Matthew 25 Urban Farm

As Cedar Rapids moves toward full post-flood recovery, open plots still dot the urban landscape. In 2010, a six-block area of land on the west side was purchased by the city and the existing flood-damaged houses were demolished. Matthew 25, an area nonprofit dedicated to helping residents reclaim their homes and neighborhoods, stepped in with an imaginative idea. With the help of community members, design professionals and Iowa State University design students, the collective transformed the scattered parcels into a working urban farm.

Matthew 25 featured in the Iowa State University's College of Engineering.

Student renderings showcase the Urban Farm for new amenities and gathering spaces. Real farms are designed for the utilization of solar panels.

These goals were given to Nadia Anderson, assistant professor of architecture at Iowa State University, who used them as starting points for the spring 2013 Bridge Studio. The program connects design students with real-world projects and involves graduate and undergraduate students in landscape architecture, architecture and interior design. The student team was challenged to address the project goals while creating a place that would be productive, educational and enjoyable. Professionals from OPN Architects, Fox Landscape Architecture and Andersen Bogert provided design critique and input on technical issues. The design was developed by the students through ongoing contact with the neighborhood association, city leaders and design professionals, ensuring community support for the initiative. The urban farm concept was presented by the students to the public in an open-source forum held at Matthew 25’s Groundswell community gathering space in Cedar Rapids.

The result of this process was the Matthew 25 Urban Farm, two acres of productive green space in the heart of the city. The design divides the space into four zones. The outer ring is a low-intensity zone featuring an agro-forestry plot, low-maintenance plantings and perennial beds. Moving inward, a mild-intensity zone is defined by an orchard border, perennial berry plantings and drought-tolerant plantings. A moderate-intensity zone creates space for a community garden, mobile greenhouse, raised beds and planters, and other species with regular irrigation needs and multiple harvest periods. In the center of the farm are community amenities such as a pavilion and play area, rainwater harvesting and storage, vertical agriculture, herbs, greens and other high-irrigation/high-maintenance plantings.

In addition to utilizing a space that would otherwise be empty and unused, the Matthew 25 Urban Farm provides an abundance of fresh fruit and vegetables to the community. It offers residents access to a place to gather and enjoy the outdoors and each other's company, as well as space for students to learn about sustainable agriculture and healthy food choices. With this project, local leaders reimagined what an urban landscape can be, and in doing so, developed a creative model for cities that both sustain and enrich their communities.

Solar Electric Vehicle Charging Station

The University of Iowa is a distinguished leader in renewable energy strategies and sustainability practices. Its commitment to implementing progressive initiatives translated into an exploration of how solar energy may be utilized on campus. Among the first projects is the Solar Electric Vehicle Charging Station.

The solar station features the largest solar array in the state. The south-facing, 180-foot solar photovoltaic array generates an estimated 70,000 kWh of energy annually. It is projected to replace up to 40 campus utility vehicles on a typical sunny day. That translates into an anticipated reduction in gasoline use of more than 15,000 gallons per year.

Charging an electric vehicle at the station takes about three hours and provides a 50-mile charge. It is used to change small utility vehicles for Facilities Management, as well as a number of electric vehicles for departments across campus. One stall is used as an education resource and for experimental vehicle testing by the university's College of Engineering.

The surplus power generated by the station will be distributed back to the university power grid. The station supplies 100% renewable electricity, and is equipped with a data network connection to the university Energy Control Center for continuous system tracking and analysis.

The station was designed by OPN Architects in association with Rednut, one of Iowa's leading solar power specialists.