

Laying the Foundation: Celia Ruiz Tomlinson's rise to the top inspires others, earning her the Asian Women in Business award for entrepreneurial leadership last year. With her son Thomas Clay at the awarding ceremony.

## Celia Ruiz Tomlinson Engineering Her Success

By Tessie Ordoña Greenfield

“When you can find a path with no obstacle, it probably doesn't lead anywhere.” The saying rings true to a Filipina who came to the U.S. alone in 1968 with only an engineering diploma and \$300. She was responding to the need to fill a technical manpower shortage at that time. Unlike other Filipinas, however, she refused to work as a waitress, baby-sitter, secretary or even a draftsman. She was a civil engineer and come hell or high water, she would work as a civil engineer.

The path she took, blocked by one obstacle after another, brought Celia Ruiz Tomlinson to where she is today—the first registered female professional engineer in New Mexico; first female engineer to serve as member of the State Board of Registration of Professional Engineers and Surveyors, and first female minority to found, own and operate an engineering company.

Tomlinson is the president and CEO of Rhombus Professional Associates, which is based in Albuquerque, New Mexico. In 1983 she started Rhombus with \$2,000 of her own savings, rented surveying equipment and hired a laborer from an unemployment office. Rhombus, now a full service engineering and environmental consulting firm, has completed projects in Arizona, Arkansas, Louisiana, New York, Texas, Washington, Wyoming and New Mexico. Tomlinson markets their firm's services, negotiates with the clients (90 percent are architectural firms, land developers, mortgage companies) and puts together the project design team. Tom, her husband, who used to own a construction company, is Rhombus' general manager.

Several awards have attested to Tomlinson's achievements: Asian Women in Business Entrepreneurial Leadership (2002), Pamana Heritage for Personal Achievement by the Filipino American National Historical Society (FANHS) Rio Grande (2000), Trailblazer from New

Mexico Commission on the Status for Women (1999), New Mexico's Outstanding Woman (1993) and Minority Entrepreneur of the Year by the National Park Service (1992). She also was on the cover of *Woman Engineer Magazine* (1981).

Tomlinson chronicles her journey from her hometown in San Miguel, Bulacan, to her current home in New Mexico in her autobiography, *Don't Ever Tell Me You Can't*, published by Virtualbookworm.com in 2002 (available in *Filipinas* magazine). The motivational book, conceived 25 years ago, is set in an era of suffocating beliefs—the belief that a woman was only in engineering school to find a husband and is intellectually inferior. Tomlinson defied conventions, disproved such beliefs and fought her way into the exclusive brotherhood of engineers.

The charming 61-year-old trailblazer, whose projects have included public infrastructure, once lived in a makeshift shanty next to “Smoky Mountain,” the vast garbage dump in Manila, where she shared a cramped space with her four siblings and parents Felix and Anacleto Ruiz. Felix worked in construction while Anacleto sold fish in the market and sewed clothes. Some classmates called Tomlinson a “market pig,” a label she detested.

Tomlinson's interest in mathematics was spurred by an insult from her third grade teacher, who told her not to come back to class without mastering her multiplication table. While many might have succumbed to anger, Tomlinson rose to meet the challenge.

During an annual math contest in high school, she topped the pre-qualifying exam with two boys coming in a distant second and third. Despite three weeks of cramming, she was told by her female geometry teacher that she would only be an alternate because “Boys are calmer than girls. They can take pressure.” This first stab of gender discrimi-



nation hurt her deeply. The boys lost.

At the end of the last event, there was a special geometric construction contest for which Tomlinson was called. The contestants were to construct a rhombus, a parallelogram with equal sides, within one minute. Among 15 contestants, Tomlinson, the only girl, won first prize—a fountain pen made in Germany. The real prize, however, was discovering her intellectual strength and inner confidence. It sparked her passion for a field reserved only for men. Three decades later, Rhombus would be the name of her engineering firm.

"A girl, civil engineer? It's the dumbest idea since World War I," her mother thundered when Tomlinson told her parents about going to college. However, Felix saw his daughter's potential. The family sold their pig to pay for the initial tuition. In her sophomore year, she had to work at the Bureau of Lands as a surveyor's aide and study at night. Even before she graduated, the family already saw an improvement to their lifestyle, thanks partly to their daughter. They moved out of the squatters' area to a house.

At Mapua Institute of Technology, five female students endured insults and ridicule from male classmates and professors:

"Why not stick to dress-making?" or "You have time to put make up on but no time to study!" In the second year, three women dropped out. When Tomlinson scored low, her professor announced it to the class. Men used every chance to put her down, but Tomlinson was determined. In the end, of the original five women, she was the only one standing with the civil engineering class at the graduation ceremony in 1964.

After passing the board, Tomlinson moved on to face the harsh conditions in the industry. One firm advertised for a female engineer, but to her dismay, she was only to answer the phone and file heavy construction equipment catalogs. She took the job and later challenged one engineer: "Why don't you want me to help you? Are you afraid I might do it so well you might lose your job?" She pushed the right buttons and they obliged. Looking for greener pastures, she joined two more companies as an engineer. One job led her to the U.S. Air Force. There, she met Tom Tomlinson, the man who would be her soul mate for 34 years. "Her smile was what attracted me," Tom recalls. "She is beautiful, intellectually stimulating, and had a great sense of humor."

But marriage was not on their agenda at that time. Instead, Tomlinson came to California at age 26. When Tom got out of the Air Force to pursue a degree in oceanography at the University of New Mexico, Tomlinson moved to Albuquerque but opted to live at the YWCA until they were married. She continued to look for a civil engi-

neering job. The cycle of frustrations, harassment and insults started all over again. She joined a surveying firm while waiting for the right job.

She saw a glimmer of hope when the City of Albuquerque Public Works Department hired her as a junior designer—a milestone. She was met with hostile reception by the draftsmen, but she prevailed. A few years later, a senior slot became available. She was denied the post because she was not a registered civil engineer in the U.S. When she got her certificate of registration, she still was denied the position. "You're an immigrant and a woman. If your design is wrong, it will be embarrassing to the city," was essentially the hierarchy's reasoning. After 16 years on the job, she sued the city for sexual discrimination. While the lawyers were preparing for a court battle, she founded

Rhombus. The lawsuit was settled and the rest is history.

Tomlinson wrote Computerized Evaluation of Lived-In Areas (CELIA), an inspection software program used by housing authorities, co-founded New Mexico Affordable Housing, Inc., and served as president of the Filipino American Association. She mentors businesswomen and engineering students. She is one of the most sought after motivational speakers in the Asian American circle. Last January, she was invited to speak at the Asian Student Alliance in Florida, an organization of 3,500 South Asian students from the U.S. and Canada.

Despite her professional success and community involvement, Tomlinson has managed to balance her life with family and friends. "Since I was little, Mom has always emphasized the importance of academics, yet she was never overbearing," says Thomas Clay, her 28-year-old son, an artist who works in an architectural firm.

"She always reminded me of who I am. We used to have 'Tagalog time.' At first, I dreaded it but now, I am glad that I can speak it."

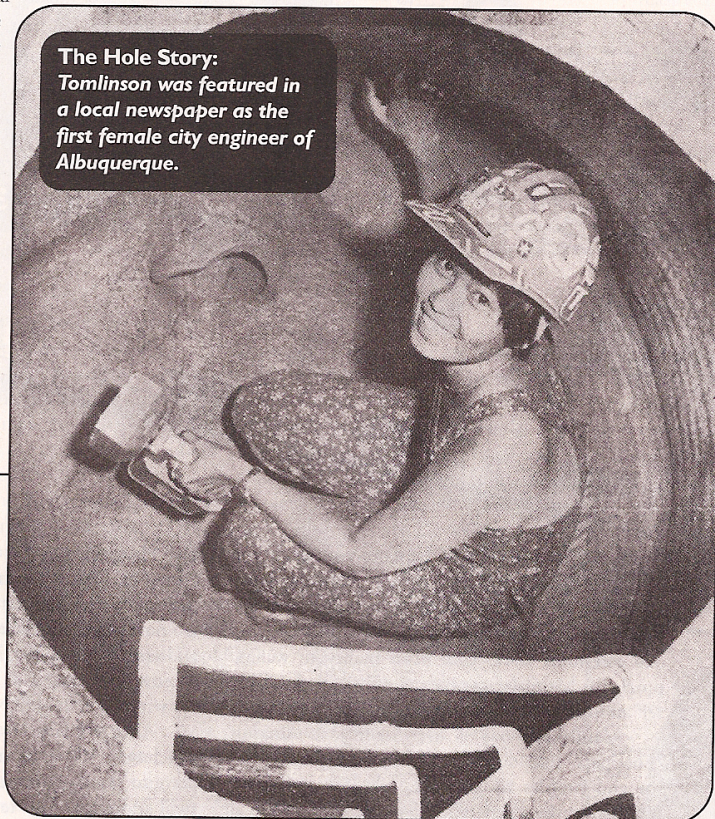
"Celia is a loyal, straight-forward and sincere friend," says Lynda Berdin, a Filipina friend who is the president of LHB Corporation and owner of Gorman/Nizhoni Gallery in Albuquerque.

"She is very supportive. She edited my writings, résumé, and gave me advice on how to deal with employees," says Ray Van Hoven, another Filipina civil engineer who is a supervisor in New Mexico Highway and Transportation Division. "She never gets down or upset. She is a gem of the Filipino community."

Tomlinson radiates an aura of confidence and optimism. Next time you complain about job stress and are ready to quit, think of Celia Tomlinson saying: "Don't ever tell me you can't." ■

#### The Hole Story:

Tomlinson was featured in a local newspaper as the first female city engineer of Albuquerque.



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