

# Resident builds engineering bridge to students

BY TAYLOR GOLDENSTEIN

Staff intern

Lincoln Logs and erector sets may have been just toys to some children, but for one man, they were the building blocks to a life dedicated to the study of science and engineering.

"I was, (as) all kids are when they build, an engineer," Robert Johnson said. "Only now I use concrete, steel, masonry and wood."

Johnson, an engineer for more than 40 years and longtime Buffalo Grove resident, has been spreading his knowledge and love of engineering to students for the past 22 years as a participant and coordinator of numerous events in the Chicago area.

"(Engineers) sometimes refer to ourselves as (flawing) the 'stealth profession' because we are invisible to the public," Johnson said. "So it's rewarding to see the excitement of the kids, and to be able to tell the kids and the parents what we do and contribute to society. A lot of people don't realize the importance of engineering in their daily lives."

His involvement with children began in 1989 when he first worked with Longfellow Elementary School in Buffalo Grove. However, he soon found balancing lecturing and his professional life too limiting.

"I began looking to other venues where I could speak to students, even adults — at a time more suitable to my work schedule," he said.

And so his journey with education began. Since then, Johnson has shared a part in a host of science outreach programs. He has attended, participated in and coordinated numerous programs, including the Illinois Institute of Technology bridge building contest, the First Robotics Competition and IIT Engineers Week.

His presentations involve hands-on demonstrations that explain topics like the planning and construction of buildings and bridges.

"(Johnson's) got unrivaled enthusiasm about science and engineering," said Heather Imhoff, head of public information services at the Des Plaines Public Library, which holds a yearly

expo modeled after IIT's eWeek. "He's relentless in continuing to get the word out about it, which is really admirable."

Currently, Johnson is most heavily involved with the National Engineers Week Future City competition (futurecity.org), a regional competition for sixth-, seventh- and eighth-grade students, for which he is a volunteer and public relations specialist.

The competition combines the use of SimCity 4 Deluxe software with the building of physical 3D models and the writing of essays to allow students to design their own "city of tomorrow."

Each regional competition feeds into a national competition, culminating in the winning team receiving a grand prize of an all-expenses-paid trip to U.S. Space Camp in Alabama.

"If you can do well in engineering, more than likely you can do well in probably any profession," Johnson said.

Johnson was first steered toward the profession because of a family friend who introduced him to structural engineering. He received both his Bachelor's and Master's degrees in civil engineering from IIT. He then worked for 25 years as an associate at Alfred Benesch & Co., where he was a project manager in the building department.

There he worked on numerous Chicago projects, including the Chicago Mercantile Exchange building, the south addition to the McCormick Place convention center and the 900 North Michigan building, a 67-story shopping destination. Locally, he engineered the Claremont Rehab & Living Center in Buffalo Grove in 1993.

It was there that he met Mark Knobel, a young colleague. It being Knobel's first job in the country, Johnson served as his mentor.

"I was very lucky to get to know him and work with him," Knobel said.

In 1996, Johnson decided he wanted to work in the suburbs. So he went to work at Amibtech Engineering as the principal engineer, where he renovated and inspected industry plants and also did structural engineering work for an electrical co-

generation plant.

"But my first love was working downtown on high-rises," he said.

So upon Knobel's invitation in 1999, Johnson agreed to work at Bowman, Barrett & Associates. He oversaw the structural design and construction of a variety of projects, including many high-rise condominiums and even a few nursing homes in the area. Building inspections and peer reviews were also part of his job description.

"With a lot of projects, clients would ask for (Johnson) to work on the project, otherwise they wouldn't give the project to the company," Knobel said.

Knobel now is the company's senior vice president. In addition to his professional endeavors, Johnson is involved in many engineering societies, such as the Structural Engineers Association of Illinois, National Council of Structural Engineers Associations and American Society of Civil Engineers.

He is also the recipient of many awards, including the Robert Cornforth award from the NCSSEA.

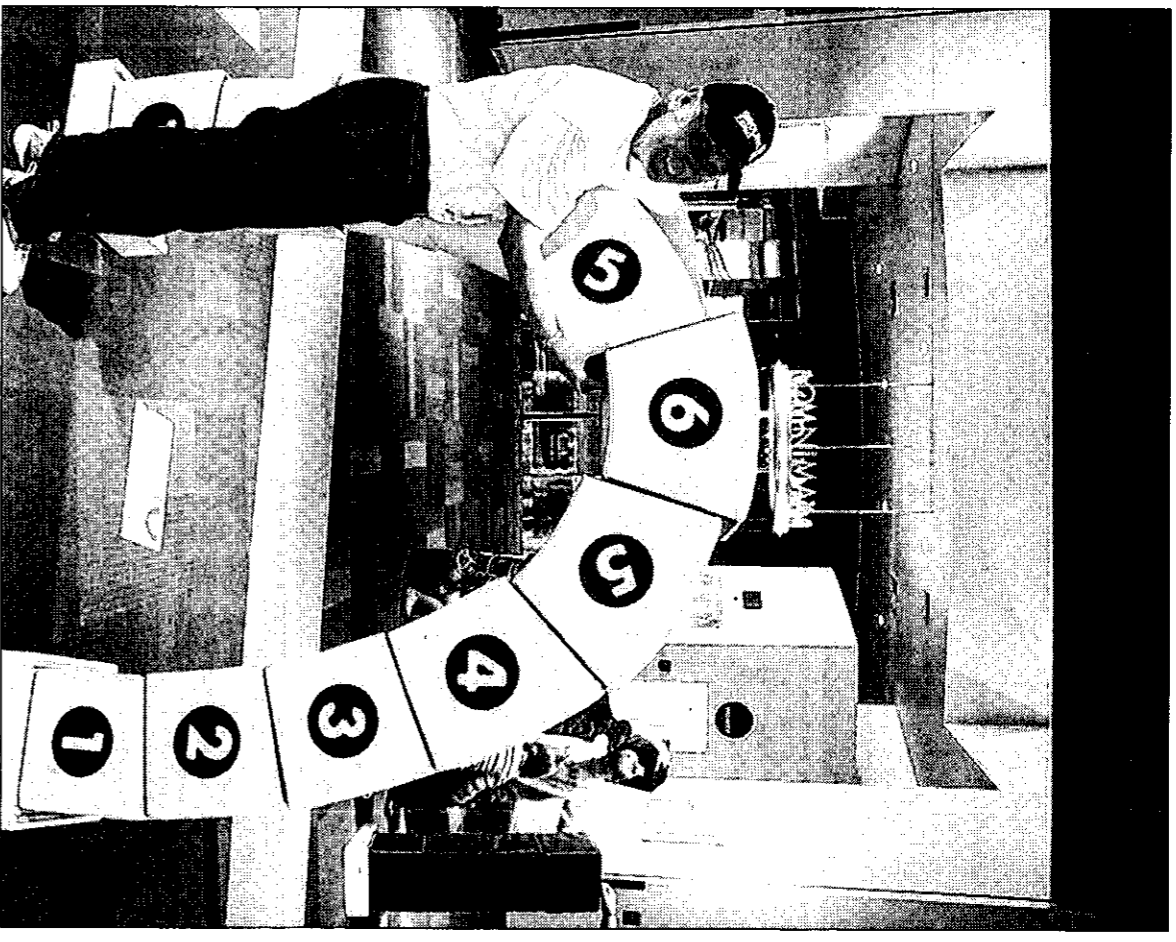
He was recently given the Excellence in Educating Our Children in Engineering Award by Frank Avila, a commissioner with the Metropolitan Water Reclamation District of Greater Chicago. The presentation of the award, as well as a sample presentation of Johnson's, aired on CAN-TV and be viewed online (<http://bit.ly/avila-media-nhp/robert-johnson-educating-children-about-engineering-5271390>).

"I don't know of anyone who would be more dedicated to promoting the engineering profession than Bob," Knobel said. "He has the talent of being an educator."

Johnson recently "semi-retired," as he calls it.

While he's still open to work in the field, his time off has given him "a little more time to participate in engineering programs," which he enjoys.

"The key thing is to make (children) aware of the importance of science and technology on their daily lives and how it impacts them," he said.



Bob Johnson places the keystone in an arch he built at the Science Center in St. Louis. The Buffalo Grove resident has been honored for his longtime work in promoting engineering to youth.



Johnson gives a demonstration of compression buckling during the annual Tech Expo at the Plaines Library.