

Landscape architect designs toolkit to make cities inclusive of adults with autism

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A Kansas State University landscape architect has developed an urban toolkit that addresses needs for adults with autism: vocational training, life skills, mental and physical health support, employment, public transportation and affordable housing. Credit: Kansas State University

Kansas State University landscape architecture student Elizabeth Decker has a goal for her master's research: help professionals create urban environments that are inclusive of her younger brother, Marc.

Marc has autism and will soon reach adulthood. Decker, Lansing, who will graduate May 16 with a Master of Landscape Architecture degree, developed a toolkit for her master's research report that helps designers and planners make cities more inclusive for [adults](#) with autism.

When Marc becomes an adult, he likely will live semi-independently, Decker said. Her project, "A city for Marc: An inclusive urban design approach to planning for adults with autism," proposes knitting together urban opportunities such as public transportation and affordable housing.

"Through this project, I really want to understand my brother," Decker said. "I want to see him go out in the real world and be successful. This project was a way for me to research more about autism and learn more about people like my brother. It helped me figure out how we can design for a group of adults that is getting bigger."

One in 68 children are diagnosed with autism, Decker said. As the generation of diagnosed autistic children ages, it is important to find ways to help adults with autism.

The National Institutes of Health has identified six needs for adults with autism: vocational training, life skills, mental and physical health support, employment, public transportation and affordable housing. Decker's urban toolkit addresses these needs because many cities do not have adequate services for adults with autism.

"The focus of the project is inclusive urban design," said Katie Kingery-Page, who is Decker's adviser and an assistant professor of landscape architecture/regional & community planning. "Elizabeth's project is

about connecting the dots. While many different aspects exist in an urban environment, she is looking at how future planning and design changes can help connect everything in a way that works and is inclusive of a particular group. We want to allow people to function fully in an inclusive environment."

For the project, Decker conducted a literature review and interviewed adults—including an adult living with blindness, an adult living with autism and an adult living with Asperger's syndrome—to better understand their needs in an urban environment. The adults stressed the urban needs for public transportation, training services and access to health support.

Decker used Nashville, Tennessee, as a test city for the urban toolkit. Nashville uses form-based zoning code, which focuses on buildings' physical form instead of only land use. The city also offers residential services, a strong job market and good transportation as well as the Vanderbilt-Kennedy Center, which offers adult services and vocational services, Decker said.

Although she looked at Nashville, many of Decker's suggestions can apply to cities across the country. Throughout her research, she saw opportunities with vacant lots or underused areas. For example, if a vacant lot was adjacent to a gym, Decker has suggested redeveloping the lot to address physical health needs of adults with autism.

Decker also has developed 3-D models of areas throughout the city. Her designs involve more [affordable housing](#) locations that connect with a proposed corridor of autism services. She has provided links to healthy food areas and has recommended placing vocational training facilities near civic or institutional programs. She proposes preserving and strengthening green space in downtown Nashville to offer areas for sensory relief from urban conditions.

Decker also has addressed employment for adults with autism and has marked job opportunities—including craftworkers, service, professional, administrative work—throughout the city.

"My project views cities from a larger perspective and demonstrates that cities lack connection of services for autism," Decker said. "It is not enough to view a city within a few blocks and suggest placing a building or park; without seeing the vision of an inclusive city as a whole, the design falls short of successfully connecting the needs of adults with autism. Though this project is not typical of landscape architecture, it portrays the discipline's range of scale and thinking, revealing the spectrum of what landscape architects can do."

"Elizabeth has been able to use a systems approach," Kingery-Page said. "She looked at a whole system of needs with this toolkit. It is important to think systematically to shape an [urban environment](#)."

Decker's master's report committee included Kingery-Page as chair; Marilyn Kaff, associate professor of special education, counseling and student affairs; and Jason Brody, assistant professor of [landscape architecture](#)/regional & community planning. Both Kingery-Page and Kaff are a part of an interdisciplinary [autism](#) research team at Kansas State University.

More information: Decker plans to continue gathering feedback on the toolkit. Her toolkit can be accessed at krex.k-state.edu/dspace/handle/2097/17606

Provided by Kansas State University

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