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Gender diversity is helping Tech Group respond to challenging projects, says Vice President Kim Morgan.

Calculating change

Millersville's Tech Group Inc. is breaking down engineering stereotypes — and growing fast

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In an industry known for its scientific precision, Tech Group Inc. looks for the abstract.

What does that mean? It's all about people, according to Kim Morgan, vice president of the Millersville civil engineering firm. "Engineers tend to be black and white in their thinking," she said.

Morgan makes a point to hire engineers that buck the "Ward Cleaver" white shirt and skinny black tie stereotype in her industry — a decision the company believes has brought innovative thinking and new business to the 60-employee firm.

Forty percent of the Tech Group's engineers are female — unusual in an industry where more than 90 percent of engineers are male, according to the American Society of Civil Engineers.

When Morgan graduated from West Virginia University in 1983, only five of her 180 classmates were women. The Society of Civil Engineers is hoping to change those statistics by educating young girls and the people who influence them.

The organization recently published the book, "Changing Our World: True Stories of Women Engineers." The 256-page tome, written by Sybil Hatch, a professional engineer and writer, profiles the careers of hundreds of female engineers working in various specialties such as biomedical and agricultural engineering.

"General high school girls don't know what engineers do. They think you have to be geeks or nerds," she said. The society donated 5,000 copies of Hatch's book to high school guidance counselors.

On construction sites, the stereotypes of a generation ago are still prevalent, "Construction workers still seem sur-

prised when we're there to fix the problem," Morgan said.

In her experience women and men equally handle the engineering aspects of the job from mapping sewer pipe to calculating the best storm water runoff systems. There are lots of loose strings and behind the scenes coordinating that women tend to handle with more ease, Morgan said, "Guys tend to look at the big picture, not the details," she said.

To find abstract thinkers, Morgan and Tech Group's owner Robert J. DiAiso look beyond work experience and college grades. Morgan said she does not ask for college transcripts when she's hiring a new engineer. "That just tells me if they got As and Bs," she said. Morgan said she seeks to see if potential employees can think on their feet.

"I want new employees that see 12 houses when they look at projects that should yield eight," Morgan explained.

Finding workers who can look at things from many angles continues to become more important in the business.

The best pieces of land in the 1980s had yet to be developed, Morgan explained. But as the Baltimore/Washington corridor — Tech Group's primary market — continues to urbanize, many potential project sites are picked over. At this point, every piece of property that's left has a problem, she said. Many projects have irrigation or environmental constraints. "You must be very creative in figuring out how to develop," she said.

Morgan, 47, gains a lot of her ideas from listening to the contractors and construction workers on job sites. "Land development is common sense," she said. Laborers with years of experience know the job, they can think on their feet. Overlooking those qualities would put your team at a disservice, she explained.

Tech Group has discovered the best way to outshine their competitors is by not approaching situations like an engi-

neering firm. Many traditional firms specialize their engineers to work on one specific aspect of their projects such as water and sewer lines, Morgan said. But Tech Group assigns their engineers to a project from start to finish, not just one part of it. "We do everything from soup to nuts," Morgan said.

The company tries to teach its engineers how to do everything from land planning to finishing construction. By doing this, it's easier to foresee how the project goes together and also creates a sense of responsibility, Morgan said. If you just work on the sewer lines, you might not foresee a landscaping or environmental problem that will affect those lines, she explained. By working through an entire project and learning all the parts, Tech Group has well rounded employees, she said.

The Millersville-based civil engineering group usually works on golf courses, housing developments, shopping centers and restaurants. The company plans to hire a combination of 10 new planners, engineers and surveyors this year to work on nearly 150 projects at the Millersville office and a satellite office in St. Mary's County. Tech Group does not disclose revenues but expects to grow 15 percent in 2006.

Companies often develop an unintentional hidden culture, explained Jeffrey Fox, author of *Secrets of Great Rainmakers: The Keys to Success and Wealth*. Often without trying word starts to spread and young people gravitate to companies that fit their personalities.

That's what happened to Morgan, who was the first woman at Tech Group. She had worked at firms with cultures she described as "dictated phoniness."

Tech Group was different: "I knew I was home," she said.