

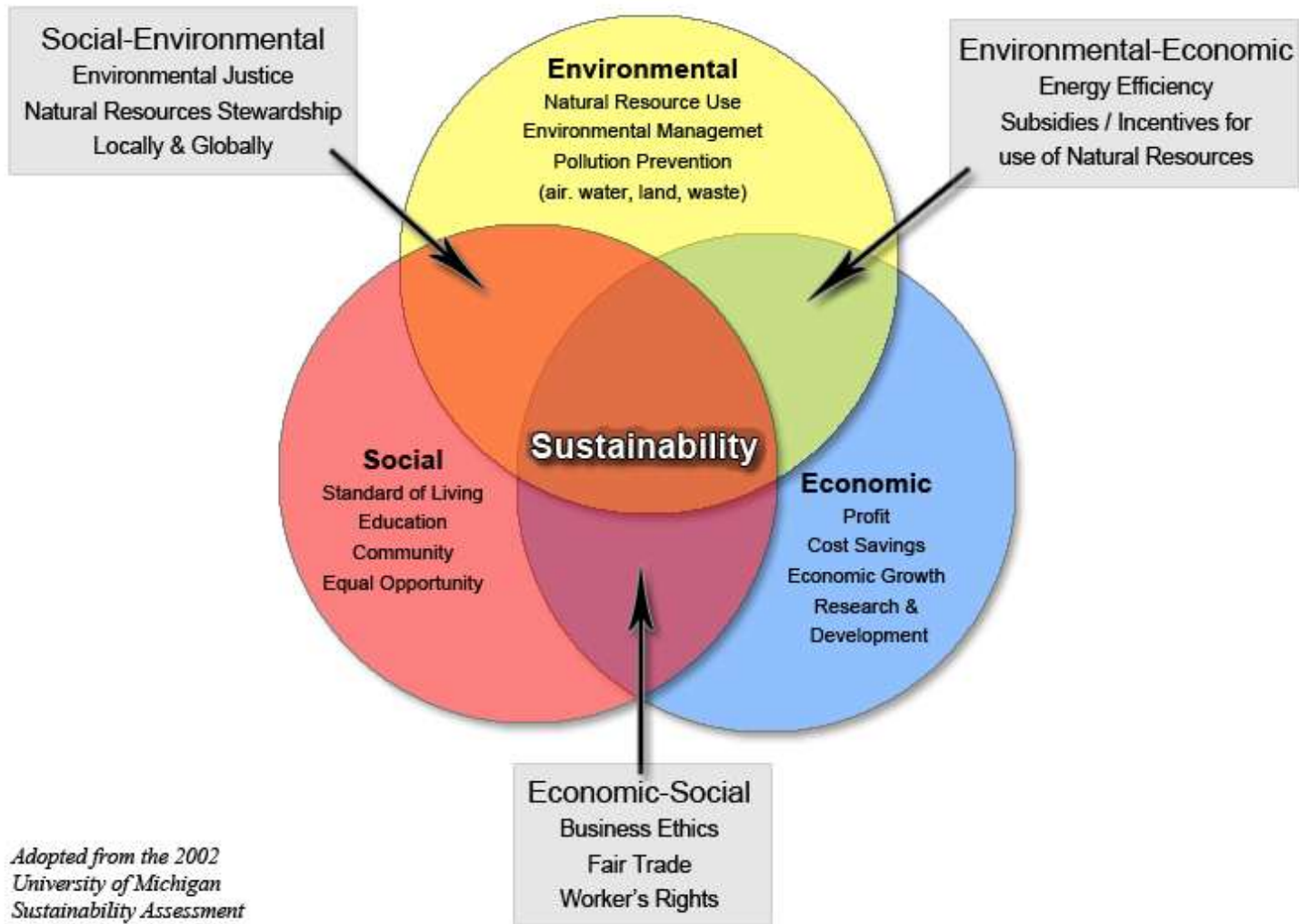
Building Sustainable Traditions

Sustainability Initiatives at The University of Kansas

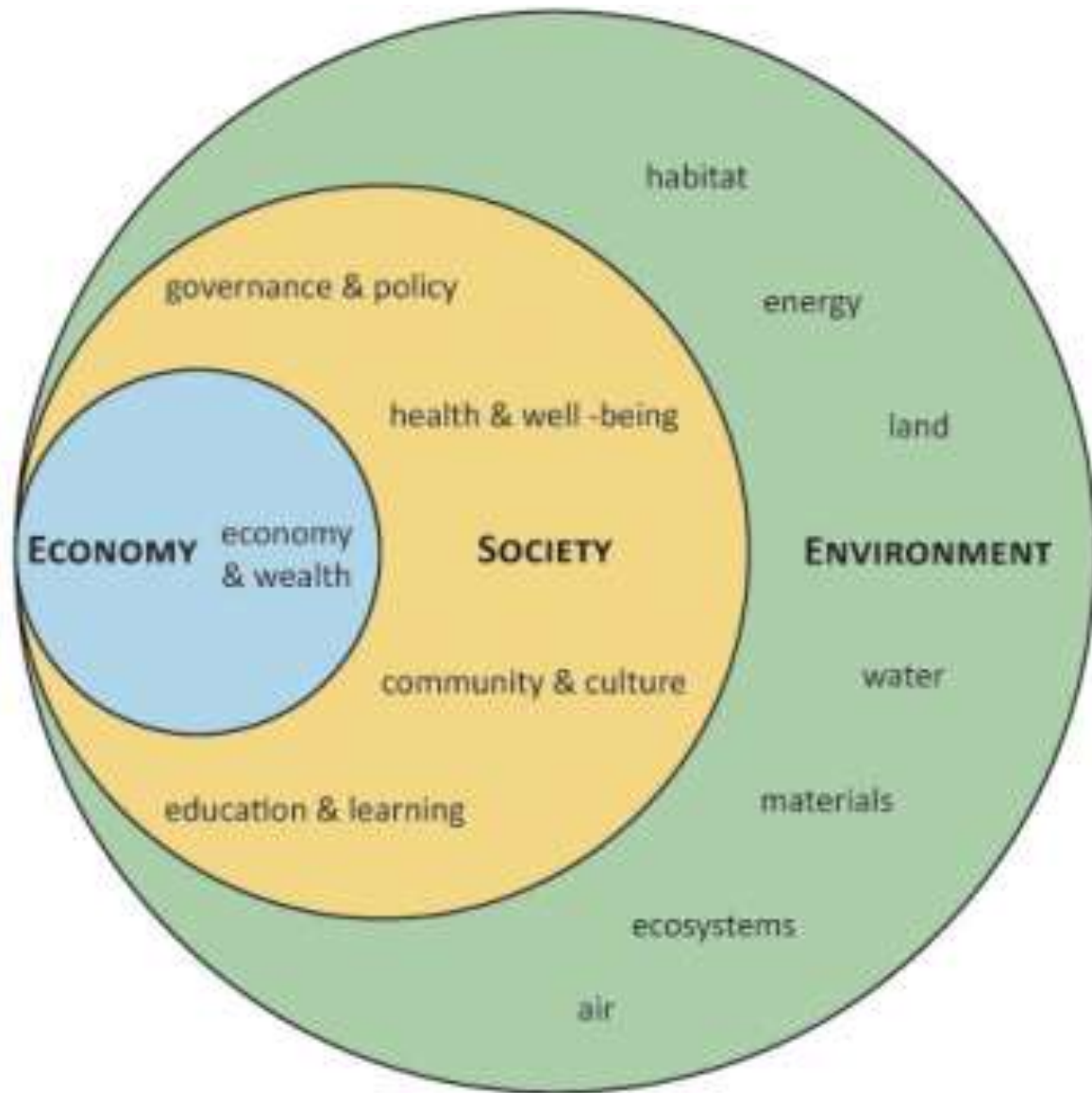
Summer Institute on Environmental Stewardship
July 14, 2015



The Three Spheres of Sustainability



*Adopted from the 2002
University of Michigan
Sustainability Assessment*



What does “Sustainability” look like?



“Overall, sustainability is about building healthy, resilient communities where everyone has access to the resources needed to achieve a high quality of life without exceeding the capacity of our natural ecosystems.”

-Building Sustainable Traditions

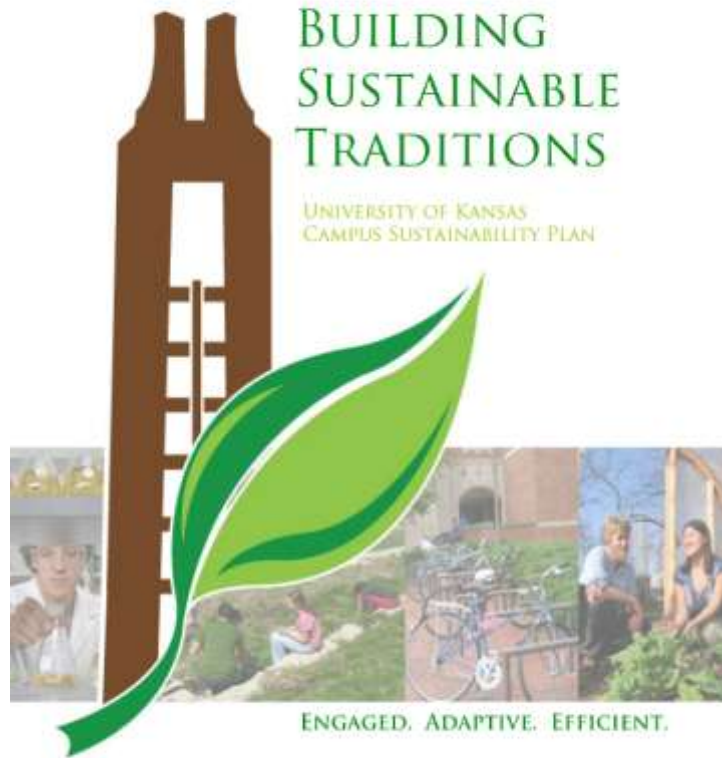
Who Are We?

- Department within Campus Operations
- Promote a culture of sustainability at KU
- Oversee waste reduction initiatives
 - KU Recycling
 - KU Surplus
- Collaborate with the Energy Office to promote conservation behaviors within campus buildings
- Progress and promote the goals of the Sustainability Plan, released in 2011.

Vision for a Sustainable KU

“The University of Kansas is committed to fostering a culture of sustainability. Our administrative leadership and campus-wide collaborative efforts empower students, faculty, and staff to make decisions that protect our natural ecosystems, create economic prosperity, and treat all people with equality and respect. Through campus and community partnerships, KU strives to integrate sustainability into education, research, campus operations and public service.”

Campus Sustainability Plan



- Administration Planning & Development
- Curriculum & Research
- Student Life
- Energy
- Built Environment
- Campus Grounds
- Procurement
- Waste
- Transportation

Engaged



- Campus and community as a living laboratory
- Community-based research
- Visibility of campus sustainability
- Leadership involved in advancing sustainability

Adaptive



- Embrace cultural and institutional change
- Flexibility in strategic planning
- New modes of teaching
- New measures for success

Efficient



- Maximize productivity; minimize waste
- Responsible resource use
- Collaboration between academics and operations

Rock Chalk Recycle



RECYCLING



PLASTIC • ALUMINUM • STEEL CANS • GLASS



NEWSPAPER • MAGAZINES • CHIPBOARD • PAPER



NO STYROFOAM • COFFEE CUPS • PLASTIC BAGS

KU Surplus

- All surplus furniture and equipment sent to KU Surplus
- Free on-campus collection
- Items available at a minimal cost, and delivered for a fee
- Online inventory at www.surplus.ku.edu



KU Surplus: FY 2014 Statistics

- 3,036 items sold
- 5,269 items donated
- 79,592 lbs of scrap recycled
- 427,393 total lbs diverted from landfill
- Over \$75,000 in revenue
- Over \$500,000 in cost avoided for departments



Move Out 2015

- 1200 pounds of food
- 11,000 pounds of clothes
- McCollum Hall
 - 130 pieces from lounge and lobby
 - 100 desk sets
 - 500 bed sets



Oread Project

- 2-day workshop to support faculty integrate sustainability into new or existing courses
- Maintained network of participants is now 37 faculty across 8 schools and 26 departments



Certificate in Sustainability

- **Coursework:**
 - Foundational
 - Ex. Sustainability and Society
 - Human Systems
 - Ex. Human Adaptation; Social Problems and American Values
 - Natural Systems
 - Ecology and Global Change; Oceanography
- **Experiential Learning:**
 - Research
 - Service
- **Reflection:**
 - Describe themes shared among the courses
 - How did they influence or enhance the experience
 - Examine goals of the experience from the three perspectives of sustainability



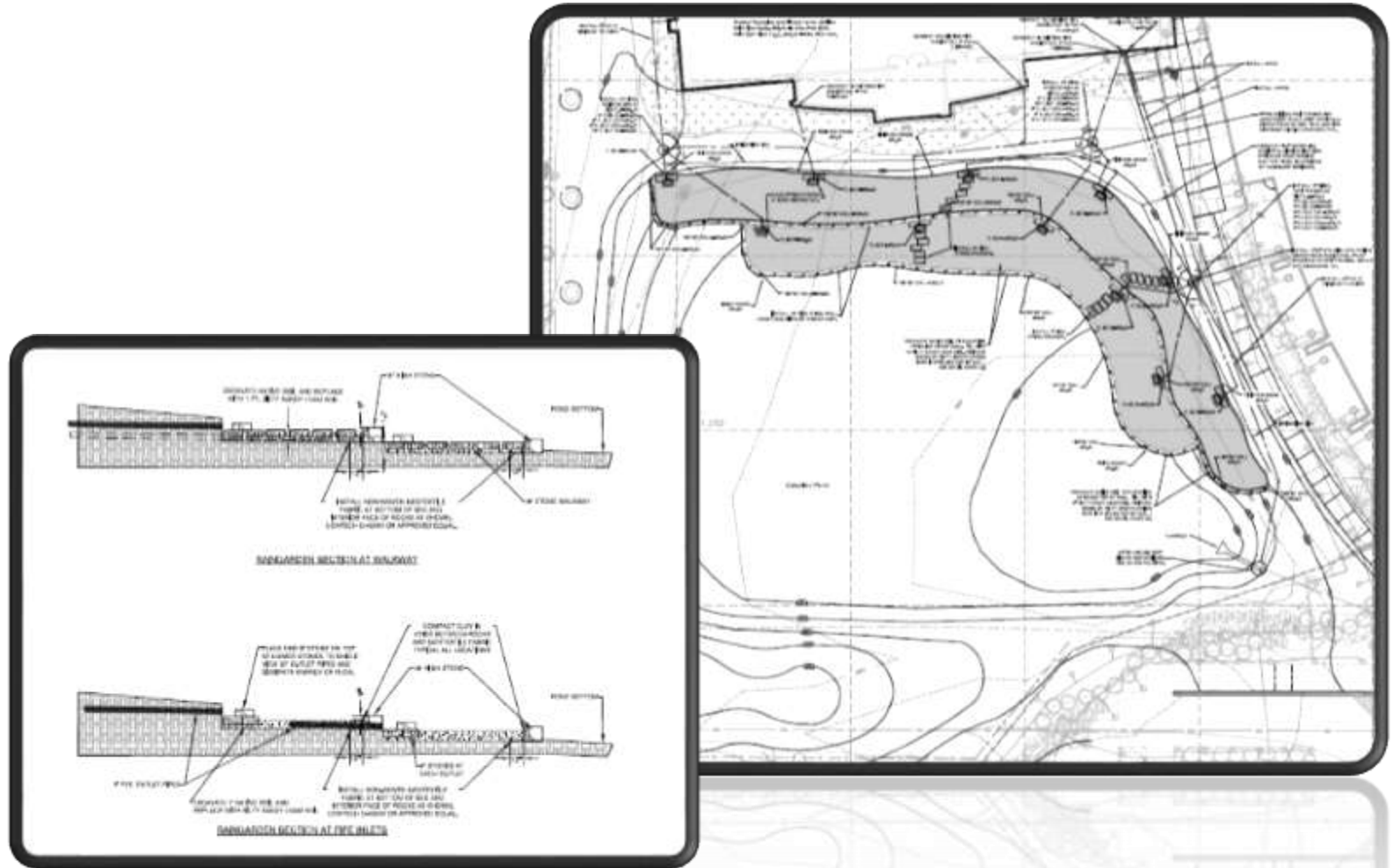
Prairie Acre Restoration Project



Prairie Acre Restoration Project



Student Rain Garden

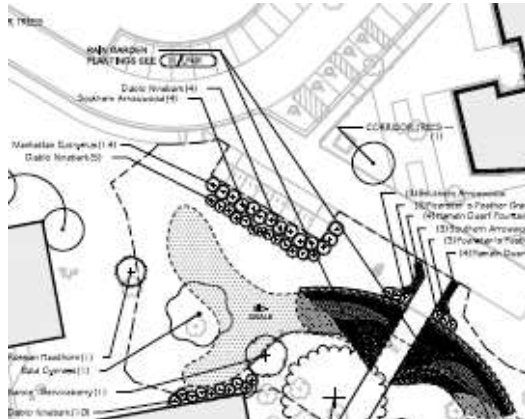


Student Rain Garden



West Campus Raingardens





Lot 54





SUSTAINABLE PARKING LOT

You may not see it right away, but the parking lot in front of you is a great example of sustainability! Take a closer look and you'll be able to see some of the "green" features.

NATIVE SHADE TREES – This lot's large trees provide shading of the pavement and further reduce the heat-island effect.

WATER QUALITY – This parking lot improves the quality of stormwater runoff before it reaches the streams. The pavement and underground gravel beds filter out over 80% of the sediment and pollutants from each rainfall. The rain garden and the specially designed islands provide natural filters for the sediments and pollutants.

LED LIGHTING – Typical parking lot lights include bulbs that use a lot of electricity and need to be replaced every few years. The LED lights in this parking lot reduce the amount of electricity needed and the LED's will last up to ten years.

LIGHT COLORED PAVEMENT – Dark pavements absorb and radiate heat from the Sun forming "heat islands" that unnaturally raise air temperatures. The concrete pavement used in this lot reflects the sun's rays absorbs and radiates less heat.



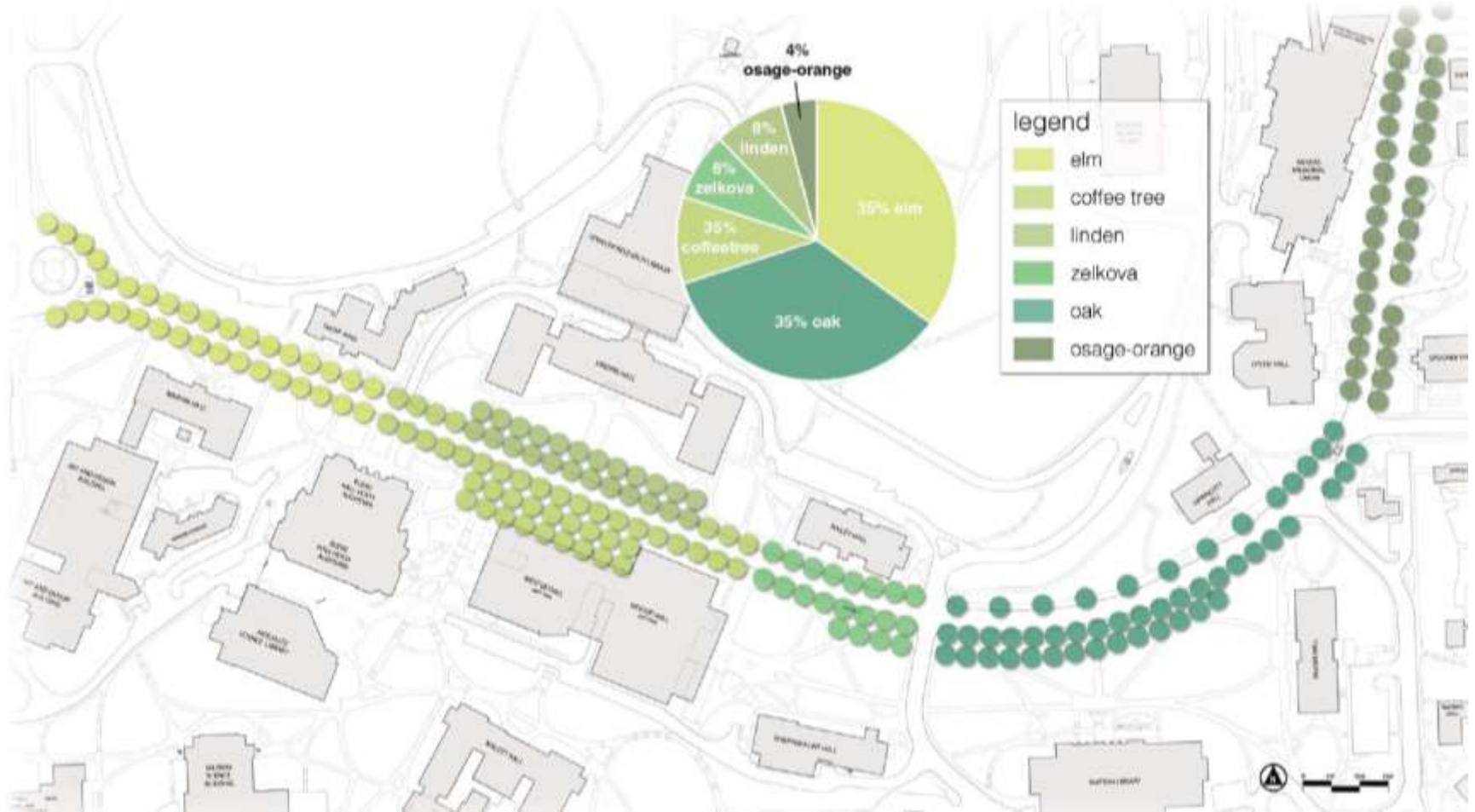
DRAINAGE – The pavement and storage system can retain and treat runoff from a 100-year storm (1% annual chance of occurrence) – that's about 8 inches of rain in a day, or about 400,000 gallons of rainwater. The retained water percolates into the ground, providing water for plants and the subsurface ecosystem, rather than going directly into the City's drainage system.

WATER CONSERVATION – Drinking water is "potable" water and is a precious resource. Rain water is "non-potable" but it is a sustainable source of irrigation. This parking lot uses storm runoff for irrigation of the trees and shrubs

POROUS PAVEMENT – Traditional parking lot pavements are impervious, so almost all of the rainwater becomes runoff. Runoff drains quickly to our streams, creating erosion and flooding. The parking stalls along the center islands in this parking lot contain a different kind of pavement, called "porous concrete" which is an engineered concrete that allows water to drain through to the subsurface.

This project was awarded funding from the Kansas Water Pollution Control Revolving Loan Fund through the Kansas Department of Health and Environment as part of the EPA Green Project Reserve, and KU Parking fees provided matching funds. Additional funding was provided by the Provost's Office and the KU Revolving Green Loan Fund. KU campus volunteers planted the rain garden. The project was designed by TranSystems Corporation and Landworks Studio, and constructed by Kissick Construction Company in 2013.

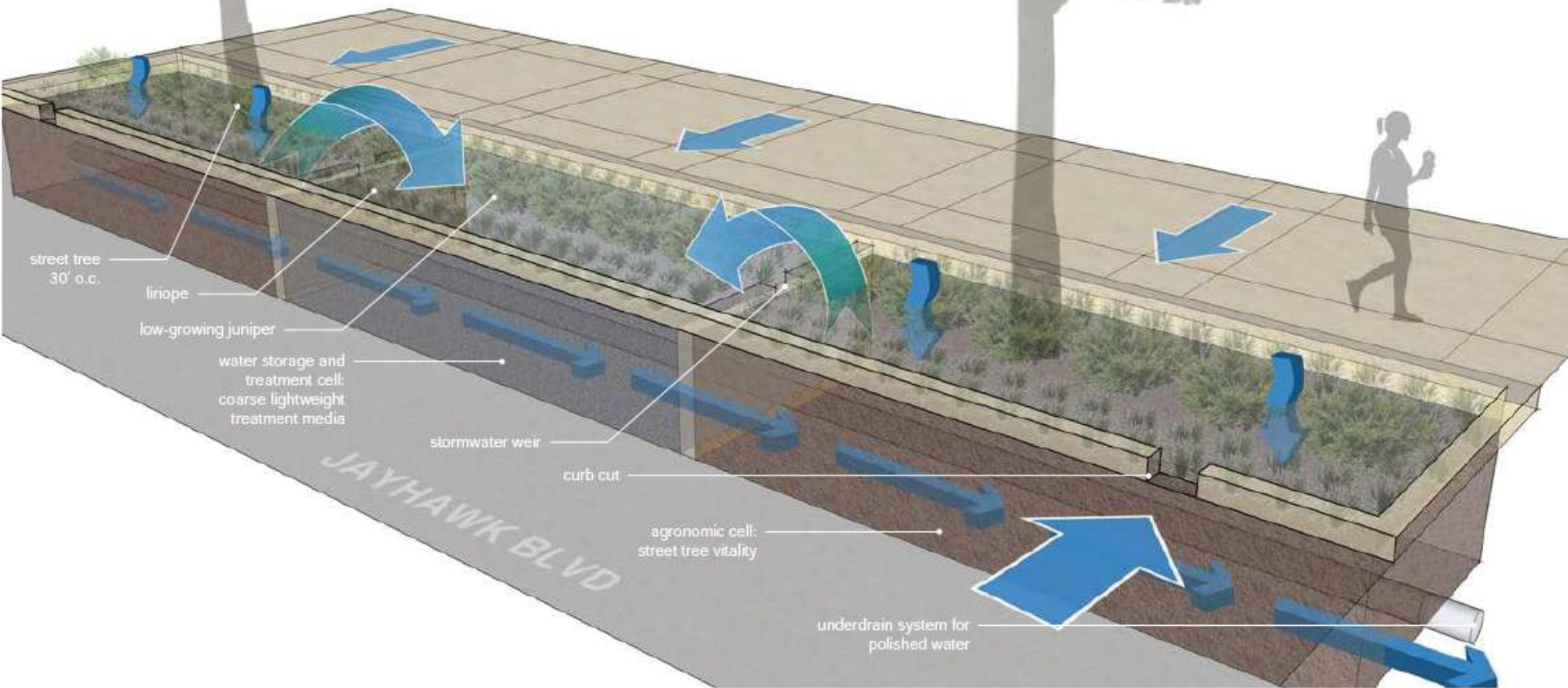
Jayhawk Boulevard



Jayhawk Boulevard

legend

- surface runoff
- infiltration to storage
- polished, subsurface flow
- treated water for storage



Revolving Green Loan Fund

- \$40,000 fund devoted to energy conservation projects
- Savings returned to account
- Used mainly for HVAC and lighting improvements
- Goal to increase fund to at least \$500,000



Revolving Green Loan Fund

- Current project replacing stock of Incandescent and CFL bulbs with LEDs
- Total project cost of \$200,000 over 4 years
- Annual projected energy savings of \$88,000
- Annual projected maintenance savings of \$71,000



Biodiesel Initiative



KU Student Farm



Studio 804



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www.sustainability.ku.edu/plan

www.facebook.com/KUSustainability