

Bright Days Ahead for Colvin

Mechanical engineering firm noted for its cutting edge designs and focus on environmental efficiency.

By Brad Fullmer

Colvin Engineering's reputation as one of Utah's foremost mechanical engineering experts – and a firm willing to push the envelope on cutting-edge energy efficient design – was partly born out of founder Tom Colvin's hard knock experiences growing up on a farm in rural Nebraska.

The firm's celebration of its 30th anniversary February 14, 2016, is notable in that it marks the first milestone year in its history since Colvin retired and handed the reins over to three owners/partners – President Steve Connor, Vice President Roger Hamlet and Vice President Bret Christiansen.

Colvin, 67, officially sold the business September 1, 2012, but still serves as a Senior Consultant and works on a handful of projects over the course of the year when he's in town. He is totally content sitting back and watching the continuing success of the firm and the smoothness of the leadership transition.

He admits it's been a long journey from the corn and alfalfa fields in a town with a population of 500 outside North Platte. The one constant between the farm and the engineering office is that both require a person to abandon the concept of working 'banker's hours'.

"Hard work...it's not related to a certain amount of hours per day – if there is a job to be done, you work until you're done," said Colvin. "If it means longer hours, that's what you do. I was used to time deadlines related to weather. You have an urgency to get things done."

Colvin also learned at a young age the



From left to right: Bret Christiansen, Stephen Connor, Tom Colvin, and Roger Hamlet. Colvin recently handed the reins over to these three owners/partners as the firm celebrates 30 years.

value of constructability and was piqued by how things were assembled – a by-product of continually fixing a piece of farm machinery or equipment that seemed to break down far too often for his tastes. It made him ponder a career in engineering.

"I was going to design better farm machinery because it broke every day and I had to fix it," he said. "That gave me an interest in thinking that you can build something better."

"Tom had a practical knack for design – growing up on a farm had something to do with that," said Connor, a 25-year veteran of Colvin Engineering and its

current President. "He has a strong grasp of engineering principles. His combination of creativity and practicality was how he most influenced me."

Hamlet echoed Connor regarding Colvin's innovative approach to projects.

"Tom was an upstanding, good guy...I liked the kinds of engineering they did," said Hamlet, a '91 graduate who joined the firm in March '98 after seven years doing industrial plants and research facilities for a Swiss consulting engineering firm in Basel, Switzerland and Boulder, Colorado. "Every project we would engineer as a one-of-a-kind project. It would require a lot of thinking."



The UVU Student Life Center and S.J. Quinney College of Law at the University of Utah showcase some of Colvin's higher education work.

The Long, Winding Road

Colvin worked on his grandfather's farm in summers during high school and college, and it's a profession he has a deep appreciation for, but one he ultimately felt was too risky and, frankly, unpredictable.

"The only reason I didn't go into farming was it was so much of a gamble," said Colvin, who has a younger brother who still runs a farm outside North Platte about a mile from where they grew up. "You have a lot of money on the line all the time. If the weather is bad, or the price of corn goes down or the cost of beef goes down, you lost. There are a lot of factors beyond your control."

"It's a hard life," he continued. "You don't have a lot of control of time – you can't just take off, unless it's the middle of winter. During the growing season there is always something to do."

Colvin ultimately earned a Bachelor of Mechanical Engineering from the University of Nebraska in 1970 and spent two years as an industrial engineer with Dow Chemical Corp. in Denver, before moving into consulting engineering with BHCD Engineers in 1972. He was made a Principal and Design Division Manager by '76 and moved to Salt Lake to run a branch office from '83 to '86. As the company stumbled during rough economic conditions in Denver, his three partners in Denver wanted him to move back and



assume the role as President.

"I didn't want to move again, and I liked Salt Lake better than Denver; I decided to stay here. I resigned and started Colvin in February '86," Colvin said. "I knew that if I didn't make it, it was nobody else's fault, and I wouldn't be dragged down by people I only saw once a month."

Connor grew up in Maryland in a Washington, D.C. suburb and earned a Bachelor of Mechanical Engineering at

Bucknell (Penn.) University in '84, where he also played basketball as a 6' 11" center.

"I really enjoyed it, had a great time. A lot of (former teammates) are still my closest friends. But I knew that my future was not basketball, it was engineering."

Connor moved to Utah to work for Hercules, mainly because he said it was his only job offer at the time, and he couldn't fathom moving back in with his parents until an opportunity closer to home came about. >>



“It was unheard of...it wasn’t part of my reality,” he laughed. Connor worked at Hercules from ’84 to ’91 – met Colvin in ’91 on a field trip of One Utah Center through a University of Utah HVAC design course and the two bonded over a shared interest in energy efficiency.

“Just the fact he and I were in the same field trip showed me he was interested in energy,” said Colvin. “That made him more attractive to hire. Steve has the ability to look at the big picture and look for the positive things of what the project has going on. It helps him not get bogged down by the finger pointing that happens in the industry. He’s about finding solutions and has a strong ability to bring people together.”

“One of Tom’s hallmarks is creativity,” said Connor. “He is always trying to figure out a way to do it better. Just because it worked the last time doesn’t mean we shouldn’t try and do it better. What is the best, most cost-effective solution for the owner, and what is the simplest way to communicate that to the contractor so they can actually build it.”

Forward Thinking

Colvin and Connor’s interest in sustainability and energy efficiency – as

well as the shared passion of Hamlet and Christiansen – are evident in the types of projects the firm designs. It includes everything from state-of-the-art K-12 schools and higher education facilities to high-end office and municipal complexes, high-tech data centers, and a host of other commercial and industrial projects.

Connor was the first engineer in Utah in 2001 to become a LEED Accredited Professional (AP) – he was in a group of 8 people who took the test; the other 7 were architects. He appreciates what LEED brings to the table, even if it is sometimes looked at as little more than a costly added expense by owners in certain markets. He believes that it’s ‘peaked’ in some respects, now that owners have a much better grasp of sustainable design and construction.

“(LEED) has always been complicated, but it’s always been a badge of honor,” Connor said. “It was the first (sustainable) program accepted and adopted by the industry. You knew if a project was LEED Gold or Platinum, (the team) went through a procedure. There is still value in that. I’m just seeing the client saying ‘I don’t need that badge.’”

Connor said currently the majority of projects that aim for LEED certification

are public facilities – as much as an 80-20 percentage vs. privately funded projects.

Beyond LEED is Net Zero, the ‘next step’ towards greater sustainability from the built environment.

The firm was the mechanical engineer on the Salt Lake Public Safety Building (UC&D’s 2013 ‘Project of the Year’) – a LEED Platinum project that was designed with Net Zero in mind, the first such public safety building in the nation to pursue such an ambitious rating.

Connor sees Net Zero in a mostly positive light, but is quick to caution that it can be difficult to define and achieve results where the end result is indeed a building that produces as much energy as it consumes.

“When you look at driving it to zero some weird things happen,” he said. “It becomes complicated and it’s much more difficult to define the terms and define success than it was when success was defined as LEED Silver. It wasn’t just about energy efficiency, but indoor environmental quality – low VOC paints and adhesives. That is why LEED was so transformative. The entire design and construction industry thinks differently because of LEED. I’m not discounting its continued value, but the curve was steep

and now we’ve kind of flattened out.”

“I think (LEED) was a good thing for the country in terms of having a program that gave incentive to building owners to build a better building,” added Colvin. “It’s not that we don’t know how (to be energy efficient), it’s how you do it cost-effectively. LEED also increased market demand for renewable energy sources. There was a greater need for a larger market for solar panels and other types of (renewable) products.

“The other program that is somewhat underrated or gets less (publicity) is the Energy Star program,” Colvin continued. “I think it’s a better gauge of how a building actually operates. LEED is based more on modeling and what a building will do; Energy Star is based on what you actually use. Energy Star is more effective and a simpler program.

Optimistic Outlook

With Utah’s economy flourishing and work in the A/E/C industry seemingly as busy as ever, Colvin Engineering’s leaders have a positive outlook for the firm’s future and its place in the Utah market. Work appears to be plentiful, for the immediate future at least.

The firm has yet to disclose revenues for UC&D’s annual ‘Top Utah Engineering Firms’ rankings, but based on the type and size and projects it designs, it is easy to assume Colvin would rank among the top three mechanical engineering firms with headquarters in the Beehive State.

“At the moment it’s going fine,” said Hamlet. “I’m glad to see more private money floating around out there. We don’t feel like we’ve got as good a line as we did in the late 90’s and early 2000’s...nowadays it seems like a six-month preview is about what we can get a confident feel for.”

“We had a great year in 2015 and we anticipate 2016 will be similar,” said Christiansen, who joined Colvin in 2002 so he could work on bigger, more challenging projects. “We have a great outlook for the future years and we’ll continue to chase notable projects along the Wasatch Front.”

“We’re pretty optimistic,” added Connor. “Utah has always been – I always use this expression – the parties aren’t as good, the hangovers aren’t as bad. We

don’t crash as hard; we don’t have the great boom. With Salt Lake and Utah’s vibrant economy, I think all of us design professionals are going to do well. I see a lot of growth occurring.”

One key issue in the entire equation – he cautioned – is Utah’s air quality problems.

“Of all the little, nagging issues we have here, air quality is a showstopper,”

said Connor. “We as (A/E/C) professionals – the entire design and construction community – we have a role to play in the increased efficiency and reduced (carbon) output in buildings. The biggest single issue is tailpipes – we won’t solve (air quality problem) until we stop burning gasoline in our cars. Buildings...are one part of the solution. The silver bullet is transportation.” ■

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