground Throwdown August 25 in

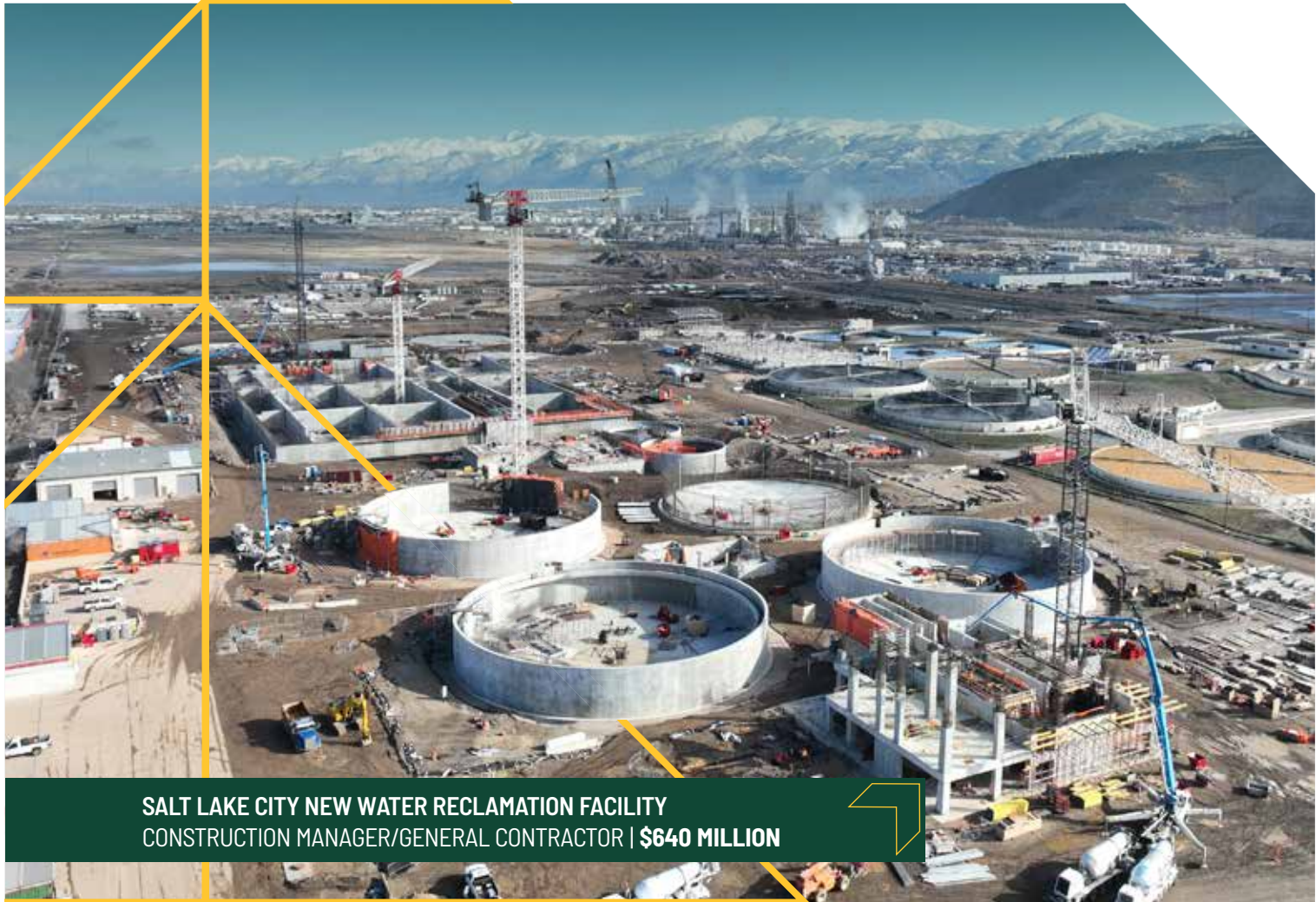
Midvale. The event brought together contractors and industry partners for networking, a competitive cornhole tournament, and a vendor showcase.

Looking ahead, the chapter plans to expand safety and training opportunities, strengthen relationships with state and local agencies, grow its government and industry relations efforts, develop workforce initiatives, and continue building membership statewide.

A Project Preview slated for later this year will connect members with upcoming infrastructure projects and other construction opportunities in the state. As the chapter grows, the goal is to provide members with valuable services across the board.

"Success will be about our members seeing NUCA of Utah as a resource and a voice for their businesses," said Baldwin. "We have an opportunity to bring this industry together and build something that will serve Utah's contractors and infrastructure community for years to come."

Christine Barnes is the Interim Executive Director for NUCA of Utah. She has a background in trade-association management, member development, government affairs, workforce development, safety programming and industry events.



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▶ TOGETHER WE BUILD SUCCESS



Hazard Recognition Plus™

A Common Risk Language Applied at the Point of Work

By Rob Loose

Five people all stare at the same construction site.

- The PM immediately notices a missing railing.
- The electrician holds a frayed cord.
- The Foreman examines a damaged ladder.
- The laborer sees a trip hazard.
- The superintendent sees a rushed crew that really needs to be somewhere else.

These five professionals look at the same thing and are misaligned.

Safety on a construction site is typically attuned to behaviors like wearing PPE. Often, project teams will focus on high-energy hazards and the prevention of serious injuries and fatalities (SIFs). Work involving heavy equipment, electricity, elevated surfaces, suspended loads, pressure systems, and other significant hazards can be fatal when those controls fail.

Energy-based safety should not be reserved only for the highest-risk activities. Every task involves energy. Climbing a ladder involves gravity. Using a saw requires electrical energy.

Excavation work introduces gravity and pressure. Even routine material handling involves motion. The challenge is to align workers to recognize these energies, understand where the energy is going, and determine how the energy will be eliminated or controlled.

Hazard Recognition Plus™, better known as HRP, is the original energy-based safety thought process. HRP teaches workers and leaders to recognize eight forms of energy: motion, chemical, radiation, electrical, gravity, heat/cold, biological, and pressure.

In practical terms, a hazard exists when there is the potential for an uncontrolled release of or unwanted contact with energy that could harm a person, an asset, the environment, and a company’s reputation. This definition moves hazard recognition beyond lists and labels. Instead of simply

asking, “What hazards do I see?” HRP encourages workers to ask more useful questions: What forms of energy are present in this task? Where is the energy going? How will I control this energy? And what specific stop-the-job triggers should be employed?

HRP thought process is valuable during preconstruction and project planning, when teams evaluate constructability, sequencing, equipment requirements, or high-risk operations. But HRP was designed to be applied where and when work happens.

Construction is dynamic. Equipment moves. Trades overlap. Weather changes. Deliveries arrive early. Routes are blocked. A task that was planned in the morning may look very different two hours later. Safety, therefore, depends on more than the quality of the original plan. It depends on the ability of teams to perceive change, think critically in the moment and adapt.

Go back to those five people at the edge of the work area. When they share an energy-based lens, the conversation changes. Rather than relying on trade-specific terminology or individual experience, they can discuss the energy present, the potential path of release, the people exposed, and the controls needed for a safe outcome.

When general contractors and subcontractors become fluent in the same process, hazard awareness becomes universally interpreted and understood. The conversation is no longer limited to what one company calls a hazard or how another company completes its paperwork. Teams have a shared way to recognize risk, communicate concerns, and stop or adjust work when conditions change.

HRP supports the prevention of high-energy incidents and SIFs, but it also strengthens routine pre-task plans, toolbox talks, job hazard analyses, safety observations, and informal conversations



Rob Loose

between coworkers. Over time, it helps transform hazard recognition from a required activity into a repeatable way of thinking applied at the point of work.

That transformation is the objective when organizations implement HRP as more than a training event—integrating energy-based thinking into leadership expectations, planning processes, field conversations, and the daily decisions that determine whether work proceeds safely.

For Utah’s growing construction industry, the opportunity is significant. Projects are becoming larger and more complex, schedules are tightening, and multiple contractors are often working within the same changing environment. A common energy-based language can help those organizations work together more effectively while protecting their people, projects, and reputations.

If your organization is interested in improving at-the-point-of-work safety conversations or evaluating how well your safety program supports the realities of construction, I would welcome the opportunity to connect and discuss HRP. ■

Rob Loose, CSP, is the Managing Director for HSE Global US. He works with organizations to strengthen safety strategies, leadership, culture, and operational risk management. He can be reached at robert.loose@hseglobal.com.



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BETTING ON A BETTER WAY

How Newman Construction helped advance directional drilling and hydro excavation in Utah.

By Julie Warnick

When Stuart Davis joined Newman Construction in the early 1980s, underground utility work usually meant one thing: digging a trench.

Roadways were opened, landscapes disturbed and traffic rerouted. Crossings beneath rivers, railroads and major streets required large excavations, extensive restoration or slower conventional boring methods. Horizontal directional drilling was still largely unknown in Utah, and hydro excavation had yet to become a standard part of the underground contractor's toolbox.

Davis saw an opportunity to do things differently.

He had started working alongside Mark Newman before either graduated from high school, helping grade sidewalks and complete subdivision work during the summers. By 1982, Davis had officially joined Newman Construction and was running the company's primary crew. At the time, Newman operated with one small dump truck and a modest collection of aging equipment.

As Mark Newman began rebuilding and expanding the third-generation family company in the early 1990s, he and Davis looked for ways to separate Newman from every other contractor capable of digging a trench.

"We were trying to get into something everybody couldn't do," Davis said.

That search led Newman Construction into horizontal directional drilling around 1993, making the company one of a small handful of Utah contractors exploring the emerging technology.

Learning Without a Playbook

Directional drilling offered an entirely different approach to underground construction. Instead of excavating continuously along a utility alignment, contractors could drill a controlled pilot bore beneath an obstacle, enlarge the opening with back reamers and pull the new pipe or conduit into place.

The potential was clear. The process could cross roads, rivers and railroad corridors while leaving much of the surface above undisturbed.

The technology, however, was still developing.

Newman purchased an early drilling unit at an auction in California and brought it back to Utah. The machine was small, tooling options were limited and modern guidance systems did not yet exist. Davis sometimes fabricated his own reamers because manufacturers did not offer equipment suited to the applications he was attempting.

"There wasn't really a playbook," Davis recalled. "We were figuring it out as we went."

On an early Riverton irrigation project, Newman used the small drill to install a large ductile iron line beneath a main roadway rather than excavating through it. Davis fabricated the tooling, opened the bore and coordinated with a trackhoe to maintain pressure as each section of pipe was assembled and pushed into place.

It was the kind of work that helped demonstrate what trenchless construction could accomplish—even when the available equipment was not necessarily designed for the challenge.

The Rise of Hydro Excavation

As directional drilling became more sophisticated, another technology began changing how contractors worked around buried infrastructure.

Hydro excavation uses pressurized water to loosen soil while a vacuum removes the resulting slurry. It allows crews to expose underground utilities through relatively small openings rather than relying on larger mechanical excavations or hand digging.

For directional drilling crews, the benefit was immediate. Existing utilities

could be located more precisely before establishing a bore path, while drilling fluid and slurry could be removed more efficiently from entry and exit pits.

Newman began with small 500-gallon trailer-mounted vacuum units. As the drilling work grew, Davis traveled to Canada and purchased a used 3,000-gallon oilfield vacuum truck to increase capacity. Those early units eventually gave way to a substantial hydro-excavation fleet serving both Newman projects and regional utility clients.

The two services could operate independently, but together they gave Newman greater control over complex underground work. Directional drilling reduced surface disruption, while hydro excavation improved precision around existing infrastructure and supported cleaner, more efficient operations.

"There wasn't really a playbook. We were figuring it out as we went."

— Stuart Davis

A Modern Test Beneath the Jordan River

More than three decades later, the same willingness to pursue a better solution shaped Newman's work on the TBID 1330 West Water Transmission Main Project, also known as the 5400 South Jordan River Parkway project.

Working for the Taylorsville-Bennion Improvement District, Newman installed approximately 10,000 linear feet of 36-inch DR11 HDPE culinary transmission waterline through Taylorsville and Murray. The work included connections to existing 24-, 16- and 12-inch waterlines, air-vac structures, a metering vault, chemical-line connections and crossings beneath several heavily traveled roads.

The project required coordination with two cities, UDOT, Salt Lake County and Rocky Mountain Power, along with work adjacent to the Jordan River Parkway Trail and within established utility easements.

Two crossings beneath the Jordan River were originally designed for open-cut

Underground Construction Trends



MARK NEWMAN



STUART DAVIS

installation. Newman approached TBID with another option: drill beneath the river instead.

Open-cut construction would have required disturbing the river channel, managing active water flow, implementing extensive environmental controls and restoring the corridor afterward. Directional drilling offered a cleaner approach with significantly less surface impact.

Newman partnered with NPL Construction, a Centuri Company, to perform the two bores—approximately 955 feet and 840 feet—while Newman led the overall project and provided hydro excavation, pipe handling, excavation support, logistics and coordination. Newman crews helped stage and guide the massive, fused HDPE line during pullback while vacuum crews managed slurry and supported operations at the opposite end.

Both crossings were successfully completed without opening the river channel. The drilling solution also accelerated the overall project, allowing Newman to reach substantial completion in July 2026—roughly 10 months ahead of the original May 2027 contract deadline. Five final line abandonments are scheduled for October.>>

All photos courtesy Newman Construction



Still Asking the Same Question
Equipment has changed dramatically since Davis brought that first small drill home from California. Guidance systems are more precise, machines are more powerful and hydro excavation has become an essential industry service.

The underlying mindset has not changed.

For more than 40 years, Davis, Mark Newman and the crews behind them have continued asking the question that helped move Newman into underground specialty work in the first place: Is there a better way to build it?

Most people traveling over the Jordan River will never see the 36-inch waterline beneath them. For Davis, that is part of the satisfaction. After four decades in underground construction, some of the work he is proudest of is infrastructure the public will depend on for generations—without ever knowing it is there. ■

TBID 1330 West Water Transmission Main (Jordan River Parkway Directional Drill Crossing)
Location: Taylorsville and Murray
Cost: \$10.1 million
Completion: July 2026
Owner: Taylorsville-Bennion Improvement District

Design Team
Civil: Bowen Collins & Associates

Construction Team
General Contractor: Newman Construction
Other Subcontractors: NPL Construction





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REFINED AND READY

New Utah National Guard Readiness Center in Nephi combines military functionality with a resilient, all-electric design and an eye toward long-term sustainability.

By Bradley Fullmer



All photos by Bento Viana; courtesy Architectural Nexus

Military facilities have always been designed with durability in mind. For the new Utah National Guard Readiness Center in Nephi, the design team took that idea further, creating a facility centered on structural and operational resilience, energy efficiency and long-term adaptability.

“Our goal was to translate the Guard’s mission of readiness into the architecture itself,” said Stephen Springer, Principal-in-Charge for Architectural Nexus. “That meant creating a facility that is durable, adaptable and capable of supporting both daily operations and emergency-response needs for decades to come.”

Serving National Guard personnel throughout central Utah, the readiness center brings administrative, training, assembly and military-support functions together on a secure campus. The new

facility provides the Utah Army National Guard with its first permanent home in Nephi in more than three decades. The program includes offices and administrative areas, classrooms and training spaces, equipment and supply storage, locker and personnel-support facilities and the necessary mechanical and service spaces.

“For more than 30 years, the Utah Army National Guard has not had a permanent home in Nephi. Today, we come home,” said Brigadier General Keir Scoubes, Land Component Commander for the Utah Army National Guard, at the June 2 ribbon-cutting ceremony.

At its heart is a large multipurpose assembly hall designed to accommodate formations, ceremonies, training and presentations, as well as dining and community events. A commercial kitchen/food-service component supports both

routine Guard activities and larger gatherings.

That diversity of uses required a facility capable of adapting to different occupancy levels and operating conditions while maintaining the security and functionality expected of a military installation.

Resilience from the Ground Up

Resilience influenced decisions throughout the building, as the center was designed using enhanced structural criteria appropriate to the National Guard’s military mission and potential emergency-response role. Structural systems address Utah’s seismic and snow-loading requirements while providing the long spans necessary for the assembly hall.

Administrative and training areas employ more repetitive structural modules appropriate to offices, classrooms and

“The building needed to communicate permanence and military readiness without becoming unwelcoming. We used durable materials, clearly defined entrances, and a disciplined architectural language to give it an appropriate military character while still recognizing its civic role in Nephi.”

— Stephen Springer

support functions, with substantial mechanical, electrical, communications and security infrastructure. The design is intended to support a building life of 50-plus years while allowing the facility to remain functional under less-than-ideal conditions.

“We approached resilience as more than structural strength,” Springer said. “The building envelope, utility systems and operational planning were considered together so the facility could continue supporting critical functions during disruptions to normal building operations.”

That strategy even extends underground. Rather than relying entirely on municipal wastewater infrastructure, the site incorporates its own septic and leach-field system, providing an independent onsite wastewater solution and reducing dependence on outside utilities.

An All-Electric Approach

Among the project’s most notable features is an all-electric mechanical system anchored by ground-source heat pumps. The system exchanges energy with the relatively stable temperatures underground to provide heating and cooling, moderating the effects of Utah’s outdoor temperature extremes and supporting efficient year-

round operation.

“For a facility of this size and type, pursuing an all-electric design supported by a ground-source heat-exchange system was a significant commitment,” Springer said. “It provides an efficient long-term energy strategy while positioning the facility for a future in which more of its power can be generated onsite.”

Mechanical zoning was particularly important given the building’s range of uses. Administrative offices may operate during conventional work hours, while classrooms, assembly spaces and kitchen facilities can experience shorter periods of intense occupancy. Separate zones allow portions of the facility to operate independently rather than conditioning the entire building at the same level throughout the day.

Dedicated systems serve major program areas, while energy recovery and ventilation strategies address high-occupancy spaces. Building automation provides system monitoring, scheduling and energy management.

A high-performance building envelope complements those systems by reducing energy demand while providing durability in central Utah’s challenging climate. The

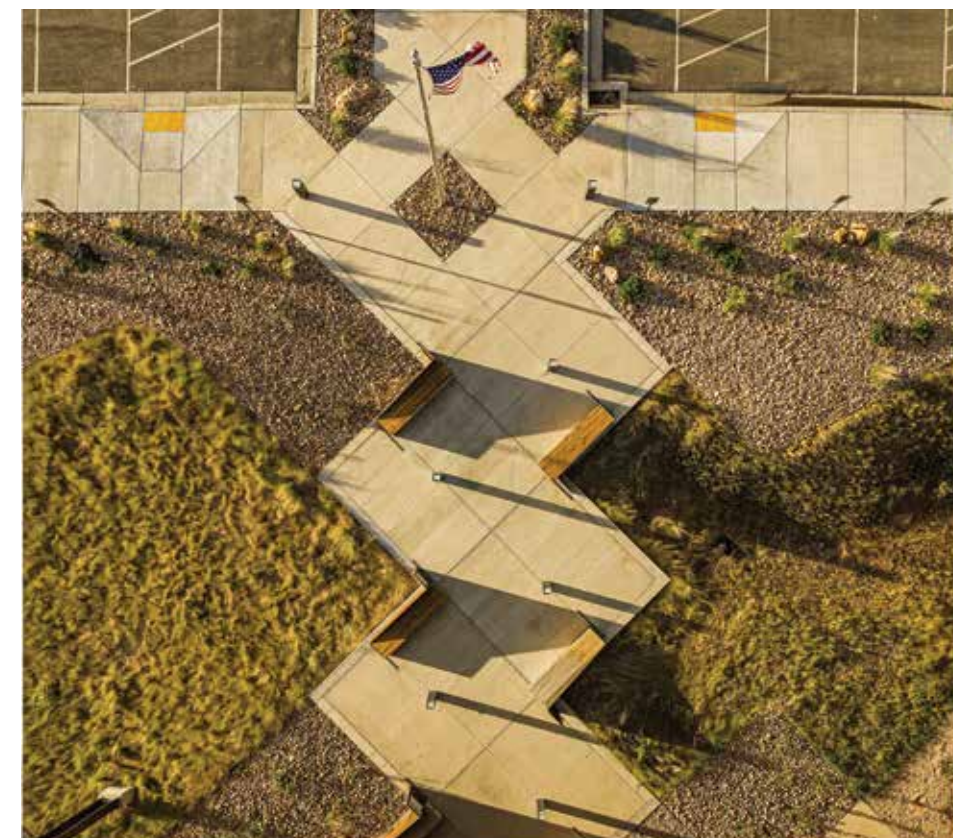
envelope was developed to respond to temperature extremes, freeze-thaw cycles, wind and snow while contributing to more stable interior conditions.

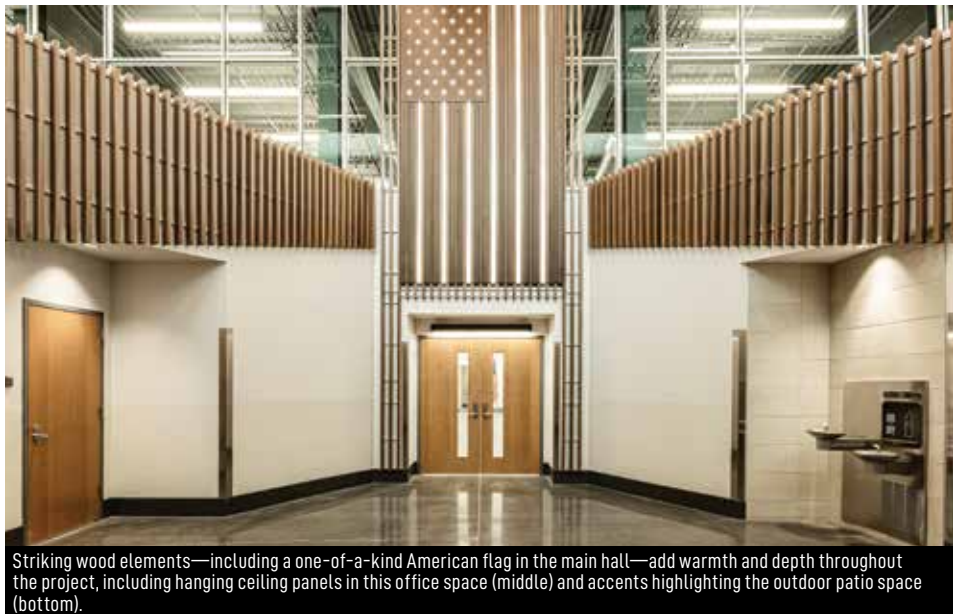
The electrical design follows the same efficiency-minded approach. LED lighting is used throughout the building, along with occupancy and daylight-responsive controls. Electrical infrastructure supports secure communications, data systems, audiovisual technology, life-safety systems and the specialized loads associated with the kitchen, assembly hall and military operations.

The site was configured to accommodate photovoltaic canopies across more than 10 acres of potential parking and site area, allowing substantial solar infrastructure to be added in the future without fundamentally altering the facility. By incorporating that possibility into the site and electrical infrastructure, the Guard can expand onsite energy generation without reworking the campus.

Military Strength, Civic Presence

Architecturally, the readiness center needed to balance two identities. It is a secure military installation while also serving as a public building capable of hosting »





Striking wood elements—including a one-of-a-kind American flag in the main hall—add warmth and depth throughout the project, including hanging ceiling panels in this office space (middle) and accents highlighting the outdoor patio space (bottom).



ceremonies, community functions and other events for Nephi City.

“The building needed to communicate permanence and military readiness without becoming unwelcoming,” Springer said. “We used durable materials, clearly defined entrances, and a disciplined architectural language to give it an appropriate military character while still recognizing its civic role in Nephi.”

Architectural Nexus addressed that dual role with a disciplined exterior composition featuring durable masonry, metal wall panel systems and high-performance glazing. Changes in materials, roof forms and building planes help break down the overall scale while distinguishing the assembly, administrative and operational portions of the facility.

Deep roof overhangs and protected entries reinforce the major entrances, while public and military access points are clearly defined. Exterior materials were selected with Utah’s freeze-thaw cycles, temperature extremes and long-term maintenance demands in mind.

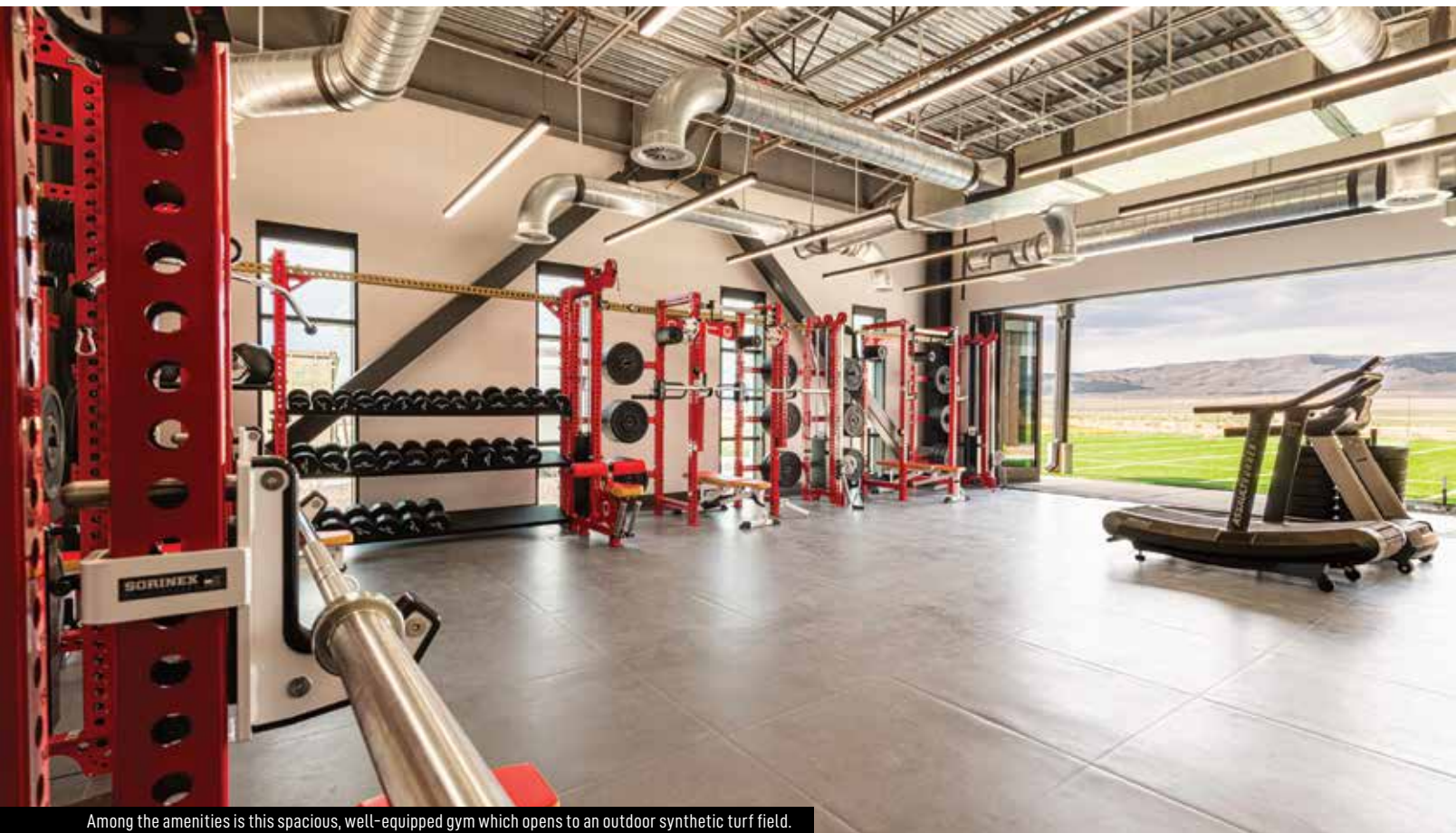
Throughout the project, the design team considered not only how the facility would perform when it opened, but also how it could continue serving the Guard as its mission, technology and operational requirements evolve.

“The real measure of success will be how well the building supports the Soldiers who use it over the next 50 years,” Springer said. “We designed it to accommodate today’s mission while giving the Guard the durability and flexibility to respond to needs we cannot fully predict yet.”

The result is a building with an appropriately strong military character that avoids feeling like a fortress, giving the center a recognizable civic presence while incorporating the security required for National Guard operations.

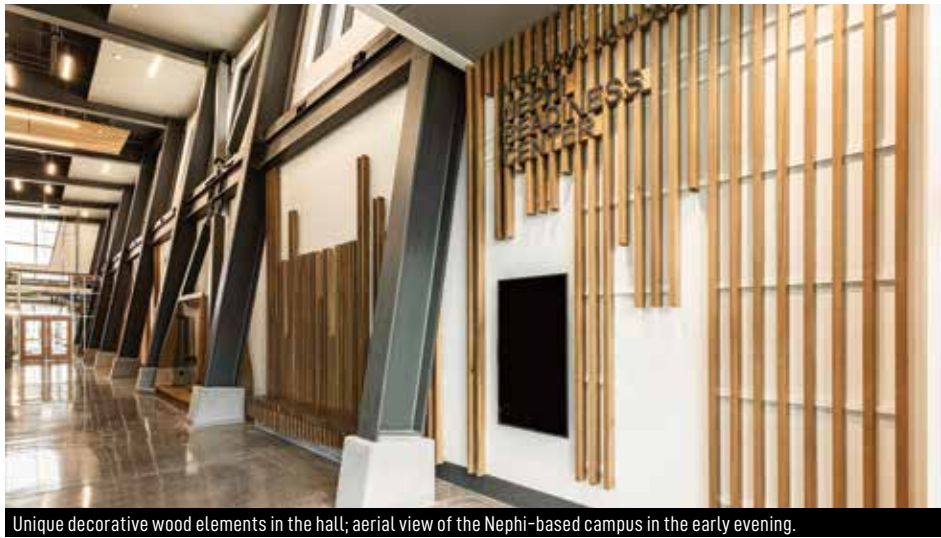
Inside, durability is paired with flexibility. High-traffic spaces incorporate resilient flooring and impact-resistant, easily maintained finishes, while acoustical treatments, LED lighting and integrated audiovisual systems support the facility’s range of activities.

Classrooms and conference spaces»



Among the amenities is this spacious, well-equipped gym which opens to an outdoor synthetic turf field.





Unique decorative wood elements in the hall; aerial view of the Nephi-based campus in the early evening.



similarly accommodate multiple instructional configurations, with movable furnishings and integrated technology allowing spaces to change as training requirements evolve. Administrative areas feature efficient workstation configurations, along with storage and millwork tailored to unit needs. Locker rooms, restrooms and other personnel-support spaces accommodate both daily operations and extended training activities.

Ready for Multiple Missions

A readiness center is ultimately several building types rolled into one—office, training center, assembly venue, commercial kitchen, storage facility, secure military installation and potential emergency-response asset. More importantly, the center was designed around what the future may require, rather than simply what is needed today.

The robust structural system, independent wastewater infrastructure, ground-source heat exchange, all-electric mechanical systems, high-performance envelope and provisions for future photovoltaic generation collectively make resilience a fundamental part of the architecture.

For a facility whose mission is readiness, that may be the most fitting design strategy of all.

“The engineers and [soldiers/ personnel] who train here develop the skills necessary to support combat operations around the world and to answer the call whenever our nation requires it,” said Scoubes. “This readiness center provides them with a modern facility to prepare for those missions and maintain the high standards of readiness our state and nation expect.” ■

Utah Army National Guard Nephi Readiness Center

Location: Nephi
Completion: July 2026
Cost: \$27 million
Delivery Method: Design-Bid-Build
Stories/Levels: One
Square Footage: 52,400
Owner: Utah Army National Guard
Owner’s Rep: State of Utah DFCM

Design Team

Architect: Architectural Nexus
Civil Engineer: Ensign Engineering
Electrical & Mechanical Engineer: Lynk Engineers
Structural Engineer: Structural Design Studio
Geotechnical Engineer: Terracon Engineering
Interior Design: Architectural Nexus
Landscape Architect: Architectural Nexus
Geothermal Engineer: Sound Geothermal

Construction Team

General Contractor: Hogan & Associates Construction
Concrete: WW Construction; Hogan & Assoc.
Plumbing & HVAC: A&B Mechanical
Electrical: Wilkinson Electric
Masonry: IMS Masonry
Drywall: Royal Drywall
Painting: Hegemann Paint Co. Inc.
Tile/Stone: JRC Tile & Stone Inc.
Millwork: Montgomery Custom Cabinets, LLC
Flooring: Wall 2 Wall Flooring
Roofing: Commercial Roofing Experts; Fortress Roofing
Glazing/Curtain Wall: NGI Glass
Waterproofing: Western States Waterproofing
Steel Fabrication: Utah Ornamental Iron
Steel Erection: Encore Steel Builders LLC
Excavation: Miller X LLC
Landscaping: Western Meadows Landscape, Inc.



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Heavy Lifting

Behind the Scenes

Fortis Construction tackles complex infrastructure replacement, interior upgrades at Rice-Eccles Stadium's West Tower.

By Milt Harrison

Few people attending a football game, concert, or special event at the University of Utah's Rice-Eccles Stadium will ever see the most recent construction work taking place inside the venue's West Tower.

Fortis Construction is in the midst of an \$8.1 million, six-story modernization that includes extensive replacement of aging fire sprinkler and heating-water piping, upgrades to mechanical equipment and lighting systems, and an architectural refresh of several levels.

It is intricate work within a nearly three-decade-old structure where existing infrastructure is densely packed above ceilings and behind walls—and where construction must accommodate University of Utah football, concerts and other major events.

"The heavy lift is what you don't see," said Jacob Rosell, Project Manager for Fortis Construction. "Above the ceiling, everything was tangled with all sorts of 30-year-old systems. Over the years, people kept putting new things in without necessarily removing the old."

The Rice-Eccles Stadium West Tower Fire and HW Loop Replacement project is being completed in multiple phases between the 2025–26 and 2026–27 football offseasons, with final completion scheduled for March 2027.

A Problem Hidden in the Pipes

The project was prompted by deterioration within portions of the stadium's fire sprinkler and heating-water piping caused by MIC—microbiologically influenced corrosion—a process in which microorganisms contribute to the corrosion of metal.

"The hot-water system and fire sprinkler system had bacteria that slowly eats away at the steel," Rosell said. "Every now and then, the steel would get really thin in one location and burst, spreading nasty water everywhere. They had a number of those incidents throughout Rice-Eccles Stadium."

Rather than continue addressing isolated failures, the University elected to comprehensively replace affected infrastructure. The work includes replacement of fire sprinkler piping throughout seven stadium levels, a new fire pump, upgrades to heating-water piping and boilers, and associated mechanical and electrical improvements.

"That's really where this project came from," Rosell said. "They said, 'We need to tear everything out and put new pipe in with thicker walls and a special MIC coating, so it doesn't happen again. Basically, the challenge was: How do we get the new pipe in and the old pipe out while working around existing conditions that may have



"Fitting the new pipe into those tight spaces was a complicated and exhaustive process involving RFIs and changes just to make sure everything would fit. It was much more complicated work than you would think looking at the finished product."

— Jacob Rosell

been here for five years, 10 years or 30 years?"

Some replacement piping is larger than the infrastructure it replaces, complicating installation within already congested ceiling spaces.

"Fitting the new pipe into those tight spaces was a complicated and exhaustive process involving RFIs and changes just to make sure everything would fit," Rosell said. "It was much more complicated work than you would think looking at the finished product."

Racing the Football Calendar

The stadium calendar has been nearly as challenging as the physical work.

Fortis originally structured construction around two football offseason windows. Phase 1 began in December 2025 and continued through March 31, with the second phase expected to follow a similar schedule a year later.

"One of the crazy things about working at the University is that they have a ton of projects going on and a ton of events," Rosell said. "With this being such a big event center, whenever an event comes up, we have to pivot."

A major event added to the stadium calendar reduced the second offseason construction window. Fortis' team and the University responded by creating Phase 2A, extending work into summer 2026 and moving significant portions of the most difficult infrastructure work forward. The strategy allowed crews to complete much of the heavy mechanical work before football operations resumed.

"We got the main mechanical rooms done, along with a lot of the pumps and other major work," said Chad Mabey, Project Superintendent for Fortis. "The fire sprinkler pumps and all the integration in the fire riser room are complete."

That leaves a more manageable scope when crews return for Phase 2B in January 2027.

"Now we can move on to repiping the water and fire sprinkler lines, which will allow us to get the work done within the shorter timeframe," Mabey said.

Taking Apart a Finished Building

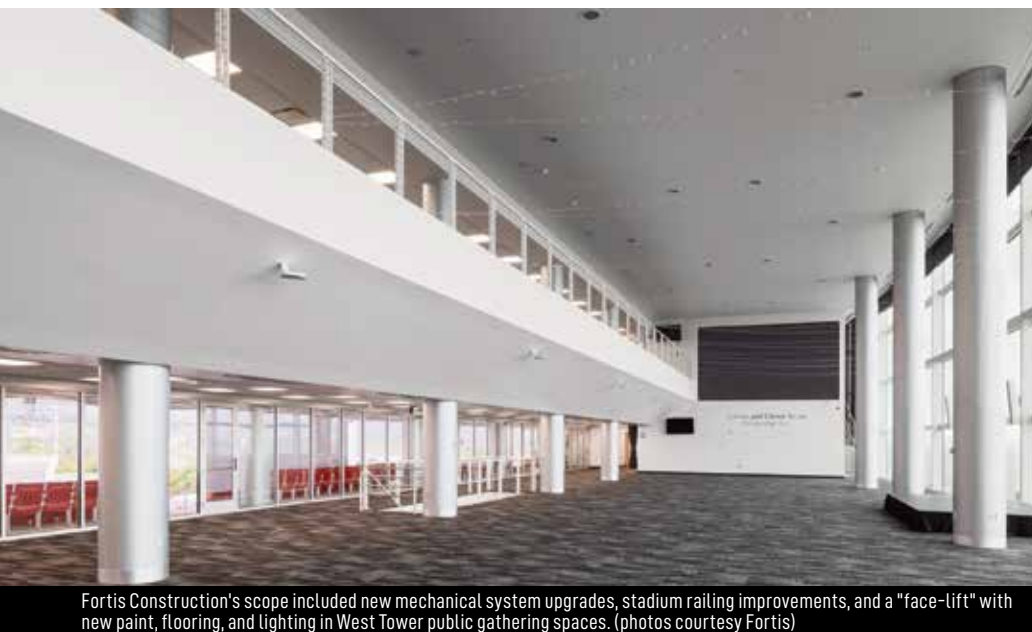
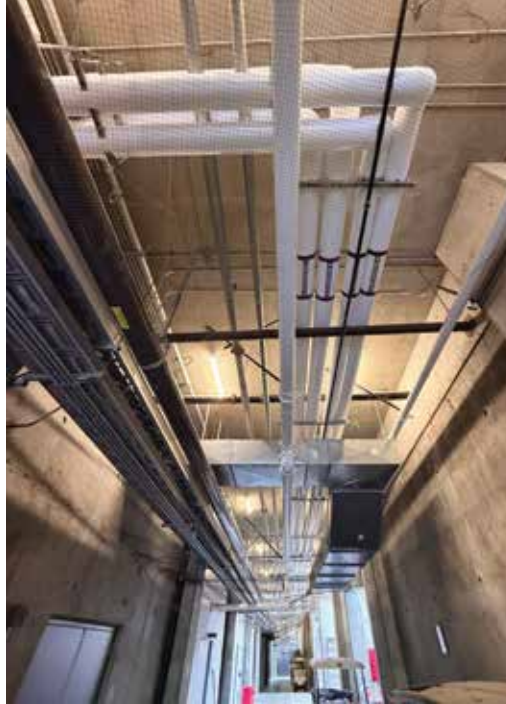
Reaching the West Tower's concealed infrastructure required Fortis and its trade partners to remove ceilings and flooring and open sections of walls. Artwork was taken down and stored, while glass, columns, video screens and other existing elements remained in place.

"A lot of the existing elements had to be protected in place," Rosell said. "Every square inch—from the glass to the columns and everything else—had to be wrapped and protected so it wouldn't get damaged."

Temporary heating was required during winter while portions of the heating-water system were shut down. Once the infrastructure work was complete, crews put the building back together, providing an architectural refresh with new ceilings, carpeting, paint and lighting, along with selected repairs and crack mitigation—with Rosell referring to the cosmetic work as a "facelift.">>



Rice-Eccles West Tower



Fortis Construction's scope included new mechanical system upgrades, stadium railing improvements, and a "face-lift" with new paint, flooring, and lighting in West Tower public gathering spaces. (photos courtesy Fortis)

A More Flexible Event Space

One of the most visible upgrades is a new Lutron lighting-control system that gives the University greater flexibility in operating the West Tower.

"They wanted the ability to push one button and shut off all the lights in the tower," Rosell said. "If they're having a concert, they can push one button, shut off the tower lights and watch the concert however the event operator wants."

The University also added color-changing fixtures and linear lighting capable of transforming the spaces for Utah athletics, corporate functions and other events. The change came after some of the originally specified lighting had already been installed.

"We had already started installing the lights originally specified, and then we were asked to pivot in a different direction," Rosell said. "It was definitely a late addition, but it was something the design team and owner saw value in, and it was a pivot we were happy to accommodate."

Four-inch can lights were replaced by larger six-inch color-changing fixtures, while linear lighting was added along portions of the space.

"At night it lights up red," Rosell said. "It looks spectacular."

The lighting complements improvements to luxury suites, spectator areas, offices, corridors, media facilities and event spaces throughout the West Tower.

Building for the Next Era

The project continues the evolution of Rice-Eccles Stadium from the facility substantially reconstructed ahead of the 2002 Olympic Winter Games into a year-round sports and entertainment venue—and comes as Salt Lake City prepares to again host the Olympic and Paralympic Winter Games in 2034.

For Fortis, however, success on the current project is measured largely by what visitors won't notice. The piping above ceilings will be new, fire protection and heating-water infrastructure more resilient, mechanical equipment and controls modernized and event spaces more flexible. Once the ceilings, carpeting, artwork and furnishings are restored, much of the work disappears.

"You look at it now and think, 'Oh, it's just carpeting and ceilings,'" Rosell said. "But the above-ceiling work was so complicated and time-consuming that it was a rush to get everything installed." ■

Rice-Eccles Stadium West Tower Fire and Hot Water Loop Replacement

Location: Salt Lake City

Completion: Phase 1 March 2026; Phase II March 2027

Cost: \$8.1 million

Delivery Method: Hard Bid

Stories/Levels: 6

Owner: University of Utah

Design Team

Architect: NWL Architects

Electrical Engineer: Resolut

Mechanical Engineer: Focus Mechanical Consulting

Fire Protection: Resolut

Construction Team

General Contractor: Fortis Construction

Plumbing: Mechanical Service & Systems

Electrical: Black Label Electric

Fire Sprinkler: Delta Fire Systems

Drywall: Wallboard Specialties

Painting: Performance Painting Company

Flooring: DFS Flooring

Demolition: Red Rock Demolition

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BUILT FOR THE NEXT GENERATION

Lehi Civic Center blends historic character with a modern vision for one of Utah’s fastest-growing communities.

By Bradley Fullmer

Few Utah communities illustrate the contrast between past and present quite like Lehi. While explosive growth and Silicon Slopes have transformed the city’s northern reaches, its historic downtown remains an important link to the community’s roots.

The new \$32.7 million Lehi Civic Center brings those two identities together. Completed this spring by Lehi-based SIRQ Construction and designed by Salt Lake-based VCBO Architecture, the nearly 59,000-SF, three-story facility consolidates City Hall and the Lehi Public Library while establishing a new architectural centerpiece for downtown.

“We’re celebrating progress. We’re celebrating vision, and most importantly, we’re celebrating the people who make this community what it is,” said Lehi Mayor Paul Binns. “The Civic Center is more than just a building. It’s a statement that says Lehi is growing, thriving and planning for the future with purpose. It represents long hours, big ideas and a shared commitment to building something that will serve our residents for many generations to come. This is where our community comes together.”

Looking to Lehi’s Past

The building’s architecture draws inspiration from one of Lehi’s most remembered historic structures—the former Lehi Tabernacle, a Romanesque Revival building demolished in the 1960s, much to the chagrin of many residents who loved the historic structure.

“They wanted a building that would

pay homage to the tabernacle building. A lot of people weren’t very happy about [it being demolished]; there were a lot of hard feelings,” said Nathan Leavitt, Principal-in-Charge for VCBO. “Ironically, I learned last year that Richard Kletting, the architect of the Utah State Capitol, was also the

architect of that tabernacle, which is fascinating.”
Rather than replicate the tabernacle, VCBO translated its historic character into a contemporary, highly functional civic building. Tall arched windows, towers, steep rooflines and substantial masonry forms

reference the original architecture while serving a distinctly modern program.
The exterior combines white brick, Arriscraft manufactured stone, faux precast window headers and sills, ACM accent panels and asphalt shingles. VCBO went outside Utah to find brick light enough to

achieve the desired appearance. For SIRQ, delivering the architectural detailing while maintaining cost and schedule required exceptional coordination among trade partners.
“Our top challenge was meshing schedule, budget, quality and design

together to deliver an exceptional product for Lehi City,” said Paul Lin, Project Manager for SIRQ Construction.
Cold-formed metal trusses helped create the building’s complex roof geometry, including the dramatic 22:12 pitch at the main entrance tower, while»



Photo by Dana Sohm, Sohm Photographx

reducing structural weight and providing cost savings. The masonry envelope required more than 500 individual steel lintels, including straight and radius members supporting brick at window openings, expansion joints and drift joints.

The structure incorporates steel wide-flange columns and beams, composite concrete over metal decking, moment frames and buckling-restrained braces. SIRQ also utilized Dusty robotic wall layout and prefabricated exterior steel-stud wall panels during construction.

The main tower includes an integrated carillon system that projects programmed bell tones across the site—another connection between the Civic Center and traditional civic architecture.

One Building, Multiple Functions

Inside, the Civic Center brings municipal government, public gathering spaces and the library together under one roof. The library occupies portions of Levels 1 and 2, including children’s, youth and adult

“The Civic Center is more than just a building. It’s a statement that says Lehi is growing, thriving, and planning for the future with purpose. This is where our community comes together.”

—Paul Binns

sections, programming areas, a recording studio and multipurpose space. City functions include administrative offices, the city attorney’s office, conference rooms and a boardroom. A ground-floor information desk provides a central location for residents seeking city services, while a large divisible community space is already being used for public functions.

“The City was highly focused on security,” Leavitt said. “There was a lot of

discussion about how the interaction points would work between people visiting the building and city staff. Safety was a huge concern, and there’s a lot of detail in the building designed to keep the staff safe—both passive and active measures.”

The third-floor City Council chambers are among the building’s signature spaces, with a high vaulted ceiling and three large arched windows providing dynamic views south toward downtown Lehi and the Wasatch Mountains. The adjacent lobby features a barrel-vault ceiling, cove lighting and a multi-story chandelier. The interior takes a more contemporary approach than the exterior while retaining subtle references to historic construction.

“We weren’t trying to make it look like a historic building inside,” Leavitt said. “There are definitely a lot of modern materials, but we brought in archways at the doors and tried to keep the interior—especially the lobby spaces—feeling like there was some weight to the building.”>

“The Lehi Civic Center is a representation of both past and present generations and provides a means for community members to learn, interact, access city services and voice what they believe in. Beyond the brick and mortar, we garner deep satisfaction from constructing a facility that improves community lives one day at a time.”

—Paul Lin

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Photo by Dana Sohm, Sohm Photografx



View of the lobby from the main entrance, with the library to the right. Opposite page: City council chambers feature rich wood paneling and decorative lighting fixtures (top). The library is colorful and family-friendly. (interior photos by Shutter Scorpion)

Building Toward a Civic Campus

The Civic Center was also designed around Lehi’s longer-term vision for downtown. The building sits at the planned northern terminus of a future civic park or mall extending toward Main Street. Long-

term concepts envision that space becoming a stronger pedestrian and visual connection through downtown, potentially accompanied by a future standalone library along its western edge.

“They would like to have that plaza

go all the way to Main Street,” Leavitt said. “They also have plans to one day build a new library along the western edge of the mall, and there are ideas for developing it into more of a civic campus for Lehi.”

If the library eventually relocates, its space within the Civic Center could be converted to municipal offices, giving the city room to accommodate continued growth.

For Lin, the finished building succeeds because its significance extends well beyond construction.

“Many community members feel Lehi City’s history should be preserved. The Lehi Civic Center is a representation of both past and present generations and provides a means for community members to learn, interact, access city services and voice what they believe in,” he said. “Beyond the brick and mortar, we garner deep satisfaction from constructing a facility that improves community lives one day at a time.”

Leavitt believes the project also demonstrates that Lehi’s historic downtown can maintain a distinctive



identity even as the city around it changes.

“Lehi has the Silicon Slopes side, which is very modern, but then there’s this nice downtown, and they want to foster a more historic look there. I think this building sets them down a path they like,” he said. “There’s a lot to be proud of in doing a building like this. It’s fun when you can be part of shaping a city’s identity and helping them create that identity. They knew what they wanted; we just helped put form to it all.” ■

Lehi Civic Center
Location: Lehi
Start/Completion: May 2024/March 2026
Cost: \$32.7 million
Delivery Method: GCC w/ GMP
Stories/Levels: 3
Square Footage: 58,779
Owner: Lehi City

Design Team
Architect: VCBO Architecture
Civil Engineer: Kimley-Horn
Electrical Engineer: Lynk Engineers
Mechanical Engineer: Heath Engineering
Structural Engineer: Structural Design Studio
Geotechnical Engineer: GSH Geotechnical
Landscape Architect: Arcsitio Design

Construction Team
General Contractor: SIRQ Construction
Concrete: Cornerstone Concrete
Plumbing: Gunthers
HVAC: Gunthers
Electrical: GSL Electric
Masonry: AK Masonry
Drywall: Wallboard Specialties
Painting: Fisher Painting
Tile/Stone: JRC Tile & Stone
Millwork: Boswell Wasatch
Flooring: Wall 2 Wall Flooring
Roofing: Utah Tile & Roofing
Glazing/Curtain Wall: Skyview Glass
Waterproofing: Rocky Mountain Waterproofing
Steel Fabrication: Utah Ornamental & Iron Co.
Steel Erection: Wasatch Steel Erectors
Excavation: Cazier Excavating
Landscaping: ACE Landscape
Demolition: Grant Mackay Demolition



Some buildings get noticed.

The best ones become part of the community.

Simply MiNT

As they celebrate 10 years, founding co-owners Morgan Sharp and Nick Hanks have built MiNT into a unique, unicorn-like firm that offers general contracting and architecture services under one roof.

By Bradley Fullmer

There are plenty of general contractors in the Beehive State, and no shortage of talented local architecture firms. What remains decidedly uncommon in Utah's A/E/C industry is finding both disciplines under the same roof.

That combination has become a defining characteristic of MiNT, where MiNT Construction and MiNT Architecture operate as distinct but closely integrated companies, giving clients the option of taking a project from its earliest design concepts through construction with a single team.

When Morgan Sharp and Nick Hanks founded Sandy-based MiNT Construction in 2016, they were experienced builders with considerable backgrounds in vertical construction and ideas for creating a different kind of commercial general contractor—one emphasizing relationships, collaboration, technology and client experience.

Over the ensuing decade, that vision expanded considerably. MiNT Construction grew rapidly and diversified its portfolio before the founders took perhaps their most unconventional step in 2020—partnering with architect Corey

Middleton to establish MiNT Architecture.

Today, the two companies offer clients an integrated design-build delivery model while remaining independent enough that MiNT Construction routinely builds projects designed by outside architects and MiNT Architecture designs projects constructed by other general contractors. The organization has since expanded into interior design and branding, all connected by MiNT's longstanding mantra: "Perfect Spaces Matter."

Starting with a Different Idea

MiNT's growth began with a deliberate decision about what the young contractor would not become. Sharp brought considerable multifamily experience from his years with a local general contractor that specialized almost exclusively in

apartments, but the partners resisted the temptation to lean too heavily into a familiar and highly competitive market.

"We knew we always wanted to do multifamily eventually, but we didn't want to come right out of the gates and be pigeonholed as just multifamily builders," Sharp said.

Instead, MiNT spent its early years developing experience across professional office, private medical and retail work, eventually adding hospitality, industrial and multifamily projects.

"We've tried to diversify, and we've created some divisions within the company recently to cater and tailor to those markets," Sharp said.

Hanks brought diverse experience from 14 years at Fresno-based Mark Wilson Construction in California, where

much of his work involved public-sector projects—K-12 schools, fire stations and police stations.

"You live and die by the specs," Hanks said. "You get the job because you were low, not because they liked you."

Late in his tenure there, Hanks became involved in lease-leaseback projects with school districts, introducing him to a more collaborative, negotiated approach involving preconstruction, budgeting and design-assist.

"It got me out of that black-and-white mindset and into the more relationship-driven, negotiated work," he said.

Those complementary backgrounds influenced MiNT's approach: disciplined construction processes coupled with an emphasis on relationships, collaboration and negotiated delivery.

Explosive Growth— and Learning to Say No

The numbers illustrate how quickly that approach gained traction.

MiNT generated approximately \$8.2 million in construction revenue during its first full year of operation, jumping to \$20 million in 2018 and \$42.2 million in 2019. After dipping to approximately \$31 million in 2020, revenue surged to \$81 million in 2021 and reached \$118 million in 2022, the company's highest annual volume to date.

A cooling construction market brought more volatility. Revenue dropped to \$82.8 million in 2023 and \$38.7 million in 2024 before rebounding to \$89.4 million in 2025.

"When we started, those were the numbers we were hoping to eventually get to, and we hit those quite a bit quicker than we really thought," Sharp said.

Yet growth for growth's sake was never the objective. MiNT has turned down potentially good opportunities when leadership wasn't convinced the company could properly staff a project while still providing what it calls the "MiNT Experience."

"We've always said we will grow as big as we can while still providing that MiNT experience to our clients," Sharp said. "We had seen previously that growth is not always great if you're not putting the right people on the right projects."

That philosophy extends to subcontractors.

"I think it's important to note that the MiNT experience isn't just for our clients," Hanks said. "That's with our subcontractors as well. We don't play games with money. We pay as quickly as we get paid, as long as they've got their paperwork>>

MiNT's Sandy-based headquarters was among its earliest completed projects. (project photos courtesy MiNT).



Morgan Sharp

Nick Hanks

in. We need good trade partners. You treat them well, treat them with respect, and it comes right back at you. It's a collaborative approach."

Sharp estimates approximately 80% of MiNT's business is repeat work in some form, whether from developers returning with another project or new tenant-improvement relationships generated within buildings the company has constructed.

The downturn of 2023-24 provided an opportunity to prepare for future growth, with the company investing in people, processes and internal systems.

"We had those lulls, but we were building," Sharp said. "We actually did a lot of system overhauls, so we reinvested during that time to prepare for the growth we anticipate over the next few years."

**Adding Architecture—
and Owning the Design**

The most significant change to MiNT's business model arguably occurred in 2020.

MiNT had completed a Hampton Inn in West Valley City with architect Corey Middleton, who was working for another local firm. The project produced a strong relationship, and MiNT subsequently brought Middleton on board to establish MiNT Architecture.

The decision grew from something the founders believed was missing from the traditional contractor-architect relationship—and from the philosophy behind "Perfect Spaces Matter."

"The thought is that most memorable, cool experiences in people's lives are centered around the space that you're in—whether it's a restaurant, a home, a room in your house, or your workplace," Sharp said.

"Perfect" doesn't necessarily mean architectural extravagance or an unlimited budget. Sharp describes it as finding the solution that best matches what an owner is trying to accomplish.

"If the budget is the absolute most important thing and that's the perfect space for them, then we're going to go all in and make it the most affordable," he said. "If

the perfect space for them is really dialing in the finishes, or whatever that may look like, then we do that."

MiNT had considerable experience with design-assist before establishing an architecture practice, but under that model the owner typically held separate contracts with architect and contractor. The parties could collaborate, but responsibility remained divided.

"We did a lot of design-assist where we worked with architects who were very talented and good, but the contract didn't funnel down to one spot," Sharp said. "It was still hard to truly have full collaboration because we were separate companies."

The logical next step was bringing architecture into the MiNT organization.

"Until we have architecture as an arm to MiNT Construction, we'll never be able to deliver that perfect experience and the perfect spaces for our clients," Sharp said.

MiNT Architecture has since developed into a full-service architecture and interior design practice led by Principals Middleton and Dan Teed, with capabilities ranging from site planning and early design through construction documents, renderings and interior design. Its portfolio includes more than 140 completed projects totaling approximately 2.3 million SF.

The architecture operation has also become a meaningful business. According to Sharp, fee revenue increased from \$1.8 million in 2022 to \$2.6 million in 2023, \$2.9 million in 2024 and \$4.3 million in 2025—with a goal of reaching \$5 million in 2026.

Projects utilizing both MiNT Architecture and MiNT Construction now represent approximately 30% to 40% of total revenues, Sharp estimates, spread across office, tenant improvement, retail and multifamily work.

Just as important is what the integrated model doesn't require. MiNT Construction and MiNT Architecture remain distinct entities: the contractor continues working with outside architects, while MiNT Architecture can design projects constructed by other GCs.

"We continue to build with other architects and developers that already have an architecture firm," Sharp said. "But we also have a lot of clients who really love that design-build option, and we've been gaining

a lot of momentum."

The integrated approach isn't right for every owner. Hanks said some developers embrace the collaboration, while others prefer maintaining separate design and construction contracts or bidding work more traditionally.

"We don't want to overstep, push and be salesy," Hanks said. "We just lay it out: 'Here's what we offer. These are the reasons we think it's a great option.' But if [owners] don't see the value in that, there are still options. We can just build for you; we can just design for you."

"Growth can be scary if it's not done right, but strategic growth—I think that's the difference. We're strategic in who we work with, what we build, and who we hire."

— Morgan Sharp

For owners who choose the integrated approach, the benefits come with additional accountability. The contractor can no longer point across the table when something in the drawings doesn't work.

"You can't go to an owner and say, 'Hey, this was missed in the plans,'" Sharp said. "We own the plans. We can't say, 'There's a gap in scope because the plans didn't show this.'"

MiNT has responded in part by creating a position specifically intended to bridge architecture and construction. Adam Naylor, a licensed architect who later moved into construction management, serves as Design & Construction Integration Coordinator, reviewing documents for constructability and applying lessons from previous projects and change orders to future drawing sets.

The learning curve has been real, Hanks acknowledged, but so have the benefits.

"It's hard," he said, "but at the end of the day, I think it has made us better designers, better builders, and better communicators."

MiNT's Next Evolution

As it celebrates its 10-year anniversary, MiNT is entering another phase of evolution.

What started as MiNT Construction and expanded through MiNT Architecture is increasingly positioned as MiNT Companies, with integrated capabilities spanning construction, architecture, interior design and, most recently, branding. The latter is being developed with Jordon Sharp, Vice President of Marketing, as an optional service intended to connect a client's brand with the physical spaces MiNT designs and builds.

MiNT's geographic footprint is expanding as well. The company has established an operation in St. George and is performing work in nearby states. In Montana, MiNT recently began what Hanks described as its largest multifamily project to date at \$56 million.

The regional push coincides with an ambitious strategic growth plan. MiNT's leadership team recently spent a week evaluating its markets, people and opportunities through 2028, establishing a

target of \$275 million in annual construction revenue by then.

"We came up with a strategic growth plan through 2028 and how to execute that," Sharp said. "Those goals are as lofty as what we've done already."

Sharp believes MiNT could eventually push toward the \$500 million mark, although he puts no timetable on reaching it. More important, he said, is that the company's growth ambitions increasingly extend beyond its two founders.

"I think a lot of our growth goals came from the people we've hired," Sharp said. "Nick and I hit the numbers we were hoping for, but then you start bringing on very capable, confident people, and they have growth goals."

That expanding leadership structure has given Sharp and Hanks confidence MiNT can scale without every major decision or relationship depending on them.

"We feel strongly that we've got a team that can do it," Sharp said. "It's not just Nick and I. We're not the sole drivers of this by >>



106 Exchange in South Jordan



Hoodoo Casitas in Moab



High Pointe Offices in Draper



Los Botellas Restaurant in Riverton

any means.”

For Hanks, the challenge is ensuring MiNT has the people and systems to support that growth.

“Growth can be scary if it’s not done right, but strategic growth—I think that’s the difference,” he said. “We’re strategic in who we work with, what we build, and who we hire.”

A decade after Sharp and Hanks set out to create a different kind of Utah contractor, MiNT has become something broader: a regional company capable of designing and building a project—or providing either service independently.

It’s an unusual model in an industry still largely organized around separate design and construction firms. For MiNT, proving that model works ultimately comes down to delivering for the next client.

“We have to earn it,” Hanks said. “The more jobs we complete successfully, with references and people who see the value in it and can sing its praises, the more it helps.” ■



The entire MiNT team outside its Sandy office. (photo by Dana Sohm, Sohm Fotografx)

MiNT Top 10 Projects

Project	Location	Year Completed
South Jordan Parkway Office	South Jordan	2018
MiNT Offices	Sandy	2019
106 Exchange II Offices	South Jordan	2021
Las Botellas Restaurant	Riverton	2023
Hoo Doo Moab Curio by Hilton	Moab	2023
Kiln—Provo	Provo	2023
Highpoint Offices	Draper	2024
Mtn. West Veterinary Specialists	Bluffdale	2024
Coyote Ridge Townhomes	Heber City	2024
Catalyst Industrial Complex	American Fork	2026

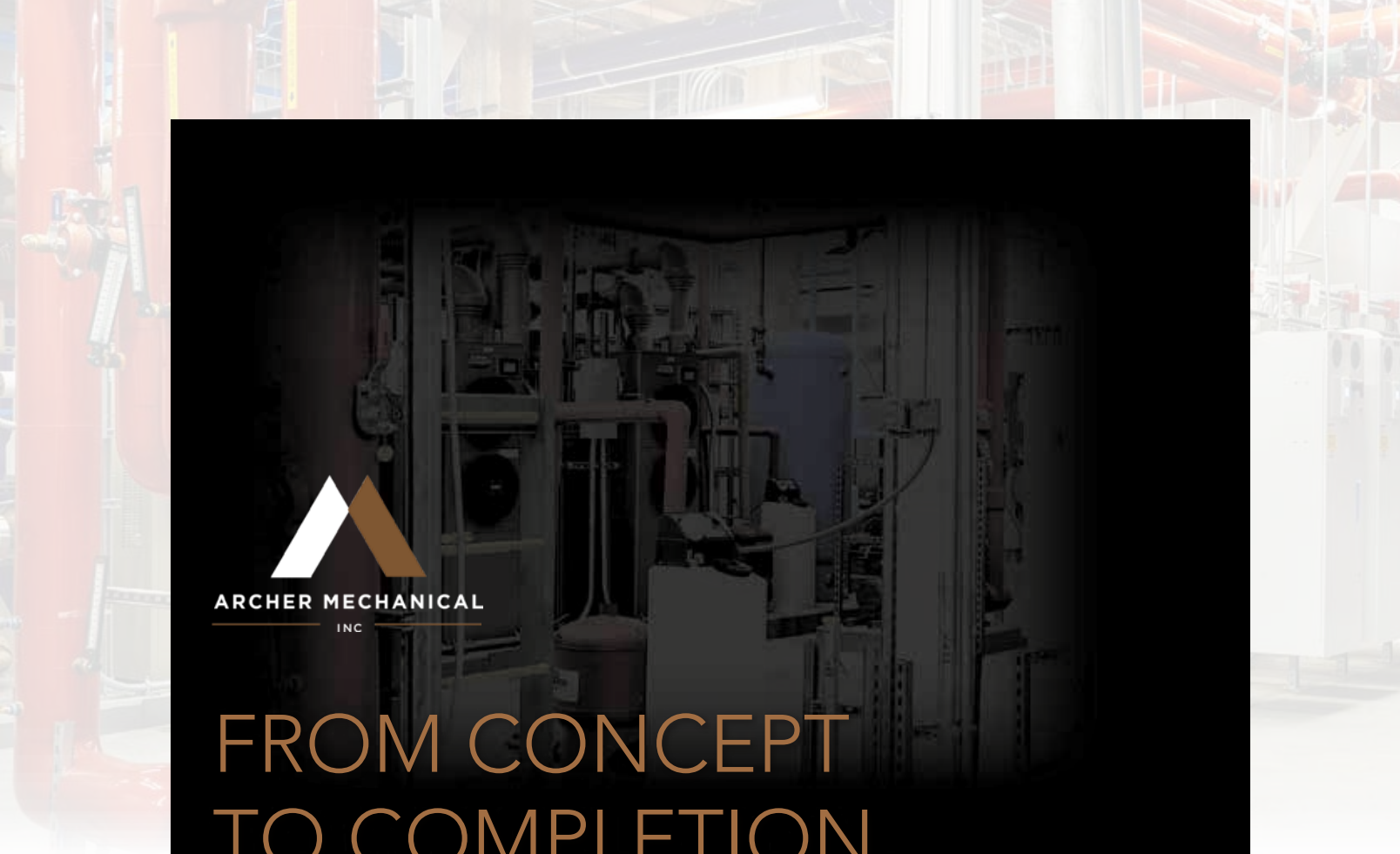


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FOUNDATION FOR GROWTH



Talisman Civil Consultants has evolved into a full-service civil shop from its Salt Lake office (opposite). Talisman's first employees pose during the company's first holiday party. Aerial from Powder Mountain, one of Talisman's clients since 2016 (top right). Surveying has grown from two team members to 24 and makes up just over half of the firm's volume of work (bottom right). (All photos courtesy Talisman Civil Consultants)

As it heads into its second decade of business, Talisman Civil Consultants has emphasized a company culture built on relationships and a willingness to work at any scale.

By Taylor Larsen

When Nate Christensen left the company where he and Ryan Cathey met, Christensen left with a request: “If you ever start your own thing, I wanna do it; I’m on board.”

In 2016, that became a reality when Cathey left that firm to start Talisman Civil Consultants, and Christensen came aboard within the first few months. What started with a group of 12 engineers and surveyors has grown to the nearly 50 folks who make up Talisman today—an office of folks with a deep understanding of the human scale that makes the industry so special.

The Company and the Work

“We don’t have that, we’re a fun group,” said Christensen, Talisman’s Director of Land

Survey. “We’re professional and we want to do a good job, but everyone has a good relationship. We’re friends, and it speaks to our company culture.”

“It’s solid here,” Cathey, Talisman’s President and Founder, agreed. “People come to Talisman and find that it’s a great fit and a breath of fresh air.”

As teammates look for pictures of company history, an intra-office message thread emerges— candid, project photos, and, of course, a screenshot of a teammate eating a corn dog on a video call—the ribbing and teasing that show that everyone here is welcome.

Good relationships continue with clients, and Brittney Boyle, Director of Marketing and Business Development,

has been integral in helping to build and improve relationships within the industry.

Talisman’s annual Fall Fest event at Cross E Ranch in North Salt Lake has been one that brings employees, their families, and clients together in an evening of delicious apple cider donuts, fun, and connection at Cross E Ranch in North Salt Lake.

“It’s a great way to thank everyone and see everyone who has helped us get where we are,” said Christensen.

The Work

From residences, resorts, and Right of Way, to site civil, utility planning, and surveying, Cathey said, “One thing I love about this firm is that we don’t just do one thing.”

Many join the Talisman ranks after working for mega firms on projects they may never get to see. “And they come here and see the local impact that we have,” Cathey continued. “We’ve always had the privilege of working on the places and projects we experience.”

Talisman’s surveying group performs traditional land survey services like boundary and construction staking, making up just over half of the firm’s overall volume of work. Christensen said a significant portion of surveying work comes from utility providers like PacifiCorp/Rocky Mountain Power and Enbridge, and will only grow as providers look to repair and replace aging infrastructure. Surveying, Christensen joked, is a dying profession within a growing industry: “I could hire four people today and have plenty of work for them to do.”

The engineering group performs traditional civil duties and includes a

subgroup dedicated to subsurface utility engineering (SUE), and is also heavily involved with utility providers.

“One thing I love about this firm is that we don’t just do one thing.”

— Ryan Cathey

Under the leadership of Monte Pascuzzo, Subsurface Utility Manager, engineers incorporate utility locators, radar, research and good old-fashioned digging to precisely identify and locate buried utilities. SUE is a relatively new service within the industry, but a long-needed one that is growing in importance in Utah—Cathey sees a future where state-funded projects in Utah will require these services.

More red tape? Not exactly. Lower

financial risk on projects? Definitely.

“We’re working with sophisticated developers and owners that have seen big cost overruns associated with poorly documented utility locations,” said Cathey. Beyond cost, the scheduling delays that come from undocumented utilities are a double whammy that will grow more costly as Utah densifies within its urban areas.

These emerging services are helping Talisman become a full-service civil shop.

Talisman had long wanted to incorporate Right of Way (ROW) services—another key part of early project development—but was looking for the right leader. Steven Knubel came aboard as Right of Way Manager in early 2026 to head the ROW group, working with landowners to negotiate, coordinate, and execute ROW acquisition.

“Surveying and engineering often uncover questions that can be answered >>

with these other services,” Cathey said. “We want to be a trusted advisor that clients go back to over and over again. [...] We want to solve all of a client’s problems without needing a third party to come along.”

ROW, SUE—if only we could find more acronyms for the other civil services—all goes toward a purpose-driven, collective whole that has worked on projects of all sizes.

Resort projects have long been a staple—utility master planning and

“We’ve been on the mountain for years. [...] Work up there is the gift that keeps giving. [...] Seeing Powder Mountain grow across phases and stages of development has been great.”

— Nate Christensen

development planning with Snowbasin and similar scopes for Deer Crest near Park City. Work at Powder Mountain is a showcase of the firm’s synergy in action.

“We’ve been on the mountain for years,” Christensen said of the relationship with Powder Mountain that began before Talisman formed and has been nourished ever since. Teammates across surveying and engineering disciplines have built up relationships with Granite Construction and

Jacobsen Construction as the firms build infrastructure and additional projects in and around the resort. Homeowners have even requested Talisman for lot surveys and more. “Work up there is the gift that keeps on giving,” Christensen said. “Seeing Powder Mountain grow across phases and stages of development has been great.”

The Ownership Challenge

The work continues, but ownership’s challenge over the next 10 years is nurturing a second generation of company leaders and owners.

“The goal is to develop an ecosystem where some people are building up their ownership while others are winding down,” said Cathey. Instead of a wave of owner exits that alter the firm’s financial landscape, the ideal cycle would work like a tide: outgoing partners with 40 years of experience could sell their stake to incoming partners whose ages are in and around 40. New owners could reap the rewards of company success earlier—a healthy mix of experience and new ideas that continue the great relationships built during the firm’s first decade.

Finding those future owners is a matter of skills, experience, and capital. Many teammates have worked with the two owners since before Talisman opened its doors in 2016—Cathey said many in that group were formative for his career development.

“Some of the people that were my early mentors are here on the team,” Cathey said. “They taught me the ways after I graduated

from college.” These qualified, hard-working, and long-tenured professionals may not want to manage the finances of the company as a traditional owner-partner would; Cathey thinks a tiered ownership structure would suit Talisman well.

The third, financial criterion is the main barrier to entry. In Cathey’s experience, small businesses can make the wrong choice because those who “earn” ownership opportunities often have the most access to capital.

“What’s been important to me is that we, as a company, create a viable path for those who may not be in a position to write a massive check,” said Cathey.

Leadership and People

As a company owner, Christensen has sought to own the accountability that comes from good leadership—meeting folks where they’re at, building them up, and celebrating with the people that mean most to them.

“I want to meet everyone’s partner and meet their kids,” said Christensen of a desire that comes from a place of gratitude. “These folks spend a lot of time with us and away from their families. And it’s a good time to be thankful for the families and what they sacrifice.”

Cathey echoed Christensen’s focus on the team-first nature that defines good leadership.

“I don’t think I’ve accomplished a single thing exclusively on my own. Anyone that says they have is telling an obvious lie.

Even those of us with means to be able to create these types of opportunities,” Cathey emphasized, “we’re not doing it alone.”

Cathey was extremely complimentary to Christensen for his tenacity as a friend and business partner: “He’s a very competitive person and wants to win everything [...] Nate thrives in a challenge, and he’s very good at building relationships.”

Christensen credits mentor Patrick Harris for how he exemplified stellar leadership for the young surveyor.

“We’re professional and we want to do a good job, but everyone has a good relationship. We’re friends, and it speaks to our company culture.”

— Nate Christensen

“He hired a guy with zero experience to do survey drafting and taught me so much about the profession,” Christensen said. Harris even helped the young surveyor pursue Professional Land Surveyor (PLS) accreditation, which he earned in 2015.

“I didn’t want to be a licensed professional,” Christensen said, “but Pat helped to open my eyes to the possibilities that came with that PLS title—the people I would meet and how it would help me speak to clients and build teams.”

Those efforts have gone on to shape

Talisman as a firm that encourages and invests in team members’ professional development.

“It’s been an organic growth, too,” Christensen said of employee-led efforts to take drone certification courses, attend seminars and conferences, and research best practices to advance their careers, company, and industry. “We’re paying people to attend conferences; we’re paying them to study; we’re investing in them.”

Christensen credited Rob Law, Talisman’s Land Survey Manager, as a great catalyst and leader for the surveying group. His 25 years of experience managing teams and scheduling crews has allowed the group to thrive.

Cathey praised Dan Bourque, Director of Civil Engineering, for continuing the team-building ethos within the engineering group. “Dan is phenomenal,” Cathey said. “He’s great at keeping tabs on how much responsibility is going out to our team.”

The Future

Bi-weekly team meetings have been key in professional development as the firm refines its practices and workflows to stay unified and agile. The thème du jour is all about AI.

“There’s trepidation within the industry,” Cathey said. “It’s going to change our delivery methods in one way or another.”

Cathey said the firm is cautious about utilizing unproven technology, especially where liability is concerned. Cathey laughed, “AI is a tool, and the tool provides an answer.” Whether the answer is good, or

even correct, is another matter. Talisman has kept AI use to brainstorming and first drafts and out of critical processes.

As AI changes the world, Cathey is looking forward to the changes closer to home.

“The Salt Lake Metro is approaching a tipping point,” said Cathey. “A major investment is needed.”

Instead of spending \$1.8 trillion on AI, what if that investment went toward upgrading the area’s aging infrastructure? Delivering true housing affordability? Or ambitious community placemaking efforts?

The question is rhetorical, but Cathey answered with optimism: “Projects like Green Loop are desired by the public and have the political will behind them,” he said of the 5.5 miles of urban greenway planned around downtown Salt Lake where Talisman served as the civil consultant.

Talisman played a role within that project scope long before the Green Loop entered the zeitgeist when the firm provided civil consulting for the Central 9th neighborhood between Main Street and 200 West.

“It has been wildly effective,” Cathey said of efforts from Talisman and the project partners that set the stage for Central 9th to become A Place™, where transit and bike infrastructure, pedestrian-scale improvements, and good urbanism have created a synergy similar in community impact to what Talisman has achieved within its one-stop civil shop—a synergy that leads to a transformative, organic growth. ■



Parties, get-togethers, and the annual Fall Fest at Cross E Ranch (right) have been ways for the personal and professional to merge for a solid company culture.



Talisman has been keenly interested in placemaking efforts. Projects like Wonderblock in Ogden are seen as key to further invigorating the city’s downtown, while infrastructure work at North Medical Drive aims for a more cohesive medical campus at the University of Utah (right).



Whitaker Construction tackles myriad challenges including deep excavations, a massive steel pipeline, and a maze of existing utilities on this generational \$57 million project connecting Big and Little Cottonwood Water Treatment Plants.

By Bradley Fullmer

Aerial views of two different sections of work happening simultaneously in Cottonwood Heights. (photos by Dana Sohm, Sohm Photografx)

COMPLICATED CANYON CONNECTION

Building a 3.3-mile water transmission pipeline is challenging enough. Building it through established neighborhoods, beneath active streets, around existing utilities and alongside an aqueduct that has been delivering water to the Salt Lake Valley since the 1930s takes the degree of difficulty to another level.

That is the environment Brigham City-based Whitaker Construction has faced on Cottonwoods Connection Schedule C, a major piece of the Salt Lake Aqueduct Replacement (SLAR) pipeline jointly owned by the Metropolitan Water District of Salt Lake & Sandy and Salt Lake City Department of Public Utilities.

Whitaker broke ground in spring 2024 on the approximately \$57 million project, with work extending through Q1 2027. The project includes more than 17,000 feet—approximately 3.3 miles—of 60- and 72-inch welded steel transmission pipe running through Cottonwood Heights.

The new pipeline parallels the existing Salt Lake Aqueduct and connects the Big Cottonwood Water Treatment Plant near the mouth of Big Cottonwood Canyon with the Little Cottonwood Water Treatment Plant. When operational, the connection will allow raw water from Big Cottonwood Creek to be directed to either treatment plant.

That flexibility is particularly important as the Big Cottonwood Water Treatment Plant prepares for a major reconstruction. But the benefits extend well beyond the immediate project, creating additional redundancy and operational flexibility within a critical regional water system serving the Salt Lake Valley.

Getting there has required Whitaker to navigate some formidable construction challenges.



“This project is certainly one of the more complex jobs I have personally worked on, but Whitaker has been building challenging infrastructure projects since 1953,” said Dallen Christensen, Project Manager for Whitaker Construction.

Three Miles Through an Established Community

Unlike a transmission pipeline built through undeveloped land, Cottonwoods Connection Schedule C passes through an intensely developed urban environment for nearly its entire length.

“The alignment runs directly through established neighborhoods for nearly the entire project,” Christensen said. “With private property on both sides, every easement situation is different.”

The alignment impacts nearly 70

residential properties, requiring significant coordination among Whitaker, project owners, engineers and individual property owners before construction crews arrive.

Some easements are relatively straightforward. Others are anything but.

“The team has worked proactively on property coordination to help ensure residents are properly notified and given adequate time to address site-specific impacts before crews arrive,” Christensen said.

Those impacts can include virtually anything homeowners have constructed within or near the pipeline easement.

“Many of the properties present unique considerations, including existing structures and amenities located within the alignment such as sheds, hot tubs, fencing, and tennis courts, all of which require»

“In some areas, excavations have exceeded 25 feet in depth to safely navigate unavoidable conflicts. Maintaining progress requires constant field coordination and the ability to adapt to changing conditions in real time without impacting momentum across the remainder of the alignment.”

—Dallen Christensen

careful planning for removal, protection, and restoration once pipeline installation is complete,” he said.

At the same time, crews must maintain traffic, preserve access to homes and businesses, coordinate with multiple utility owners and keep residents informed about construction activities.

And while all of that is happening above ground, conditions beneath the surface present another set of challenges.

Crews have encountered unmarked fiber lines, conflicting sewer and water lines, unknown crossings and other existing infrastructure. In some locations, navigating those conflicts has required excavations exceeding 25 feet.

“On a project of this size, underground conditions can change significantly throughout the alignment, and unforeseen

conflicts are a normal part of construction,” Christensen said.

Working around those conflicts without sacrificing momentum requires decisions to be made quickly in the field.

“In some areas, excavations have exceeded 25 feet in depth to safely navigate unavoidable conflicts,” Christensen said. “Maintaining progress requires constant field coordination and the ability to adapt to changing conditions in real time without impacting momentum across the remainder of the alignment.”

Big Pipe, Deep Trenches

The sheer scale of the pipeline adds another dimension.

Whitaker is installing 60- and 72-inch-diameter welded steel pipe—sections large enough for a worker to comfortably stand

inside. Each section must be positioned, aligned and field-welded before undergoing inspection and testing.

Every welded joint receives full nondestructive examination to meet potable water requirements. Individual welds can take six to eight hours to complete.

“Every joint must be welded, fully inspected, tested, and wrapped before work can continue,” Christensen said. “There are no shortcuts when building these large-diameter pipelines.”

That means pipe installation is far more involved than simply excavating a trench and lowering sections into place.

“Every pipe section across 3.3 miles requires close coordination between welders, inspectors, testing personnel, coating crews, and field operations,” he said.

Where excavations reach significant depths, Whitaker is utilizing slide rail shoring systems to maintain safe working conditions while limiting the excavation footprint within narrow urban rights-of-way.

The project also includes multiple turnout vaults connecting the new SLAR pipeline with existing Salt Lake City water transmission lines at Nutree Drive, McEntire, 7000 South, Creek Road, Bengal Boulevard and Danish Road, along with utility relocations, gravity block retaining walls, pipeline appurtenances and fiber-optic conduit installation.

Several connections involve welded tees tied directly into active Salt Lake City transmission mains ranging from 10 to 20 inches in diameter.

Those cut-ins must be coordinated around system pressure, demand and operating schedules—because the existing water system does not stop simply because construction is underway.

Building Beside a Working Aqueduct

Perhaps the most important constraint is the infrastructure already in the ground.

The new SLAR pipeline is being constructed beside an existing aqueduct that has served the Salt Lake Valley since the 1930s. That system must remain operational throughout construction.

“The project also requires close

coordination with the existing water systems and entities,” Christensen said.

Every connection into an active Salt Lake City transmission line has to be scheduled around the needs of the larger water system.

Those needs can change.

During an unusually hot and dry summer, elevated water demand extended farther into the fall than anticipated, reducing available windows for some connections and forcing the construction team to modify sequencing.

For Whitaker, maintaining the schedule has therefore depended less on rigidly adhering to an original construction sequence than on developing enough flexibility to respond when circumstances change.

Two Crews, Two Headings

One of the most consequential adjustments came early in construction.

Whitaker transitioned from a single

mainline pipeline crew to two independent headings, allowing two crews to simultaneously install large-diameter pipe at separate locations along the 17,000-plus-foot alignment.

“That approach significantly improved production and helped strengthen the projected completion timeline,” Christensen said.

It also provided a critical advantage on an alignment containing so many potential disruptions. If a utility conflict, property issue or other unforeseen condition temporarily slows one heading, work can continue elsewhere.

Christensen is quick to point out that running multiple headings isn’t itself a new construction concept. The challenge lies in successfully supporting both operations simultaneously.

“With two active headings running at the same time, the team is constantly looking two to three months ahead on both fronts,” he said.>>



Photo by Dana Sohm, Sohm Fotografx



Photo courtesy Whitaker Construction

That requires extensive advance potholing and utility coordination, along with management of materials, inspections and pipe deliveries to ensure neither crew runs out of productive work.

“Utility crossings and relocations can easily impact projects of this size because of the number of stakeholders involved and the lead time required for coordination,” Christensen said. “Staying proactive with communication and scheduling has helped ensure the crews can continue moving

without unnecessary delays.”

Large-diameter steel pipe procurement has become a significant logistical operation in its own right. Fabrication and delivery schedules can shift over the course of a multiyear project, requiring Whitaker to continually adjust installation sequencing around material availability.

“In many ways, coordinating pipe production, delivery, inspection, and installation has become a critical operation of its own within the overall project,” Christensen said.

Infrastructure Built on Teamwork

For all the project’s technical complexity, Christensen said its success ultimately comes down to people and communication.

“The reality of utility infrastructure construction is that every project comes with its own unique challenges,” he said. “What separates successful projects is not the absence of problems, but how well the team is prepared to respond to them.”

“The reality of utility infrastructure construction is that every project comes with its own unique challenges. What separates successful projects is not the absence of problems, but how well the team is prepared to respond to them.”

—Dallen Christensen

That philosophy becomes particularly important when construction involves multiple owners, engineers, utility companies, residents, businesses and public agencies—all with different priorities and schedules.

“Staying proactive, maintaining strong relationships with stakeholders, and building trust and communication across the entire project team are all critical to keeping work moving forward,” Christensen said.

Whitaker’s field and management teams have also had to remain closely aligned as conditions evolve.

“One of the strengths of this project has been the level of alignment across the team, from superintendents and project managers to engineers, foremen, operators, and laborers in the field,” Christensen said. “When everyone understands the objective and takes ownership in the process, even very difficult challenges become manageable.”

Christensen ties some of that ownership mentality directly to Whitaker’s structure as an employee-owned company.

“A large part of that mindset comes from Whitaker’s culture as an ESOP company,” he said. “Every employee has a direct stake in the company’s success, which creates a strong sense of accountability and shared purpose across the organization.”

That culture has been developed over more than seven decades of infrastructure

construction since Whitaker was founded in 1953.

Christensen stops short of labeling Cottonwoods Connection the company’s most difficult project, noting that Whitaker teams have successfully completed—and are currently performing—other highly demanding infrastructure work throughout the region.

But Schedule C certainly embodies the kind of challenges heavy civil contractors relish: huge pipe, deep excavations, tight rights-of-way, unpredictable underground conditions, active water infrastructure and a schedule that refuses to stand still.

And when the approximately 3.3-mile pipeline is complete, much of that effort will disappear underground. What remains will be something far more consequential—a stronger, more flexible water delivery system designed to serve Salt Lake Valley residents for generations. ■

Cottonwoods Connection Schedule C
Location: Cottonwood Heights
Cost: \$57 million
Start/Completion: February 2024/Q1 2027
Owner: Metropolitan Water District of Salt Lake & Sandy

Design Team
Civil: Hazen and Sawyer

Construction Team
General Contractor: Whitaker Construction
Concrete: Whitaker Construction
Steel Welder: National Welding
Excavating: Whitaker Construction



Photo courtesy Whitaker Construction

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BUILT TO WITHSTAND

Photo courtesy COP Construction

Salt Lake Aqueduct infrastructure resiliency project strengthens a critical Wasatch Front water system while confronting seismic faults, arduous geology, and aging infrastructure.

By Bradley Fullmer

Most major infrastructure projects are designed to solve a problem. The best ones solve a problem most people hope never happens.

That is particularly true of the Salt Lake Aqueduct (SLA) Seismic and Infrastructure Resiliency project, where North Salt Lake-based COP Construction strengthened one of the Salt Lake Valley's critical water delivery systems against the long-term challenges of aging infrastructure—and the potentially immediate threat posed by a major earthquake.

The project includes the installation of 6,521 linear feet of 36-inch welded steel,

cement-mortar-lined pipe between the Big Cottonwood Water Treatment Plant and the existing Salt Lake Aqueduct near Fort Union Boulevard. Beyond replacing and reinforcing aging infrastructure, the new pipeline will provide greater redundancy and flexibility within the regional water system while improving its ability to reliably serve a growing population.

For Bill Crowley, Project Manager for COP Construction, it is precisely the kind of complex, consequential infrastructure work that plays to the contractor's strengths.

“Projects of this nature are highly rewarding because they closely align

with the type of work COP Construction has successfully delivered,” Crowley said. “Our experience executing complex infrastructure projects, particularly those involving critical public utilities, challenging geotechnical conditions, and stringent safety requirements, has positioned [us] in this market sector.”

Strengthening a Critical Water Lifeline

The project is part of a much larger effort by the Metropolitan Water District of Salt Lake & Sandy (Metro Water) to increase the resiliency, reliability and redundancy of the regional water system.

The history of the Salt Lake Aqueduct stretches back nearly nine decades. Metro Water entered into a construction and financing agreement with the federal government for the aqueduct in 1938, with the first 9.1 miles completed by 1942. The system was developed in conjunction with the Deer Creek Project and became a critical component of the infrastructure delivering water from Deer Creek Reservoir to communities along the Wasatch Front.

Today, the SLA remains a critical piece of Salt Lake County's water infrastructure. Much of the original aqueduct consists of approximately 69-inch-diameter reinforced concrete pipe, and portions of the system cross the Wasatch Fault Zone as well as areas susceptible to liquefaction.

Those vulnerabilities have become an increasingly important consideration

as Metro Water evaluates the long-term reliability of infrastructure constructed generations before today's seismic design standards existed.

Metro Water's hazard mitigation planning has identified numerous portions of the SLA for replacement or sliplining as part of a broader strategy to “harden” the system. The objective is not simply to replace aging pipe, but to create a water network better equipped to remain functional following a major seismic event.

For the current project, one of the most technically demanding areas is a roughly 1,750-LF stretch located within a known seismic fault zone.

Installing a large-diameter waterline through such an area requires a different approach than conventional pipeline construction. The goal is not necessarily to create a completely rigid installation, but rather one capable of accommodating movement without catastrophic failure.

The project team is using specially selected backfill material around the pipeline within the fault zone. The material is designed to permit a degree of movement, giving the welded steel pipe greater ability to shift during an earthquake without rupturing.

That flexibility could prove critical following a major seismic event, when maintaining potable water service would become particularly important for residents, hospitals, emergency responders and other essential services.

When the Ground Doesn't Cooperate

Seismic conditions are only part of the challenge.

The project's subsurface geology has forced COP's crews to adapt excavation and trench-safety procedures to conditions that are anything but routine.

A slide rail shoring system is being used to protect workers during trench excavation and pipeline installation. Slide rail systems provide an efficient means of supporting deep excavations while allowing crews to progressively install shoring as excavation proceeds.

On this project, however, the geology complicates that process.

Because the existing subsurface material does not consistently provide the uniform, stable conditions preferred for the system, crews have had to over-excavate portions of the trench, remove unsuitable material and replace it with appropriate engineered material before proceeding with shoring and pipe installation.

That means essentially preparing the ground before crews can safely begin the work they originally excavated the ground to perform.

“By identifying potential challenges early and working together to develop solutions, the team was able to proactively address obstacles that commonly impact project milestones.”

— Bill Crowley

The sequence demands precision and constant attention to changing field conditions. Over-excavation must be sufficient to establish a stable working platform, replacement material must be properly placed, and the slide rail system must then be installed while maintaining safe conditions for crews working inside an excavation containing a 36-inch steel pipeline.

At the same time, the new system must interface with existing infrastructure that has been operating for decades.

Tying new pipe into aging facilities requires careful alignment and phased construction to minimize disruptions to a system that cannot simply be taken offline for extended periods. Existing conditions can also differ from drawings and historical records, placing additional importance on field verification and communication among contractor, engineer and owner.

Crowley said three issues have stood out throughout construction: seismic risk mitigation, difficult subsurface terrain and coordination with existing infrastructure. »



COP Construction completed its \$9 million section of the Salt Lake Aqueduct/Cottonwoods Connection project last fall, installing over 6,500 feet of new 36-inch welded steel pipe between Big Cottonwood WTP and the existing aqueduct near Fort Union Blvd. (photos courtesy COP Construction)

Each would represent a significant construction challenge on its own. Combined, they create the type of project where sequencing and communication become as important as equipment and manpower.

Planning as a Team

For Crowley, one of the biggest reasons the team has been able to maintain progress has been an emphasis on collaborative planning rather than treating the owner, engineer and contractor as separate entities.

“The key to keeping the project progressing was establishing a collaborative planning process that involved the owner, engineer, and key stakeholders from the very beginning,” he said. “Through regular planning and coordination sessions, all parties remained actively engaged and aligned on project goals, safety expectations, quality requirements, and schedule milestones.”

Those meetings also gave the team an opportunity to identify potential problems before they reached the field.

“This approach created an environment where stakeholders could openly discuss objectives, constraints, risks, and construction strategies,” Crowley said. “By identifying potential challenges early

and working together to develop solutions, the team was able to proactively address obstacles that commonly impact project milestones.”

That approach is particularly valuable on underground infrastructure projects, where conditions concealed beneath the surface can quickly overturn even a well-developed construction plan.

Unlike vertical construction, where much of a project's progress is visible above ground, pipeline construction frequently involves uncertainty until excavation exposes actual conditions. Utility conflicts, groundwater, unexpected soil conditions and discrepancies between records and field conditions can all require immediate adjustments.

“Maintaining strong communication and fostering a shared commitment to project success allowed the team to make informed decisions, adapt to changing conditions, and ultimately deliver a safe, high-quality project,” Crowley said.

Infrastructure Designed for the Next Emergency

The Salt Lake Aqueduct project also represents a broader change occurring throughout Utah's infrastructure sector.

Population growth remains one of the most visible forces driving new

construction across the Wasatch Front, but growth is only part of the equation. Many of the systems supporting that population—waterlines, aqueducts, treatment plants and other utilities—were constructed decades ago.

Metro Water itself dates to 1935, and portions of the Salt Lake Aqueduct have been carrying water for more than 80 years. Strengthening those systems requires owners and contractors to simultaneously address age, capacity, redundancy and natural hazards.

Seismic resiliency has taken on particular urgency.

Metro Water's planning documents identify multiple SLA segments for replacement and numerous additional sections for steel-pipe sliplining to improve seismic performance. The agency has also been studying portions of the aqueduct that cross or closely parallel known faults and areas susceptible to liquefaction.

The State of Utah has likewise made aqueduct resiliency a significant infrastructure priority. In 2023, lawmakers appropriated \$50 million toward Wasatch Front aqueduct resilience, specifically targeting pipeline upgrades intended to improve seismic resiliency.

The underlying objective is straightforward: Following a major earthquake, communities will need water immediately—not months later, after damaged infrastructure can be reconstructed.

That makes projects such as the SLA resiliency improvements somewhat unusual. When completed, most of the work will disappear underground, largely unnoticed by the thousands of people who depend on the system.

For the people building it, that is part of the satisfaction.

“COP Construction continues to perform on projects of this nature because they leverage our strengths, reflect our core values, and provide opportunities for our employees to deliver meaningful work that benefits communities for decades to come,” Crowley said.

In this case, those benefits extend far beyond 6,521 feet of new steel pipe.

The project is another step toward creating a water delivery network capable of serving a growing Wasatch Front under normal conditions—and continuing to function when conditions are anything but normal. ■

Cottonwoods Connection Schedules A & B
Location: Wasatch Blvd./Fort Union Blvd./SR-190
Cost: \$9 million
Start/Completion: April 2024/October 2025

Project Team
Owner: Metropolitan Water District of Salt Lake & Sandy

Design Team
Civil: Hazen and Sawyer

Construction Team
General Contractor: COP Construction
Excavating: COP Construction
Other Subcontractors: Turner Electric, Post Asphalt

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MEP Modernization



This complex \$18.5 million project is a significant upgrade to the Dee Events Center's MEP systems, allowing the building to be a prominent fixture on the Weber State University campus for the next 30-plus years. (photos courtesy Lynk Engineers and KIER Construction)

An extensive \$18.5 million upgrade of mechanical, electrical, and plumbing systems adds 30 years of life to Weber State's popular Dee Events Center.

By Milt Harrison

The Dee Events Center has long been one of the premier basketball venues in the western United States and one of the most heavily used buildings at Ogden-based Weber State University. The arena is home to Weber State's men's and women's basketball programs and hosts prominent events ranging from Big Sky Conference championships and NCAA Tournament games to a wide variety of community events.

To keep the landmark, 12,000-seat arena performing for the next three-plus decades, Weber State undertook a comprehensive \$18.5 million modernization of the building's mechanical, electrical and plumbing systems. Engineered by Salt Lake-based Lynk Engineers—the project's prime consultant—and constructed by Ogden-based KIER Construction, the project spanned 18 months.

Sustainability and Energy Performance

At its core, the Dee Events Center MEP Upgrade is a sustainability project. It directly advances Weber State University's master plan for electrification and its

commitment to carbon neutrality by 2040, building on the university's earlier, award-winning energy-efficiency initiatives.

The scope consolidated four aging fan rooms into two, freeing the remaining space to be repurposed for lounges and other higher-value uses within the arena. Ancillary spaces throughout the building were converted to hybrid variable refrigerant flow (VRF) systems, while plumbing, fire protection, lighting and electrical infrastructure were replaced or upgraded throughout the facility.

Combined with a new geothermal heat pump system, the upgrades allow the building to move away from gas-fired equipment toward all-electric heating and cooling, substantially reducing site emissions while improving comfort and reliability for the thousands of fans, students and community members who use the building each year.

A Massive Geothermal Bore Field

One of the project's most innovative and defining features is Lynk's ground-source geothermal system. A bore field consisting



of 285 boreholes, each roughly 390 to 400 feet deep, was installed beneath the arena's east-side parking lot and connected through an extensive underground piping network.

The closed-loop system circulates water between the building's mechanical equipment and the bore field, drawing on the earth's relatively constant temperature to reject heat in summer and provide heat in winter. Combined with high-efficiency heat pumps, the system can deliver several times more usable heating and cooling energy than the electricity required to operate it.

The scale of the bore field alone sets the project apart. For comparison, Lynk also designed a high-efficiency geothermal system for Weber State's Noorda Engineering Building, which relies on a 175-borehole field. The Dee Events Center's 285-borehole system is significantly larger, reflecting both the size and demands of the arena and the ambition of the university's electrification goals.

"What makes this project and geothermal system unique is its scale," said Jarrett Capstick, Project Manager and COO of Mechanical Engineering for Lynk. "The number and size of the boreholes was highly unusual. Here we installed 285, each roughly 400 feet deep, all beneath the east parking lot. That's a geothermal field sized to match one of the largest and most heavily used buildings in the region. This system moves the Dee Events Center off gas-fired equipment and onto a system where the heat pumps are delivering several times the energy we're putting into them."

Staying Operational During Construction

Few university arenas of this size undergo an MEP renovation of this magnitude while remaining substantially operational. Construction was carefully phased to allow the building to continue hosting events, requiring extensive coordination among the design team, contractor and university to work around game schedules and periods of full or partial building closure.

Most importantly, the Wildcats didn't miss a game during the season—a

Dee Events Center MEP Upgrade

significant accomplishment given the extent of work occurring behind the scenes.

Ultimately, the project breathed new life into the arena's most critical systems while positioning the Dee Events Center to serve Weber State and the surrounding community for decades to come.

"It's a significant step toward the university's carbon-neutrality goals," added Capstick. "As an approximation, instead of the heating and cooling system being 90% efficient, it's likely closer to 400% to 500% efficient." ■

—Marianne Jenks of Lynk Engineers contributed significantly to this article

Dee Events Center MEP Upgrade

Location: Ogden

Start/Completion: Nov 2024/April 2026

Cost: \$18.5 million

Delivery Method: Design-Bid-Build

Owner: Weber State University, State of Utah DFCM

Design Team

Electrical Engineer: ECE

Mechanical Engineer: Lynk Engineers (Prime)

Structural Engineer: ARW Engineers

Geothermal Consultant: Sound Geothermal

Construction Team

General Contractor: KIER Construction

Concrete: LG Concrete

Plumbing & HVAC: Bingham Plumbing & Mechanical

Electrical: Wasatch Electric

Masonry: Thueson Masonry

Drywall: B.K. Drywall

Painting: Tony T Painting

Millwork: KLM Woodworks;

RJP Construction

Flooring: KLM Woodworks

Roofing: Redd Roofing Company

Steel Fabrication: Grizzly Steel Services

Steel Erection: Weighty;

JG Specialty Welding

Excavation: Statur Construction

Landscaping: F&S Landscape

Demolition: Hard Knock Construction



RAISE THE CURTAIN!

Utah Tech's dazzling new America First Performing Arts Center transforms a 40-year-old venue through innovative adaptive reuse, technical modernization, and a renewed commitment to community.

By Bradley Fullmer

Utah Tech's new \$40 million, 51,700-SF performing arts center features this unique, colorful ceiling art installation in the main lobby. (photos by Kyle Aiken; courtesy Layton Construction)



Utah Tech University is raising the curtain on the next generation of performing arts magic for its campus—as well as the greater St. George community—with the recent completion of the new America First Performing Arts Center.

The sparkling new \$40 million (\$30.2 million construction cost), 51,700-SF building transforms the aging, 40-year-old M.K. Cox Performing Arts Center, representing an ambitious top-to-bottom adaptive reuse that delivers improved acoustics, theatrical systems, audience amenities, performer spaces, and a striking new architectural identity.

Designed by Salt Lake City-based Sparano + Mooney Architecture and constructed by Sandy-based Layton Construction, the project celebrated its official opening August 28 with a ribbon cutting and concert. The facility now serves as the official home of Utah Tech University's College of the Arts and UT Live, as well as the Southwest Symphony and Southern Utah Heritage Choir.

At its heart, the project tells three interconnected stories: the adaptive

reuse of a structure four decades old; the technical transformation of an outdated auditorium into a contemporary performing arts venue; and the creation of a true campus and community facility that will serve generations to come.

For Sherry Ruesch, Assistant Vice President for Facilities Management at Utah Tech University, the new center is particularly meaningful. In addition to being an alumna of then-Dixie College (class of '85), Ruesch has spent 29 years at the school, including 16 years in her current position and 13 years as Director of Planning and Construction. She has played a significant role in virtually every major building project completed on campus during her career.

"It was an older '80s building, and it looked like it," Ruesch said. "When the State of Utah provided funds for an addition—where we could invite bigger, more off-Broadway-type shows—we took that opportunity to improve the old building with an event space and a lot of amenities that the old building did not have."

Those improvements include an expanded lobby, box office, concessions and restrooms; additional dressing, green

and rehearsal rooms; improved ADA accessibility; a new event space; upgraded theatrical lighting and sound; enhanced acoustics; and a completely reworked auditorium seating configuration.

The theater added 120 seats—bringing capacity to 1,308—highlighted by a new second-floor balcony and center aisles that dramatically improve circulation and

“One of the interesting things about this project is the auditorium is all block walls and old CMU walls, and I bet we cut 60-70 new holes whether it was ductwork, doorways, or large openings for the new bathrooms. Because we added on, we had to have access through some of those old walls.”

—Nathan Ringel



access. A 4,000-SF rehearsal and event space adds another dimension to the facility, allowing it to accommodate functions beyond traditional stage performances. The original auditorium remains the Cox Grand Theatre, recognizing Dr. Mervyn K. and Sue Cox, whose original contribution helped make the 1986 facility possible.

John Sparano, Principal-in-Charge for Sparano + Mooney Architecture, said maintaining the venue's seating capacity while improving patron comfort, accessibility, and overall circulation was a top priority for Utah Tech.

"The existing auditorium had continental (wall-to-wall) seating with no aisles, so introducing circulation aisles would reduce the seat count," said Sparano. "Our solution was to be very strategic about aisle locations and to introduce a new balcony into the space that actually increased capacity, all without removing the existing roof or adding columns within the auditorium. Avoiding columns was particularly important because they would have compromised sightlines and eliminated further usable seating positions."

Building New Within the Old

For Layton Construction, renovating and adding on to the old building offered numerous challenges, said Nathan Ringel, Project Manager for Layton.

"This one was challenging because we were adding on to an existing building," said Ringel. "It's a little bit different when you can just start from scratch and build the whole thing. I would say probably 70% of the building was already existing."

The original auditorium was dominated by CMU construction, and the renovation required crews to repeatedly penetrate existing walls for new mechanical systems, circulation routes, restrooms, and other improvements.

"One of the interesting things about this project is the auditorium is all block walls and old CMU walls, and I bet we cut 60-70 new holes whether it was ductwork, doorways, or large openings for the new bathrooms," Ringel said. "Because we added on, we had to have access through some of those old walls."

Like most renovations of this size, the building held a few surprises. At stage level, crews demolished the old dressing

rooms and began reworking plumbing and mechanical infrastructure. During that process, they discovered an underground return-air duct that had deteriorated significantly.

"We discovered an underground duct that had just rotted out, so we had to replace that and find new paths for air returns to come through," Ringel said. "Anytime you're doing a remodel, you're always going to find stuff that wasn't on the old plans, and then you've just got to call an audible and fix it quick so you can keep schedules going."

Foundation conditions presented another challenge. Layton used micropiles to address the area's difficult soils, including work inside the existing auditorium associated with support for the new balcony.

A 15,000-Pound Balancing Act

Adding a new balcony inside the existing auditorium was another major challenge, said Ringel. Layton couldn't simply remove the auditorium roof and lower the structural members into place from above. Instead, crews cut large openings through>>



the existing CMU walls and maneuvered massive structural steel members into the building.

Two of the balcony's main steel beams were massive—55 feet long and roughly 15,000 pounds each. The structural solution was engineered without columns beneath the balcony, preserving clear sightlines across the auditorium.

“The biggest challenge was the balcony,” Ringel said. “We basically had to cut massive holes in the two existing CMU walls and then use forklifts to get the beams in. There are no columns that support it, so it was all cantilever beams.”

Layton's involvement early in the design process was critical in making these types of major construction decisions, said Sparano, adding that “early involvement was valuable because it allowed cost, constructability, and sequencing to inform the design as it developed rather than becoming considerations only after the documents were substantially complete.”

Modernizing the Infrastructure

Expansion of the building conflicted with existing medium-voltage infrastructure, requiring Salt Lake-based Hunt Electric to relocate the service outside the new building footprint. That meant coordinating shutdowns affecting multiple occupied campus buildings.

“We had to coordinate with all the

electricians on campus, shut down multiple buildings, and find a time in the campus schedule that would work and not shut down students and classes,” Ringel said. “It was a big challenge.”

The electrical scope extended deep into the auditorium itself. New theatrical lighting and audiovisual infrastructure were integrated throughout the existing structure and addition. The renovated auditorium has five lighting-relay panels containing more than 300 individually programmed lighting relays for adaptive user control. Hunt also installed connections serving 96 rows of seating, encompassing 192 individual lighting connections.

The theater's acoustics were equally important and highly challenging to pull off. Old wall and ceiling acoustic treatments were removed, while the auditorium walls were reconstructed with modern acoustically responsive assemblies. New ceiling clouds were installed to help distribute sound through the room, working in concert with the redesigned stage and other acoustic treatments.

Creating a New Architectural Identity

The project gave Utah Tech an opportunity to reconsider how the building presents itself to campus and the community. Sparano + Mooney's design substantially opens the facility through an expanded, highly transparent lobby while giving the exterior a distinctive new facade. A copper-toned, curtain-like architectural expression references the performing arts while complementing Southern Utah's desert palette.

Getting there took some work, Ruesch said, with initial design concepts not quite hitting the mark.

“Honestly, [the initial design] just didn't fit the campus,” said Ruesch. “We like desert colors. Our buildings don't have to match, but they have to look like they're in the same family. We want people to know you are on campus.”

Rather than settling, the university and design team revisited the concept.

“I actually think sometimes when we do that, we push people to do their very best,”

Ruesch said. “What they came back with was this copper-colored curtain shape—the facade that's on this building now is just very beautiful. By going back and saying, ‘Look, we're not there, but we need to move another direction,’ we created something even better by doing that.”

Inside, rich crimson seating and a matching grand curtain contrast with the lighter amber tones of the orchestra shell.

“People that hadn't seen it before don't understand how much better it is—how totally beautiful and amazing it is,” Ruesch added.

Sparano said working with Utah Tech's team proved to be “a collaborative, value-added process that helped the team balance design quality, functionality, budget, and schedule throughout the project.”

Focus on Students and Patrons

The expanded lobby is emblematic of a broader philosophy Ruesch has helped bring to Utah Tech's evolving campus: give the best spaces to the people attending the university.

Ruesch has an unusually long perspective on that evolution. Before beginning her professional career at Utah Tech, she attended the school and worked as a draftsman in campus planning.

“I worked as a draftsman for campus planning when I was a student, so I actually sat at almost the same desk when I came back 20 years later,” she said.

“We know who our customers are, and we try to remind ourselves of that every time we're designing anything. It's not for me. It's not for the staff, or even for the faculty. It's for the students and, in this case, the local patrons that will be coming to the events.”

—Sherry Ruesch



During the ensuing decades, Utah Tech's physical campus has changed dramatically.

“We always say, ‘What do the students want?’ And we give the students the very best spaces all over campus,” she said. “They have study areas with views and classrooms with windows and things that not a lot of the other [university] campuses have. I think it sets us apart from other campuses—it tells the students that they matter.”

That philosophy extends directly into the Performing Arts Center.

“The auditorium and the lobby have the very best space,” she said. “We know who our customers are, and we try to remind ourselves of that every time we're designing anything. It's not for me. It's not for the staff, or even for the faculty. It's for the students and, in this case, the local patrons that will be coming to the events.”

A Community Building

That last point may ultimately define the America First Performing Arts Center. Although located on Utah Tech's campus, the facility was never conceived strictly as a university building. Its development grew from a partnership involving the university,

Southern Utah Performing Arts Foundation and community arts organizations that needed a better venue.

The \$5 million naming contribution from America First Credit Union supplemented a \$28 million appropriation from the Utah Legislature, \$1.3 million from Washington County and additional community donations.

Now, the Southwest Symphony, Southern Utah Heritage Choir, Utah Tech's performing arts programs and UT Live have a substantially better home, while the university can pursue larger touring performances and productions that previously were difficult to accommodate.

For Layton Construction Executive Vice President Jeff Palmer, that community connection makes the project especially rewarding.

“Anytime we can build a facility like this—one where our employees can visit with their families or send their children to the university to learn and perform in a building their mother or father helped construct—it's incredibly rewarding,” Palmer said. “These projects become more than just buildings. They become part of the community, and there's a tremendous sense

of pride for our employees and their families in knowing they helped create something that will serve students and the broader community for generations.”

Sparano added adaptive reuse projects of this scope are extremely rewarding from a sustainability standpoint, in addition to the opportunity to design a project with such tremendous community impact.

“One of the most satisfying aspects is knowing that we were able to give an existing building another 50 to 100 years of useful life while dramatically improving what it can offer performers, patrons and the community,” he said. “There is also an important sustainability component to that fact. Rather than demolishing the existing facility and sending a tremendous amount of material into the waste stream, we were able to retain and transform the building, investing resources where they would have the greatest impact.”

Sparano concluded: “Perhaps most rewarding, though, is hearing how differently performers experience the new space versus the old. The conductor of the Southwest Symphony described how, before the renovation, musicians often felt they simply had to play ‘loud and louder’ >>

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because of the auditorium’s poor acoustics. Now, they no longer fight the building to make their music heard. They have a venue that supports the way they perform and allows them to do greater justice to their craft.” ■

America First Performing Arts Center at Utah Tech University

Location: St. George
Start/Completion: October 2024/May 2026
Cost: \$40 million
(\$30.2 million construction cost)
Delivery Method: CMAR
Stories/Levels: 3
Square Footage: 51,700 SF
Owner: Utah Tech University, State of Utah DFCM

Design Team

Architect: Sparano + Mooney Architecture
Civil Engineer: Alpha Engineering Company
Electrical Engineer: Lynk Engineers
Mechanical Engineer: Resolut
Structural Engineer: KPFF
Acoustician: Kirkegaard
Theater Planner: Theatre Projects
Landscape Architect: Landmark Design

Construction Team

General Contractor: Layton Construction
Concrete: Phaze Concrete
Plumbing: Western States Mechanical
HVAC: North Star Heating & Air Conditioning
Electrical: Hunt Electric
Masonry: BA Robinson Construction

Drywall: B&S Drywall
Painting: Accent Painting
Tile/Stone: HB Surfaces
Millwork: Contempo Cabinets
Flooring: HB Surfaces
Roofing: Progressive Roofing
Glazing/Curtain Wall: Skyview Glass
Waterproofing: Guaranteed Waterproofing & Construction
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Excavation: Phaze Concrete
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A LASTING MONUMENT

Utah State University's new Monument Valley Academic Building showcases the power of cultural alignment in creating a harmonious, purpose-filled facility.

By Taylor Larsen

The gap between Native American and Western cultures is as massive as the peaks of Monument Valley are tall.

When the two have interacted on this stretch of what Western culture calls the American Southwest, it is often misaligned—or worse. Centuries of settler colonialism, ethnic cleansing and genocide, and forced assimilation and displacement have left indelible scars, which Western culture has sought to heal without the input of those whose heritage on this land hearkens back over three millennia.

Time has its own medicinal qualities, and when federal funds combined with funds from the Navajo Nation to build a new Utah State University (USU) facility within tribal borders, a new era of closer alignment and healing could begin. This era would look to embody *Hózhó*—the Navajo word signifying “beauty, harmony, or balance.”

As those involved in designing and building USU Monument Valley Academic Building can attest, the word is more than a concept, but a universal principle and a way of life that seeks harmony with oneself, others, and the natural world. *Hózhó* is on full display in the area's newest educational facility.

Listening

Harmony between the two cultures was critical and started in design, according to ajc architects' Nathan Williams and Heber Slabbert.

“One key was not making any assumptions for our own interpretations of local symbology or cultural values,” said Slabbert, Principal Partner with ajc, of those early discussions.

Western culture often

transmits history through writing and prioritizes efficiency, Slabbert explained. “As Westerners, we say, ‘We are going to build this thing in 12 months, and we’re going to make this decision in the next three months, and we have to stay on this schedule,’” he said.

Native American cultures, on the other hand, transmit their histories orally through storytelling, where every tribal representative must be heard.

“The stories need to be told,” Slabbert said, “and you can’t put this in a two-hour workshop.”

Thus, the architects “started with a clean slate of understanding,” according to Slabbert, committing themselves fully to listening closely in early project meetings with Navajo tribal elders. Don Mose III, USU Center Coordinator and Navajo tribal member, served

as a translator and liaison between the two groups. Their collective efforts to listen and inform helped establish a fuller understanding of how this building, much like the beauty that rises up out of the Monument Valley landscape, would be one welcomed by the Navajo people, enjoyed by future students, and able to withstand the region's unforgiving climate.

What architects heard from tribal representatives wasn't a surprise, Slabbert said. “What resounded to us was: the more culturally nuanced and customized it was to their community, the more likely it would be that the community would feel like this was for them, and it would be a successful learning environment for them.”

An educational facility for the Navajo Nation—one that prioritized the grandeur of its surroundings.

With experience here and in other culturally significant areas, the architects recognize the built environment is already foreign.

But visually foreign? Anathema within such a pristine natural setting.

The responsibility, Slabbert said, is designing something that belongs. “We feel it's almost like a sacred opportunity because these spots and locations are so important to our state and our identity—and so scarce,” said Slabbert.

The facility would seek *Hózhó* by fully integrating into its surroundings and culture.

Cultural and Environmental Relevancy

Siting the building and its various programs was culturally informed by the Navajo reverence for the four directions. The building's entrance faces East—the genesis of each new day. But not just any East: “Solar East,” explained Williams, ajc's Project Manager. “It's 12 degrees difference from magnetic East.”

“These little nuances and little tweaks helped to change the orientation and shape of the building,” said Slabbert.

Breathtaking vistas are a shared cultural value, and the first diagram tribal elders presented to the architects showed lines from the site out to nearby monuments and further cultural landmarks. The connection to nature is further elevated by the cultural significance of Father Sky and Mother Earth to the Navajo, and the ajc team responded with a building layout that framed the various monuments with unobstructed views.

The surroundings are resilient—300 million years of geological transformation. The new USU facility needed to follow suit.

“This area is as exposed as it gets,” Slabbert said. Harsh summers, driving sandstorms, and temperature peaks and valleys required design and construction that could stand tall like the majestic landforms in the distance.

Schematic design called for sandstone-colored, cast-in-place concrete with a lot of curvature. But the nearest concrete

batch plant, Brian Murphy said, was over 70 miles away in Blanding. Murphy, Big-D Construction's Division Director, said the general contractor planned on creating a concrete batch plant, but the 10% project cost increase to do so was problematic.

Water availability was a challenge both concrete and cultural, according to Murphy.

“Water is sacred to the Navajo Nation,” he said of the life-giving resource. “And there is no readily available source of water down there.”

In an area that receives an average of less than five inches of annual precipitation, utilizing it correctly required the utmost care to align with Navajo culture, especially, Murphy said, “there was a deep fear that construction would contaminate the water.”

Big-D Superintendent Mat Hess, a true road warrior and builder, helped to solve some of the water challenges. He was lodging in an RV Park near Bluff that allowed him to fill a giant drum full of water—1,000 gallons every other day—to ensure that masons, painters, and drywall installers had the resources they needed to ensure quality construction.

The team also pivoted to an insulated concrete form (ICF) to utilize less concrete and less water, saving three weeks of construction time within the 14-month build. The construction style incorporated 2 5/8 inches of polystyrene forms on either side of 12 inches of concrete for three layers of protection from the elements.»



(all photos by Jared Kenitzer; courtesy ajc architects)



The entrance to USU's Monument Valley Academic Building faces solar east, much as the Navajo built environment in the Oljato-Monument Valley and across Navajo Nation.

ICF was key in meeting the State of Utah's High Performance Building Standard, a welcome bonus with a project so far from Utah's urban core. The area is a five-hour drive from St. George; a six-plus-hour drive from Salt Lake City.

Said Slabbert, "I don't know if we'll ever get a more remote project in the State of Utah."

Since air doesn't permeate ICF's ultra-tight building envelope, mechanical systems inside meet the challenge. Geothermal heat pumps work in conjunction with energy recovery ventilation systems like an energy recovery wheel, where outgoing air tempers the incoming air during exchanges, cooling or heating incoming air to meet interior needs with less overall energy use.

"ICF is perfect for this building," said Williams. "We don't have to use the HVAC system near as much. [...] [ICF] provides that thermal mass, and those big, heavy walls feel grounded because they are clad in sandstone."

A New Sandstone Monument

Grounded isn't just architecture speak. The wind and sand in Monument Valley,

Slabbert said, "it's like a sandblaster" working against every building. The building had to ground itself within an area whose topography regularly fluctuates by four to eight inches over a couple of years.

Architectural and general contracting teams heaped praise on Allen's Masonry, the project's masonry trade partner, who ensured the new facility wouldn't just survive in the desert, but thrive like the students who would be instructed within it. "Allen's Masonry bent over backwards to get us under budget without compromising quality or aesthetic," said Murphy.

As designers proposed different sizes, cuts, stacking, shadow lines, and more, the Allen's Masonry team was ready with mockups and ways to ensure the exterior of the 10,000-SF building could meet the design intent. These teammates helped strike the intended balance between durability, constructability, and cultural authenticity.

"I don't think we would have got that result if they hadn't been included early on," Slabbert said of his masonry teammates.

The true sandstone exterior installed by Allen's Masonry serves another purpose

beyond physical resiliency, according to Williams: "The horizontal strata of the sandstone block look very much like the face of a monument [...] where the elements seemingly form the building."

Further Cultural Fit

Monument Valley's newest higher education space is tailor-made for remote learning, containing a testing center, two distance learning/in-person classrooms, nursing instructional lab space, welding instructional lab space, educational kitchen, and a separate section for groups with specialty educational needs.

For Donna Blake, who oversees university operations in Blanding, Monticello, Monument Valley, Montezuma Creek as the Director of Operations for USU Blanding, the two trade-specific instructional labs are most welcome.

"Our welding and CNA students in Monument Valley were driving an hour and a half each way just to take their tests," said Blake of the previous challenges faced by USU students. Cameras and other technological inputs within the new classrooms "ensure that students could practice for their exams and get the>>



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Monument Valley's newest higher education facility is ready for distance learning but firmly grounded in the area's grandeur. Sandstone and concrete tinted by the wind-blown sand, as well as the skylight above and pinyon pine tree below in the entryway were all designed with deep respect for Navajo culture and the surrounding landscape (below; pp. 68-69).



feedback they need for localized learning.”

Fitting building to place and need continued with other features.

“The intermediary between earth and sky is people,” Williams said. Designers reinforced that connection in the gathering space just past the entrance, utilizing a skylight above a pinyon pine tree planted in soil within the building’s concrete floor.

Learning areas mentioned above sit West of the central gathering area, the direction that symbolizes where knowledge and the journey to understanding originate. University administration spaces face East, denoting the time for reflection and gathering wisdom from the day’s experiences.

The four colors that represent the Navajo reverence for the four cardinal directions—blue, yellow, white, and

black—were also carefully balanced inside.

Williams said that each received a subtle nod while remaining complementary to the natural colors beyond the building’s walls.

And speaking of nature, Williams said, “When you place concrete in that environment, that driving sand, you get this warm hue; this integral color concrete.”

Mother Earth had the final say.

House of Learning

With buy-in across the educational and cultural elements that defined the project, Murphy said the final product delivers on the design ethos: “It’s pretty obvious that the building belongs there.”

Today, it is the only educational facility in Utah whose name is in a non-English language—*Ólta’ Bá Hooghan*, Navajo for “home of learning”—a lasting monument

built with balance, harmony, and beauty.

“This university is a seed that will be planted here in Monument Valley, so our children can learn how to help themselves and blend the two worlds together. You no longer have to go off the reservation to get your education,” said Don Mose Jr., a respected elder, educator, and ambassador of the Navajo Nation at the building’s opening ceremony in April. “They have it all here.” ■

Ólta’ Bá Hooghan
Utah State University
Monument Valley Academic Building
Location: Oljato-Monument Valley
Cost: \$10.7 million
Delivery Method: CM/GC
Square Footage: 10,587
Owner: Utah State University, State of Utah DFCM

Design Team
Architect: ajc architects
Civil Engineer: Jones & DeMille Engineering
Electrical Engineer: Lynk Engineers
Mechanical Engineer: WHW Engineering
Structural Engineer: Reaveley Engineers
Geotechnical Engineer: Terracon
Interior Design: ajc architects
Landscape Architect: ArcSitio Design

Construction Team
General Contractor: Big-D Construction
Concrete: JRock Construction
Plumbing/HVAC: Redd Mechanical
Electrical: Lyle Northern Electric
Masonry & Stonework: Allen's Masonry Company
Drywall: B&S Drywall
Painting: BZ Painting
Tile: OC Tile
Millwork: Artistic Mill
Flooring: Certified Sales & Service
Roofing: A-1 All Weather Roofing
Glazing/Curtain Wall: Fairway Glass
Waterproofing: Western States Waterproofing
Steel Fabrication/Erection: Sanpete Steel
Excavation: Wasatch Mountain Excavating
Landscaping: Kevin Hull Landscaping



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Big-D Signature has summited mountain peaks and treacherous terrain, building luxury residences and stellar resorts across the West over the last 25 years.

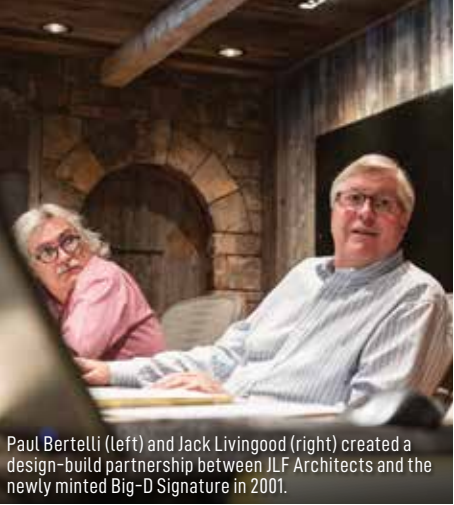
By Taylor Larsen

“Fanatical Craftsmanship” is visible through the glass on Big-D Signature’s... well, signature conference room table in the firm’s Park City headquarters. Etched in reclaimed wood, the motto has been Signature’s calling card as it has grown into a premier custom homebuilder and resort general contractor over the last quarter century. The genesis began across state lines in Wyoming in 2000. Jack Livingood, former Big-D Construction CEO, had seen many contractors come to mountain towns, build, and then leave. Much like his father,

“Big Dee” Livingood, had a big idea to start Big-D Construction in 1967, Jack had his own: taking true craftsmen and dedicating their efforts to being an integral part of these communities by building and giving back. A year later, Jack partnered with Paul Bertelli of Bozeman-based JLF Architects, and Big-D Signature emerged from the larger firm’s commercial contracting foundation, but in a design-build partnership to build homes. “How did it pay off?” asked Jack Livingood, Big-D Companies’ current Chairman. “The proof is in the pudding

with two decades of amazing houses and enthusiastic customers.” **Early Days** “Early on, we broke all the rules about design-build, creating a formal partnership to market our two firms as one entity,” said Livingood. The rules were unwritten ones—meeting the nail of high-end residential construction with the hammer of a commercial construction firm was as rare an occurrence as it was successful. But Signature earned numerous awards and rave reviews from its Jackson Hole

Yellowstone Club in Big Sky, Montana (right middle and bottom). (photos by Gideon Photography; all photos courtesy Big-D Signature)



Paul Bertelli (left) and Jack Livingood (right) created a design-build partnership between JLF Architects and the newly minted Big-D Signature in 2001.



clientele for building with craftsmanship of unbreakable zeal in the most demanding of locales. Shandon Brinkerhoff has been part of that legacy for over a decade, starting as a Project Engineer before becoming Vice President overseeing the firm’s Jackson office in 2021. Work in the residential sphere has been a welcome challenge that has forced him and others there to stretch. “Each home seems to have a new unique design element that we have to figure out and along the way the challenges make us more qualified for the next

opportunity,” said Brinkerhoff. The firm has always prioritized people first, where employees are encouraged and supported to prioritize family and personal life. Brinkerhoff said Signature’s honesty, transparency, and commitment to values set it apart within the industry. “We are never asked to do anything that would go against our core values and our morals,” he said. “We are only asked to do the right thing.” Jackson had the wealth, but the area’s growth opportunities were limited by the amount of protected land and a limited

trade partner base. The right thing for the business meant moving Signature’s headquarters to Park City to better cover the massive amount of work ongoing in the Wasatch Back. **Kerby Joins as Headquarters Moves to Park City** The right man for the job to lead the new office in 2015 was Mike Kerby—he just wasn’t looking for a job at the time. When Cory Moore, Big-D’s then-Vice President, made the initial pitch for Kerby to come and lead the Signature group, >>



Promontory Residence, Jackson Residence (middle), and Mountain Camp (bottom) are some homes on the receiving end of Signature’s fanatical craftsmanship. (Promontory photo by Tim Boone Photography; top and middle images by Audrey Hall; bottom by Joe Fletcher)



the answer was ‘No’—Kerby had already enjoyed a full career taking a construction company and then a development company to successful exits.

“I wanted to take a break,” Kerby laughed. “But the more we kept talking, I kept thinking, ‘That would be a fun challenge.’”

Kerby took it head-on. “The core of what Signature is—the people—they were fantastic and always have been,” he said. What the team lacked was a growth model and the leadership to implement Jack Livingood’s original ideal.

Relocating Signature’s headquarters closer to Big-D Companies’ corporate headquarters in Salt Lake came with major benefits.

“We had Big-D’s reputation,” said Kerby. Stellar leadership over the course of nearly 50 years —“Big Dee” Livingood, Jack Livingood, and Rob Moore—was foundational for Signature and helped tap into existing trade partner relationships.

But the reputation came with a caveat: Big-D Construction was a commercial builder known for quality, speed, and production. Even in close proximity, the two groups had to honor their respective strengths. “We didn’t want to lose the Signature brand,” said Kerby.

Kerby became Signature’s President, and his extensive relationships with the area’s ski resorts and developers, as well as serving on the Board of Directors for the

National Ability Center in Park City, began opening doors for the new office. The first major project followed: Victory Ranch—a combination of residential and resort projects all in one development in Kamas.

The Lodge at Blue Sky was another transformation project. Sitting just outside Park City, the 5-star hotel was one of the most challenging projects the firm had undertaken due to its aggressive construction timeline.

“We had people, including myself, working ’til two or three in the morning,” said Kerby. “We had people in the Park City office coming to the site with food for the crew or to help sweep—every single person in our office touched that project.”

Kerby saw the Signature team was different.

“It went beyond what we could build,” Kerby said, “It was how the team reacted to the pressure. It wasn’t ‘Can we do this?’ but ‘We’re going to do this. And we’re going to support one another.’”

Signature Projects; Signature Growth
Ryan Bulloch was one of those famed team members on The Lodge at Blue Sky.

“That was my first project,” he said. “And I felt like I was in the Wild West.”

Going from a specialized role in construction management at his previous firm to learning every scope on such a high-end build was transformative for the Project Manager.

Bulloch, now Vice President overseeing the Park City office, has been one of many who helped the firm expand and master resort projects. Tough logistics, mountain operations, tying in resort operations, food and beverage—“however high-end you want to go, we’ll go with you,” he said.

“Running a ski resort is a whole other ecosystem,” said Bulloch, “and we know what it takes to run it.”

Brighton Resort saw Signature work together with Austria-based Doppelmayr Group to perform the earthwork and concrete work for Doppelmayr’s new D-Line chairlift at Crest 6; Alta’s 600-SF Ski Patrol hut at Sugarloaf Peak received the Signature touch at 10,600 feet; Deer Valley’s ongoing East Village development received Signature’s services, with the firm performing the civil and concrete work at the gondola, new ski lift, and midway station that collectively take riders 9,100 feet to the resort’s Park Peak Lodge. Beyond ongoing work at the lodge, Signature also built a 27-foot-tall basement to keep the gondola protected from the summer sun while being serviced in the offseason.

Signature and its trade partners get the unique privilege of riding the gondola or snowcat up to work on many of these projects, but Bulloch said the firm’s “bread and butter” is working out the intense coordination efforts to ensure that quality construction doesn’t interfere in resort operations. Material deliveries are a major »

“It’s just different from a construction job where you have access to all of those things—we’re just doing it at 9,000 feet.”

— Ryan Bulloch





The firm thrives in complicated logistics, like working amidst unforgiving and seemingly impassable mountain conditions seen at Brighton Resort. (photo by Grant Gagon)

component, but ensuring worker well-being—meals, bathrooms, and especially safety and first-aid that comes from coordinating with ski patrol—is handled with aplomb.

“It’s just different from a construction job where you have access to all of those things,” Bulloch smiled. “We’re just doing it at 9,000 feet.”

Just don’t think for a second that residential operations waned to compensate for the expanded resort construction.

“Every single detail matters on the homes we build,” Bulloch said. “And we’ll get down to each one of them with the architect and owner.”

The firm’s “white glove/work glove approach” is ready to meet any residential client need—white glove for the client who wants perfection without a worry; work glove for the client who is just as fanatical about craftsmanship as the Signature team. The results—satisfied clients and enough mentions in high-end design publications to fill up a phone book—speak for themselves.

Signature has sought to differentiate itself—not a pick-up-off-the-shelf commodity, but a highly specialized group; a partner dedicated to the client experience.

“Sometimes I feel like we’re a hospitality company that does construction on the side,” Bulloch smiled. “We’re taking care of people—and that’s how it should be.”

A Legacy of Giving Back

Hitting 25 years of success is celebratory, “but we want 25 more, 50 more,” said Bulloch. “It’s not a competition to build everything, but creating a legacy with our people and their families that they can take with them for years to come.”

Another key in Signature’s prominence—its founding ethos, according to Kerby—has been the propensity to give back in the form of community projects.

“Mike Kerby inspired us,” Bulloch said, and the new generation of leaders is looking to build up every community that Signature teammates call home.

The Jackson office is completing construction of Pet Pulse ER, the first after-hours emergency veterinary clinic in Jackson Hole; ongoing work with the National Ability Center in Park City; teaming up with Youth Sports Alliance to support their efforts; Bulloch laughed that recent work with Summit County Clubhouse had many Signature teammates “in full-scale logistics mode” repairing siding and painting the building exterior.

As Bulloch completes his second year heading the Park City office and continues Signature’s give-back ethos, one ongoing community project is particularly meaningful to him as an avid skier. Signature is working with the Town of Alta, the U.S. Forest Service, and trade partners to build at one of the busiest entrances to a National Forest in Utah, where backcountry skiers, hikers, and explorers start their respective journeys.

What are they building? “Three bathrooms with heat, electricity, and running water at the Grizzly Gulch

trailhead,” said Bulloch. The project opens later this year.

How the West Was Won

Beyond Park City and Jackson offices led by Bulloch and Brinkerhoff, the firm has an office in Bozeman, Montana, under the Dovetail Construction brand—“Signature in Bozeman,” according to Kerby, who continues on Big-D Companies’ Board of Directors.

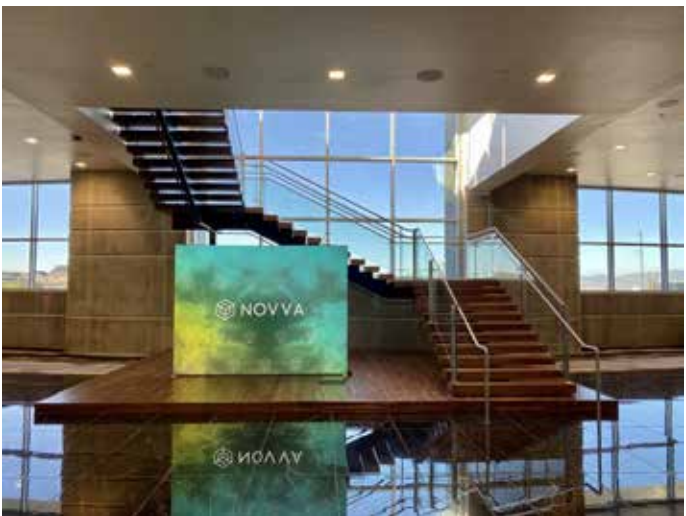
Dovetail Construction, founded by Tim Rote and Kevin Sullivan, has followed a similar trajectory to Signature—building and giving back in Bozeman—since 2005. Big-D acquired the firm in 2018, and the ongoing partnership has been seamless—white glove, work glove, and even fly-fishing rod continue the brand’s penchant for longstanding, high-quality relationships wherever they build.

The firm’s Sun Valley office is the newest addition, but is growing to meet the demands of Idaho’s popular resort community. Signature has even traveled down to the remote Southern Utah desert to construct a desert-chic residence at the famed Amangiri resort and hotel.

“Some companies get these types of projects once on their resume,” said Bulloch. “These once-in-a-lifetime jobs are our jobs.”

Wherever Signature goes, the thread is fanatical craftsmanship.

“If you studied what Signature is about and who we are, you would find that we are true-at-heart builders,” Bulloch said. “We’re builders of people. [...] We’re obsessed with everything; we’re obsessed with doing it right.” ■



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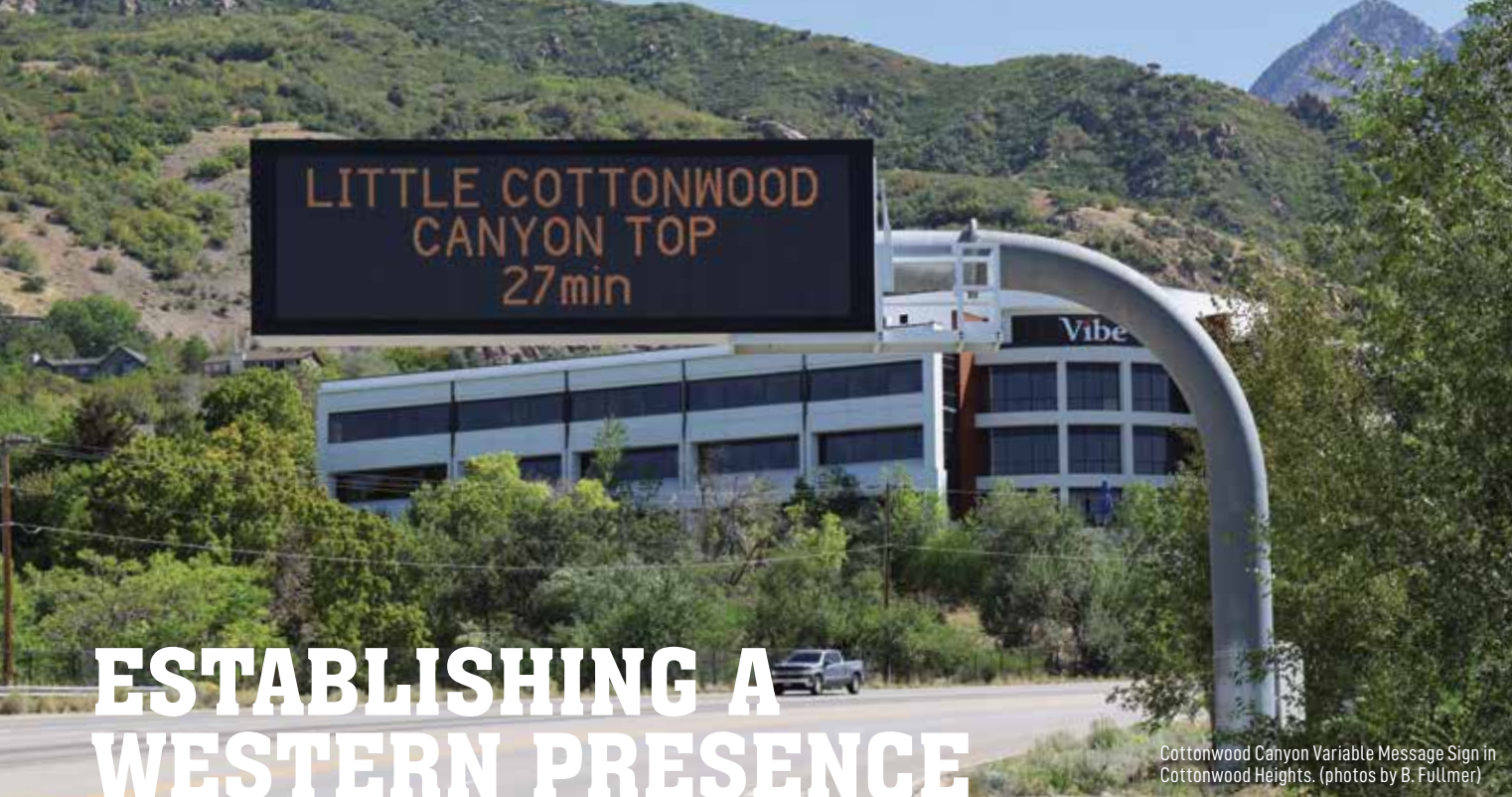
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Big-D Signature Top Projects

Project	Location	Year Completed
JLF Design-Build Jobs	Nationwide	2001 - Ongoing
Victory Ranch Barn and Cabins	Kamas	2016
Yellowstone Club Golf Clubhouse	Big Sky, MT	2017
The Lodge at Blue Sky	Wanship	2019
King’s Crown	Park City	2020
Talisker Club - Empire Pass Expansion, Private Residences, and Base Camp	Park City	2023
National Ability Center - McGrath Mountain Center & Hub	Park City	2024
Snake Creek Lodge and Crest Lift Site/Structural Work	Brighton	2024
Aman Residences, Amangiri	Canyon Point	2025
Wasatch County Fire Station 51	Heber City	2025



Cottonwood Canyon Variable Message Sign in Cottonwood Heights. (photos by B. Fullmer)

ESTABLISHING A WESTERN PRESENCE

O'Neill & Company's 14-year run as a Utah transportation specialist sets the stage for Horner & Shifrin's expansion into the West.

By Bradley Fullmer

For nearly 15 years, Taylorsville-based O'Neill & Company has carved out a unique niche within Utah's transportation engineering community, developing particular expertise in the systems that keep vehicles and pedestrians moving safely throughout the Beehive State.

Founded in 2012 by civil engineer Carrie O'Neill, the firm has made its mark in traffic engineering, traffic signal design, operations, intelligent transportation systems (ITS), roadway lighting and other transportation-related services. Along the way, O'Neill developed extensive relationships with the Utah Department of Transportation (UDOT), along with various counties and municipalities throughout the Beehive State.

Now, the company begins a new chapter.

On August 3, St. Louis-based Horner & Shifrin, Inc. announced its acquisition of O'Neill & Company, bringing the entire Utah team into the full-service engineering firm. The deal establishes Horner & Shifrin's first permanent presence in the western United States while giving O'Neill's team access to a significantly broader range of engineering capabilities.

The decision to sell her company was

difficult, O'Neill admitted—she doesn't take people's livelihoods lightly and wanted to ensure employees' careers would continue if something happened to her.

"I truly care about my staff and their families and want them to succeed—they are like my second family," said O'Neill. "I'm excited about the opportunities this will provide to our employees."

"I truly care about my staff and their families and want them to succeed—they are like my second family. I'm excited about the opportunities this will provide to our employees."

— Carrie O'Neill

O'Neill, who signed a five-year contract, remains at the helm of the Salt Lake City operation as Vice President, Regional Manager, Transportation. The former O'Neill & Company office now operates under the Horner & Shifrin name as the company's 10th office nationwide.

From California to Utah: Working on I-15 Reconstruction a Unique Opportunity

A native of California, O'Neill pursued an engineering degree and worked at Caltrans during college, learning traffic engineering under Ron Roush in the District 6 Signal Operations group. Roush, along with Lisa Singleton, served as valuable mentors as she navigated the intricacies of timing, lane capacity, operations and design over three years. She spent another year preparing traffic impact studies before graduating from California State University, Fresno (Fresno State) in 1995.

O'Neill and her husband decided to explore career opportunities outside the Golden State and viewed Salt Lake City as an up-and-coming region with the 2002 Winter Olympics on the horizon. She landed a job with Salt Lake-based MK Centennial doing traffic signal design and traffic impact studies by day while moonlighting for four hours each evening on the massive I-15 Reconstruction—a \$1.6 billion project that was the largest design-build transportation project ever undertaken in the nation at the time. The experience proved pivotal.

"Since I was a junior engineer, I worked on everything—summary sheets, quantities

and design," she recalled. "It was an exciting project to be a part of!"

The signature element of the project—the I-80/SR-201 interchange nicknamed the "Spaghetti Bowl"—is something she still marvels at when driving through it.

"It was such a large project that required lots of people and lots of hours," she said. "Ironically, one of the Horner & Shifrin senior staff worked on this project as well. When he was out visiting our team in Utah I drove him through it. It is fun to see how a project of this magnitude can make a difference in so many people's daily commutes. It's hard to imagine what this part of Salt Lake City would look like without this project."

After several years at MK Centennial, she joined BRW Engineering for a number of years, where her work included Utah Transit Authority's East-West TRAX Line Concept Design. She then joined Project Engineering Consultants, opening the firm's Utah office and overseeing its traffic signal and ITS departments.

Finding a Transportation Niche

After 20 years in the industry, O'Neill felt it was time to spread her wings and start her own company. She launched O'Neill & Company with a relatively straightforward objective: provide Utah agencies and municipalities with dependable, specialized transportation engineering services.

Traffic engineering quickly became a defining strength. The company developed capabilities encompassing traffic signals and traffic operations, roadway design, transportation planning, ITS, highway and roadway lighting, civil/site design, and related services.

The approach proved successful in a Utah market experiencing rapid population growth and increasingly complex transportation demands.

Perhaps no statistic illustrates the firm's impact better than its work with traffic signals. Since 2012, O'Neill & Company has designed more than 400 signals, concepts, and pedestrian improvement projects throughout Utah for UDOT, counties, and municipalities. Its portfolio also includes corridor-wide signal

Traffic signal at SR-193/4375 West intersection in West Point.



synchronization projects for Salt Lake City, Salt Lake County, and roadway-lighting corridors throughout the state.

That work has ranged from relatively conventional intersection improvements to specialized solutions tailored to unusual transportation challenges.

At the entrance to Arches National Park, for example, the firm designed improvements to the intersection of US-191 and Arches National Park Road following a fatal crash in 2016. The solution incorporated a High-T traffic signal that allows southbound US-191 through traffic to continue without stopping while restructuring turning movements to reduce dangerous crossing conflicts.

In Morgan, O'Neill was responsible for the city's first traffic signal, located at SR-66 (300 North) and the I-84 eastbound ramps. The firm provided complete plans, specifications and estimates, along with coordination involving utilities, environmental requirements, right-of-way and traffic and safety certifications.

Another recent assignment is UDOT's SR-132 improvements between milepost 38.1 and Nebo Loop Road near Nephi. The approximately one-mile project includes a new passing lane, widened shoulders, left-turn storage and intersection upgrades designed to improve traffic movement and safety along the corridor.

Other work has included a pedestrian hybrid beacon at SR-193 and 4375 West in West Point, along with pedestrian and

school-zone improvements in communities across Utah.

That project history helped transform what began as a small, specialized engineering practice into a recognized transportation consultant.

O'Neill expressed gratitude for the opportunity to work for UDOT, a client she believes is one of the most innovative and technologically savvy DOTs in the nation.

"UDOT is very innovative and always on the cutting edge of technology," she said. "They are not afraid to try something new. That mindset has served them well as they have developed processes and contracting methods that are more efficient. Other states look to UDOT to learn—it's an exciting client to work for."

A Strategic Combination

The August acquisition creates an interesting fit because Horner & Shifrin is simultaneously much larger and considerably broader than O'Neill & Company, yet transportation engineering is already its largest practice.

Founded in St. Louis in 1933, Horner & Shifrin has grown into a full-service engineering organization with more than 200 employees. Its expertise extends across transportation, water and wastewater, stormwater and flood protection, building systems, environmental planning and permitting, surveying, civil/site development and geospatial mapping.

The company also brings an ownership

model that distinguishes it from many large engineering organizations. Horner & Shifrin has operated as a 100% employee-owned company through an Employee Stock Ownership Plan (ESOP) since 1987.

For O’Neill, joining the larger organization expands what her Utah team can offer without leaving behind the local relationships that helped build the company.

“The Horner & Shifrin team is an incredibly talented group who share my same values,” she said. “They are a great group of professionals who strive every day to better their lives and others through their projects.”

“The O’Neill & Company team has built something exceptional in Utah. They have a reputation for technical rigor, client trust, and deep knowledge of UDOT’s programs. We are proud to have them representing the Horner & Shifrin brand in the West.”

— Curt Peitzman

While it was gratifying to know that a company she built from the ground up had developed a strong enough reputation to be acquired by a larger firm, O’Neill said the long-term security the deal provides for the firm’s nine employees was ultimately more important. “I knew my team trusted me, but I needed to make sure this would be a good fit for everyone.”

The O’Neill & Company name has been retired, but the people responsible for its projects remain in place. More importantly, the Utah office can now tap engineering disciplines that O’Neill previously would have needed to subcontract. A transportation assignment that begins with traffic operations or signal design, for example, can potentially draw upon Horner & Shifrin’s expertise in roadway

and bridge design, structural engineering, environmental services, surveying, water resources and construction-related services.

That expanded bench should also allow the Utah office to compete for larger and more complex assignments.

“Being part of a larger firm will provide different experiences and allow us to bring in bigger projects,” O’Neill added. “There is a lot to be optimistic about.”

For Horner & Shifrin, the benefits run in the opposite direction. Rather than establishing a Utah office from scratch, the company enters the market with an experienced transportation team, a 14-year operating history, and extensive relationships with UDOT and local government agencies.

The acquisition also adds specialized expertise in traffic signal design, ITS, roadway lighting and signal synchronization to a Horner & Shifrin transportation practice already experienced in roadway and bridge design, roadway safety, major intersections and design-build delivery.

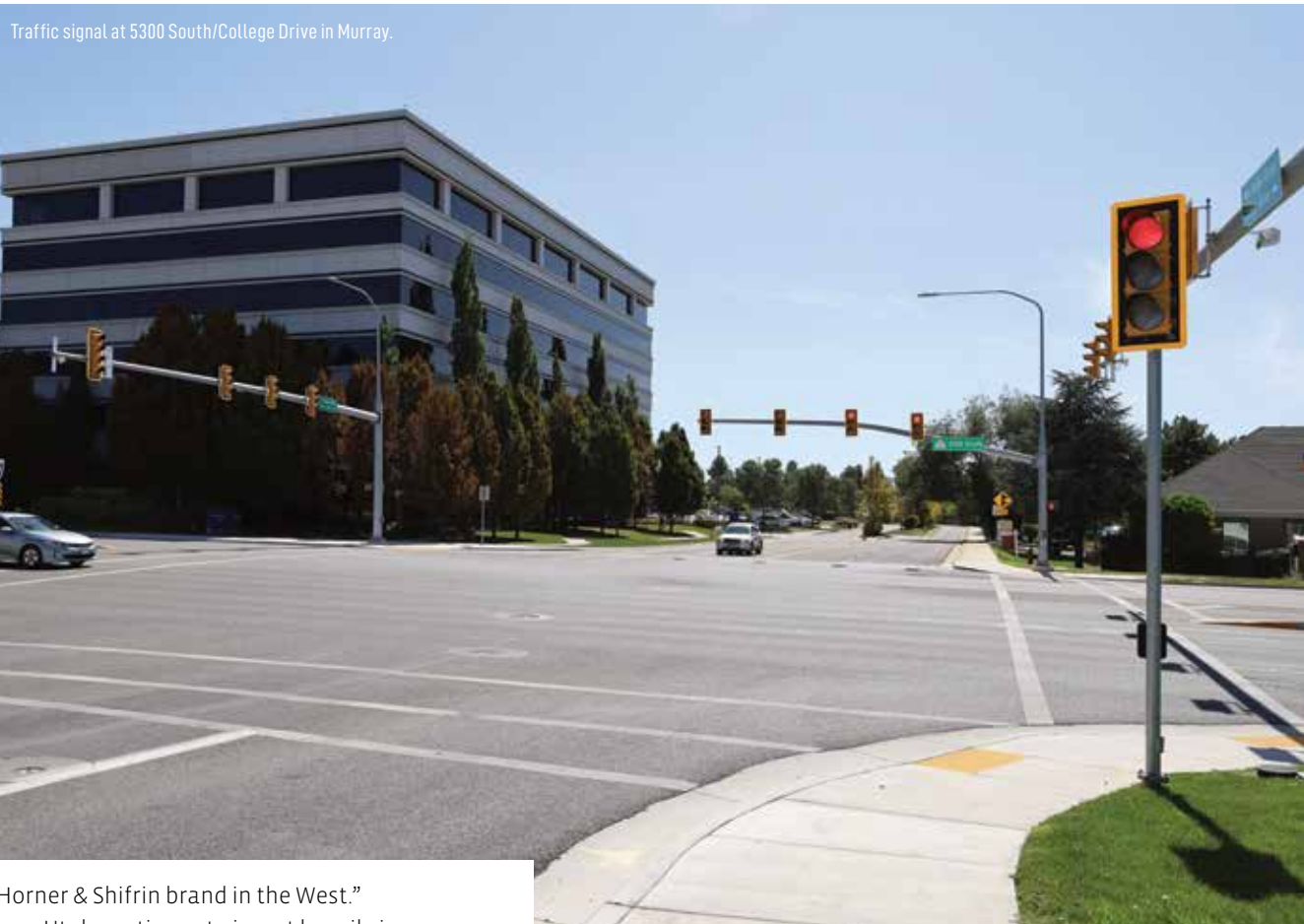
Looking West

Beyond the immediate combination of two engineering practices, the deal represents a significant geographic move for Horner & Shifrin.

The Salt Lake City operation is the firm’s first office in the West, extending a footprint previously concentrated in Missouri, Illinois and Arkansas. Rather than viewing Utah simply as another branch location, Horner & Shifrin has described the acquisition as establishing its West Region presence, suggesting Salt Lake City could ultimately become a platform for additional growth throughout the region.

“This acquisition reflects our long-term commitment to growing our national presence in markets where infrastructure investment is accelerating,” said Curt Peitzman, President of Horner & Shifrin. “The O’Neill & Company team has built something exceptional in Utah. They have a reputation for technical rigor, client trust, and deep knowledge of UDOT’s programs. We are proud to have them representing the

Traffic signal at 5300 South/College Drive in Murray.



Horner & Shifrin brand in the West.” Utah continues to invest heavily in highways, intersections, transit connections and other infrastructure to accommodate population and economic growth. Looking ahead, the 2034 Olympic Winter Games will place additional emphasis on transportation capacity, mobility and infrastructure throughout the Wasatch Front and surrounding communities.

For O’Neill, the transaction represents a significant evolution of the company she started in 2012. The specialized transportation practice remains intact but now operates with the resources and full-service capabilities of a much larger organization behind it.

For Horner & Shifrin, the acquisition provides something equally difficult to build organically: an established Utah team with local knowledge, longstanding client relationships and a portfolio that includes hundreds of traffic signals and transportation improvements across the state.

What began 14 years ago as a Utah engineering startup has consequently become something larger—the foundation for a 93-year-old engineering firm’s move into the western United States. ■

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Impactful Acquisition

Galloway continues aggressive growth strategy in Utah with acquisition of civil firm Anderson Wahlen & Associates.

By Bradley Fullmer

Denver-headquartered Galloway & Company remains bullish on the Utah market, as evidenced by its recent acquisition of civil engineering firm Anderson Wahlen & Associates (AWA) of Salt Lake City, which adds significant talent and resources to the firm's expanding presence in the Beehive State.

Galloway now has 110 employees in Utah spread out among five offices, including 80 people in two Salt Lake City locations with this acquisition. Other locations include Farmington, Pleasant Grove, and St. George—giving the firm a local presence in four of the state's five largest counties.

Bringing AWA into the fold is widely viewed internally as a major boon as it brings together two respected design firms with a shared focus on land development, engineering excellence, and long-term client relationships.

“We are proud to welcome AWA to Galloway—this partnership reflects the kind of strategic growth we believe in,” said Dave Guetig, Galloway CEO. “We are bringing together organizations with strong cultural alignment, complementary

strengths, and a shared commitment to excellence. AWA has built an outstanding reputation and team, and we are excited to partner in their continued success as we expand opportunities for our teams, clients, and communities.”

The transaction became effective July 1 after a nine-month process and strengthens the firm's multidisciplinary architecture and engineering platform throughout the Mountain West.

“The Anderson Wahlen team brings an exceptionally deep bench of talent that really tailors toward large-scale commercial, industrial and mixed-use development all along the Intermountain West,” said Carl Schmidtlein, President-Development & Infrastructure Services for Galloway. “Beyond their technical capabilities, they bring a portfolio of long-term client relationships in the Utah region—and the surrounding states, for that matter—that they have established over the years. They immediately elevate our capacity to handle many of the complex entitlements and site development challenges in one of the faster-growing regions of the country.”

“We are bringing together organizations with strong cultural alignment, complementary strengths, and a shared commitment to excellence.”

— Dave Guetig

Since being founded in 1982 in Denver, Galloway has built a robust, multidisciplinary firm that now boasts 18 offices nationwide in 10 states, with approximately 450 professionals with expertise in architecture, engineering, surveying, planning, and landscape architecture services. The firm is licensed in all 50 states and continues to expand through strategic acquisitions of firms that complement its technical capabilities and culture.

Galloway has nearly 15 years in Utah, having opened its Salt Lake office in February 2013 with three principals who had previously worked for another local firm. Current Utah Regional Manager, Christian Michaelson, came aboard in November 2018 and has been instrumental in the firm's growth, including the acquisition of JRCA Architects in 2021.

AWA Utah Roots Date Back to Great Basin Engineering in '58

Anderson Wahlen & Associates traces its origins to Great Basin Engineering, founded by Jay Anderson in 1958. The firm initially specialized in civil engineering and land surveying for both residential and commercial developments.

Wahlen said joining Galloway helps ensure a robust, long-term future for its employees.

“Joining Galloway marks an important milestone in AWA's evolution and positions



Bret Wahlen



Jeff Randall



Dave Guetig



Carl Schmidtlein



Christian Michaelson



Boyd Preece

our team for continued long-term success,” said Wahlen. “What made this decision compelling was not only the strategic fit of our services and markets, but also the deep alignment in our values, culture, and commitment to legacy. Together, we are strengthening our ability to serve clients, invest in our people, and extend our impact in the communities we support.”

Schmidtlein also emphasized the importance of having a culture that meshes well.

“Really, the culture and having similar values—and the fact that AWA has always had a very people-oriented culture and they use the word ‘legacy’ a lot at their firm—that’s something that has always been part of Galloway’s DNA: ensuring that we have a legacy company for years to come,” he said. “It was such a great fit initially when we started the conversations—if that hadn’t been there, the conversations would have ended pretty quickly. For us, the alignment of being a people-oriented business was so important, as it is in any professional services industry. Since the merger, it’s been evident that we share a lot of those similar values and culture.”

Being a True A/E Firm Offers Clients Unique In-House Benefits

Galloway's Utah office was primarily a civil engineering firm prior to acquiring JRCA five years ago. It now boasts in-house architecture, interior design, civil engineering, surveying, and structural engineering services, making it a unique, multidisciplinary design firm within the state. Having established locations in four major counties was also part of its strategic vision.

“We were very purposeful in being in Davis County, Salt Lake County and Utah County, and then helping to support the St. George area,” said Schmidtlein. “So, now Utah is really one of Galloway’s largest and most complete regional markets. Even though we have 18 different offices across the country, we’ve got quite a [large] staff now in Utah.”

The purpose of having a firm with both architecture and engineering in-house benefits certain clients that may value more of a “one-stop shop” experience, something that is unique to Utah.

“We are a little bit unique—in the West, there aren’t as many multidisciplinary firms

“We are a more cutting-edge firm in that regard [...] having all those pieces to give our clients that unified, locally based team that can handle the design lifecycle from initial survey and feasibility all the way through vertical architectural design.”

— Carl Schmidtlein

like Galloway as you would find in some of the more mature markets on the East Coast, the Southeast region of the country, and even the Midwest region,” said Schmidtlein. “We are a more cutting-edge firm in that regard [...] having all those pieces to give our clients that unified, locally based team that can handle the design lifecycle from initial survey and feasibility all the way through vertical architectural design.”

That said, Galloway also values its relationships with local A/E firms and seeks to include different firms on various projects depending on what fits a client's needs best.

“We still partner and value our relationships with other consultant partners,” said Schmidtlein. “It doesn’t always mean everything needs to be in-house at Galloway. We can provide that service, and there are a lot of advantages associated with that, but we also recognize that we always want to put together the right team for the client. Oftentimes, that may mean partnering with valued and trusted partners and other consultants that we have great relationships with.” ■



doTERRA Campus in Pleasant Grove. (photos courtesy Galloway & Co.)



The Aster in Salt Lake City.

2026 Top Utah Engineering Firm Rankings

Special Thanks to
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Utah Construction + Design is pleased to publish its annual list of the Top Engineering Firms in Utah, based on revenues generated in 2025 by a firm’s Utah offices. Projects outside of Utah that are billed to Utah-based offices are included. Firms who chose not to disclose revenues (DND) are listed after revenue-disclosing firms by number of employees. Every effort was made to contact respective firms and encourage participation.

TOP OVERALL ENGINEERING FIRMS (RANKED BY TOTAL OFFICE REVENUES; ALL DISCIPLINES)

Firm Name Address (HQ) Phone / Website	Year Est. #of Employees Title Years at Firm	Top Executive	Largest Utah Project to Finish in 2025 Largest Utah Project to Break Ground in 2026	Annual Revenues (millions)			Top Markets	%
				2025	2024	2023		
1. Horrocks Engineers 2162 W Grove Parkway Pleasant Grove, UT 84062 208-761-1695 horrocks.com	1968 627	Bryan Foote President 35	I-15 5600 S PDB — Roy I-15 MP 6-8 — St. George	\$256.0	\$206.0	\$192.0	Highway Mass Transit & Rail Telecomm Civic/Inst.	67% 15% 6% 4%
2. Lynk Engineers 324 S State St., 400 Salt Lake City, UT 84111 801-791-7800 lynkengineers.com	2026 250	Chris Kobayashi CEO 20	Tooele School District Deseret Peak High School — Tooele University of Utah Eccles Health Campus and Eccles Hospital — West Valley City	\$61.5	\$47.3	\$40.7	Other	100%
3. AECOM 756 E Winchester ST., #400 Salt Lake City, UT 84107 801-904-4000 aecom.com	1990 156	Matt Crane Reg. Chief Exec. 10	Wolf Creek Reuse Water Pond Project — Eden 2100 North: Mountain View Corridor to I-15 — Lehi	\$51.6	\$42.0	\$39.1	Water Transportation Wastewater Office	31% 28% 25% 6%
4. Sunrise Engineering 25 E 500 N Fillmore, UT 84631 435-743-6151 sunrise-eng.com	1978 314	Greg Potter President/CEO 33	DND DND	\$47.5	\$36.0	\$31.4	Water Other Wastewater Highway	30% 23% 15% 14%
5. Kimley-Horn 111 E Broadway, #600 Salt Lake City, UT 84111 385-212-3176 kimley-horn.com	1967 149	Brent Crowther Sr. Vice President 25	Wasatch Peaks Ranch — Peterson UDOT Utah Trail Network Four Corners Planning Study — Bluff	\$45.8	\$39.3	\$33.6	Highway Transit Resort/Hosp. Comm/Retail	33% 21% 10% 7%
6. Resolut 181 E 5600 South, #200 Murray, UT 84107 801-530-3148 resolutgroup.com	1972 220	Jeff Watkins CEO 34	Intermountain LDS Replacement Hospital — Salt Lake City	\$42.5	\$39.0	\$25.1	K-12 Healthcare Ecclesiastical Higher Ed	32% 30% 15% 10%
7. WSP USA Inc. 10876 S River Front Pkwy, #250 South Jordan, UT 84095 385-274-5800 wsp.com	1985 220	Shannon Bond Local Bus. Leader 12	UDOT Mt. View Corridor 2100N to Porter Rockwell Design-Build — Bluffdale/Herriman UDOT Cottonwood Canyons Program Management — Big & Little Cottonwood Canyons	\$40.6	\$59.9	\$70.2	Highway Energy Mining Transit	30% 25% 23% 18%
8. Bowen Collins & Associates 154 E 14075 S Draper, UT 84020 801-495-2224 bowencollins.com	1997 114	Jason Luettinger President 29	Sevier Bridge Dam Rehabilitation Project — Delta Rosecrest Pipeline Capacity Upgrades — Herriman	\$35.0	\$28.7	\$27.4	Water Wastewater Environmental	71% 26% 3%

2026 Top Utah Engineering Firm Rankings

Firm Name Address (HQ) Phone / Website	Year Est. #of Employees Title Years at Firm	Top Executive	Largest Utah Project to Finish in 2025 Largest Utah Project to Break Ground in 2026	Annual Revenues (millions)			Top Markets	%
				2025	2024	2023		
9. Jones & DeMille Engineering 1535 S 100 W Richfield, UT 84701 435-896-8266 jonesanddemille.com	1982 186	Brian Barton CEO 26	Richfield City Wastewater Improvements — Richfield Hanksville Irrigation Diversion — Hanksville	\$30.3	\$27.5	\$25.4	Highway Water Wastewater Comm/Retail	40% 30% 20% 10%
10. Ensign Engineering 45 W Sego Lily Drive, #500 Sandy, UT 84070 801-255-0529 ensignutah.com	1987 166	Jared Ford President 19	Army Reserve Center at Camp Williams — Bluffdale The Commons at Herriman Town Center — Herriman	\$30.0	\$27.5	\$25.0	Multi-Family Comm/Retail Water Industrial	30% 17% 16% 9%
11. Michael Baker International 7090 Union Park Ave, #500 Midvale, UT 84047 801-352-5981 mbakerintl.com	1940 110	Michael Arens Vice President 22	Bangerter S. Design-Build and Bangerter 4700 S. Progressive Design-Build SR-194; Lehi 2100 North Freeway — Lehi	\$27.0	\$22.0	\$20.5	Highway Federal	50% 50%
12. J-U-B Engineers 240 W Center, #200 Orem, UT 84057 801-226-0393 jub.com	1954 190	Brian Smith President/CEO 31	100 West Corridor — Logan UDOT Santaquin Interchange — Santaquin	\$24.1	\$16.0	\$11.6	Water Highway Wastewater Civic/Inst.	30% 25% 20% 10%
13. Terracon 6952 High Tech Dr STE B Midvale, UT 84047 801-341-8876 terracon.com	1980 120	Ryan Merkley Director 5	10 Gate Expansion/Extension of B at SLC Airport — Salt Lake City 2100 North Freeway Interchange — Lehi	\$23.1	\$24.6	\$20.0	Comm/Retail Highway Data Centers Telecomm	36% 20% 16% 11%
14. Reaveley Engineers 250 E 200 S #1000 Salt Lake City, UT 84111 801-486-3883 reaveley.com	1972 49	Dorian Adams President 29	Tooele School District Deseret Peak High School — Tooele University of Utah Health Eccles Health Campus & Eccles Hospital — Salt Lake City	\$11.4	\$9.6	\$11.1	Healthcare Civic/Inst. Other K-12	40% 15% 12% 10%
15. Stanley Consultants 6975 Union Park Ave, #300 Salt Lake City, UT 84047 801-559-4600 stanleyconsultants.com	1996 40	Mark Freeman Vice President 25	I-80 Bridge Replacements — Riverdale I-84 / US-89 Interchange Reconstruction — Ogden	\$10.2	\$13.2	\$15.3	Highway Buildings Water	94% 5% 1%
16. Meridian Engineering 1628 W 11010 S #102 South Jordan, UT 84095 801-652-5715 meiamerica.com	1997 41	Michael Nadeau President/CEO 24	Mountain View Corridor — Salt Lake County 2100 North — Saratoga	\$9.0	\$7.2	\$6.6	Highway K-12 Higher Ed Comm/Retail	52% 26% 6% 5%
17. Psomas 11456 S Temple Drive, #200 South Jordan, UT 84095 801-270-5777 psomas.com	1946 71	Travis Perry Vice President 20	River's Edge on University — Provo EMT Meta Data Center — Eagle Mountain	\$8.0	\$7.5	\$7.3	Data Centers Underground Civic/Inst. Highway	23% 20% 19% 10%
18. Raba Kistner 7005 S High Tech Drive Midvale, UT 84047 801-653-3120 rkci.com	1968 35 16	Clark Prothero COO	I-215, SR-201 to North Temple — Salt Lake City US-6 and US-89 Grade Separation — Utah County	\$4.9	\$4.4	\$10.4	Highway	100%

2026 Top Utah Engineering Firm Rankings

Firm Name Address (HQ) Phone / Website	Year Est. # of Employees Years at Firm	Top Executive Title	Largest Utah Project to Finish in 2025 Largest Utah Project to Break Ground in 2026	Annual Revenues (millions)			Top Markets	%
				2025	2024	2023		
FIRMS THAT DID NOT DISCLOSE REVENUES (Listed by # of employees)								
BHB Structural 2766 S Main Street Salt Lake City, UT 84115 801-355-5656 bhbstructural.com	2002	Chris Hofheins	The Church of Jesus Christ of Latter-day Saints	DND	DND	DND	K-12	19%
	53	Sr. Principal	Syracuse Temple — Syracuse				Industrial	14%
		24	Salt Lake City School District Highland High School — Salt Lake City				Resort/Hosp.	12%
							Institutional	12%
Talisman Civil Consultants 1588 S Main Street #200 Salt Lake City, UT 84115 801-743-1300 talismancivil.com	2016	Ryan Cathey	Snowbasin Legend Well — Weber County	DND	DND	DND	Resort/Hosp.	30%
	44	Principal-in-Charge	Powder Mountain Village Clubhouse — Eden				Underground	20%
		10					Gas and Electric	20%
							Higher Ed	10%
ARW Engineers 1594 W Park Circle Ogden, UT 84404 801-782-6008 arwengineers.com	1969	Justin Naser	Spanish Fork Recreation Center — Spanish Fork	DND	DND	DND	Civic/Inst.	19%
	39	President/CEO	The Slope — Heber City				Comm/Retail	17%
		28					Office	15%
							Multi-Family	15%
Dunn Associates, Inc. 380 W 800 S Salt Lake City, UT 84101 801-575-8877 dunn-se.com	1995	David Dunn	Utah Mammoth Practice Facility — Sandy	DND	DND	DND	Multi-Family	20%
	37	CEO	Cormont Deer Valley — Park City				Industrial	20%
		21					Resort/Hosp.	15%
							Civic/Inst.	10%
Calder Richards Structural 1805 S Redwood Road, #102 Salt Lake City, UT 84104 801-466-1699 crceng.com	2005	Scott Wilson	Journeyman Apartments — Salt Lake City	DND	DND	DND	K-12	50%
	29	Managing Partner	West High School Reconstruction — Salt Lake City				Civic/Inst.	20%
		26					Resort/Hosp.	10%
							Multi-Family	10%
LERA Consulting SE 7984 S 1300 E Sandy, UT 84094 385-246-2248 lera.com	2024	Jason Stone	Convergence Hall at The Point	DND	DND	DND	Higher Ed	25%
	5	SLC Office Director					Commercial	25%
		24					Healthcare	20%
							Other	15%



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TOP CIVIL ENGINEERING FIRMS

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11.	Terracon 6952 High Tech Dr STE B Midvale, UT 84047 801-341-8876 terracon.com	1980 120	Ryan Merkley Director 5	10 Gate Expansion/Extension of B at SLC Airport — Salt Lake City 2100 North Freeway Interchange — Lehi	\$23.1	\$24.6	\$20.0	Comm/Retail Highway Data Centers Telecomm	36% 20% 16% 11%
12.	Stanley Consultants 6975 Union Park Ave, #300 Salt Lake City, UT 84047 801-559-4600 stanleyconsultants.com	1996 40	Mark Freeman Vice President 25	I-80 Bridge Replacements — Riverdale I-84 / US-89 Interchange Reconstruction — Ogden	\$10.2	\$13.2	\$15.3	Highway Buildings Water	94% 5% 1%
13.	Meridian Engineering 1628 W 11010 S #102 South Jordan, UT 84095 801-652-5715 meiamerica.com	1997 41	Michael Nadeau President/CEO 24	Mountain View Corridor — Salt Lake County 2100 North — Saratoga	\$9.0	\$7.2	\$6.6	Highway K-12 Higher Ed Comm/Retail	52% 26% 6% 5%
14.	Psomas 11456 S Temple Drive, #200 South Jordan, UT 84095 801-270-5777 psomas.com	1946 71	Travis Perry Vice President 20	River's Edge on University — Provo EMT Meta Data Center — Eagle Mountain	\$8.0	\$7.5	\$7.3	Data Centers Underground Civic/Inst. Highway	23% 20% 19% 10%
15.	Raba Kistner 7005 S High Tech Drive Midvale, UT 84047 801-653-3120 rkci.com	1968 35	Clark Prothero COO 16	I-215, SR-201 to North Temple — Salt Lake City US-6 and US-89 Grade Separation — Utah County	\$4.9	\$4.4	\$10.4	Highway	100%

FIRMS THAT DID NOT DISCLOSE REVENUES (Listed by # of employees)

Talisman Civil Consultants 1588 S Main Street #200 Salt Lake City, UT 84115 801-743-1300 talismancivil.com	2016 44	Ryan Cathey Principal-in-Charge 10	Snowbasin Legend Well — Weber County Powder Mountain Village Clubhouse — Eden	DND	DND	DND	Resort/Hosp. Underground Gas and Electric Higher Ed	30% 20% 20% 10%
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Top MEP (Mechanical + Electrical) Engineering Firms

	Firm Name Address (HQ) Phone / Website	Year Est. # of Employees	Top Executive Title Years at Firm	Largest Utah Project to Finish in 2025 Largest Utah Project to Break Ground in 2026	Annual Revenues (millions)			Top Markets	%
					2025	2024	2023		
1.	Lynk Engineers 324 S State St., 400 Salt Lake City, UT 84111 801-791-7800 lynkengineers.com	2026 250	Chris Kobayashi CEO 20	Tooele School District Deseret Peak High School — Tooele University of Utah Eccles Health Campus and Eccles Hospital — West Valley City	\$61.5	\$47.3	\$40.7	Other	100%
2.	Resolut 181 E 5600 South, #200 Murray, UT 84107 801-530-3148 resolutgroup.com	1972 220	Jeff Watkins CEO 34	Intermountain LDS Replacement Hospital — Salt Lake City	\$42.5	\$39.0	\$25.1	K-12 Healthcare Ecclesiastical Higher Ed	32% 30% 15% 10%

TOP STRUCTURAL ENGINEERING FIRMS

1.	Reaveley Engineers 250 E 200 S #1000 Salt Lake City, UT 84111 801-486-3883 reaveley.com	1972 49	Dorian Adams President 29	Tooele School District Deseret Peak High School — Tooele University of Utah Health Eccles Health Campus & Eccles Hospital — Salt Lake City	\$11.4	\$9.6	\$11.1	Healthcare Civic/Inst. Other K-12	40% 15% 12% 10%
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FIRMS THAT DID NOT DISCLOSE UTAH OFFICE REVENUE (Listed by # of employees)

BHB Structural 2766 S Main Street Salt Lake City, UT 84115 801-355-5656 bhbstructural.com	2002 53	Chris Hofheins Senior Principal 24	The Church of Jesus Christ of Latter-day Saints Syracuse Temple — Syracuse Salt Lake City School District Highland High School — Salt Lake City	DND	DND	DND	K-12 Industrial Resort/Hosp. Institutional	19% 14% 12% 12%
ARW Engineers 1594 W Park Circle Ogden, UT 84404 801-782-6008 arwengineers.com	1969 39	Justin Naser President/CEO 28	Spanish Fork Recreation Center — Spanish Fork The Slope — Heber City	DND	DND	DND	Civic/Inst. Comm/Retail Office Multi-Family	19% 17% 15% 15%
Dunn Associates, Inc. 380 W 800 S Salt Lake City, UT 84101 801-575-8877 dunn-se.com	1995 37	David Dunn CEO 21	Utah Mammoth Practice Facility — Sandy Cormont Deer Valley — Park City	DND	DND	DND	Multi-Family Industrial Resort/Hosp. Civic/Inst.	20% 20% 15% 10%
Calder Richards Engineers 1805 S Redwood Road, #102 Salt Lake City, UT 84104 801-466-1699 crceng.com	2005 29	Scott Wilson Managing Partner 26	Journeyman Apartments — Salt Lake City West High School Reconstruction — Salt Lake City	DND	DND	DND	K-12 Civic/Inst. Resort/Hosp. Multi-Family	50% 20% 10% 10%
LERA Consulting SE 7984 S 1300 E Sandy, UT 84094 385-246-2248 lera.com	2024 5	Jason Stone SLC Office Director 24	Convergence Hall at The Point	DND	DND	DND	Higher Ed Commercial Healthcare Other	25% 25% 20% 15%



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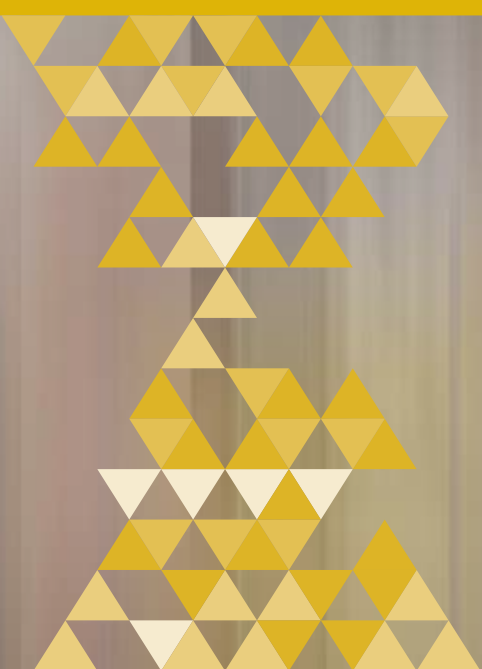
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