BLUE SKIES AHEAD
FINDING BRIGHT SPOTS AMID UNREST AND UNCERTAINTY

Getting home-bound kids into a physical activity routine
Educating the world on sports data analytics
Helping patients recover faster from ACL surgery
Breaking the glass ceiling in professional sports
Maintaining older adults’ health and mobility
Teaching kids with disabilities how to play adapted sports
Moving to the new Kinesiology building
And more!
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Please note: campus will be different this year. The images and copy included in this publication may not reflect what we hope are temporary changes due to COVID-19.

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Fitness and well-being has always been top of mind for Marti Burbeck. Growing up in western New York, she had easy access to nearly 15 acres of nature in which to run, climb, and explore. She developed a love for physical activity after joining the local YMCA swim team in eighth grade, and it only grew from there.

Burbeck spent occasional weekends in Ann Arbor throughout her youth, coming back with her father and uncle, both U-M alumni, to tailgate and watch the football team. She continued the family tradition by enrolling at U-M in 1973 with a Physical Education major (a precursor to today’s Applied Exercise Science major) and a minor in Math. While at U-M, she was one of the inaugural members of the women’s varsity swim team, earning her varsity jacket. She graduated with her bachelor’s degree in Physical Education in 1977.

“Classes at U-M took me beyond my interest to a broader understanding of health issues in the general population. Sports medicine, nutrition, anatomy, and physiology classes laid the groundwork for my lifelong concern for issues around the physical well-being of others, including the effects of food, exercise, and the environment,” Burbeck said. “Building on information and comprehension gained in the U-M PE program, I’ve continued to read about and pay close attention to exercise, nutrition, toxins in food and building materials, and the like.”

“Because of this grounding, the first thought my husband Tom and I had upon purchase of our land in 2013 – 15 acres of former farmland, just outside Ann Arbor, used up and worn out through years of monoculture farming – was to restore health to the soil and to grow food to give to those with difficult access to fresh produce (via Food Gatherers, Hope Clinic and others),” she explained. The plan – now well underway – has been to use principles of permaculture to manage water and erosion and to rebuild the soil. The slopes are now shaped with berms and swales on contour (similar to terraces): Swales (depressions) catch and hold water above berms (mounds of soil) which are planted with fruit trees and berry bushes and which are irrigated by the water held in the swales. The entire area is planted in cover crops, further holding water and building soil health.

That philosophy of regenerative land management led to their creation of a 100% regenerative home. This means the total amount of energy used by the home on an annual basis is less than the amount of renewable energy created on-site. The same is true for water and waste systems. The house has a rainwater harvesting system, geothermal heat, and solar panels. “Tom and Marti have created a home that is net positive energy, net positive water, and net-zero waste. It’s fundamentally invisible to nature,” said their architect Michael Klement. “This home is the harbinger of what the future of home building, and construction in general, could mean for the planet. Now, in a time that’s even more relevant than ever before.”

Continued on next page.
The Burbecks, along with Klement, designed their house according to the Living Building Challenge (LBC) to achieve the most advanced measurement of sustainability in a built environment. The LBC advocates for a new way of conceiving and constructing homes and buildings. In addition to green measures being built into the house, manufacturers were also asked to disclose product elements that were then compared to a list of 600 chemical compounds that are harmful to humans and the environment. Burbeck said three of the companies they worked with changed their manufacturing practices because of the work they did on the home to reduce the harmful effects their products have on the environment.

Burbeck’s favorite description of the LBC can be found in its logo – a flower. “When you think about a flower, it gets all its needs from its immediate surroundings. It returns good to its immediate surroundings, and even in death, it returns good. So it’s an ecosystem all to itself,” she explained. “Why can’t our buildings be the same? And that is the underlying premise of the Living Building Challenge.”

“Classes at U-M took me beyond my interest to a broader understanding of health issues in the general population, ... including the effects of food, exercise, and the environment.” MARTI BURBECK

According to Burbeck, she and Tom originally set out to renovate their home in 2013 but quickly realized that remodeling for aging in place was not possible, nor were serious ecofriendly changes feasible (e.g. no exposure for solar panels). So they decided to build new on the 15 acres of farmland they’d bought. The 2,200 square foot home borrows from the characteristics of a 200-year old Tuscan farmhouse, with a 2,400 square foot barn and workshop. The project, at times, had upwards of 20 experts in different areas to ensure the house was being built to the LBC’s building requirements.

It took three-and-a-half years of design, 18 months of construction, and a year of performance auditing before the house received full Living Building Challenge certification in December 2017 by the International Living Future Institute. To earn “Living” certification, projects must demonstrate compliance with stringent performance standards dictated by the 20 LBC Imperatives for twelve consecutive months.

During the audit period, the Burbecks’ home generated 20,270 kilowatt-hours (kWh) of electricity and used 15,987 kWh, producing 26 percent more energy than it used.

Their home is the second home, and one of two dozen buildings of any kind, worldwide to earn this LBC certification.

To Burbeck, this project is a symbol of how her passions have come full circle. “As we learned about the requirements of the Living Building Challenge, we were well-positioned to understand and embrace the importance of making our built environment healthy, regenerative, and conducive to healthful living,” she said. “The LBC requirements fit precisely with my lifelong concern for health, fitness, and excellent nutrition, strengthened and deepened during my college years in the U-M PE program.”

To learn more about the Burbecks’ home, please visit beaconsprings.org.

What have YOU been up to?
Let us know at myumi.ch/dOzDK and you could be featured on our website or in an upcoming issue of Movement!
fall virtual events

We’re working hard on a terrific line-up of virtual events for this fall. They’re a fun and safe way to learn, share, and build community!

Check your email for more information as it becomes available or visit kines.umich.edu/events.