CAMPUS LANDSCAPE MASTER PLAN

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

JULY 2022

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

CAMPUS LANDSCAPE MASTER PLAN U20070

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LAND ACKNOWLEDGEMENT

As a land-grant institution, the University of Illinois Urbana-Champaign has a responsibility to acknowledge the historical context in which it exists. In order to remind ourselves and our community, we will begin this event with the following statement. We are currently on the lands of the Peoria, Kaskaskia, Piankashaw, Wea, Miami, Mascoutin, Odawa, Sauk, Mesquaki, Kickapoo, Potawatomi, Ojibwe, and Chickasaw Nations. It is necessary for us to acknowledge these Native Nations and for us to work with them as we move forward as an institution. Over the next 150 years, we will be a vibrant community inclusive of all our differences, with Native peoples at the core of our efforts.

CONTENTS

1

EXECUTIVE SUMMARY

The Campus Landscape Master Plan (CLMP) presents a shared vision for the overall campus landscape and provides specific design guidelines, tested through extensive public engagement and stakeholder input. The campus community desires a landscape that inspires, nurtures, restores and educates. They desire a multi-functional landscape that provides opportunities for collaboration, celebration and gathering; a landscape that clearly defines the University of Illinois brand and is accessible, safe, inviting and manageable; a landscape that respects origins and heritage, a landscape that will amplify the region's biodiversity and assist in the University with achieving its Climate Leadership Commitments. The CLMP outlines a vision to achieve a resilient, sustainable campus landscape. The realization of this vision will require a commitment towards phased investment year by year over the coming decades. By committing to a sustainable campus the University of Illinois Urbana-Champaign (UIUC) will embody resilience as a model landscape in the Midwest and a world-leader in campus native landscape expression and honoring rain water as a valued resource.

The CLMP provides recommendations for exterior improvements throughout campus. All Prototype plans included in this CLMP will require appropriate levels of approval before funding and initiating actual projects for their implementation. Suggested improvements to the Main Quad and Military Axis which deviate from the University of Illinois Board of Trustees (BOT) approved Campus Master Plan direction should be vetted/approved up to BOT level and/or reviewed for inclusion in next Campus Master Plan update, before actual projects for these improvements are initiated.

The CLMP recommends policy, funding structure and responsibility changes such as adding skilled maintenance staff, ongoing training for skilled staff, increased funding for exterior landscape deferred maintenance, and new funding strategies and policies for exterior improvements. These proposed policy changes and funding strategies will require appropriate levels of approval and coordination with Auxiliaries before they are official and required.

OVERVIEW AND PURPOSE

View looking east from the McFarland Carillion

OVERVIEW AND PURPOSE

The Campus Master Plan (CMP) defines eleven districts across the campus to serve as a framework for planning purposes. The scope of the Campus Landscape Master Plan (CLMP) is to provide goals and strategies pertaining to the campus landscape as a whole, while utilizing the district framework to provide guidance specific to that district.

Within each district, the CLMP demonstrates the landscape goals and strategies through a prototype project, chosen based on its ability to achieve the visionary goals, as well as its ability to address the challenges and aspirations shared by stakeholders – the campus community – throughout the planning process. The prototype projects range in terms of priority for implementation. Some components of the prototypes fall under short-term implementation, while other components may not be implemented for years. It is important to note that stakeholders communicated that utmost priority be placed on investing in the existing landscape assets, including addressing various levels of deferred maintenance. The recommendations within the CLMP may require many levels of approval for funding and implementation, including the approval of the University of Illinois Board of Trustees (BOT) in some cases. The levels of approval required will be determined on a case-by-case basis.

3 FOUNDATIONAL PLANS

The CLMP will build on the guidance provided by Campus Master Plan, the Resilient Landscape Strategy and the Illinois Climate Action Plan.

BUILDING ON A FOUNDATION OF PRIOR PLANNING

The CLMP will build on three foundational plans and a heritage of designed landscape campus planning that provide agreed upon direction for the campus landscape. The landscape vision set forth in the Campus Master Plan; the priorities outlined in the Resilient Landscape Strategy; and the components of the Illinois Climate Action Plan (iCAP) 2020 that pertain to land and water provide the broad framework for the campus landscape. These plans, however, do not provide the necessary detail needed for implementation. The purpose of the CLMP is to provide this detail, including goals, strategies, design standards and implementation examples. While this document lays out infrastructure needs for bicycle connections through campus, the CLMP does not address mobility, as the 2014 Campus Bike Plan will continue to provide the proposed bicycle infrastructure necessary to support campus mobility.

CAMPUS MASTER PLAN

The Campus Master Plan was approved by the Board of Trustees in 2017 and updated in 2018. The landscape vision set forth in the 2017 Campus Master Plan says: “While streets and buildings define the basic open space framework of campus, its character and the way it is perceived are largely determined by the treatment of the campus landscape.” It provides broad landscape objectives and a high-level campus scale landscape approach and reinforces the need for the landscape to achieve the goals set forth in the iCAP. It recommends

the use of green stormwater infrastructure strategies, and increased use of native and naturalized planting approaches within an “orderly design ethic” and appropriately scaled to the institutional buildings on campus. By defining the overall layout of open spaces, the Campus Master Plan framework is an important starting point for establishing a shared vision for a sustainable and resilient campus.

RESILIENT LANDSCAPE STRATEGY

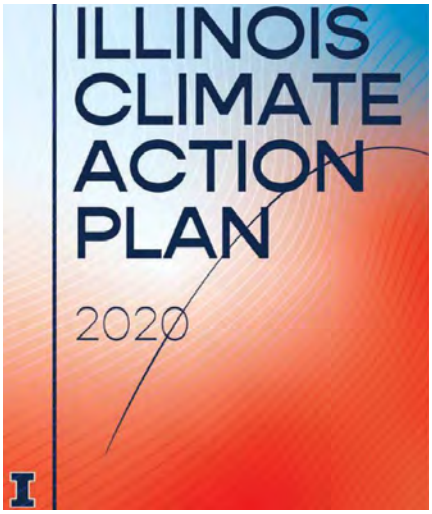
The Resilient Landscape Strategy, adopted in 2019, was approved by the Chancellor’s Capital Review Committee. The report identified key challenges that campus landscapes face and developed a set of strategies to meet these challenges. The report states that “transitioning to sustainable landscape design as the standard for our campus is necessary for the cultural change needed to live sustainably.” A resilient landscape approach is one that needs a cultural shift from our “default” mode of preconceived aesthetics driving decisions and considers the multifunctionality of the landscape essential to addressing the resiliency challenges we face today. The CLMP is an outcome of implementation actions recommended in the Resilient Landscape Strategy.

ILLINOIS CLIMATE ACTION PLAN

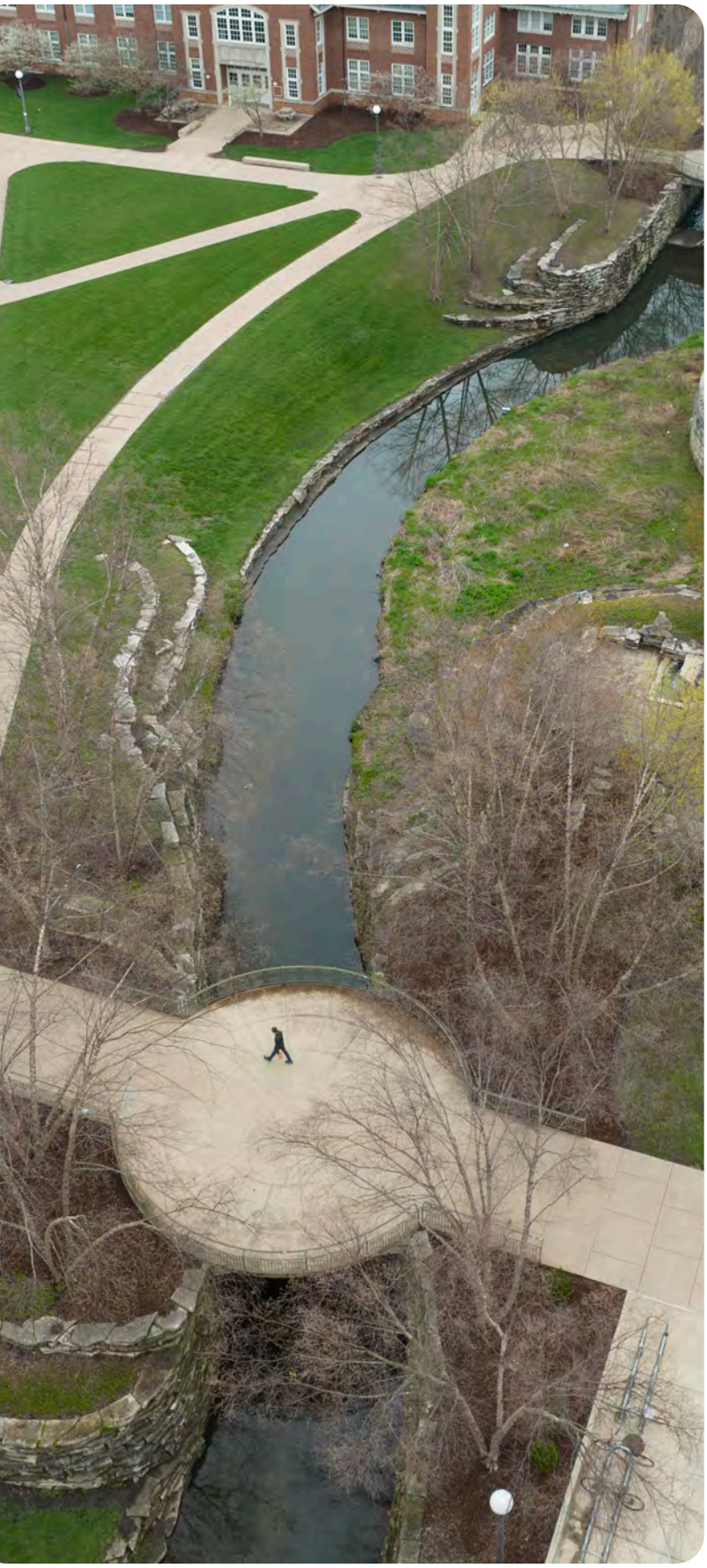
The Illinois Climate Action Plan (iCAP) was developed by the Institute for Sustainability, Energy, and Environment (iSEE), with broad public input and final approval by the Chancellor. The document states that “our campus has an urgent responsibility to sustainably manage everything from the water we drink to the crops we harvest to the pollinators we rely on for survival. Strategies to address these and other concerns include implementing green infrastructure, designing resilient landscapes, and restoring our ecosystems.” These iCAP

CAMPUS MASTER PLAN (ADOPTED 2017)

THE RESILIENT LANDSCAPE STRATEGY (ADOPTED 2019)



ILLINOIS CLIMATE ACTION PLAN (ICAP) UPDATED 2020



Critical ecological zones will be further restored as part of the CLMP

goals adopted by the University seek to increase tree canopy, increase rainwater capture, reduce potable water use, increase biodiversity, improve air quality, reduce atmospheric carbon dioxide, reduce the heat island effect, and increase pollinator-friendly, native plantings. While considerable progress has been made towards the iCAP goals, the recommendations within the Campus Landscape Master Plan will provide strategies and recommend specific applications, locations and costs.

ACKNOWLEDGING INDIGENOUS LANDS AND PEOPLES

The desire of the Native American students, staff, and faculty is to restore the campus landscape in accordance with traditional ecological knowledge and stewardship practices and to acknowledge a time of renewal and strengthening of Native Nations across the United States. Beginning in the late 1980s, American Indian and Alaska Native students, faculty, and supporters have been calling for a dynamic cultural space. After nearly fifteen years of Native student protests and lobbying efforts of university affiliated individuals and Champaign-Urbana community members, the Native American House (NAH) opened in 2002. In 2003, the Committee on Native American Programs was formed. In 2009, the Native American House joined the Office of Inclusion and Intercultural Relations, where it continues its commitment to support Native and non-Native students at the University of Illinois.

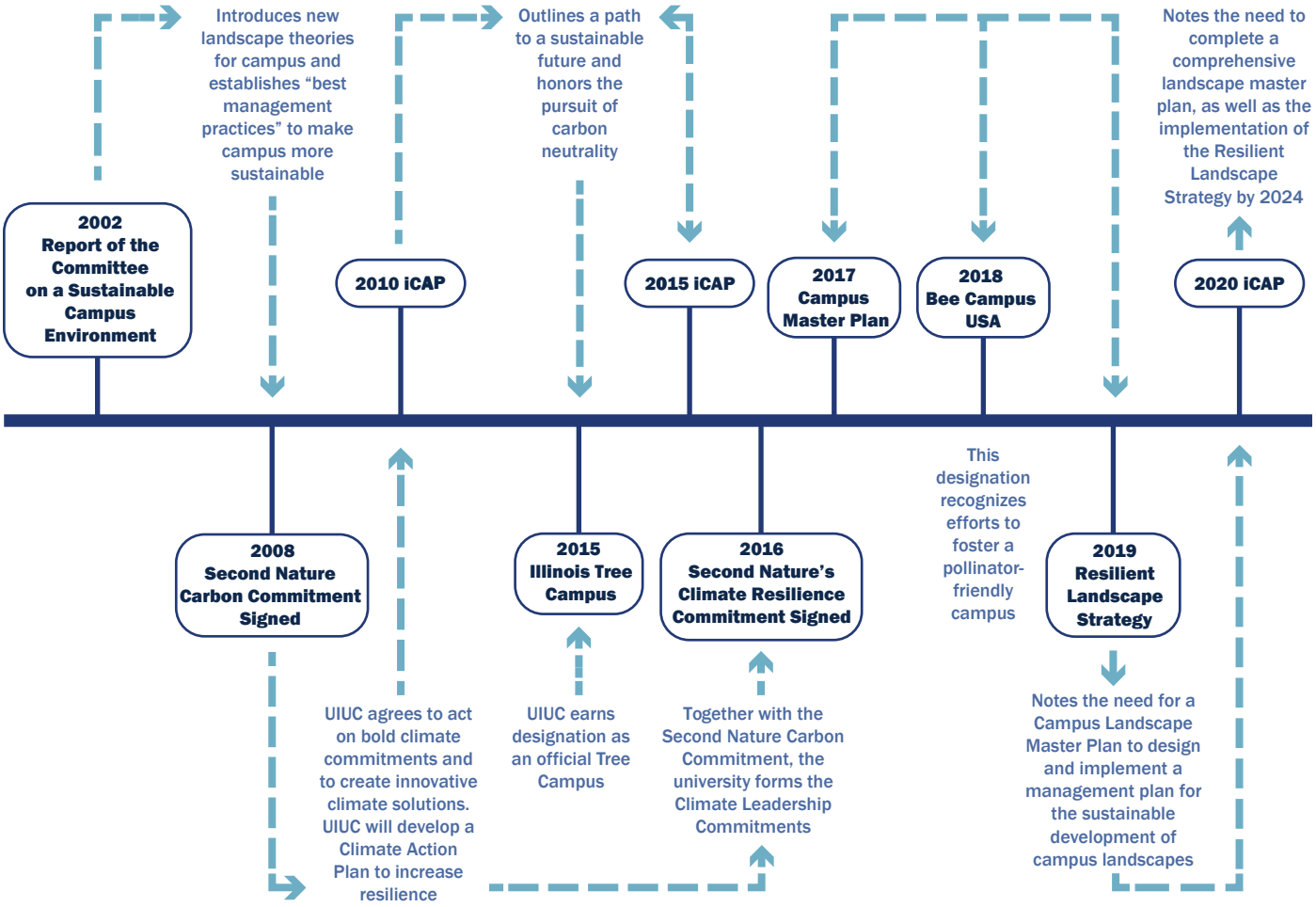
Throughout the CLMP process, the campus community expressed a desire to provide a visible and lived native presence on campus. Stakeholders posed questions like “What might it look like for our land grant university to act boldly with respect to acknowledging the history of the land we walk every day?” The intent of the CLMP is to implement this desire by suggesting spaces for connection, reflection and learning and by providing opportunity for the Indigenous community to engage in and to lead the solutions to some of the pressing challenges our landscape faces. The CLMP begins to restore the campus landscape through traditional ecological knowledge and stewardship.

The landscape should center past and present Native American and Indigenous peoples in ways that transcend beyond a singular monument or sculpture. By layering the voices and lived experiences of Indigenous peoples within the built landscape, new spaces on campus can become restorative, educational and engaging. By restoring native plantings on campus, and doing so in

an engaged and educational way, Indigenous peoples and their history and ties to the land are represented on campus in an intentional way. The way in which a Native American presence is materialized on campus must create welcoming spaces for Indigenous members of the campus and broader community and normalize the indigenous presence on campus in a meaningful way. The landscape should be a reflection of the land acknowledgement statement. The version below is the preferred version of the Native American House.

I/We would like to begin today by recognizing and acknowledging that we are on the lands of the Peoria, Kaskaskia, Piankashaw, Wea, Miami, Mascoutin, Odawa, Sauk, Mesquaki, Kickapoo, Potawatomi, Ojibwe, and Chickasaw Nations. These lands were the traditional territory of these Native Nations prior to their forced removal; these lands continue to carry the stories of these Nations and their struggles for survival and identity.

As a land-grant institution, the University of Illinois has a particular responsibility to acknowledge the peoples of these lands, as well as the histories of dispossession that have allowed for the growth of this institution for the past 150 years. We are also obligated to reflect on and actively address these histories and the role that this university has played in shaping them. This acknowledgement and the centering of Native peoples is a start as we move forward for the next 150 years.



Timeline of UIUC's sustainability plans and actions as related to the campus landscape

A CULTURAL SHIFT

The Resilient Landscape Strategy touches on the concept of a "cultural shift" that needs to occur in order to achieve the sustainability goals across the campus . The University has been making a commitment towards sustainability for the last two decades through various climate commitments and initiatives. **Notably, twenty years ago in 2002 the "Report of the Committee for a Sustainable Campus Environment" stated:**

"The campus landscaping philosophy does not embrace modern principles of ecology. Landscape considerations are subordinate to buildings." "Native species are rarely used. There are few places designed to provide habitat for wildlife. Impermeable surfaces abound. Stormwater is piped away rather than percolating onsite to refresh groundwater and diminish downstream flooding." The Report was the result of a charge to a "Committee on a Sustainable Campus Environment" appointed by the Vice Chancellor for Administration and Human Resources, to recommend "guidelines and best practices to bring our academic and business operations and management of our buildings and grounds in line with accepted principles of sustainability ... in the areas of procurement, transportation, facilities, landscaping, and energy."

Eight years later in 2010, the first iCAP was drafted. This became a seminal document that has initiated a wholesale change in the approach to sustainability on the university. In 2015, the university earned its first annual designation as an official Tree Campus. Then, in 2018, the university became the first in the Big Ten to achieve Bee Campus USA certification. As part of this effort, The Integrated Pest Management (IPM) program for the Facilities and Services (F&S) Grounds department was formally established. Despite these commitments, the current landscape does not yet reflect the vision for a resilient landscape and many of the challenges outlined in the 2002 Report of the Committee for a Sustainable Campus Environment remain today.

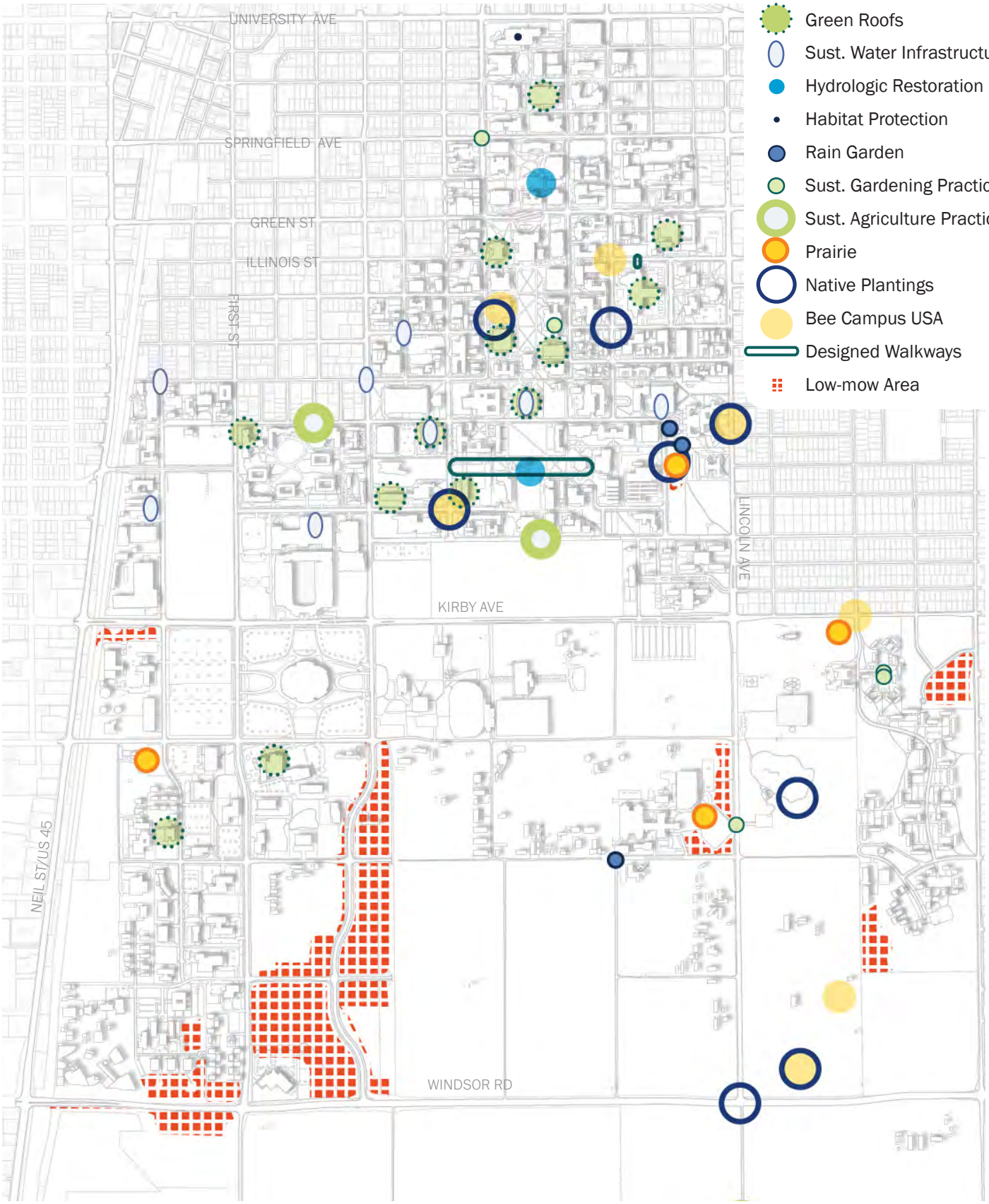
A GLOBAL LEADER

At UIUC, the campus landscape provides the shared, public setting within which we work, relax, and engage with each other and through which we welcome the broader community. Campus landscapes also sustain us. Landscapes clean our air, sequester carbon, filter rainwater, provide habitat for pollinators, and provide us with respite, beauty, inspiration, and restoration. Campus landscapes are intrinsically tied to every aspect of our lives and therefore are as essential to our health and well-being as any brick-and-mortar infrastructure. Our campus landscape can provide learning opportunities for the entire campus community and has the potential to impact not only the future of campus but the future landscapes of the world as the international community of UIUC takes and applies those experiences, lessons, and impacts of the campus landscape to their lives and communities.

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint of 17 goals for a resilient future. While many goals stated therein can have impacts to the sustainable future of the UIUC campus community, not addressing the impacts of Climate Change and biodiversity loss, could greatly impact the future resiliency of the campus. Technical Summary to the IPCC Special Report on Climate Change and Land (SRCCL) states that "current geographic spread of the use of land, the large appropriation of multiple ecosystem services and the loss of biodiversity are unprecedented in human history ". It also states that "Sustainable land management (SLM) makes strong social and economic sense. Early action in implementing SLM for climate change adaptation and mitigation provides distinct societal advantages." Failure to or delayed response to mitigating the continued impacts of climate change will increase requirements for adaptation and may reduce the efficacy of future land-based mitigation options. There is a cost to doing nothing. Not changing to a resilient landscape will likely result in multiplied costs in the future through increased energy usage, continued habitat loss and, more importantly, decline in health and wellbeing of the campus community.

There are tangible and intangible benefits to be derived from the CLMP recommendations. Incorporating tangible benefits into a pro forma – such as generating water quality/quantity credits, reducing maintenance, or saving energy – can be relatively straightforward. However, monetizing the opportunities of intangible benefits such as creation of smart spaces, improved safety, building habitat, providing respite and attracting new talent to the university for study, partnerships or research are not yet standard practice. Recognizing these opportunities as fringe benefits that sustain enrollment, attract faculty and students, and facilitate infrastructure for research will support factoring the lost opportunity costs into the equation. While some of these benefits can be widely unknown and not intuitively recognizable, they have a long-term cost benefit implication for UIUC.

iCAP PROJECTS



Location of iCAP projects that meet "Land and Water" goals.
Source: University of Illinois Urbana-Champaign Illinois Climate Action Plan (iCAP)
https://icap.sustainability.illinois.edu/map

SCALE 1"=1,500'

PROPOSED PLAN OUTCOMES

View of the Main Quad looking south-east

As a university that has to sustain enrollment for the coming decades, attract faculty, researchers and students to the campus, it is imperative that we consider the campus landscape as an asset, just like the buildings and facilities. A 2005 study by the Department of Horticulture and Landscape Architecture at Washington State[1] indicates that 62% of students base their college decision on the appearance of landscapes and buildings on campus. The campus community of the future is looking for experiences that will engage them, challenge them and educate them. Peer institutions in the Big Ten are supportive of a more resilient Campus Landscape, whether it is by integrating sustainability benchmarks or by creating a funding mechanism to implement the strategies. For instance, in 2022 Penn State announced that of the fundraising of more than $2B, a portion will go towards creating “transformative” experiences that go beyond the classroom; and impacting the world “by serving communities and fueling discovery, innovation and entrepreneurship.”[2] The CLMP factors in an important group of tangible and intangible benefits as a significant return on investment to implement the plan recommendations as visible outcomes.

With effective focused design, direction, and support, the campus landscape can transform into multi-functional high performance spaces that support teaching, research activities, and mental restoration while increasing the economic success of the university by drawing new students and donors. The plan needs to drive the retention of high-quality students and faculty by building in climate resilience and positively impacting the challenges facing mid-west region and the world. Implementing recommendations of the CLMP will not only position UIUC as a world leader in resilient landscape design and management, it will embody that commitment. As the CLMP aims to implement the vision and goals set forth in the iCAP and Resilient Landscape Strategy, while honoring the heritage of the UIUC campus and lands, the plan positions UIUC to be a world leader in resilient landscape design and management.

1 Landscaping counts when students pick their schools – WSU Insider. Phillip S. Waite, Assistant Professor, Department of Horticulture and Landscape Architecture.

2 Penn State University article “Penn State Outreach and Online Education surpasses $43M Campaign goal” found at: https://www.psu.edu/news/outreach/story/penn-state-outreach-and-online-education-surpasses-43m-campaign-goal/

CORE PRINCIPLES

A thirteen-member Core Planning Committee designated to guide this effort as well as the input from stakeholders, helped craft eight core principles for the CLMP. The Campus Landscape Master Plan will be deemed a success if it:

1. Defines a shared vision of a sustainable campus landscape;
2. Defines a cohesive landscape aesthetic to reinforce branding and identity;
3. Recenters the stories of Native Americans within the landscape;
4. Honors the legacy of the historic landscape design;
5. Implements strategies that value rainwater as a precious resource;
6. Provides design guidance to address maintenance considerations;
7. Defines ways to leverage the landscape for learning, research and mental health; and
8. Identifies a clear funding structure and streamlines responsibilities to guide all future development decisions.

LANDSCAPE AS AN ASSET

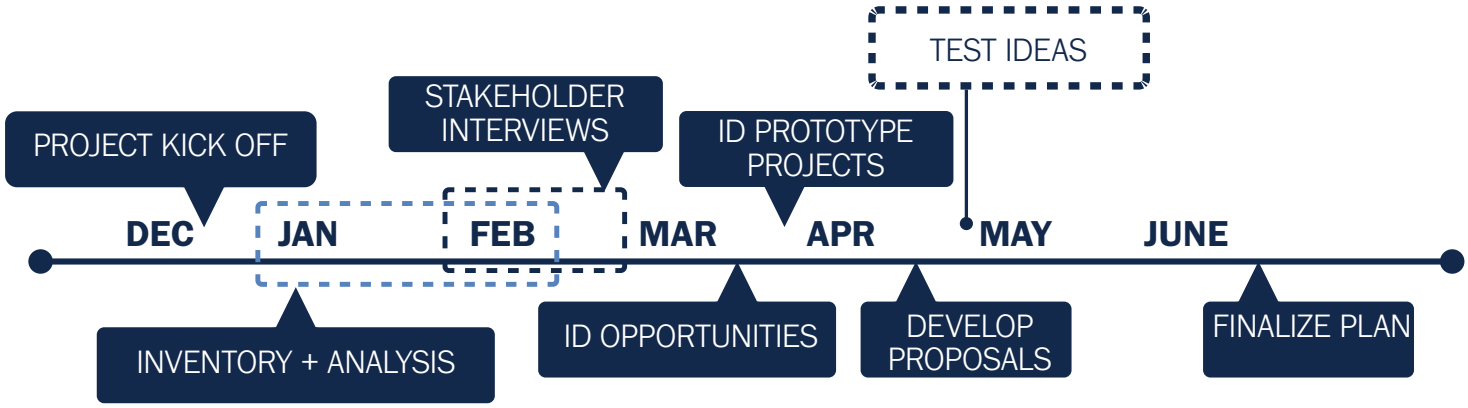
A 2005 study by the Department of Horticulture and Landscape Architecture at Washington State indicates that 62% of students base their college decision on the appearance of landscapes and buildings on campus.

A SHARED VISION

The Design Workshop team in collaboration with the sub-consultant team and the core client team developed a three-phase stakeholder engagement process that allowed the University leadership to actively listen and integrate the diverse viewpoints of the UIUC community regarding the campus landscapes. This process included outreach to a broad cross-section of stakeholders, and deployed a variety of engagement formats anchored in Core Planning Committee meetings within each phase. Outreach included:

Core Planning Committee Meetings within each phase

- 17 Stakeholder interviews
- 1 Student forum
- 3 Student design reviews
- 2 Community surveys
- Tours and on-site workshops
- 1 Public forum



A SHARED VISION

ENGAGEMENT METHODS

VIRTUAL INTERVIEW SERIES

During the Month of February 2022, a series of stakeholder listening sessions were hosted, allowing the team to gather input from UIUC staff and faculty, university departments, and community members of Urbana, Champaign and Savoy, and share information regarding the plan's goals and development. Stakeholders highlighted key issues regarding the campus landscape's function and design as well as identified opportunities to strengthen the CLMP.

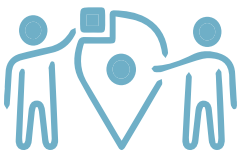
Interviews were held with the following groups with the support of a thirteen-member Core Planning Committee tasked with guiding the planning process and outcomes:

- Architecture Review Committee (ARC)
- Campus administration
- Campus Research Administrators Working Group
- Council of Deans
- University Housing
- F&S Expanded Management Team
- Division of Intercollegiate Athletics (DIA)
- F&S Grounds and Maintenance
- Facilities managers
- Faculty experts
- Native Affairs
- Students
- Representatives of the surrounding communities including Savoy, Urbana and Champaign

EQUITY ACROSS CAMPUS

"How the landscapes present to the campus community is directly tied to what the campus community experiences, and if they feel "part of" the community."

"The landscape should have a more holistic and balanced treatment across campus."



13 CORE COMMITTEE MEMBERS

35 PARTICIPANTS IN STUDENT FORUM

70 PARTICIPANTS IN PUBLIC FORUM

106 STAKEHOLDER INTERVIEW PARTICIPANTS

85 SURVEY RESPONSES

Over the course of interviews with 106 participants, common themes emerged:

1. Participants felt that **landscape strongly contributes to the economic success of the university.** This supports what we know from studies that have shown that students decide on their prospective colleges after only 10 minutes of being on a campus.

2. Participants expressed interest in addressing areas of deferred maintenance as a first priority and a **more even/ equitable investment in landscape across campus** was important for them;

3. They highlighted the need for a **higher priority set on landscape resilience** and noted that an intentional funding strategy is needed to support this.

4. The majority of participants felt that the **landscape should be funded to address resiliency factors**. Given the location and ecology of campus, several participants noted that UIUC should be a world-leader in resiliency and stormwater management. Strong support was expressed for landscape practices to align with LEED practices with facilities.

5. More maintenance staff are needed across the campus, specifically staff that have **special skillsets to manage sustainable landscapes** like Horticulturists, Ecologists, and Grounds Gardeners are needed. With the increase of native plantings and a call for more diversity in planting beds, there is a need for more specialized workforce.

6. When asked what is missing on campus a majority said: **outdoor "living room" type seating, spaces for gathering, studying in groups, eating – spaces that are multi-use and integrate technology** like power and Wi-Fi access to support outdoor learning. While this sentiment was emphasized by the Covid-19 pandemic, this will remain relevant for future generations.

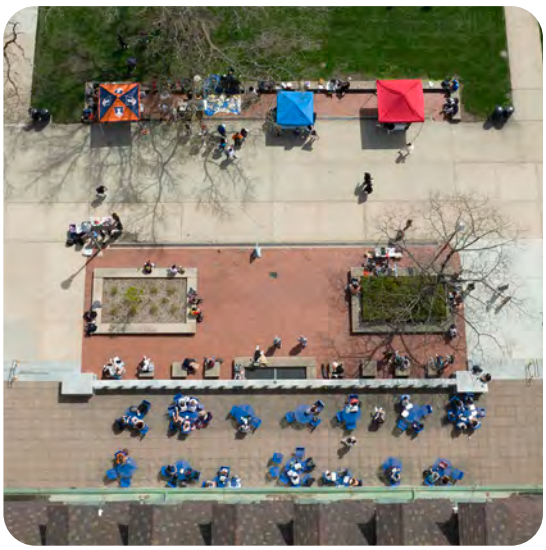
7. Students expressed a desire to be on a campus that places **sustainability at the forefront**. This was seen as one of the major drivers in the university's ability to attract and retain students, faculty and work force.

8. Lastly, several sessions noted that the **landscape is integral to the mental health** of the entire campus community. Our landscape spaces provide attention restoration and stress relief.

SPACES FOR GATHERING

"Students want more landscapes that feel like home to them, including more gathering spaces outdoors."

"Campus needs spaces that are multi-use and integrate technology."



Popular outdoor seating spaces at the Illini Union

View of Centennial Court linear seating

A SHARED VISION

The Landscape and Human Health Laboratory (LHHL) at UIUC is a multidisciplinary research laboratory dedicated to studying the connection between vegetation and human health. Time spent in and around tree-lined streets, gardens, parks, and forested lands is consistently linked to long-term health outcomes. The less green a person's surroundings, the higher their risk of morbidity and mortality – even when controlling for socioeconomic status and other possible confounding variables. The range of specific health outcomes tied to nature is startling, including relief from depression and anxiety disorder, diabetes mellitus, attention deficit/hyperactivity disorder (ADHD), various infectious diseases, cancer, healing from surgery, obesity, birth outcomes, cardiovascular disease, musculoskeletal complaints, migraines, respiratory disease, and others. Stakeholder shared that the campus landscape should be thought of as a healing garden.

SUSTAINABILITY AT THE FOREFRONT

Stakeholders view sustainability as a major driver in the university's ability to attract and retain students, faculty and work force - therefore, the campus landscape should place sustainability at the forefront.

CORE PLANNING COMMITTEE

The Core Planning Committee provided institutional knowledge, guidance, support and review throughout the CLMP process. The committee review of landscape master plan progress documents at the 50% plan draft and 90% plan draft milestones was particularly astute and helpful in finalizing this important work.

ONLINE SURVEYS

Following the interview series and the public forum, two publicly available surveys were launched. Survey #1 received 85 responses, while survey #2 received 21 responses.

PUBLIC FORUM

On April 27th, 2022, the CLMP team hosted a virtual online seminar with Q&A. The session concentrated on the review of prototypical concept design ideas for each of the eleven districts across campus and tested strategies to achieve a more sustainable landscape.

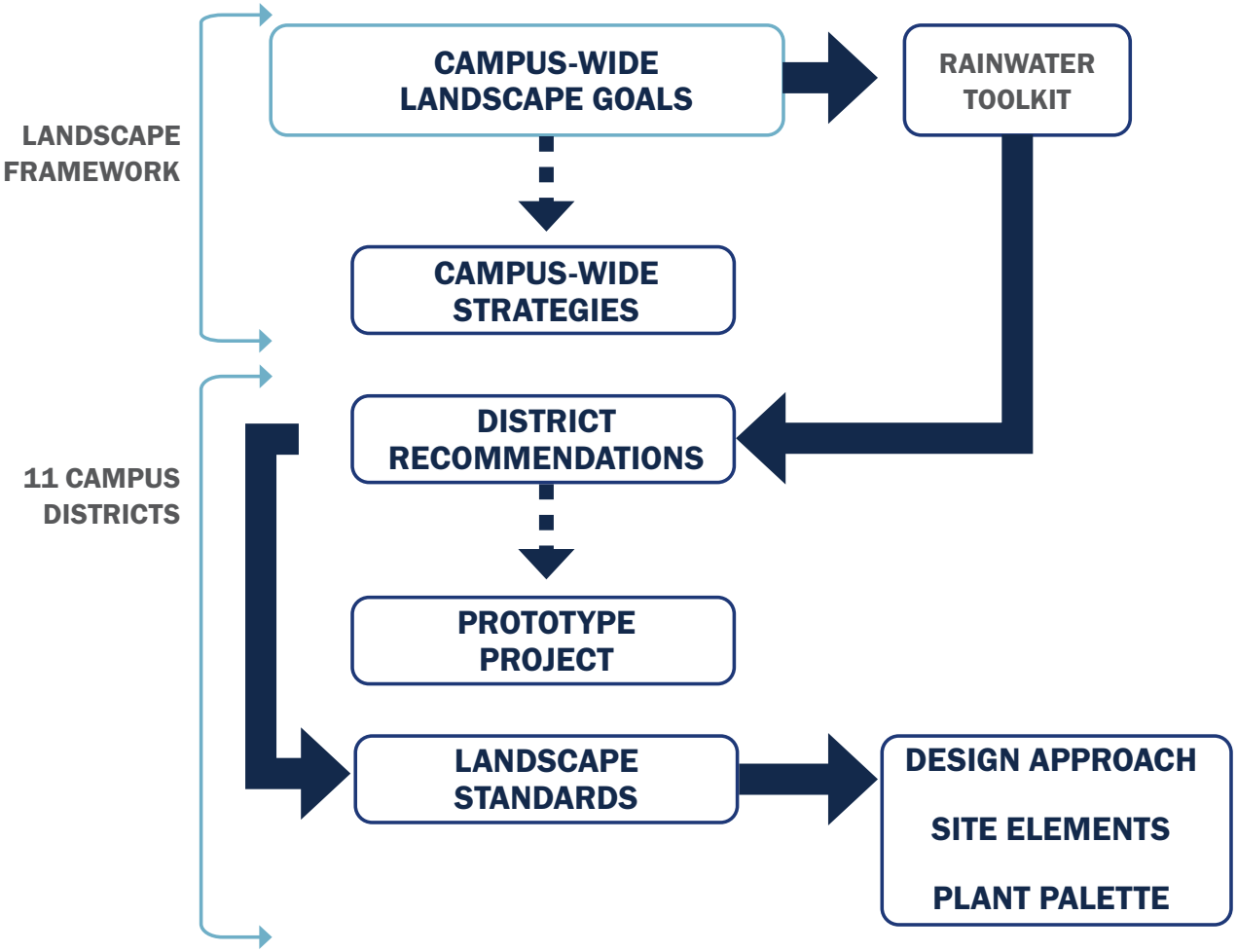
For a full capture of stakeholder engagement, see Appendix A.

PLAN ORGANIZATION

The CLMP is organized into two parts; a “Framework” section which is comprised of campus-wide goals and strategies. Many of these goals reference the “Rainwater Toolkit,” which summarizes a “kit-of-parts” approach to capture rainwater across campus, provided in the Appendix.

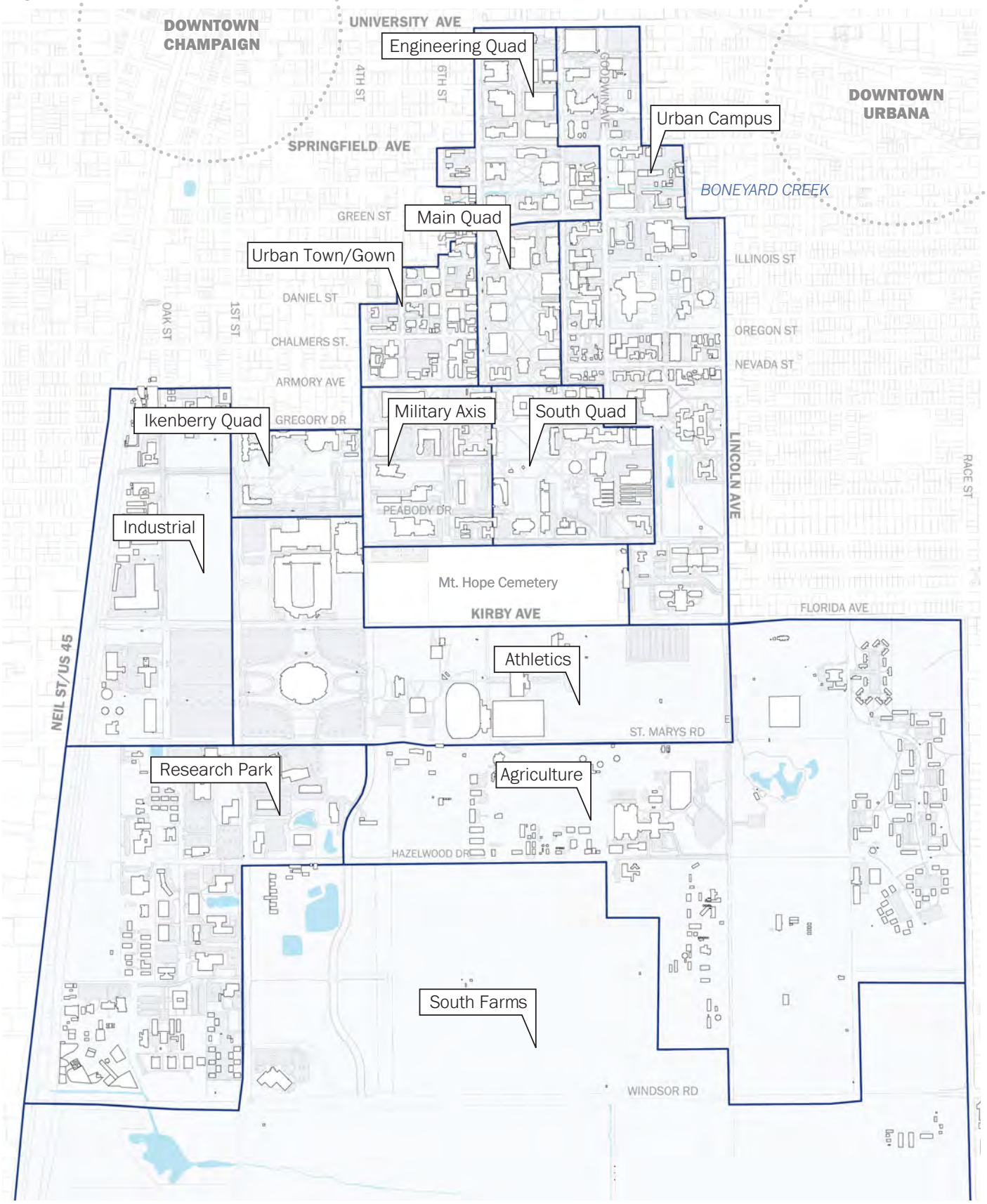
The second part of the plan is focused on the eleven districts across campus, as defined by the Campus Master Plan. District-wide recommendations are provided and expressed through one prototype project per district. These prototypes are intended to demonstrate the campus-wide goals, and landscape standards.

The following exhibits illustrate the place-based recommendations of the CLMP. The legend items depicted in blue represent the landscape recommendations in the Campus Master Plan. For further detail and description of these recommendations, see the “District Recommendations and Prototype Projects” section of this plan.



CAMPUS DISTRICTS

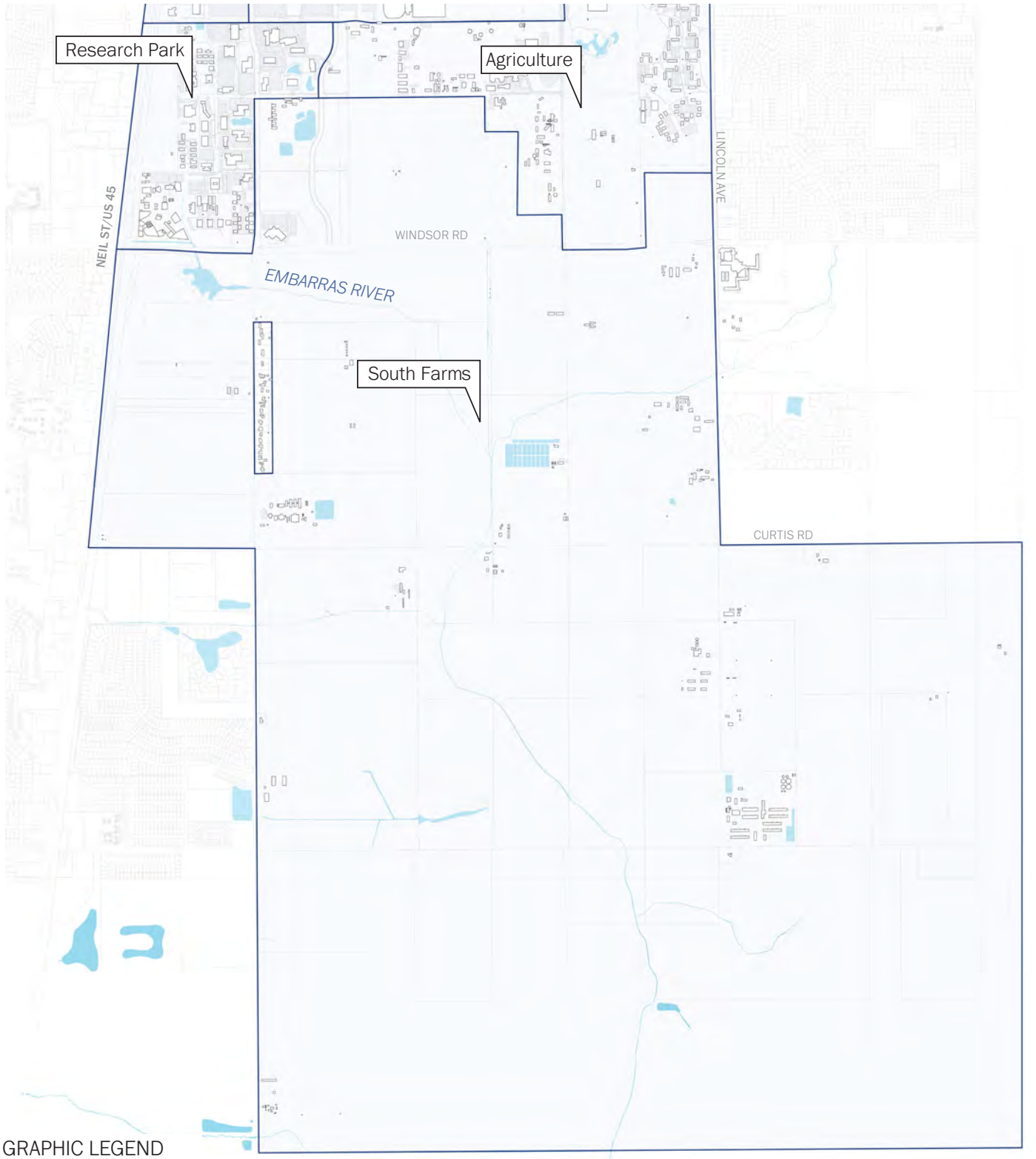
NORTH



Note: The South Farms is not an official district in the 2017 Campus Master Plan

SCALE 1"=1,500'

SOUTH



GRAPHIC LEGEND

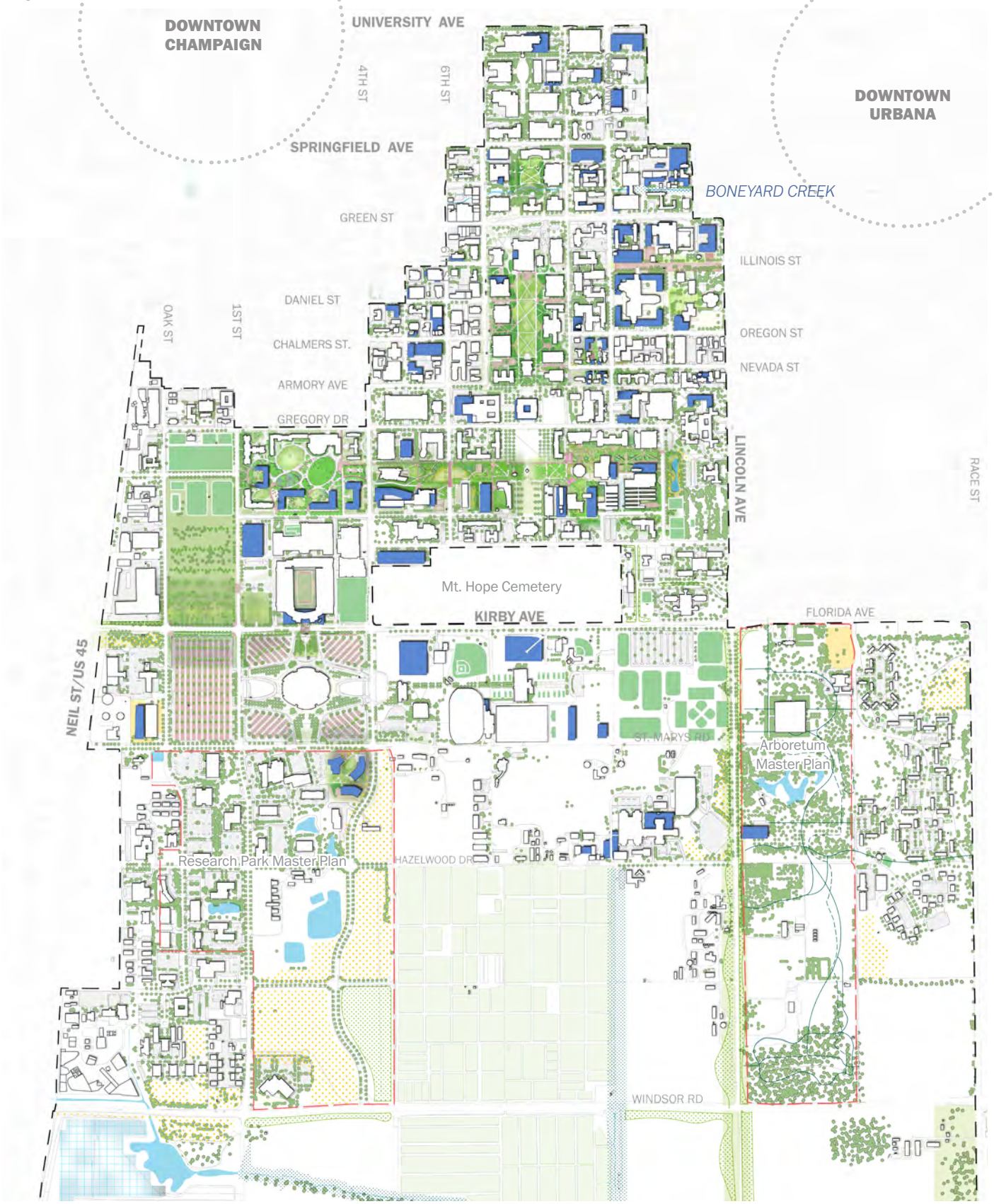
- Existing university building
- District boundary
- Water body

Note: The South Farms is not an official district in the 2017 Campus Master Plan

SCALE 1"=2,000'

THE 2022 CAMPUS LANDSCAPE MASTER PLAN

NORTH



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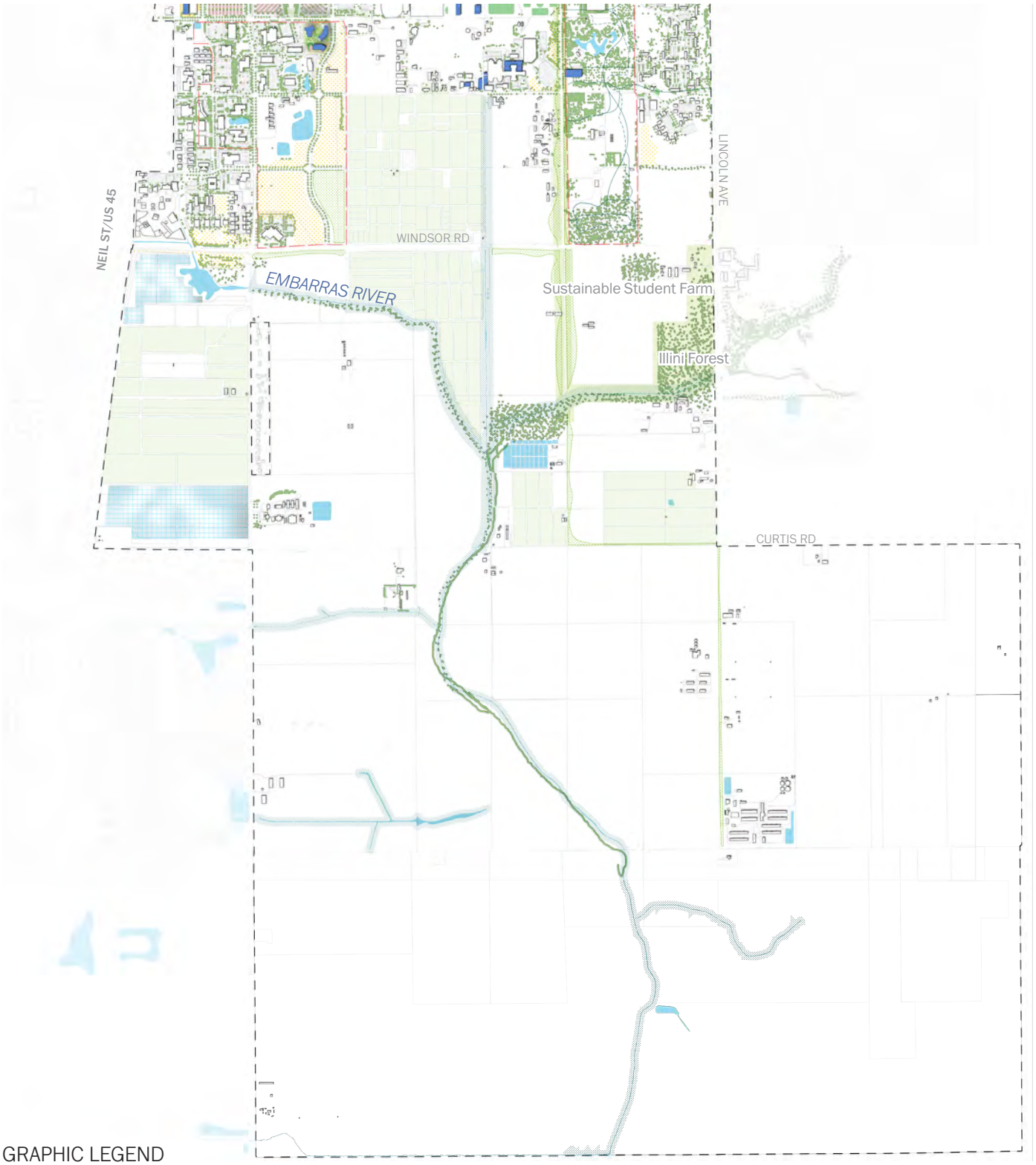
SOUTH



GRAPHIC LEGEND

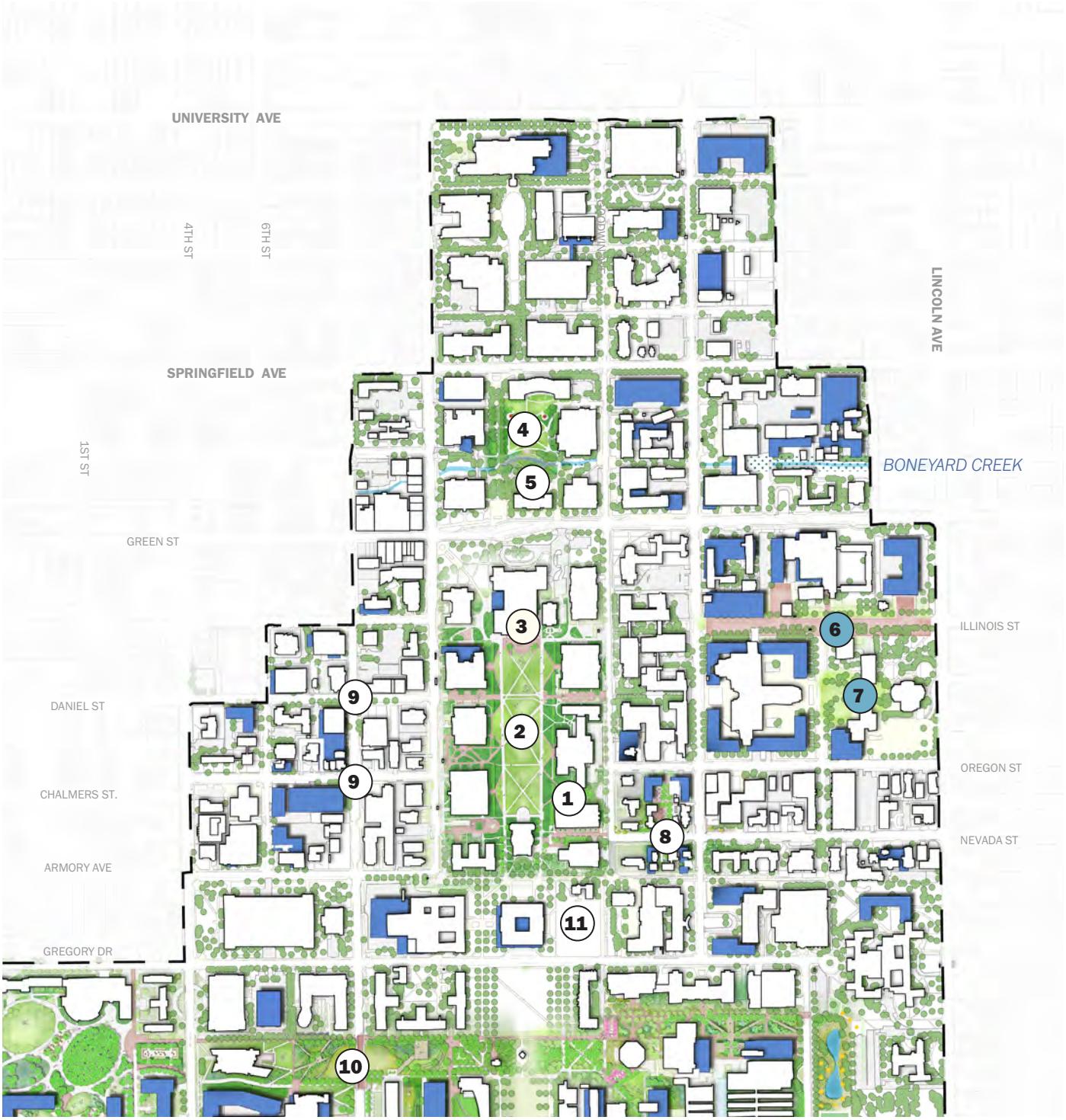
- Future building*
- Proposed prairie planting
- Proposed riparian enhancement
- Proposed landscape conversion
- Separate master plan exists
- Existing prairie
- Recreational fields
- Agricultural plots
- Solar farm
- --- Study area boundary

SCALE 1"=2,500'

*(*ALL REFERENCES TO FUTURE BUILDINGS ARE PER THE 2017 CAMPUS MASTER PLAN)*

2022 CAMPUS LANDSCAPE MASTER PLAN

NORTH

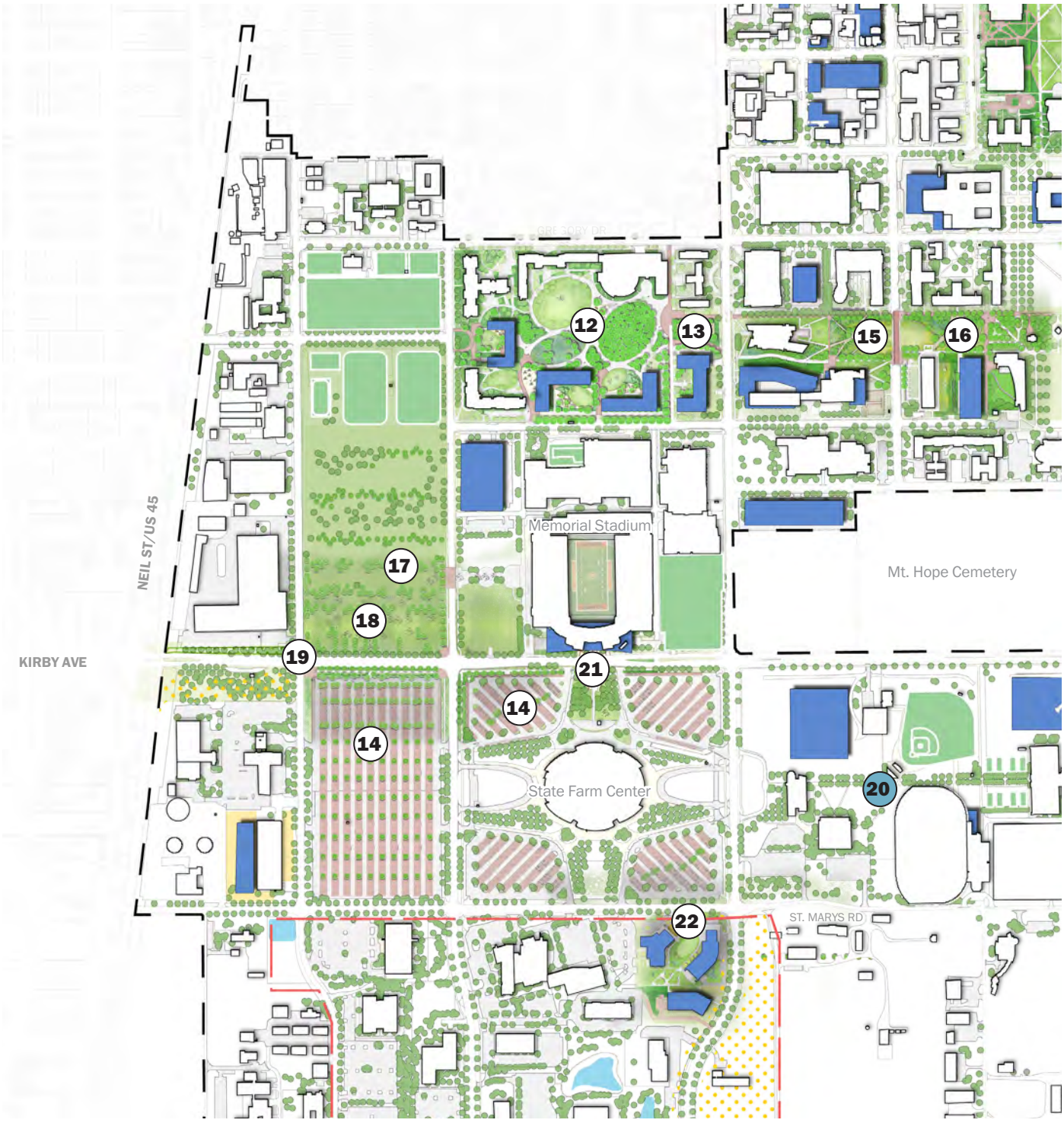


PROGRAM LEGEND *Proposed by the 2017 Campus Master Plan*

1. Enhance Main Quad courtyards
2. Main Quad turf restoration
3. Anniversary Plaza restoration
4. Bardeen Quad enhancement
5. Boneyard Creek enhancement
6. Illinois Street experience
7. Arts Park
8. Nevada Cultural Courts
9. Streetscape revitalization
10. Military Axis enhancement
11. Morrow Plots enhancement

SCALE 1”=750’

WEST



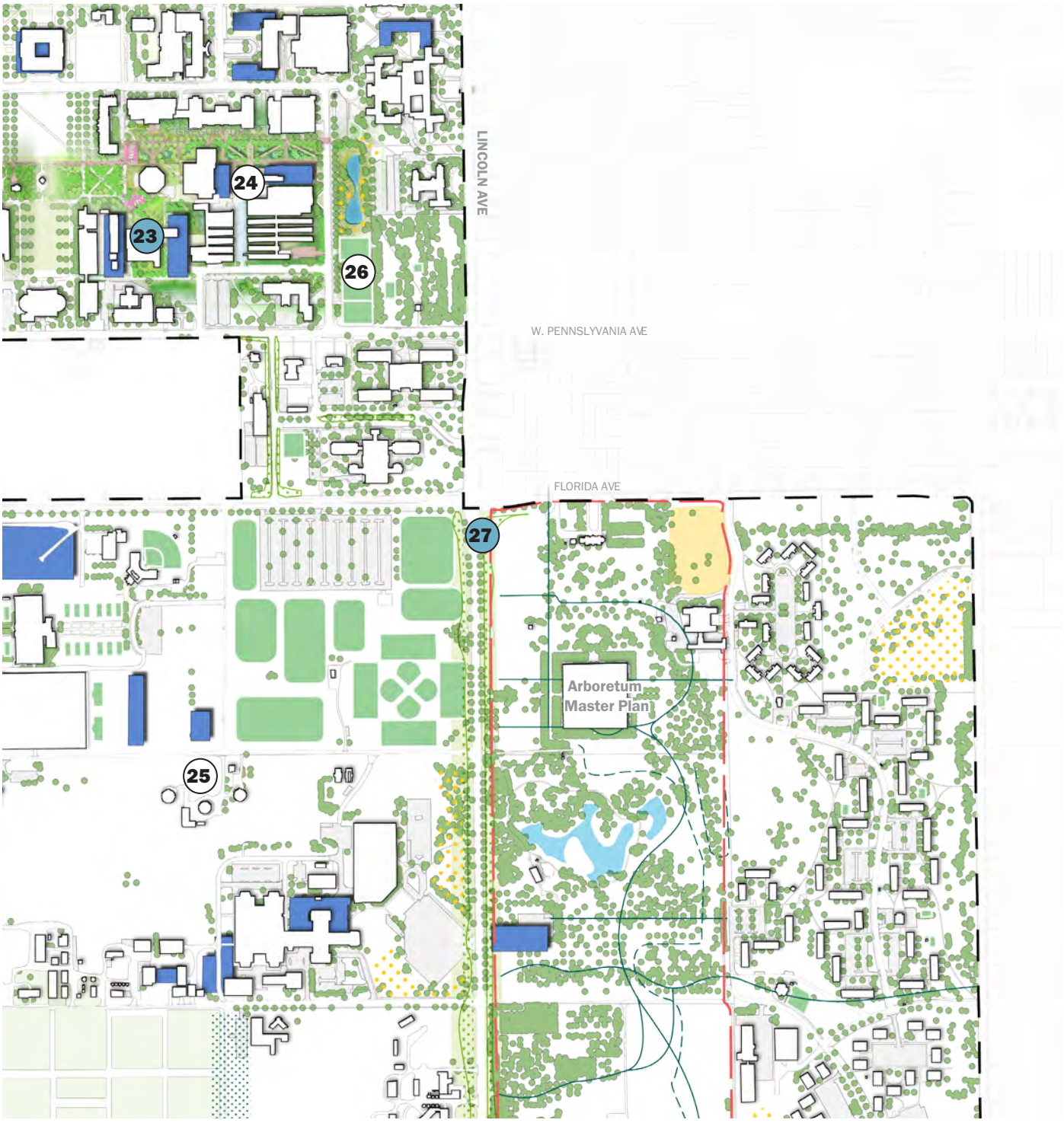
PROGRAM LEGEND *Proposed by the 2017 Campus Master Plan*

12 Ikenberry Innovation Commons
13 Illinois student showcase
14 Multi-functional parking
15 Eco-region experiential path
16 Outdoor classroom
17 Stadium Terrace renovation
18 Game day plaza
19 Kirby Avenue corridor
20 Fighting Illini Promenade
21 Memorial Stadium entry plaza
22 Research Park Quad

SCALE 1"=750'

2022 CAMPUS LANDSCAPE MASTER PLAN

EAST



PROGRAM LEGEND *Proposed by the 2017 Campus Master Plan*

23 ACES Quad

24 Rainwater showcase

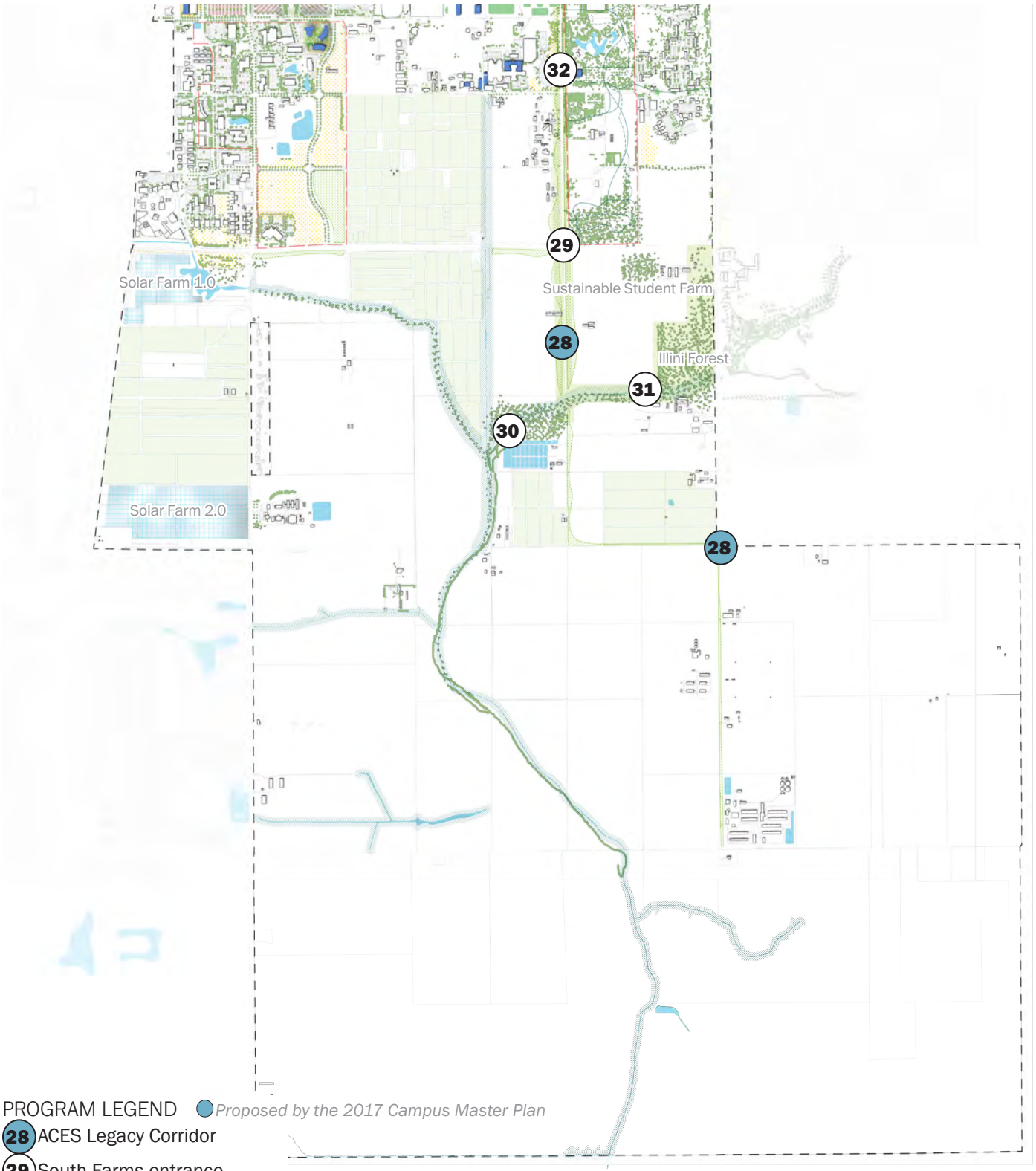
25 Round Barns preservation

26 New pedestrian connection to Illini Grove

27 ACES Legacy Corridor

SCALE 1”=750’

SOUTH



PROGRAM LEGEND *Proposed by the 2017 Campus Master Plan*

28 ACES Legacy Corridor

29 South Farms entrance

30 Embarras River restoration

31 Illini Forest trail

32 Illinois Extension gateway

SCALE 1"=2,500'

2

LANDSCAPE FRAMEWORK

High-level goals establish priorities for the Campus Landscape Master Plan (CLMP) based on campus evolution, prior planning and the stakeholder outreach process. Details to implement of these goals resonates throughout the District Recommendations and the Prototype Applications section of this plan. Achieving this agreed goals, in some cases, represents a departure from the current landscape practices and priorities. Reaching the the campus sustainability targets, embodied in these aspirational goals requires changes in funding structures, staffing levels, organizational structures and maintenance practices. Where applicable, these departures are highlighted, and the Implementation Chapter of the CLMP provides guidance on to how to address them.

LANDSCAPE GOALS

GOAL 1 | CARE FOR HISTORIC ASSETS AND INVEST IN THE EXISTING LANDSCAPE

WHAT WE HEARD

"There is a demand for gathering in outdoor spaces. The smaller courtyards on campus need to be enhanced."

"Historic ecology needs to be integrated into the landscape story."

Historic foundational planting

The Main Quad is a crucial historic asset that should be enhanced and preserved.

RATIONALE

Recognizing the campus historical evolution that precedes them, there are two recent documents that identify historic and memorial landscape heritage, design coherence and historic landscapes to preserve and acknowledge. The Getty Foundation Campus Heritage Grant Program Report (2007) and the UIUC Campus Preservation Plan (1995) overlap in defining these places.

The Getty Foundation Campus Heritage Grant Program Report (2007) and the UIUC Campus Preservation Plan (1995) identify a number of places and features having historic value including heritage trees, class memorials, sculptures, water features, gated entrances, courtyards, and plazas. The Getty study serves as the most recent inventory of these character-defining features. Preserving spaces and objects with historic significance on campus is critical as deferred maintenance is addressed in the near-term and as renovation of these spaces is undertaken. While the campus will continue to evolve, respecting and maintaining this history will enrich the present and be valued in the future.

The two maps capture the large and small scale heritage features designed landscapes and memorials. The map represents a preliminary capture of historically significant spaces and objects across the UIUC campus. 42 features identified in the 2008 Getty study are color keyed.

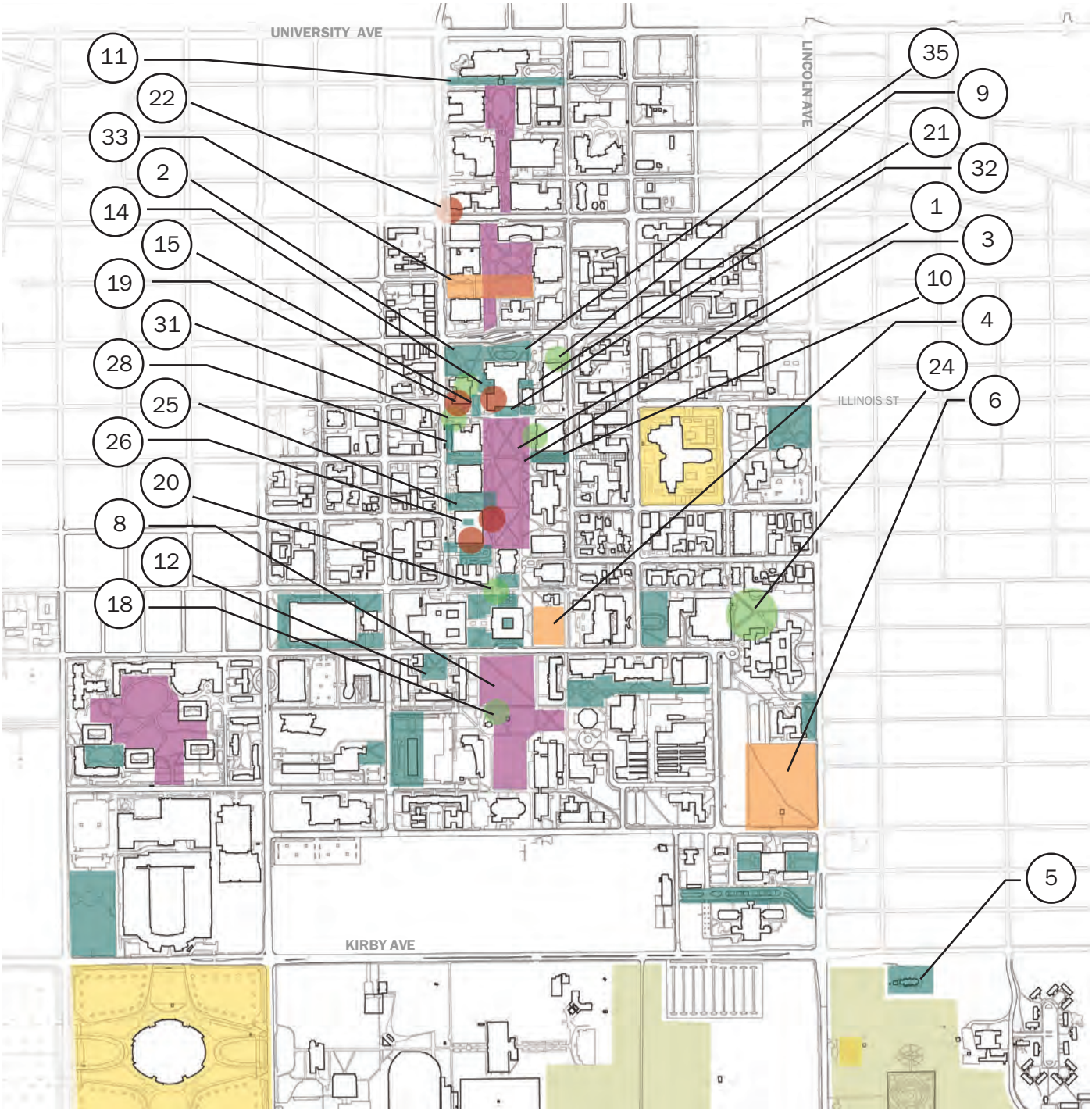
1995 Campus Preservation Plan	2008 Getty Campus Landscape Heritage Study	CPP Heritage Index Score 5= High 1= Low	Landscape or Landscape Feature Name
1	1	4.96	Quadrangle/South Lawn
2	2	4.83	Alma Mater Statue
3	-	4.67	The Broadwalk on Quad
4	25	4.59	Morrow Plots
5	37	4.25	President's House Gardens
6	30	4.18	Illini Grove
7	-	4.13	Burrill Avenue North
8		4.04	South Quadrangle
9	3	3.96	Burr Oak at Natural History Building
10	4	3.89	Centennial Court
11	34	3.81	President's Walk
12	26	3.81	Commerce/Architecture Courtyard
13		3.75	Sasaki Planting Scheme
14	5	3.7	Diana Fountain and Surrounding Plaza
15	22	3.7	Worthy Grove
16	-	3.59	Military Axis
17	-	3.53	Green Street Axis
18	-	3.5	Mumford House Plantings
19	6	3.48	President Gregory's Grave
20	28	3.43	Sycamore Tree
21	7	3.33	Bald Cypress Tree
22	35	3.32	1909 Senior Class Memorial Fountain
23	-	3.31	Kentucky Coffee Tree
24	31	3.25	Austrian Pines
25	8	3.21	Japanese Memorial Grove
26	-	2.95	Lincoln Hall Theater Court
27	-	2.75	WW1 Memorial Trees at Armory (pines oaks)
28	19	2.67	Administration Building West Entrance
29	-	2.54	Alumni Association Memorial Seating
30	-	2.49	E.J. James Memorial Courtyard
31	11	2.42	Twin Burr Oaks
32	-	2.41	Mother's Association Anniversary Plaza
33	33	2.22	Boneyard Creek
34	-	2.2	Limber Pine at Stock Pavilion
35	13	1.83	Robert Heath Memorial
36	40	1.54	University Arboretum
-	9	-	Lincoln Hall War Memorial
-	10	-	Class of 1900 Senior Bench
-	12	-	English Building & Lincoln Hall Courtyard, Chi Omega Plaza
-	14	-	Eternal Flame Memorial and Magnolias
-	15	-	Beech Tree

1995 Campus Preservation Plan	2008 Getty Campus Landscape Heritage Study	CPP Heritage Index Score 5= High 1= Low	Landscape or Landscape Feature Name
	16	-	Swanlund Plaza at Harker Hall
	17	-	Noyes Lab Trees
	18	-	Lincoln Hall and Greg Trees
	20	-	Henry Administration Building and English Building Courtyard
	21	-	Krannert Center for Performing Arts
	23	-	Quad Gateway
	27	-	Undergraduate Library Plaza
	29	-	Education Building Grounds
	32	-	Bardeen Engineering Quad
	36	-	North Engineering Quad
	38	-	Japan House and Gardens
	39	-	Hartley Garden
	41	-	Round Barns
	42		South Farms
			Historic Building Name
-	-	5.00	Altgeld Hall
-	-	4.84	Foelinger Auditorium
-	-	4.68	Assembly Hall
-	-	4.67	Illini Union
-	-	4.46	Lincoln Hall
-	-	4.45	Smith Memorial Hall
-	-	4.44	Architecture Building Gateways
-	-	4.43	Engineering Hall
-	-	4.42	Armory Building
-	-	4.39	Natural History Building
-	-	4.3	Architecture Building
-	-	4.28	Library
-	-	4.27	Round Dairy Barns
-	-	4.25	English Building
-	-	4.25	Mumford Hall
-	-	4.21	Memorial Stadium
	-	4.15	Metallurgy and Mining Building
-	-	4.14	Mumford House Plantings
-	-	4.08	Wm. Albert Noyes Laboratory
-	-	4.07	Davenport Hall
-	-	4.03	George Huff Hall
-	-	4.01	Surveying Building

Sources: 1995 Campus Preservation Plan, 2008 Getty Campus Landscape Heritage Study

UIUC CAMPUS LANDSCAPE HERITAGE:
1995 CAMPUS PRESERVATION PLAN

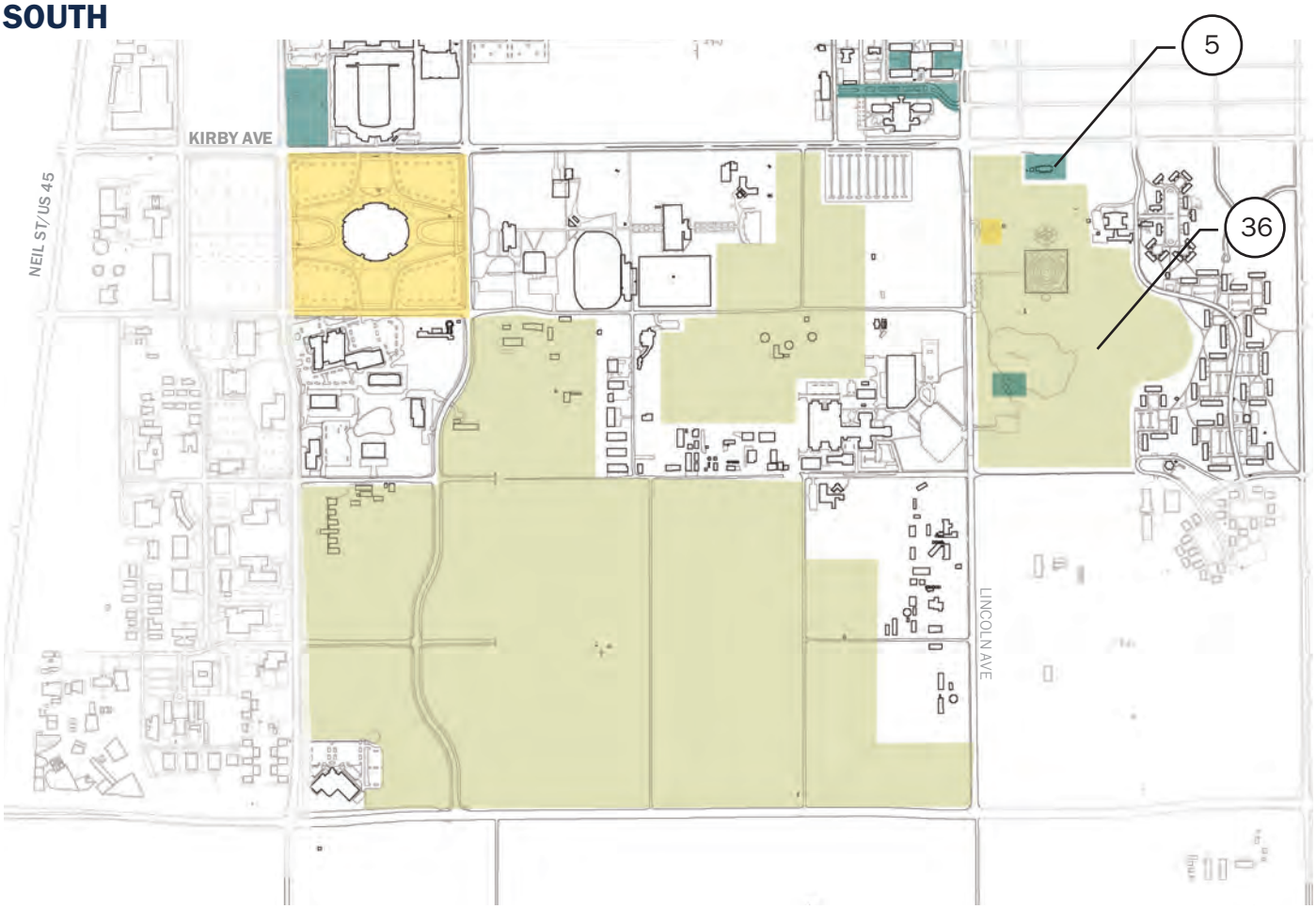
NORTH



Note: see chart on p. 26 for corresponding number legend

NTS

SOUTH



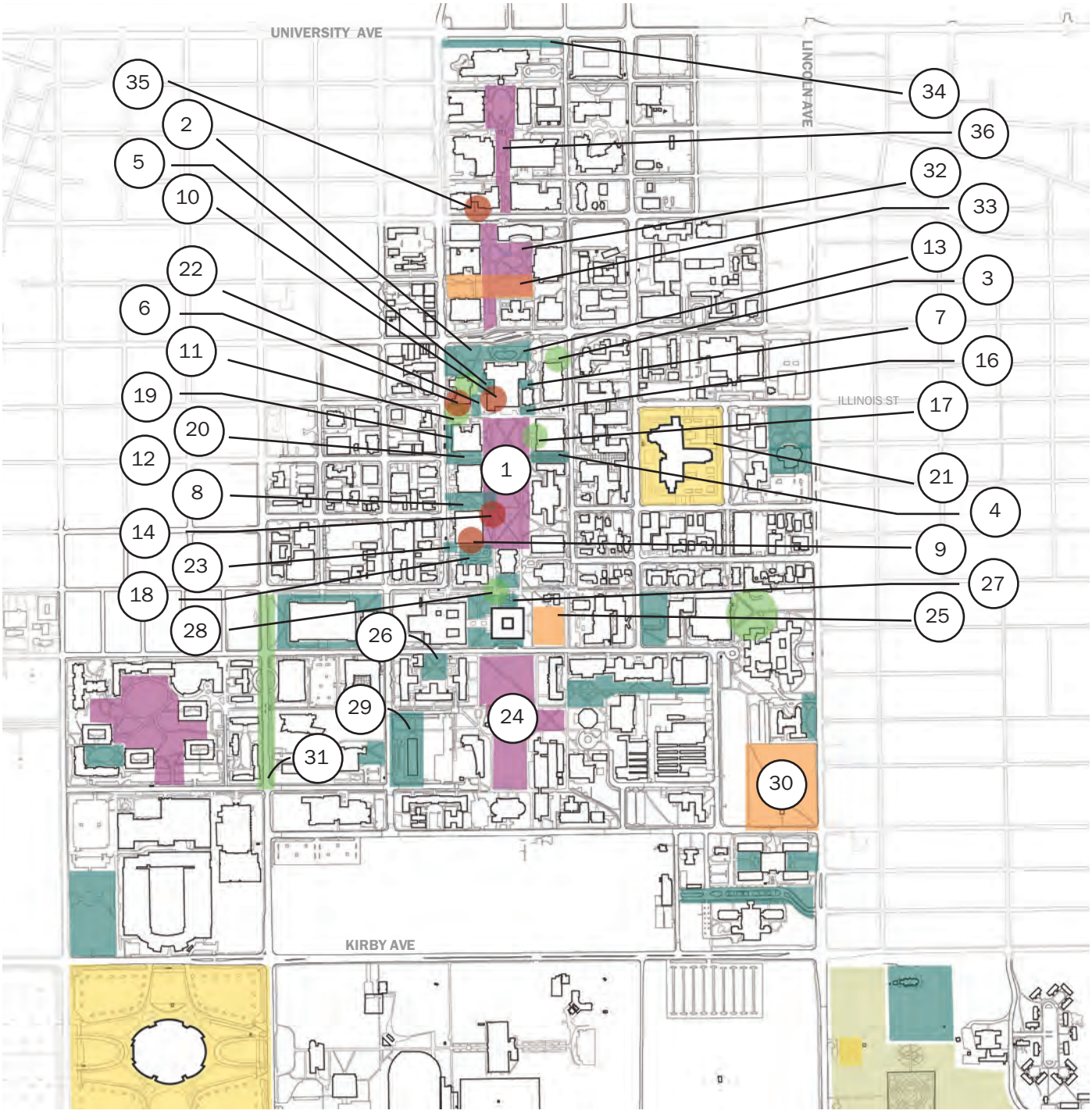
GRAPHIC LEGEND

- Formal large scale quads
- Modernist landscapes and buildings
- Formal building landscapes and axes
- Morrow Plots, Illini Grove and Boneyard Creek
- Agriculture
- Historic trees
- Memorial objects

SCALE OF SOUTH DIAGRAM IS 1/2X SMALLER THAN NORTH

UIUC CAMPUS LANDSCAPE HERITAGE:
2008 GETTY GRANT REPORT

NORTH



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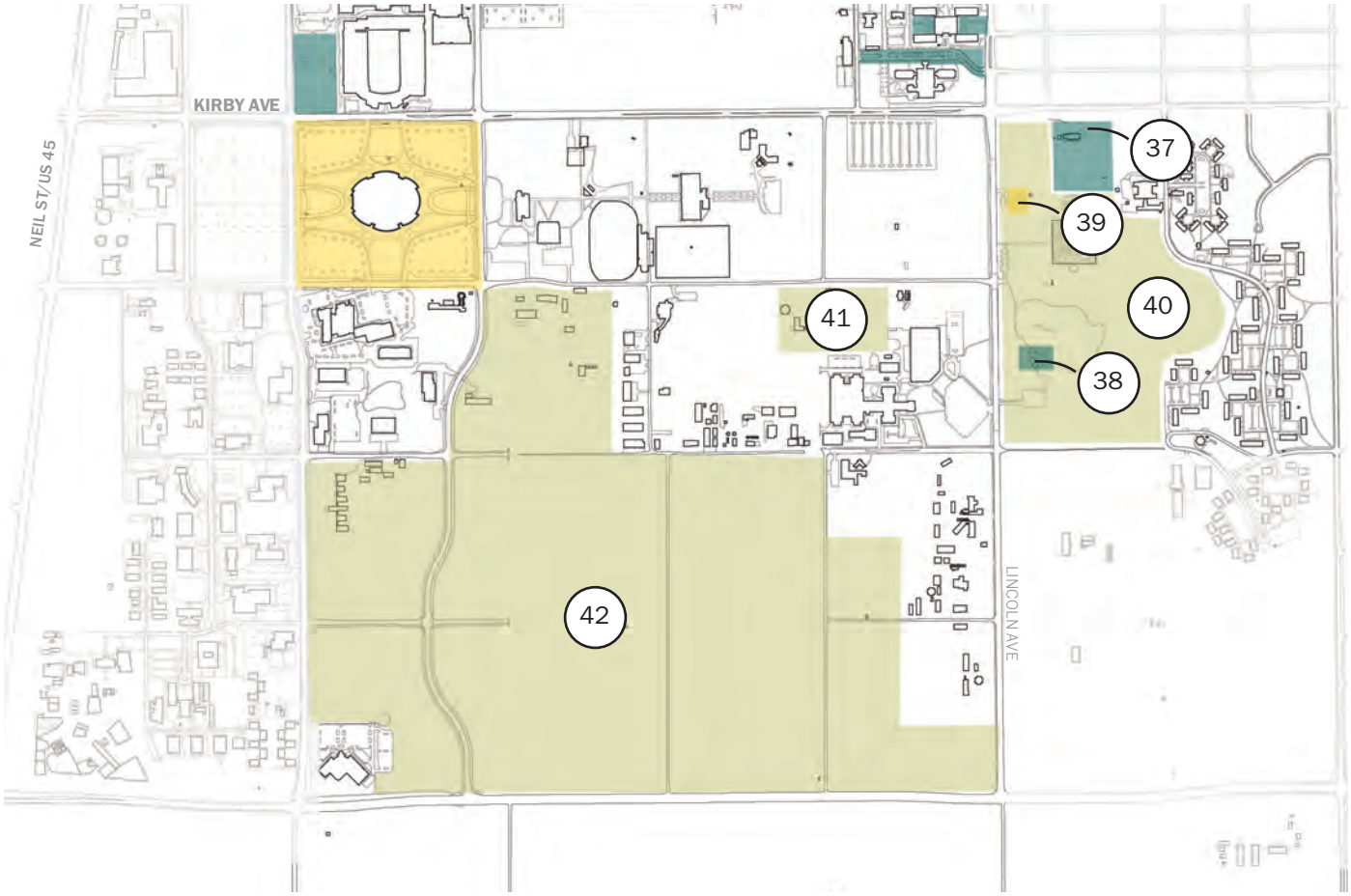
SOUTH



GRAPHIC LEGEND

- Formal large scale quads
- Modernist landscapes and buildings
- Formal building landscapes and axes
- Morrow Plots, Illini Grove and Boneyard Creek
- Agriculture
- Historic trees
- Memorial objects

SCALE OF SOUTH DIAGRAM IS 1/2X SMALLER THAN NORTH

LANDSCAPE GOALS

The legend of the plan portrays the range of types for these specific campus landscape features including formal formal large-scale quadrangles, Morrow Plots, Illini Grove and Boneyard Creek, modernist landscapes design around buildings, agriculture of South Farms, historic trees and memorial objects. The National Historic Landmark Morrow Plots are particularly important as a researched agricultural experiment plot. The design landscapes, spaces, memorial features and objects are enumerated and important to the integrity, feeling and association of the campus landscape.

The table provided tabulates both plans and their corresponding locations on campus as well as the Campus Preservation Plan Heritage Index Score which is based on a 5.00 scale:

- First Importance: “Outstanding” (5) in architectural or historical significance, worthy of listing in the National Register of Historic Places. Retain in continued use. Should be treated with respect and in strict compliance with the Secretary of the Interior’s Standards and Guidelines. Interpretive efforts are warranted.
- Second Importance: “Significant” (4) in terms of architecture, design, history, or associations, in most cases suitable for National Register or district listing. Treatment requires careful consideration consistent with the Secretary’s Standards and Guidelines. Appropriate for marking.
- Third Importance: “Important” (3) in the fabric of the campus but not necessarily in historic or design terms. Includes properties necessary to complete the integrity of a group or area. Any treatment, including adaptive use, should be carefully handled consistent with the Secretary’s Standards and Guidelines and Campus Planning Procedure Documents/Guidelines. Alteration or elimination of properties in any of the first three categories must be thoroughly documented.
- Fourth Importance: “Neutral” (2) in terms of historical or design interest, but realistically permanent structures, the maintenance or treatment of which requires consideration of impact on surroundings.
- Least Importance: “Bad” (1) Unsuited for continued use because of negative impact on functions or surroundings. Suitable for removal, subject to verification of absence of heritage values.

Refer to the Inventory Report associated with this plan for further documentation of the campus design evolution from the 1870s to the present, influenced by notable landscape architects and architects.

STRATEGIES

1.1: Utilize the Campus Preservation Plan and Getty Reports for all future landscape interventions to ensure these assets are preserved and maintained.

1.2: Tell the story of the history of the land by reviving campus’ historic ecosystems.

1.3: Advance design consideration and protection of the specimen trees on the historic Quad to ensure their long-term viability on the campus. These considerations must include soil-based measures to maintain the favorable rooting conditions essential for good tree health.

1.4: Protect existing trees and landscape holistically through all design and construction projects. Integrate soil and hydrological considerations into the planting recommendations.

1.5: Support the natural site hydrology and the historic site vegetation, through the harvesting, and infiltration, and reuse of rainwater, beyond what is required by code.

1.6: Apply Rainwater Toolkit in a manner compatible with the historic campus landscape character. Refer to goal 12.

GOAL 2 | REFLECT THE INDIGENOUS MIDWEST ACROSS ALL CAMPUS LANDSCAPES

WHAT WE HEARD

"What might it look like for our land grant university to act boldly with respect to acknowledging the history of the land we walk every day?"

Native prairies on campus are already contributing towards this goal.

Prairies reflect the native Illinois landscape and have significant ecological and cultural value.

RATIONALE

The landscape should provide spaces for campus' past and present Native American and Indigenous peoples community by layering their voices and life experiences within the built landscape. Spaces to serve and reflect campus' Native American community should be restorative, educational and engaging. This is accomplished by building relationships with potential collaborators to ensure the Indigenous peoples are represented in the design process. The desire of the Native American students, staff, and faculty on campus is to restore the landscape in accordance with traditional ecological knowledge and stewardship practices and to acknowledge a time of renewal and strengthening of Native Nations across the United States.

STRATEGIES

2.1: Deliberately pursue an opportunity to provide spaces for campus' Native American community to gather and heal.

2.2: Build nation-wide relationships with potential Native American collaborators, including faculty, students, researchers and designers, to ensure Indigenous peoples are part of the solution to the challenges the landscape faces. Ensure collaborators are compensated for their efforts.

2.3: Embed Native American professionals as team members on landscape projects to facilitate incorporation of Indigenous people's knowledge in sustainable materials, design, and landscape management strategies. This will involve taking steps to ensure a procurement value chain is established.

LANDSCAPE GOALS

GOAL 3 | MAXIMIZE INNOVATION POTENTIAL WITHIN THE CAMPUS LANDSCAPE

WHAT WE HEARD

The campus community sees landscape gathering spaces adjacent to buildings as critical to support and encourage exchange. It is within these interstitial spaces where relationships are born and ideas are generated.

Encourage a variety of scaled spaces for connection and interaction.

Spaces for interaction and connection should be designed to meet students needs year round.

RATIONALE

This goal involves identifying new spaces that provide enhanced opportunities for social connection, idea-sharing and learning, and research. Specific interventions can include providing flexible classroom style seating; integrating Wi-Fi hubs and power outlets for the campus community; implementing seating layouts and infrastructure for research that encourage exchange and comfortable working and collaboration. The landscape should be multi-functional, integrating spaces to display or test students' and researchers' work.

STRATEGIES

3.1: Identify new flexible outdoor spaces and target existing spaces on campus to provide increased opportunities for social connection, idea-sharing, learning and research. Spaces for gathering should be provided within a five-minute walk of building entrances.

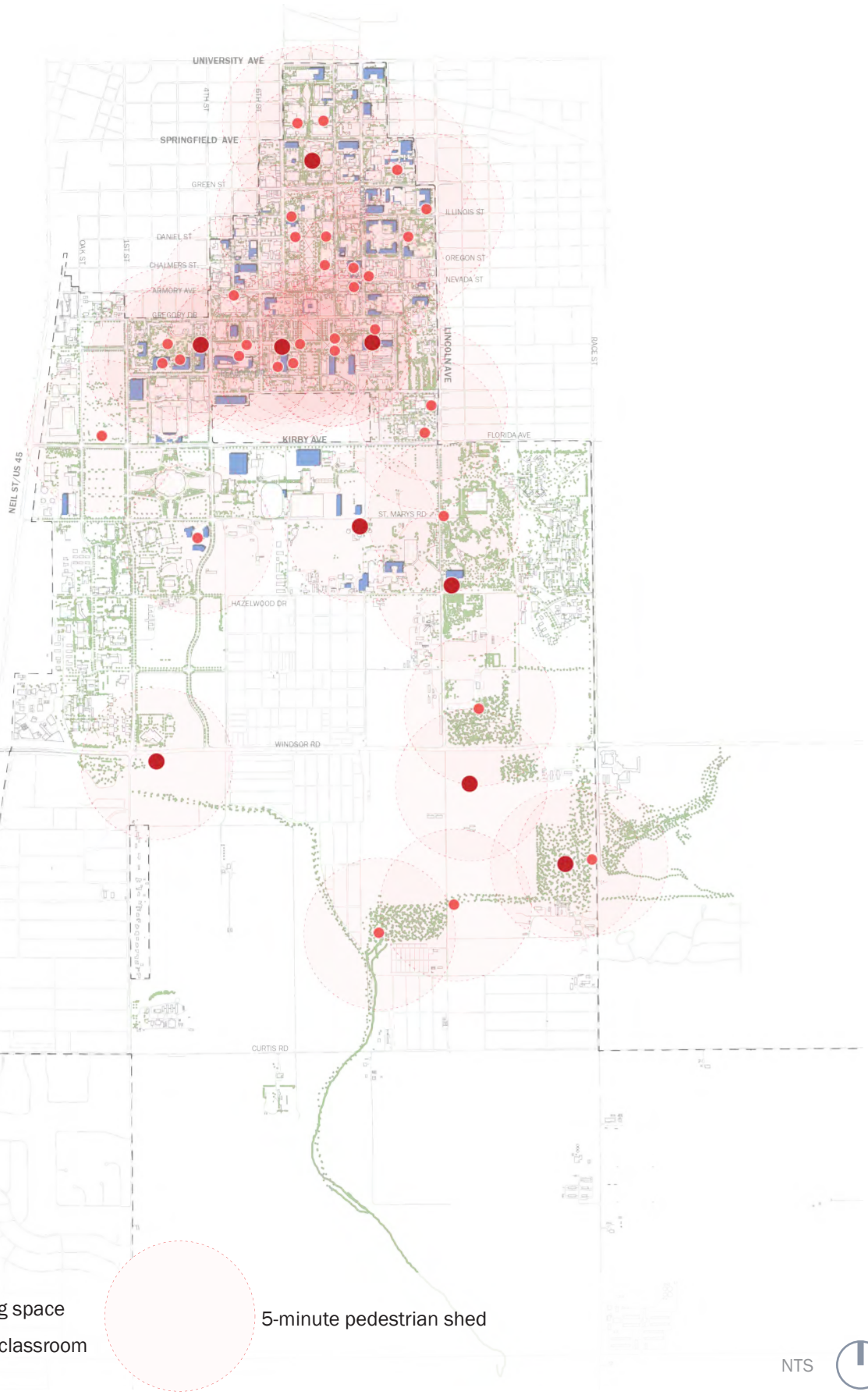
3.2: Re-envision identified outdoor spaces on campus to provide flexible classroom style seating.

3.3: Integrate outdoor Wi-Fi hubs and power outlets to facilitate learning and interaction for the campus community.

3.4: Implement outdoor seating arrangements that encourage exchange and comfortable working and collaboration spaces.

3.5: Integrate soft programming into outdoor social spaces, such as food truck pull-offs or plazas. The incorporation of soft programming may require additional scheduling services and identification of new "reservable spaces" by the Office of the Vice Chancellor Administration and Operations and other impacted stakeholders such as University Housing Dining Services.

PROPOSED GATHERING SPACES AND OUTDOOR CLASSROOMS AT UIUC



GRAPHIC LEGEND

- Proposed gathering space
- Proposed outdoor classroom
- Future building*
- 5-minute pedestrian shed

NTS

*(*ALL REFERENCES TO FUTURE BUILDINGS ARE PER THE 2017 CAMPUS MASTER PLAN)*

LANDSCAPE GOALS

GOAL 4 | CREATE MORE OPPORTUNITY FOR MENTAL HEALTH AND WELL-BEING ON CAMPUS

WHAT WE HEARD

Engagement with students revealed a lack of knowledge of some of campus' most valuable natural spaces. Several engagement sessions noted that the landscape is integral to the mental health of the entire campus community.

The Arboretum is campus' greatest asset for respite.

Gathering spaces on campus should be designed with principles of mental health.

RATIONALE

The campus has tremendous natural assets, such as the Arboretum, Stadium Terrace, Illini Grove, the South Arboretum Woods, Illini Forest, South Farms and the Embarras River. When linked, these assets can provide the campus community with places of respite as well as support the ecological systems. Many spaces that exist on the campus today for mental restoration will require reinvestment and enhancement for continued functioning into the future. The landscape should be utilized to support the intellectual work happening across campus by providing places of respite that can support the students' ability to think and recover from daily stresses.

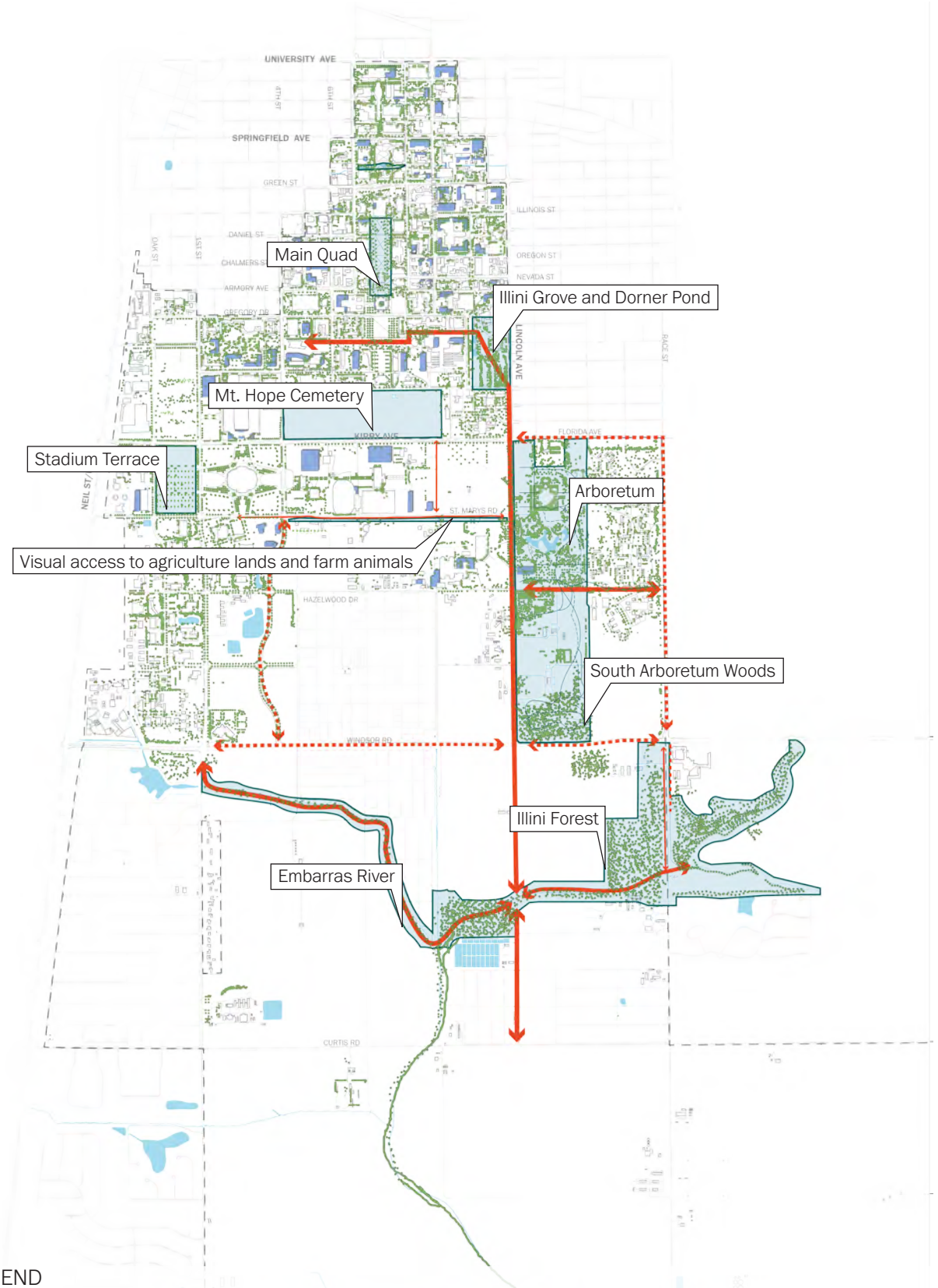
It is well documented that landscape spaces provide attention restoration and stress relief. The Landscape and Human Health Laboratory (LHHL) at UIUC is a multidisciplinary research laboratory dedicated to studying the connection between landscape features and human health. One recent article by the LHHL shows that contact with nature has been tied to health in a plenitude of studies. Time spent in and around tree-lined streets, gardens, parks, and forested and agricultural lands is consistently linked to objective, long-term health outcomes. The less green a person's surroundings, the higher their risk of morbidity and mortality – even when controlling for socioeconomic status and other possible confounding variables. The range of specific health outcomes tied to nature is startling, including depression and anxiety disorder, diabetes mellitus, attention deficit/hyperactivity disorder, various infectious diseases, cancer, healing from surgery, obesity, birth outcomes, cardiovascular disease, musculoskeletal complaints, migraines, respiratory disease, and others.

STRATEGIES

4.1: Create improved connections to existing campus assets intended for mental restoration.(i.e. Arboretum, Stadium Terrace, Illini Grove, Japan House, South Arboretum Woods, Illini Forest, South Farms and the Embarras River.)

4.2: Create new campus spaces and renovate existing spaces intended for mental restoration and respite.

CONNECTING PLACES AND CREATING SPACES FOR MENTAL HEALTH



GRAPHIC LEGEND

- Proposed gathering space
- Proposed outdoor classroom
- Future building*
- Major areas of respite on campus
- ACES Legacy Trail: bicycle facility
- ACES Legacy Trail: sidewalk addition
- Enhanced ACES Legacy Trail(At existing bicycle facility)

NTS

*(*ALL REFERENCES TO FUTURE BUILDINGS ARE PER THE 2017 CAMPUS MASTER PLAN)*

LANDSCAPE GOALS

GOAL 5 | CONNECT CAMPUS TO THE LARGER ECOLOGICAL CONTEXT

WHAT WE HEARD

"The historic landscape ecology needs to be integrated into the solutions."

RATIONALE

The U. S. Environmental Protection Agency (USEPA) ecoregion map locates the entire UIUC campus at the southeast corner of the Illinois/Indiana Prairie ecoregion 54a. This level IV ecoregion, covering roughly half the state, is generally characterized by fertile soils, which have benefited industrial agriculture to largely produce corn, soybeans, and livestock. As of 2016, agriculture comprises 84.2% of the land cover within the Illinois/ Indiana eco region.

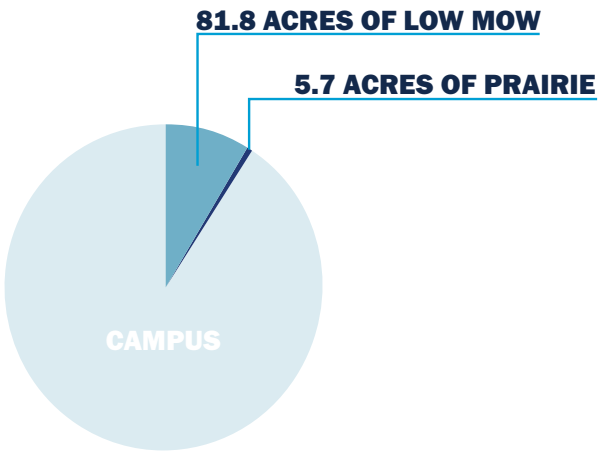
At the time of European settlement, swamps, marshes, and wet prairies were prevalent across this landscape, in addition to the more widespread tallgrass prairie. Forests grew in floodplains and riparian zones, and the more recently glaciated till plains were frequently covered in standing water, especially during the wetter seasons. Presently, extensive areas of land have been tilled and drained to make way for agriculture and urbanization. Agriculture at this scale has led to the degradation of these wetland areas and their habitat, and almost no original prairie remains.

Connecting the natural systems on campus to the regional systems provides numerous benefits pertaining to stormwater management and habitat. Habitat is an environment or ecosystem that effectively supports the survival and reproduction of a given population. Due to human development patterns, the habitats of many species are becoming increasingly fragmented. Evidence of worldwide declines in insect pollinators, such as bees and butterflies will have significant impacts on agriculture and ecosystems. Known ecological assets and areas of critical habitat should be protected, enhanced and/or restored.

STRATEGIES

5.1: Establish eco-corridors comprised of hydrological systems, native plants and trees to connect existing ecological assets (eco-assets) and create habitat corridors within campus that make connections to the larger regional systems. Eco-corridors are areas deliberately designed and/or managed to achieve a higher biodiversity than the surrounding urban or agricultural landuses surrounding campus.

Per the iCAP 2020, the campus goal is to increase native pollinator areas on campus, with an initial goal of 39 locations across campus by 2024. To the extent possible during the CLMP, aerial photographs, ground observations and GIS analysis were utilized to identify ecological assets on campus. As the eco connections across campus are strengthened, it is recommended that these areas be confirmed and evaluated for patch size and connectivity to best facilitate wildlife movement and other ecological flows such as habitat quality and species richness. Habitat quality can be measured utilizing the Floristic Quality Assessment, the USEPA Rapid Bioassessment Protocols or the US Fish and Wildlife Service Habitat Evaluation Procedures. Species richness, the number of different species present in an ecological community or landscape, is often used as an indicator of biodiversity. This data can be used to track success of the eco corridors over time. One example of species richness data collection is the citizen science tool eBird to capture the presence and abundance of bird species.



There are currently 81.8 acres of low-mow land and 5.7 acres of prairie plantings on university property. The iCAP goal is to increase the number of ground-level pollinator friendly landscape areas on campus by 2024 from 35 to 39.

A STRATEGY TO CONNECT ECOLOGICAL ASSETS ON CAMPUS

*(*ALL REFERENCES TO FUTURE BUILDINGS ARE PER THE 2017 CAMPUS MASTER PLAN)*

LANDSCAPE GOALS

DEFENITIONS

Eco-corridor: Promotes the passage of people and habitat by creating active transportation, reestablishing native species, managing stormwater and increasing tree canopy between "Eco-assets."

Eco-asset: Designated area of campus used to protect and restore habitat, value stormwater as a precious resource and accomplish iCAP resiliency goals. These sites also offer opportunities for learning, research and recreation.

Within this strategy, a primary east-west and north-south eco corridor is created across campus by identifying and connecting existing ecological assets including Illini Grove, the Arboretum and South Arboretum Woods, Illini Forest, the Embarras River corridor as well as recently added assets such as the Red Oak Rain Garden, the Dorner Pond restoration area and low mow zones across campus.

Low mow zones are a critical component of this strategy. These areas were established by F&S in 2010 to support sustainability, increase pollinator habitats and decrease maintenance costs. These areas serve as natural laboratories for horticulture, ornithology, entomology, environmental science classes and general observation. They enhance habitats for local and migratory birds and insects, including butterflies and bees, and they encourage higher quantities and quality levels of native plant growth. They also reduce fuel consumption and carbon emissions from mowers and landscaping equipment. There are currently 81.8 acres of low-mow land and 5.7 acres of prairie plantings on university property. As an initial focus, the CLMP recommends transitioning the low-mow areas to native vegetation that is short stature.

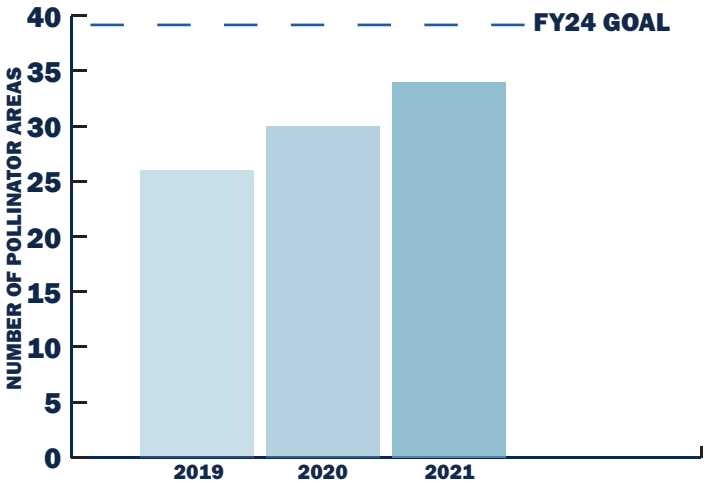
As new areas across campus transition to low mow, a direct seeding application should be applied in year one to begin establishment of native plantings, thereby redefining what is considered a low-mow zone. An increase in skilled grounds staff and responsibilities will be required to achieve this goal. (See funding structure and staffing recommendations in the Implementation chapter of the CLMP.)

5.2: Continue efforts to maintain Bee Campus and Tree Campus status. Increase staff levels and expertise to support this strategy.

5.3: Encourage the use of building materials that support habitat, such as "bee bricks" or the use of pollinator nesting boxes within the landscape.

5.4: Further efforts to diversify campus plantings, with an emphasis on native shrub and perennial plantings appropriate to the Illinois/Indiana eco region.

5.5: Provide access and exposure to ecological assets and their role in the global context. Communicate the benefits of the above strategies within an interactive augmented reality application available to the campus community. Example metrics or educational aspects to communicate could include building systems performance metrics, identification of ecological assets on campus, or metrics associated with landscape performance such as volume of stormwater treated.



The graph depicts the number of pollinator areas on university property. The goal is to reach 39 pollinator areas on university property by 2024.
Source: https://icap.sustainability.illinois.edu/metric/pollinator-friendly-areas

GOAL 6 | POSITION THE LANDSCAPE AS A LIVING LABORATORY

WHAT WE HEARD

Faculty experts shared that student involved in living laboratories on campus are more aware now, and new research ideas have been sparked as a result.

RATIONALE

The entire campus can be a research, testing and collaboration opportunity to contribute to the body of research at UIUC. This will position the University as a leader in resilient landscape design and management, leading innovation through research. Campus is the canvas where one can assess new and emerging technologies that utilize recycled or low-impact materials; test landscape components that generate power and test landscape management technologies that minimize environmental impact, test agricultural soil erosion controls, water and nutrient management for worldwide challenges or test/track landscape maintenance approaches. It can also be a testing ground for social behaviors in the hope of continuously improving the student and the campus community experience. This will translate to economic viability in the future. While many of these sites exist on campus currently, there is a low level of knowledge about the opportunity to use the campus as a living lab and the idea of using new landscaping areas as living labs is often ignored during the design process.

For research and practice pertaining to landscape performance, efforts should be made to contribute the implementation of this plan to the Landscape Architecture Foundation (LAF) Case Studies Investigation (CSI) program which is a research collaboration and training program for faculty, students, and practitioners. Through CSI, LAF funded faculty-student research teams work with leading practitioners to document the impacts of exemplary, high-performing landscape projects. Teams develop methods to quantify the environmental, social, and economic benefits of built projects and produce Case Study Briefs for LAF's Landscape Performance Series. The LAF also provides a resource entitled "Evaluating Landscape Performance – A Guidebook for Metrics and Methods Selection," which should serve as a reference for performance evaluation within living laboratory spaces. Campus landscapes must serve multiple functions, address multiple issues, and provide multiple benefits, while decision-makers, owners, investors, and policymakers are increasingly seeking proof that projects perform and provide return on investment. The LAF Case Study Investigation process can provide this proof while evaluating the performance of built projects to facilitate innovation.

STRATEGIES

6.1: With all landscape design projects on campus, include an analysis of how the landscape can be used for research, testing and collaboration. These installations should be reviewed by the Architectural Review Committee (ARC).

6.2: Utilize the landscape to provide exposure to the role of the landscape and the importance of sustainable design. Develop an augmented reality interface to educate and expose students to the impacts of the surrounding landscapes. Encourage living laboratory spaces on campus to provide "windows" of awareness into the research happening across campus – for example, display an aspect of the polanitarium's research within the Boneyard Creek corridor at its intersection with the Bardeen Quad.

6.3: Test new and emerging technologies that utilize recycled or low-impact materials, landscape components that generate power and landscape management technologies that minimize environmental impact. Test agricultural soil erosion controls, water and nutrient management to address challenges faced worldwide.

6.4: Create opportunities to test social behaviors in the landscape and continue to improve the student experience.

6.5: Utilize Living Laboratory spaces to monitor and test sustainable maintenance techniques. F&S should continue to make data available to researchers, consultants and collaborators to contribute to the research and teaching mission of the university.

6.5: Consider maintenance needs and aesthetic impacts when identifying appropriate locations for living laboratories on campus. Note that Living laboratory spaces in high visibility areas of campus will be required to maintain level of service standards.

LANDSCAPE GOALS
GOAL 7 | CELEBRATE THE CULTURE, ACHIEVEMENTS AND INTERESTS OF CURRENT AND PAST STUDENTS

WHAT WE HEARD

Stakeholders shared that art needs to exist as a way to express the campus community's values. The art within campus needs to articulate groups and represent diversity.

The Morrow Plots serve as a reminder of the important contributions to crop rotation research by the university.

Student organizations can help lead landscape interventions on campus.

RATIONALE

The campus is home to students, faculty and researchers from across the globe. The landcape provides an opportunity to strengthening the living-learning environment. While the focus of the campus environments is on learning and respite, the exterior spaces can also be designed to make the campus community feel welcomed and comfortable while they call the campus their "home." Like a home, which is a perfect expression of the collective family's interests, desires, and achievements, the campus landscape can also be the collective expression of the university's family.

STRATEGIES

7.1: Highlight the achievements of current and former students and faculty through signage, plazas, achievement walks, or integration into the virtual Illinois app.

7.2: Provide more opportunity for short-term student art within the landscape. Such installations should follow the current approvals process for art by the ARC and the Chancellor's Design Advisory Committee (CDAC).

7.3: Layer in more "personality" within the landscape through expressive furniture, color, art, short-term art programs, unique plaza spaces, plazas designed for nighttime activity with dynamic lighting and/or water features, or other interactive and engaging elements. A committee should be designated to provide some of these amenities on campus, which should include student representation and have a direct funding mechanism.

7.4: Position landscape interventions for student-led involvement. There are many successful examples of this on campus including the Red Oak Rain Garden, and various native plantings around campus buildings, residence halls and the Arboretum.

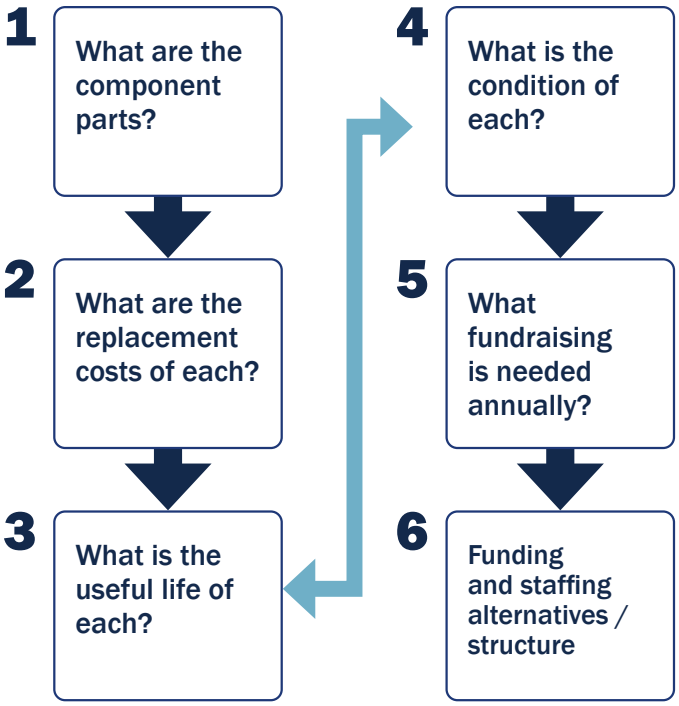
GOAL 8 | CREATE A CLEAR PATH TO LANDSCAPE INVESTMENT FOR THE NEXT 50-75 YEARS

WHAT WE HEARD

While support was shared for new ideas and new project interventions on campus, the primary priority for stakeholders is to address the deferred maintenance across campus first.

RATIONALE

"Total Asset Management" or "Long-term Asset Management" for landscape assets – assumes that over a period of 50-75 years, all campus landscapes will need to be replaced and that investment needs to begin now. This involves a commitment to restructure the current funding framework to address deferred maintenance across-campus. In addition, stakeholders expressed that campus landscape investments be distributed more equitably across campus.



STRATEGIES

8.1: Implement Total Asset Management for landscape assets – assume that over that time, ALL campus landscapes will need to be replaced and that investment needs to begin now.

8.2: Create a funding framework to address deferred maintenance across-campus for the existing landscape.

8.3: Ensure that state-funded campus landscape investments are distributed more across campus with a clear priority and implementation plan.

8.4: Assess long-term plans for deferred maintenance and preventive maintenance. Create a long-term Asset Management Plan (AMP) for all exterior assets on campus. Update the facilities conditions assessment to include condition assessments and list of deferred maintenance for landscape projects. This inventory should also include a summary of the sustainable landscapes that exist today on campus that will require continued investment.

LANDSCAPE GOALS

GOAL 9 | REINFORCE THE CAMPUS BRAND

WHAT WE HEARD

Stakeholders shared a desire for the landscape to provide strong, defined edges and a clear entry experience.

Campus is in need of a cohesive brand application within the landscape.

The pineapple installed on the peak of Foellinger's dome is a symbol of welcome and hospitality which presents opportunity to further define the UIUC brand across campus.

RATIONALE

Over time the UIUC campus has lost some of the cohesive qualities needed for a unified campus landscape. A key component of an aesthetically cohesive campus is the communication of its brand through signage. Currently, many of the existing campus gateways have an older version of the campus logo. Stakeholders expressed concern that visitors may not be aware that they are on campus and that the only way to identify if one is on campus is through the building signage – which also displays a dated logo. The campus brand is not communicated only through the use of fonts and logos, but through a consistent application of materials and approach to design. There is a need to reinforce the entries to campus with new and updated gateways as well as integrate new typologies for placemaking throughout campus.

STRATEGIES

9.1: Update campus gateways to reflect the latest campus branding so that all campus signs are the same.

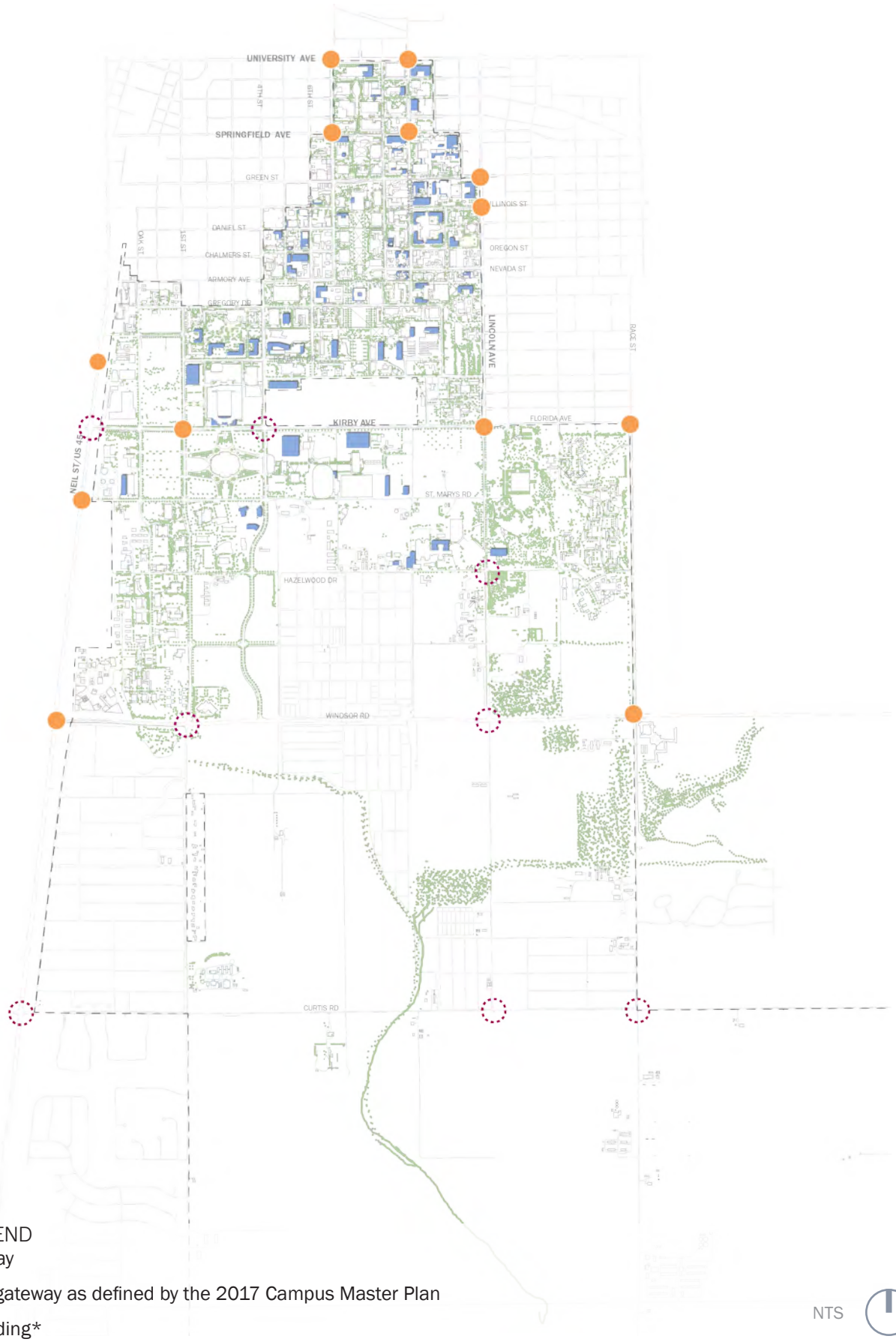
9.2: Update all campus building signage to reflect the latest campus branding.

9.3: Reinforce campus/community interface by creating new campus gateways and establishing a series of new gateway typologies, such as under railroad viaducts. Proposals related to spaces outside of university ownership or jurisdiction, such railroad viaducts, will require proper coordination with authorities having jurisdiction.

9.4: Reinforce secondary thresholds and bolster "placemaking" through the use of smaller features indicating the campus presence at key interior locations.

9.5: Focus placemaking where opportunity exists to pull the campus community into interior spaces from roadways.

CAMPUS GATEWAYS



GRAPHIC LEGEND

- New gateway
- Enhanced gateway as defined by the 2017 Campus Master Plan
- Future building*

*(*ALL REFERENCES TO FUTURE BUILDINGS ARE PER THE 2017 CAMPUS MASTER PLAN)*

NTS

PLACEMAKING AND GATEWAY CONCEPTS

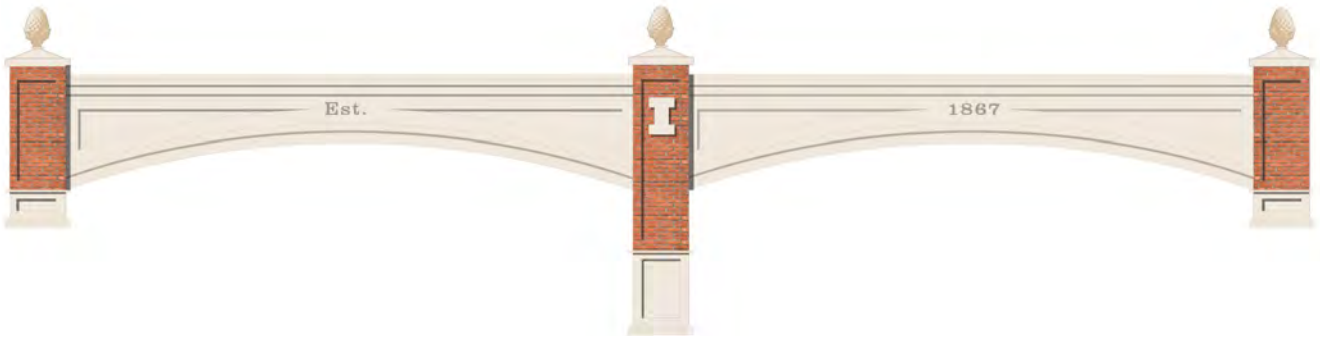
The following concepts communicate the application of gateways, thresholds, portals which are intended to enhance the sense of awareness that one is one campus, as well as signify the arrival to all modes. Columns are utilized to reinforce campus identity or communicate a continued concept, such as the eco-corridors of campus. Gateways and thresholds should signify passage between two areas of campus. Building on the historical presence and use of the pineapple finial on campus at Foellinger Auditorium, the Architecture Building, the English Building, Illini Hall and the fountain in front of Harker Hall, we reintroduce this symbol of hospitality to the entry points of campus. The effect of a “threshold” is made possible by pillars, walls, or openings that are taller than human height. (See the Gateways, Walls and Screening section of the Landscape Standards section of the CLMP for more information.)

Gateways at railroad underpasses are a particular challenge at multiple locations at the town/gown interface. (See the Industrial District prototype project along Kirby Avenue for application of this concept.)

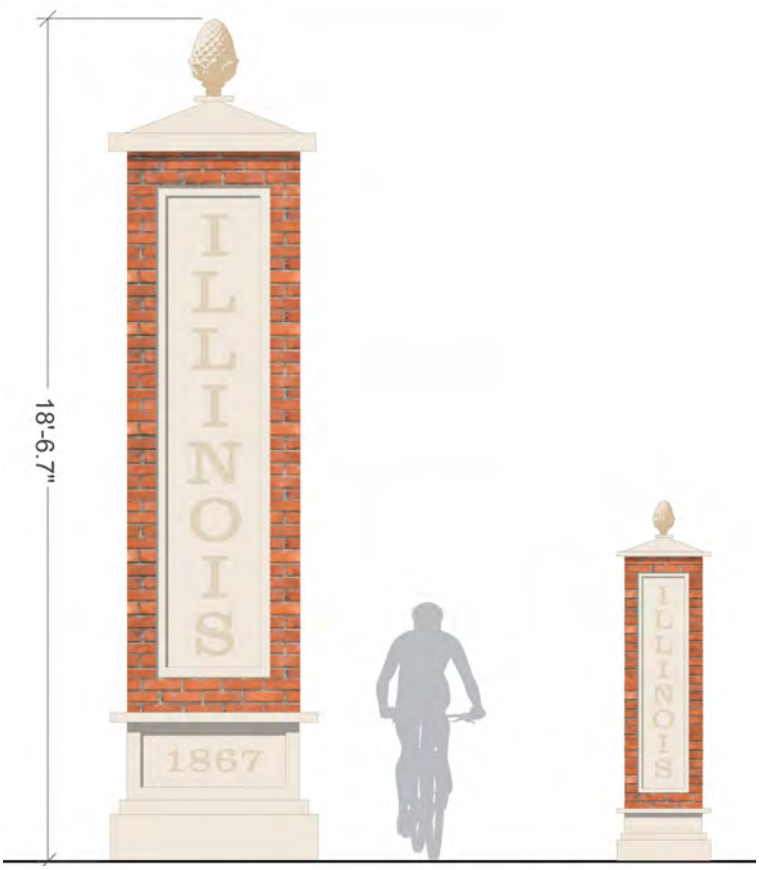
PEDESTRIAN PORTAL

PORTAL MONUMENT CONCEPTS

VEHICULAR GATEWAY MONUMENT CONCEPT



GATEWAY CONCEPT AT RAILROAD UNDERPASS



COLUMN IDENTITY

THRESHOLD IDENTITY

LANDSCAPE GOALS

GOAL 10 | APPLY A UNIVERSAL DESIGN APPROACH TO ALL CAMPUS LANDSCAPE SPACES

WHAT WE HEARD

Stakeholders shared a desire for UIUC to continue to lead in accessible design by not only meeting the minimum requirements by law, but by providing a truly accessible campus for all.

RATIONALE

UIUC is a world leader in accessibility, and to continue this, all campus landscapes should not only meet but exceed the Americans with Disabilities Act (ADA) standards with Universal Design. Universal Design is the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability.

An environment should be designed to meet the needs of all people who wish to use it. This is not a special requirement, for the benefit of only a minority of the population. It is a fundamental condition of good design. By providing universal accessibility as well as catering to those with unseen challenges, UIUC will continue as world leaders in this realm.

STRATEGIES

10.1: Provide universal accessibility for all future buildings and retrofit existing buildings to achieve universal design. The focus should be on equitable use favoring 5% maximum slope on walkways over 8.33% ramps. Provide the same means of use for all users making access identical whenever possible. Building entrances or the landscape areas in front of buildings should be designed to achieve equitable use compatibly, rather than simply adding ramps to side-entrances.

10.2: Continue to prioritize pedestrian and bicycle infrastructure in all landscape projects. Implement the 2014 Campus Bike Plan and the proposed bicycle infrastructure necessary to support campus mobility. This document lays out infrastructure needs for proper bicycle connections through campus. As a prioritized form of transportation, along with walking, funds should be allocated toward these improvements for the betterment of the community. The Campus Bike Plan lists priorities and potential phasing, though all improvements are mission critical to the experience of all users of the campus.

10.3: Consider landscape interventions that consider the experience of the visual, hearing or mobility impaired such as sensory landscapes. Consider neurodiversity in landscape interventions to recognize that people experience and interact with the world around them in many different ways. To attain “universal” design, spaces should also include wide open and unprotected spaces as well.

10.4: Inventory non-compliant locations on campus to address campus streets and walkways that do not meet universal design standards. Develop a comprehensive priority plan to address identified non-compliant or accessibility barriers. Many of the campus corridors have slowly lost street trees and the hardscape quality is poor. To achieve universal design across campus, streetscape revitalization of key corridors should be executed to include improved paving, ADA parking and ramps and trees supported by sufficient soil volume. Priority corridors include Gregory Drive, Nevada Street, Oregon Street, Springfield Avenue and Mathews Avenue. As some of these corridors are not university owned, they will require coordination and collaboration with adjacent municipalities.

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GOAL 11 | ELEVATE MAINTENANCE CAPABILITIES

WHAT WE HEARD

Stakeholders shared a desire for maintenance levels across campus to be more even across campus, noting that new funding models need to meet this desire.

RATIONALE

To ensure the long-term success of the landscape, additional maintenance support is needed in the form of staffing, training, equipment and support facilities. (See the Implementation chapter of the CLMP.)

STRATEGIES

11.1: Provide permanent F&S Grounds substation facilities throughout campus in order to meet the efficiency needs of Grounds staff. Immediate needs should be focused on a central area of campus. The new support facility should include a staging area for storage, stockpiling and/or equipment, including indoor storage for equipment, as well as provide substantial support for personnel in the form of restrooms, water, break area, supervisor office, conference room, etc.) This facility could be a stand-alone structure or designed as integral to a planned redevelopment on campus.

11.2: Provide additional smaller staging areas across campus to increase efficiency of Grounds staff. New facilities and site planning should consider this need in all projects in the form of a small support building, fenced yard for storage and stockpiling and/or a portion of a new facility for parking equipment and staging staff. Grounds needs improved access and support for quick deployment.

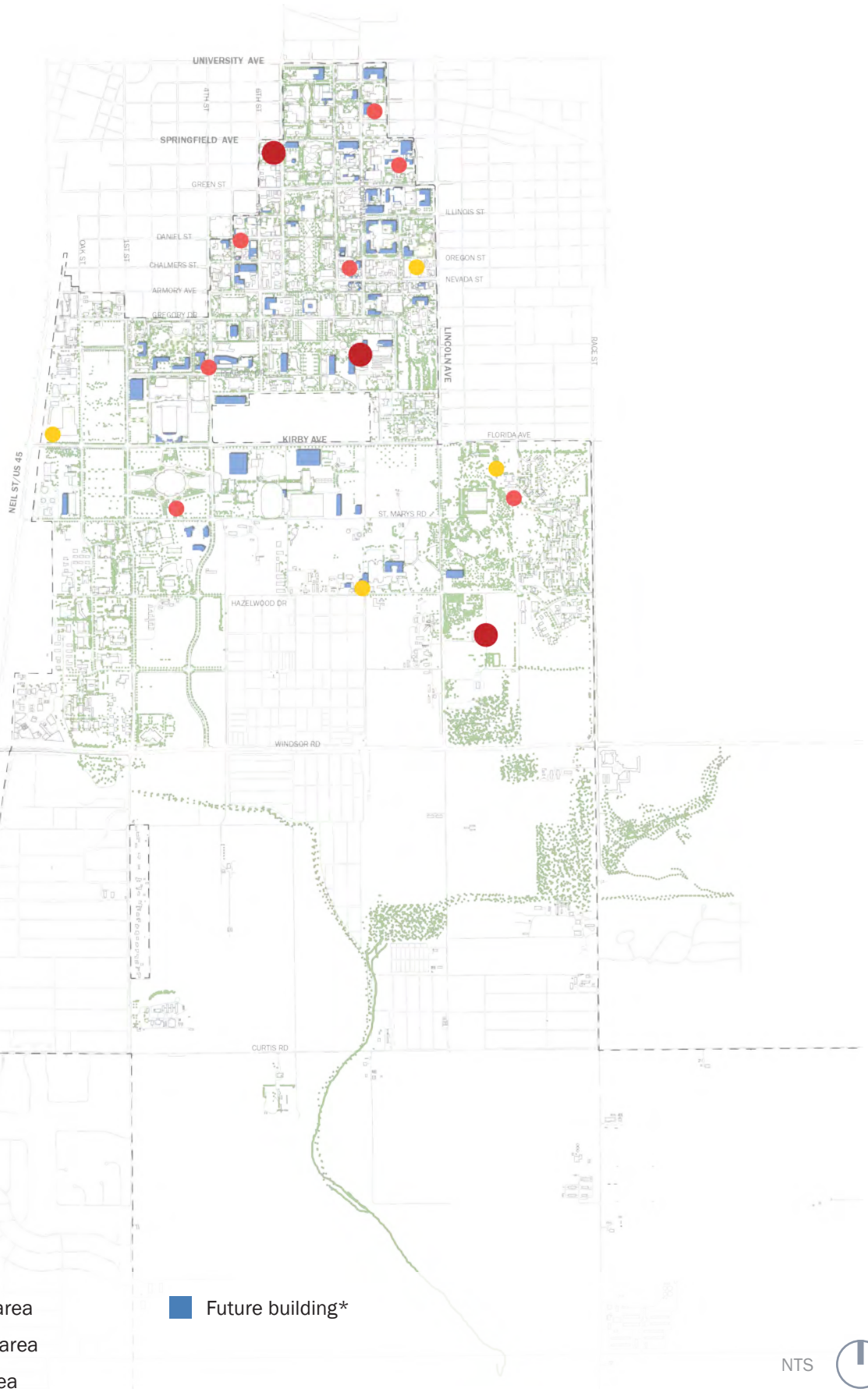
11.3: Reduce the maintenance needs created by large turf areas on campus through 1) overall reduction of turf area on campus, and 2) continuing to replace existing Kentucky bluegrass turf areas to a more resilient turf type (tall fescue) in deference to pollinator supportive groundcovers. Critical to this strategy is the modification of supporting soils in high-use turf areas to improve turf health and resiliency. Incrementally address the large campus quad spaces as they will be the largest benefactor of this transition for future campus use and resiliency. See District level recommendations for metrics for turf reduction by district.

11.4: Perform an inventory and needs assessment of F&S Grounds equipment. Per the Resilient Landscape Strategy, allocate funding toward using more battery powered hand tools and electric mowers to advances the iCAP 2020 goal for reduced emissions, while also reducing noise pollution. (See Implementation chapter of the CLMP.)

11.5: Expand the Integrated Pest Management Policy to apply throughout the campus, in addition to the acreage managed by F&S Grounds. These practices are already in place for the majority of campus and should be codified into policy. These practices are also reinforced within the landscape standards in the form of requirements for maintenance borders around buildings, ensuring native plantings are managed with staff levels that can support the necessary maintenance such as tree trimming at a reasonable distance from buildings to avoid transfer of pests from trees to buildings directly.

11.6: Continue yard-waste composting as standard practice for F&S Grounds. Tree waste is chipped to provide mulch for landscape beds and other yard waste is composted to provide healthy soil for garden areas.

FACILITY AND SERVICES STAGING AREAS



GRAPHIC LEGEND

- Proposed staging area
- Enhanced staging area
- Existing staging area
- Future building*

NTS

*(*ALL REFERENCES TO FUTURE BUILDINGS ARE PER THE 2017 CAMPUS MASTER PLAN)*

LANDSCAPE GOALS

GOAL 12 | HIGHLIGHT SUSTAINABILITY AS A CORE VALUE OF THE UNIVERSITY LANDSCAPE

WHAT WE HEARD

Numerous stakeholders shared observations indicating that prospective and current students are interested in sustainability efforts, and they want to see these efforts highlighted on campus. UIUC needs to project sustainability as part of the brand and value of the university.

RATIONALE

While the Rainwater Toolkit is intended for application across campus, implementing sustainable practices in highly visible locations on campus demonstrates to the campus community that the university embraces resilient landscape design as a key value. This has already occurred through the implementation of the prairie at Florida and Orchard, as one of the campus' first prairie plantings and a highly visible public symbol of the iCAP commitment to restoring the historic ecology and the native species once found within the eco region.

STRATEGIES

12.1: Implement the Rainwater Toolkit including strategies for bioretention, green streets, riparian enhancements, green roofs, impervious surface removal, landscape conversion, permeable pavement, constructed wetland, rainwater harvesting, soil restoration and stream restoration. Investigate the potential for these strategies to reduce city stormwater utility fees on landscape projects. (See Rainwater Tooklit in the Appendix.)

12.2: Align UIUC Facilities Standards, technical sections and details with the latest sustainable design practices provided by the Sustainable Sites Initiative (SITES). Require implementation of UIUC Facilities Standards for all development and redevelopment on campus.

12.3: Update UIUC Facilities Standards to include requirements for bird-friendly facades on buildings. As efforts within the landscape will create and support bird habitat on campus, it is critical that future facilities are mindful of glazing selections.

12.4: Utilize the campus tree inventory to continue tracking tree species diversity. This will ensure that new tree selection is performed with the intent to increase campus-wide diversity as well as pollinator and habitat support. Continue to target the 5:10:15 goal identified in the iCAP 2020: urban forests should have no more than 5% of any single species, 10% of any single genus, and 15% of any single family. Doing so will ensure that campus continues to be recognized by the Arbor Day Foundation as a Tree Campus. While this goal is higher than the current industry of 10:20:30, the university currently exceeds this tree diversity standard, achieving 8:14:20. There are a total of 16,869 trees on campus, of 182 species, providing over $1.5 Million dollars in yearly "eco benefits."

12.5: Encourage student engagement with campus trees through a range of programs and interventions:

- Provide identification of the oldest trees on campus.
- Develop the proposed augmented reality application to communicate the benefits of trees across campus generated by the comprehensive campus tree inventory.
- The student led Quad Tree Walk should continue as a means to meet this goal.
- Relaunch the Adopt-a-Pathway program on campus to allow university departments, clubs, and organizations to "adopt" sections of campus walking paths and share the responsibilities of litter removal, plant watering and weeding, and maintaining overall aesthetic appeal.

12.6: Establish a program to actively remove and replace invasive or troublesome species such as the Callery Pear and Burning Bush. Review plant inventory on campus to identify all invasive species for removal and increase staffing levels needed to implement this strategy.

12.7: Reduce water consumption within the landscape. Per the iCAP 2020, the goal is to reduce water consumption by 45% from the 2008 baseline for all water use on campus. To contribute to this overall goal within the landscape, the use of water for irrigation of the landscape can be reduced through 1) landscape conversions, 2) replacement of current irrigation systems with smart irrigation systems, 3) replacement of outdated and deteriorated irrigation, 4) use of more reclaimed water for utilities, and 5) rainwater harvesting and 6) providing new UIUC Facilities Standards for planting soils and soils remediation for all landscape projects, including requirements for pre and post construction soils testing. (see Rainwater Toolkit section of the CLMP for further recommendations on landscape conversions, rainwater harvesting and soils remediation.

Smart irrigation systems should utilize weather enabled, remote controllers with cell phone operability and other water saving equipment such as master valves and pressure-regulated sprinkler heads. Irrigation design should utilize point source drip irrigation. Maintenance regimens should include monthly wet checks. Smart irrigation installations should be focused in the near term on high-value spaces like the quads. In addition, building facilities should include purple pipe systems that are designed in coordination with the landscape to create efficiencies between recycled water use as landscape irrigation and other uses not requiring potable-quality water.

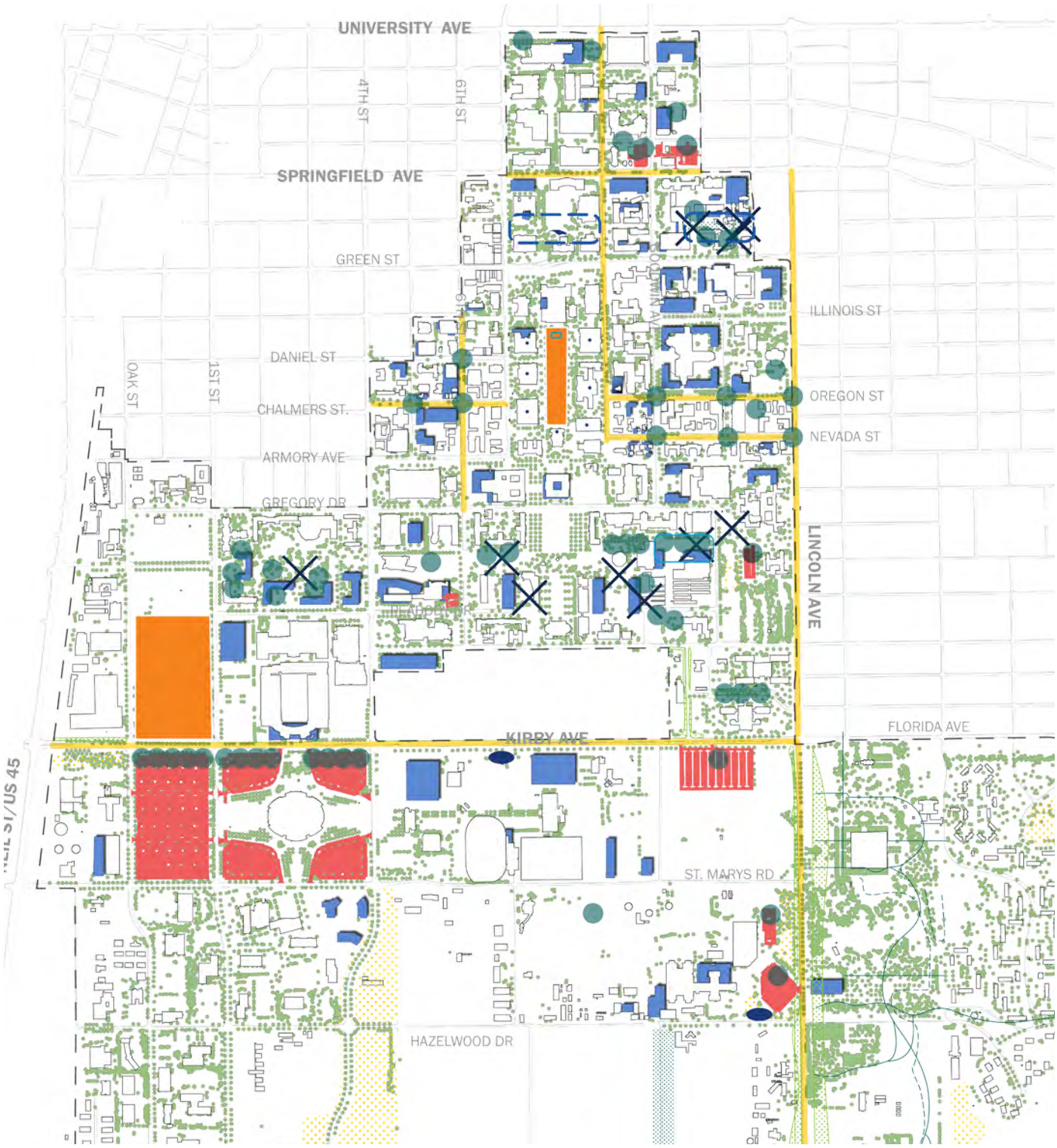
12.8: Utilize a portion of the F&S Grounds site near the South Arboretum Woods to develop an on-site tree nursery to enable the growth of species not available through local nurseries and create access to diverse tree species within close proximity for teaching within ACES and FAA colleges.

The application of numerous iCAP projects across campus has created a high level of exposure of sustainable landscape practices on campus, such as the Red Oak Rain Garden (shown above).

Solar Farm 1.0 (shown above) and Solar Farm 2.0 are exceptional examples of sustainability, providing not only clean energy but acres of pollinator habitat, serving as vital ecological assets to campus.

LANDSCAPE GOALS

RAINWATER TOOLKIT - NORTH



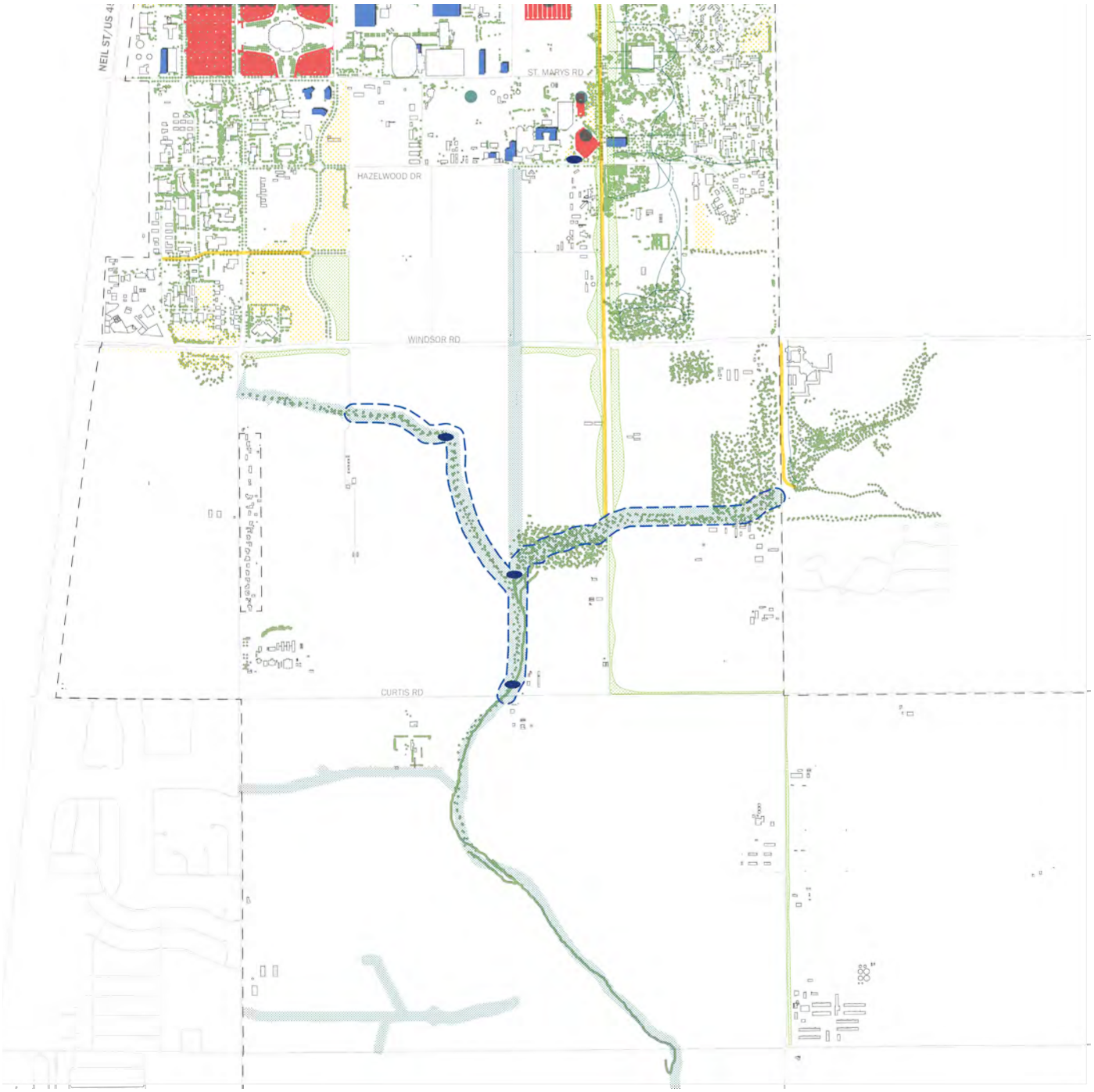
RAINWATER TOOLKIT GRAPHIC LEGEND

- Stream restoration
- Constructed wetland creation
- Impervious surface removal
- Riparian enhancement and planting
- Rainwater harvesting (cistern)
- Bioretention/rain garden
- Green street
- Permeable pavement
- Prairie planting
- Native planting (conversion)
- Soil restoration
- Future building*

SCALE 1"=1,500'

*(*ALL REFERENCES TO FUTURE BUILDINGS ARE PER THE 2017 CAMPUS MASTER PLAN)*

RAINWATER TOOLKIT - SOUTH



RAINWATER TOOLKIT GRAPHIC LEGEND

- Stream restoration
- Constructed wetland creation
- Impervious surface removal
- Riparian enhancement and planting
- Rainwater harvesting (cistern)
- Bioretention/rain garden
- Green street
- Permeable pavement
- Prairie planting
- Native planting (conversion)
- Soil restoration
- Future building*

SCALE 1"=2,500'

*(*ALL REFERENCES TO FUTURE BUILDINGS ARE PER THE 2017 CAMPUS MASTER PLAN)*

LANDSCAPE GOALS

GOAL 13 | BECOME A WORLD LEADER IN RAINWATER MANAGEMENT

WHAT WE HEARD

Stakeholders shared a desire for the UIUC campus to become an exemplary precedent for rainwater management for Midwest universities.

RATIONALE

Current stormwater and drainage design is predominantly focused on grey infrastructure, designed to get the water out of the way and instantly send it downstream. By continuously sending rainwater away, we lose several local benefits. For example, recharging the soil with rainwater could mitigate the need for irrigation systems and the resultant loss of water through evaporation. Rather than treating water as waste, campus should recognize its importance to the environmental health of campus. Water is a valuable resource, and we need to cherish and protect it for long-term campus sustainability and resilience. This can start immediately with a simple transition in terminology: instead of addressing inconvenient and troublesome stormwater, we should be protecting and managing rainwater, as described in the Resilient Landscape Strategy.

When campus infrastructure is designed to drain rainwater away in large pipes and results in flooded campus pathways and greenspaces downstream, it teaches students water is waste rather than a resource. This campus has world leaders and valuable expertise in water management, and the campus environment needs to be transformed to display a functional, sustainable model of rainwater management for students, faculty, staff, visitors and researchers.

There are many sustainable site development practices already underway on campus. While these practices are becoming more common on the UIUC campus, they are not yet the norm in planning and development as they only occur in newer projects. Transforming campus to support green stormwater infrastructure will require funding solutions outside of capital projects alone. The existing landscape will need funding to implement these recommendations. For further recommendations related to funding, see the Implementation Chapter of the CLMP.

STRATEGIES

13.1: Update the UIUC Facilities Standards and specifications with intent of preservation, rehabilitation and reuse as stated in the Sustainable Sites (SITES®) or equal. While certification is not required for all landscape projects, the SITES approach should be applied to design. Campus facilities are required to meet LEED® Silver which does not comprehensively address performance landscapes, therefore merely meeting LEED requirement for all facilities alone will not allow the landscape to demonstrate global leadership. All campus landscape should meet SITES as a goal and LEED silver at a minimum to elevate the requirements of the landscape in line with the minimum campus requirements.

13.2: Implement the rainwater toolkit for all the campus districts with a target to treat 20% of the impervious drainage areas on campus. (See Rainwater Toolkit section of this plan). The toolkit, developed as part of the CLMP, includes strategies intended to reduce impervious surfaces across campus, reduce runoff volume, recharge groundwater, improve water quality, improve soil quality and provide habitat while increasing biodiversity. (See Appendix for further detail.) The rainwater toolkit will require increased staff, equipment and training for implementation.

13.3: Fund a comprehensive Stormwater Management Plan for the entire campus to develop a holistic and comprehensive understanding of the existing grey and green infrastructure, the challenges facing the campus and surrounding waterways, and to identify additional opportunities to manage rainwater and set innovative standards for new development and redevelopment on campus. While the CLMP includes recommendations for application of the Rainwater Toolkit at a site-specific scale across campus, a comprehensive stormwater management plan will provide a better understanding of target runoff volumes to capture and treat and will provide coordination with existing utilities and adjacent communities.

13.4: Showcase the value of sustainable practices by demonstrating the rainwater toolkit in high value, high visibility places on campus. (See Rainwater Toolkit section of this chapter.)

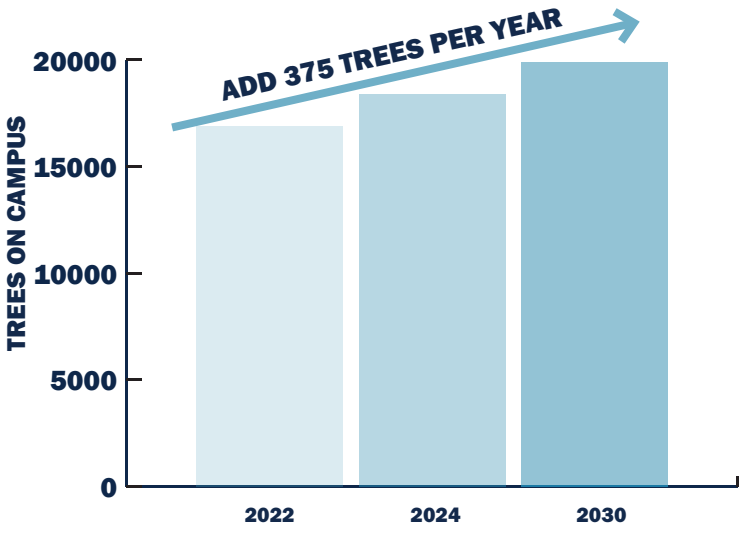
GOAL 14 | INCREASE TREE CANOPY ACROSS CAMPUS

WHAT WE HEARD

Participants shared a desire for future funding models to recognize the maintenance and management costs of a growing tree canopy on campus.

RATIONALE

Trees on campus have declined in quantity over the last 12 years with a loss of roughly 11% of the urban forest on campus. Only 4% of that is due to Emerald Ash Borer while the remaining loss is the result of construction, as well as decline with maturity and climate change. In light of climate change and the increasing temperatures and storm events, countries around the world are actively looking to their trees to help mitigate challenges. With current research supporting climate change mitigation through additional trees, the campus tree canopy should be expanded to assist in this effort. Trees provide a multitude of services including carbon sequestration, rainwater reductions, pollinator and wildlife habitat, pedestrian shade, improved campus aesthetics, and reductions in the heat island effect. While the campus is already established as a Tree Campus through the National Arbor Day Foundation, continued investment in trees and the staffing to support their care is necessary.



The graph depicts the amount of trees needed to reach an in increase of 3,000 trees on campus by 2030. As of 2021, there are 16,422 trees and the target is to have 17,992 trees by 2024 and 19,492 trees by 2030.

STRATEGIES

14.1: Increase tree canopy per the iCAP 2020 goal of 1,500 trees by 2024 and 3,000 trees by 2030. Establish the necessary staffing levels necessary to support the growing, installation and maintenance of the current and future expansion of the campus tree canopy. F&S should continue to track changes in the campus tree inventory and integrate the information into a digital database that can help with tracking tree health and maintenance regime.

14.2: Update the tree protection policy to provide and enforce strict tree protection during construction projects. Tree protection zones within construction areas should have additional restrictions related to excavation and trenching.

14.3: Update the tree replacement policy to reflect the actual loss of trees. As the benefits of a mature native canopy tree significantly outweigh the benefits of a small new caliper tree, the mandatory tree replacement program should be based on overall loss in tree canopy, rather than a simple tree for tree ratio. See the UIUC Facilities Standards recommendations in the Appendix for further detail.

3

DISTRICT RECOMMENDATIONS AND PROTOTYPE PROJECTS

The landscape goals provide the overall framework reflective of the values established by the campus community in the outreach process. The prototype projects are intended to demonstrate the detail for how the goals are implemented for specific areas on campus. While these prototype projects are focused on specific locations across campus, all future landscape development on campus should holistically integrate established values over the long term, rather than simply display symbolic gestures in the short term.

PROTOTYPE PROJECT APPROACH

The prototype projects were selected based on several considerations including their ability to achieve the visionary goals such as creating a model sustainable campus, defining a cohesive brand, honoring the historic landscape, creating spaces that serve and represent Indigenous peoples, their ability to provide learning, research and mental health benefits and their ability to demonstrate a new approach and value towards capturing rainwater. In addition, the prototypes were selected based on their ability to address the challenges and aspirations shared by stakeholders – those that not only teach and learn on campus, but also those that manage and run the facilities and landscapes on campus.

It is important to note that these prototype projects communicate ideas at the master plan level and are not intended to be final designs. The execution of these ideas will undergo a standard design process from schematic design, through design development and construction documentation. Initial support, confirmation of general direction, and feedback for these ideas was provided at a public forum. Plans will require appropriate levels of approval as implementation of these concepts is initiated.

To demonstrate an equitable approach across campus, each district includes a showcase prototype concept application. Some components of the prototypes fall under short-term implementation, while other components may not be implemented for years. It is important to note that stakeholders communicated the priority be placed on investing in the landscape assets that UIUC already has, including various levels of deferred maintenance, as a first priority.

While the CLMP provides guidance organized by campus district, as defined in the Campus Master Plan, it is important to note that successful implementation of the goals outlined in the CLMP will require decision-makers to view the campus as a collection of “ecological zones” rather than set districts with firm boundaries. To achieve the goals set forth in the CLMP and the iCAP, interventions should be viewed holistically.

PROTOTYPE METRICS

To better understand the impacts of the proposed prototypes and their ability to achieve the iCAP targets, the following metrics were estimated. These are intended to provide a high-level estimate of the impacts of the recommendations.

RAINWATER STORAGE VOLUMES

The following assumptions were made based on available data supplemented with industry standard design practices. The assumptions are consistent with volume guidance provided in the Rainwater Toolkit.

Permeable Pavers

Based on industry standard design practices, the calculations assume that the design of permeable pavers will include a 3-foot-deep subsurface gravel reservoir with a porosity of 0.4 for the full extent of area shown as pavers.

Bioretention Practices

The calculations assume an average ponding depth of 1-foot for the average surface area of each graded area. The average surface area was computed using the smallest and largest contour included in the base information provided by F&S.

The calculations assume a 3-foot-deep engineered soil media with a porosity of 0.3 beneath bottom of each bioretention area. The area of the smallest contour included in the CAD file was used as the bottom of the bioretention area. The subsurface area is assumed to vertical side slopes. Total water volume treated through the prototype projects is approximately 18.62 acre feet. (See a breakdown by district in the chart provided.)

INCREASE TREE CANOPY

As of 2021, there are 16,422 trees on campus. The iCAP 2020 target is to achieve 19,492 trees by 2030, or 3,070 additional trees. The district and prototype recommendations illustrated in this chapter equate to approximately 2,000 additional trees. In addition, streets designated as “green streets” are targeted for the remaining tree canopy increase. Placing value in tree soil volumes and soil conditions in critical to achieve a successful mature tree canopy.

INCREASE POLLINATOR PLANTING

The iCAP 2020 goal is to increase the total number of ground-level pollinator-friendly landscaping areas on campus to be 39 by 2024. Currently, there are 35 areas on campus, of varying size. The prototype recommendations outlined in the chapter illustrate an approximate additional pollinator planting area of 4.2 acres, which is a 20% increase in planting area on campus.

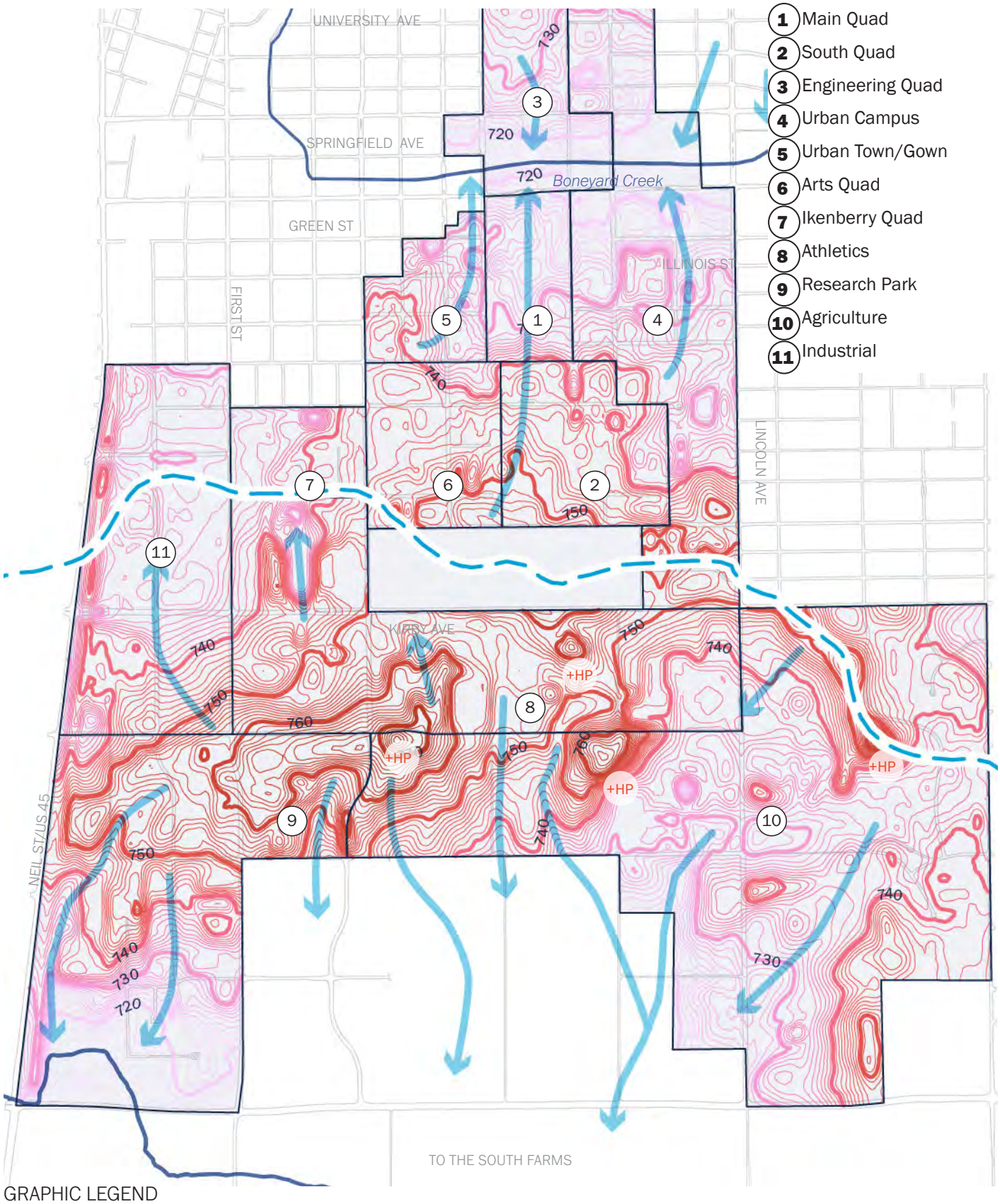
District	Practice Type	Top Surface Area (sf)	Bottom Surface Area (sf)	Avg Surface Area (sf)	SubSur-face Depth	Total Volume (cf)	Total Volume (ac-ft)
Industrial	Permeable Pavement	154,679			3	185,615	4.26
						Total	4.26
Ikenberry	Permeable Pavement	76,573			3	91,888	2.11
						Total	2.11
Research Park	Permeable Pavement	33,411			3	40,093	0.92
	BioRetention1	2,681	1,310	1,996	3	3,174	0.07
	BioRetention2	2,948	792	1,870	3	2,583	0.06
	BioRetention3	2,371	271	1,321	3	1,565	0.04
	BioRetention4	3,310	371	1,841	3	2,175	0.05
	BioRetention5	850	314	582	3	865	0.02
	BioRetention6	2,615	1,234	1,925	3	3,036	0.07
	Pond1	9,898	3,325	6,612	0	13,223	0.30
						Total	1.53
South Quad	Permeable Pavement	66,146			3	79,376	1.82
	BioRetention1	9,512	949	5,230	3	6,084	0.14
	BioRetention2	4,539	1,220	2,879	3	3,977	0.09
	BioRetention3	2,420	596	1,508	3	2,045	0.05
	BioRetention4	3,922	986	2,454	3	3,342	0.08
	BioRetention5	2,454	596	1,525	3	2,062	0.05
	BioRetention6	2,488	937	1,713	3	2,556	0.06
	BioRetention7	1,593	141	867	3	994	0.02
	BioRetention8	1,834	270	1,052	3	1,294	0.03
						Total	2.34
Military Axis	Permeable Pavement	78,084			3	93,701	2.15
	BioRetention3	24,061	7,402	15,732	3	22,394	0.51
	BioRetention4	1,276	596	936	3	1,473	0.03
	BioRetention5	1,276	596	936	3	1,473	0.03
	BioRetention6	14,276	3,856	9,066	3	12,537	0.29
						Total	3.02
Urban Campus	Permeable Pavement	39,810			3	47,772	1.10
						Total	1.10
Main Quad	Permeable Pavement	131,047			3	157,256	3.61
	Cistern	2,800			4	11,200	0.26
						Total	3.87
Engineering Quad	Permeable Pavement	614			3	736	0.02
	Wetland	4,610			0	6,915	0.16
						Total	0.18
Urban Town Gown	BioRetention	1,040			3	1,456	0.03
	Tree Pits	9,000			3	8,100	0.19
						Total	0.22
						ALL CONCEPTS	18.62

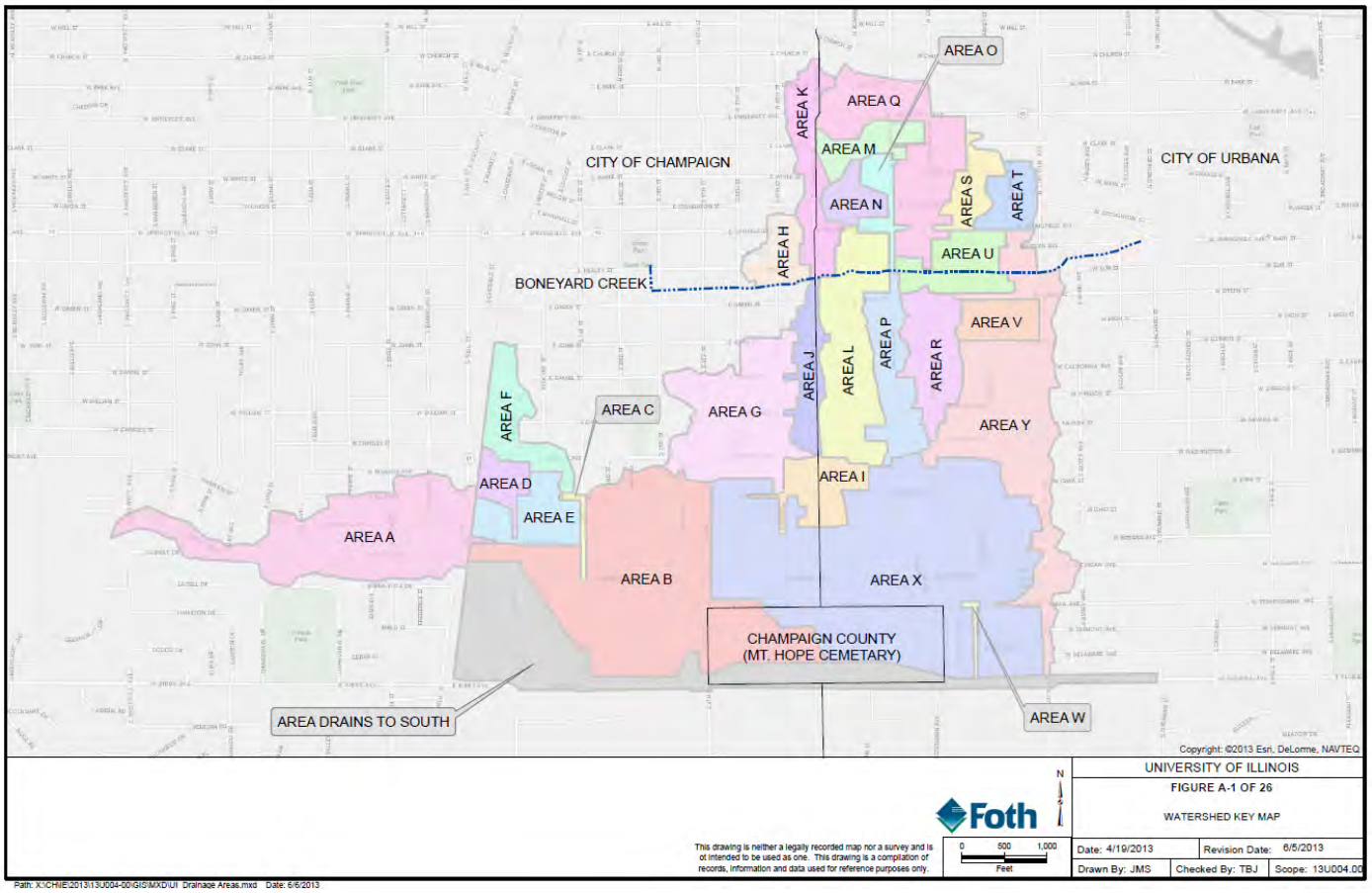
No Volumes Computed
Agricultural District - ACES Legacy Corridor
Athletics District (outside of Kirby Street)

Rainwater treatment calculations for prototype concepts.

RAINWATER CONTEXT

ELEVATION AND WATER FLOW IN THE CAMPUS CORE

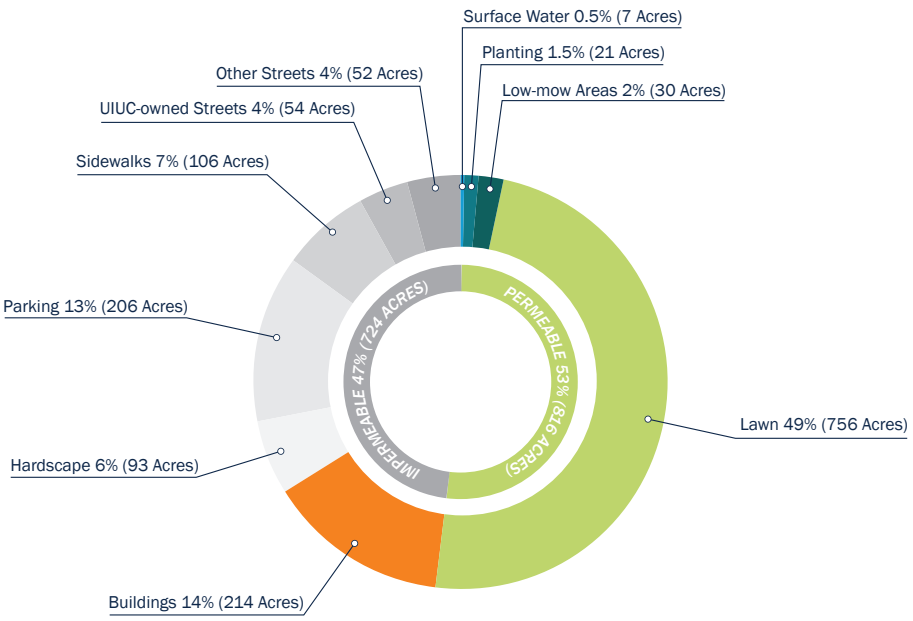




Delineated subwatersheds on the northern half of campus. Source: Stormwater and Watershed Collection System Analysis prepared by Foth Infrastructure & Environment LLC (2013), courtesy of UIUC F&S.

REDUCTION OF IMPERVIOUS SURFACES

The baseline calculation of impervious surfaces for the developed districts of campus ranges from 53%-76% impervious. The iCAP 2020 does not specify a target reduction, however the CLMP includes a general recommendation that secondary sidewalks and portions of existing parking lots transition to a pervious material. By applying a simple formula calculating 50% of secondary sidewalks and 50% of parking lots transition to pervious across campus, the impervious area of campus could be reduced by a total of 150 acres.

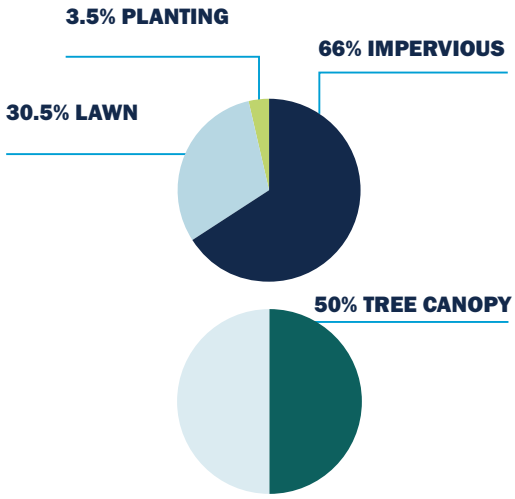


Summary of existing land cover on the UIUC Campus. Total acres is the sum of the 11 district boundaries defined in the 2017 Campus Master Plan. Note: Numbers are approximated based on the GIS data provided by UIUC F&S. Lawn calculation summarizes any open space on campus. Planting calculation includes ornamental and prairie areas. Tree canopy calculation assumes an average 25' diameter canopy.

MAIN QUAD DISTRICT

CURRENT CHALLENGES

During the CLMP engagement process, several concerns highlighted the use pressures, annual repair of the quad turf, tree health, species and tree row continuity, and soil quality and compaction as well as historic design. In addition, it was observed that key spaces like Anniversary Plaza and Centennial Court need renewal due to failing condition of paving, trees and planters in these spaces. Participants shared a desire for better Main Quad gathering spaces and made observations that some of the walkways and corridors leading into the main Quad are underutilized. Students expressed need for access to power outlets and Wi-Fi hubs to support their work. Importantly, some new trees can be planted, gaps in hedges filled and ground covers used to recapture historic design, enhance rainwater percolation and frame views of Foellinger Auditorium and the Illini Union.



Quick Facts:

- Campus Master Plan Landscape Typology: Sacred Space
- Existing % Impervious: 66%
- Existing % Turf: 30.5%
- Existing Tree Canopy: 50%

While respecting the Quad as a “Sacred Space” as defined in the Campus Master Plan, the following recommendations address these challenges and needs expressed by the campus community. More detail to support these recommendations is provided in the prototype application section. Improvements to the Main Quad concepts that deviate from Campus Master Plan, shared in this CLMP, should be vetted/approved up to BOT level and/or reviewed for inclusion in next Campus Master Plan, before actual projects for these improvements are initiated.

1) Renew the historic landscape vocabulary by renewing historic tree rows and continuous hedges.

2) Upgrade courtyards as gathering and social spaces. Integrate group seating, improve landscape plantings to support the use of these spaces as places of respite.

3) Enhance Quad entry experiences. Efficiently accommodate bicycle parking through covered or vertical parking at the east-west entry south of Altgeld freeing up space to accommodate a small gathering area positioned adjacent to President Gregory’s Grave. In addition, make the W. Nevada corridor’s relationship to the Main Quad more intentional and inviting.

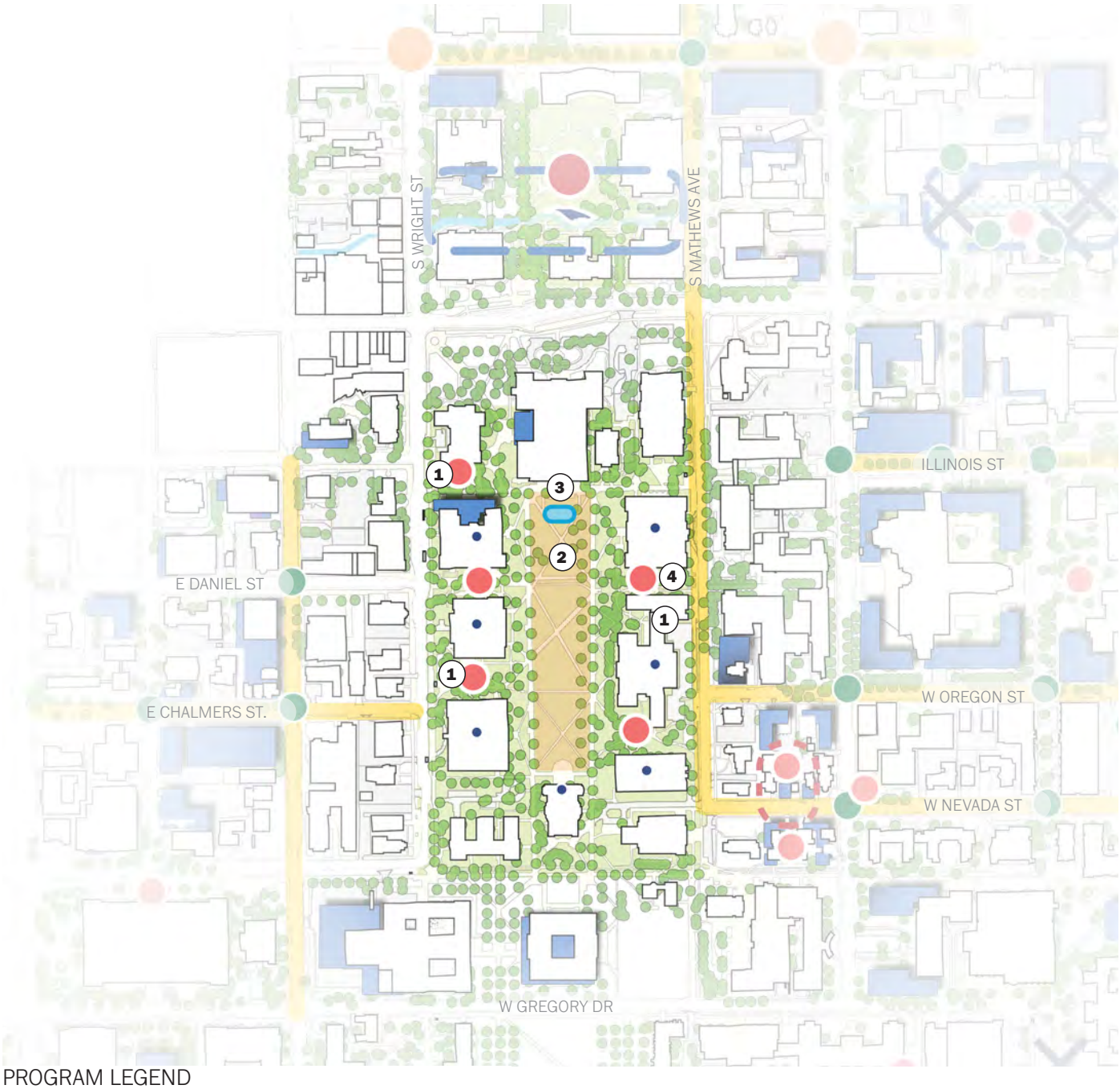
4) Reinvest in key celebration spaces on the Main Quad including Anniversary Plaza and Centennial court by restoring them, while enhancing their functionality.

5) Demonstrate sustainable landscape practices on the Main Quad to send a clear signal to the campus community that sustainability is a campus priority.

6) Implement a phased retrofit of the main turf panels to make them resilient to heavy use, through soil enhancement for percolation and compaction resistance and improved turf selection.

7) Integrate amenities like power outlets and Wi-Fi hubs within the enhanced gathering spaces in renovated courtyards and plazas to support learning.

MAIN QUAD DISTRICT: RECOMMENDED IMPROVEMENTS



PROGRAM LEGEND

1. Enhance Main Quad Courtyards
2. Main Quad turf restoration
3. Illini Union + Anniversary Plaza restoration
4. Centennial Court restoration

PROPOSED RECOMMENDATIONS

- Gathering space
- Green street
- Future building*
- Rainwater capture via cistern
- Downspout re-routing
- Soil restoration
- Bioretention/rain garden

NTS

(*ALL REFERENCES TO FUTURE BUILDINGS ARE PER THE 2017 CAMPUS MASTER PLAN)

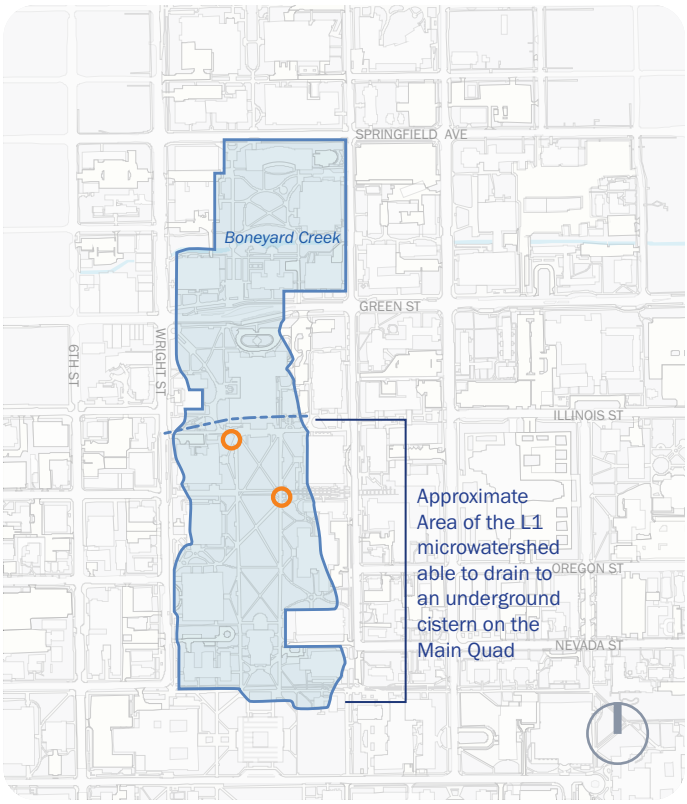
MAIN QUAD DISTRICT

PROTOTYPE PROJECT APPLICATION

In the case of the Main Quad District, the prototype project extent aligns with that of the district itself. Therefore, the following recommendations provide additional detail to the district strategies. The recommendations support the rehabilitation of a beloved campus space that is continuously in need of restoration while at the same time highlighting the commitment to resiliency in the core of the campus.

1) Restoration of Centennial Court (between Noyes Lab and the Chemistry Annex) should respect the original design intent – through a gift of the class of 1917 on their 50th anniversary and the 100th anniversary of the University. The space, constructed in 1969, is a late 20th century embodiment of the traditional aesthetic prevalent on the campus. A courtyard space is framed with maple trees aligned to view towards Krannert Center for the Performing Arts. The original concrete pavers and concrete planting beds are at the end of their useful life. Restoration of Centennial Court should include permeable paving, lighting, and new tree plantings that provide a larger soil volume to support long-term tree health. This space should continue to serve as a linear event plaza, potentially alleviating some stress on the Main Quad turf and trees. Paving should be detailed with preinstalled tent anchors for use on Quad Day and other events. Opportunity exists within this space to better highlight the adjacent architecture and further enhance the night-time experience through modern lighting techniques. Any design proposals will need to be approved by the Board of Trustees (BOT) given the importance and historical significance of this space.

2) Changes to Anniversary Plaza should respect the original design intent. As paving and planting is restored, potential exists for small changes to improve the functionality of this space. By stepping the northern edge, a small amphitheater space is created. A proposed arc on the south edge of the plaza reflects the geometry of the overlook at Foellinger Auditorium. This provides additional space for temporary pop-ups, while creating an opportunity to enhance the view of the Main Quad from the Illini Union. A simple, low water feature is proposed within the arc. The water feature serves as year-round interest, integrating water and potentially ice, serving as simple stepped seating when not in use. Stakeholders shared a desire for more water features on campus. This approach could fill that void and create a stronger destination in one of the most prominent locations on campus.



Source: The L1 microwatershed is defined in the FOTH 2013 Stormwater and Watershed Collection System Analysis.

The triangular turf panel adjacent and south of Anniversary Plaza is an ideal location for an underground water collection cistern given the absence of utilities in this location (irrigation and electric duct only). An underground cistern would have the ability to accommodate all runoff from the Main Quad – approximately 20 acres of the micro watershed L1 in which it is located, as defined in the 2013 Stormwater Collection System Analysis. As indicated in the diagram provided (above), there are two locations recommended for restricting drainage to divert into the cistern. The water collected would be slowly released to percolate as groundwater, and/or could be made available for reuse pending alignment with Illinois State law. Data indicates some drainage issues on the Main Quad; therefore, the cistern could offset any new impervious surfaces. Note that underground cisterns are not a new idea at UIUC, as one is located at the Institute for Genomic Biology, for example. There are Rainwater downspouts on Quad buildings can be rerouted into this underground storage to reduce burden on storm sewers. Opportunities abound by updating Anniversary Plaza, the crown jewel of the Main Quad, with year-round, multi-purpose features that are flexible and appealing while staying true to the historic architecture and celebrating green infrastructure.

MAIN QUAD DISTRICT: PROTOTYPE PROJECT

MAIN QUAD RECOMMENDATIONS

1. Removal of select trees
2. Self-watering annual baskets on light poles
3. Permeable pavers on secondary walkways*
4. Enhanced seating area
5. Covered bicycle parking
6. Restored Centennial Court
7. Restored Anniversary Plaza
8. Stepped water feature*
9. Linear events plaza
10. Hammock grove
11. Library table study area
12. Restored historic hedge
13. Native understory planting and mulch replacement*
14. Underground cistern
15. Small water feature

*Improvements to the Main Quad concepts that deviate from Campus Master Plan, shared in this CLMP, should be vetted/approved up to BOT level and/or reviewed for inclusion in next Campus Master Plan, before actual projects for these improvements are initiated.

SCALE 1"=200'

3) Three of the smaller courtyards on the Main Quad can be slightly modified to become places to gather and linger; becoming "to" places, rather than "through" spaces. Firstly, the courtyard space south of Altgeld Hall can accommodate covered bicycle parking to achieve a more efficient use of space dedicated to bicycles. Additional space gained through this redesign can then become a small seating area, oriented to create an improved and respectful relationship to President Gregory's grave.

Secondly, the Chi Omega courtyard would benefit from a small, understated water feature to replace the circular planting area located there currently. The circular area within this courtyard has already been identified for a water feature by Chi Omega donors, which they are currently fundraising for. This would again satisfy stakeholders desire for more water features on campus, while respecting the original design intent of this historic space. Lastly, the courtyard south of Davenport Hall could be retrofitted with a space for gathering, studying and eating. The concept for this space is to resemble that of a traditional library table organization, with large outdoor tables aligned. Wi-Fi and power pedestals

MAIN QUAD DISTRICT

could be provided to support this demand across campus. In addition, given the students desire for passive recreation on the Main Quad, and the current demand for “hammocking” on campus, the space could also accommodate additional shade trees to create a hammock grove, with posts to encourage a safer and less detrimental impact on existing trees.

4) Planting on the Main Quad should continue to respect the historic design intent, while adapting tall shade tree species to address heavy use and climate change resilience. The historic yew hedge throughout the Main Quad has largely been restored in recent years, however missing sections and linear configuration should be repaired, aligning to soil restoration in that location. The historic flowering trees near buildings have also largely been restored in recent years, however a few replacements remain. A phased application of a native groundcover can replace sections of the turf triangles on the east and west sides of the Quad. This will reduce maintenance demands, improve rainwater infiltration and protect large trees by avoiding soil compaction at roots and increase native plantings as a signal of sustainable practices.

As a near-term recommendation, the historic tree allee framing views of Foellinger Auditorium and the Illini Union should be reinforced by removing any trees that are off axis or blocking the central view corridor. Note that this includes the removal of the unhealthy sweetgum trees at the northeast section of the main turf panel. Lastly, planting soil improvements should take place in a phased approach within the turf panels by implementing sand-based soil system will to improve durability, increase rainwater infiltration, increase weed resistance and reduce tree root compaction.

5) As a near-term recommendation, existing lighting should be updated to dark sky compliant LED fixtures. The new light poles can be fitted with self-watering annual baskets to provide seasonal interest and celebrate the quad during springtime graduation season when nothing else is growing. need to change out Wi-Fi the fixtures and the poles to accommodate internally routed irrigation lines. The old fixtures also need to be replaced, which provides opportunity to include within the new poles. Therefore all new lighting on the Main Quad will provide new dark sky compliant LED lighting, self-watering annual baskets and Wi-Fi.

6) The interstitial spaces adjacent and leading up to the Main Quad need to better function for both service and pedestrians. These areas include the permeable

Conceptual View of the Main Quad looking South

MAIN QUAD DISTRICT

ICAP GOAL CONTRIBUTION

- Reduces impervious surfaces by approximately 130,000 square feet (sq. ft.)
- Treat a total water volume of 3.87 acre feet
- Reduces potable water consumption by capturing and recycling rainwater with a 2,800 sq. ft. (4' depth) cistern
- Reduces turf by 32,350 sq. ft.

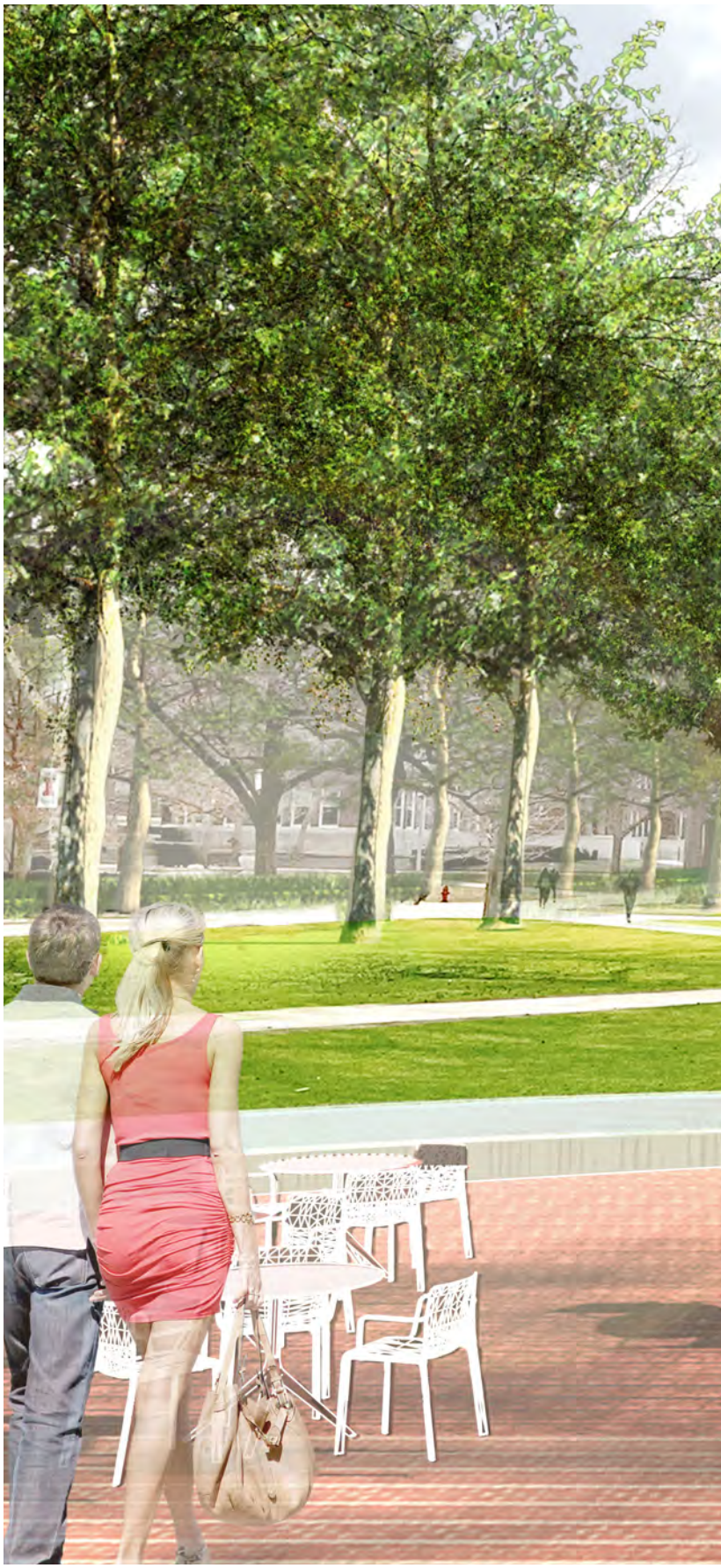
pavers at Gregory Hall and Lincoln Hall, and the area south of the Henry Administration Building. By retrofitting the parking lots and service drives as permeable paving and accommodating covered bicycle parking at these locations, they are not only more aesthetically pleasing, but can function as temporary event spaces as well. In addition, the terminus of Nevada Street at the Quad could be positioned as a pedestrian "front door," with a new pedestrian gateway, creating a clear and intentional relationship between the cultural houses and the core of campus.

As the Main Quad district is the University's marketing image, and a direct emotional link to donors, this area should be the highest priority for maintenance. The following maintenance strategies will contribute to this goal:

1) Implementing smart irrigation: The Main Quad will benefit from the installation of a smart irrigation system paired with weather stations and remote web access.

2) Installation of permeable pavers along secondary walkways and within courtyards, such as those recently installed in front of the Henry Administration Building, will help absorb and infiltrate rainwater better than other pavers and improve groundwater recharge.

3) Creating a more resilient turf. Shifting the turf type from Kentucky Bluegrass to a tall fescue will reduce maintenance needs, increase drought resistance, reduce compaction and increase root depth. This strategy has proven successful in other areas of campus, therefore all turf on campus should follow this established standard. On the Main Quad, turf panels should be systematically phased for reseeding and phased. Year one positions the north turf panel for this application. Note that the quad spaces on campus will still need to be irrigated.

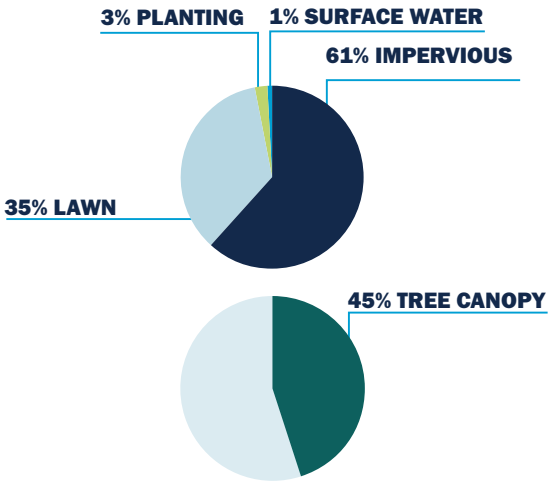


Concept view of Anniversary Plaza and recycled water fountain, looking south

ENGINEERING QUAD DISTRICT

CURRENT CHALLENGES

This quad is underutilized as a high-performance landscape while being adjacent to one of the successful ecological and placemaking stories on the campus today. The Boneyard Creek has become a celebrated amenity within this part of campus. However, lack of a riparian edge, maintenance challenges with the existing wetland bench, limited shade and seating opportunities on the Bardeen Quad, loss of historic landscape vocabulary along the Oval Allee, are some of the challenges within this prototype project area. Gateways within this district need enhancement and updated branding. Springfield Avenue presents some safety issues with pedestrian crossings in this district.



Quick Facts:

- Campus Master Plan Landscape Typology: Campus Quads
- Existing % Impervious: 61%
- Existing % Turf: 35%
- Existing Tree Canopy: 45%

View of the Bardeen Quad looking north-east

ENGINEERING QUAD DISTRICT: RECOMMENDED IMPROVEMENTS

PROGRAM LEGEND

1 Bardeen Quad renovation

2 Boneyard Creek enhancement

PROPOSED RECOMMENDATIONS

- Outdoor classroom
- Stream restoration
- Wetland creation
- Bioretention/rain garden
- Green street
- Future building*
- Gathering space
- Enhanced gateway
- Eco-asset

NTS

(*ALL REFERENCES TO FUTURE BUILDINGS ARE PER THE 2017 CAMPUS MASTER PLAN)

ENGINEERING QUAD DISTRICT

PROTOTYPE PROJECT APPLICATION

This concept is focused on further enhancing ecological benefits of Boneyard Creek at its intersection with the Bardeen Quad. Recommendations include:

1) Retrofit the intersection of the Boneyard Creek and the Bardeen Quad with an intensification of native understory plantings and creation of a riparian edge planting to slow rainwater runoff, increase infiltration and improve water quality before it enters the creek. To accomplish this, some of the turf in this area should be converted to native plantings, and the existing wetland "bench" should be restored to a native floodplain condition. In addition, an accessible plaza space would lead to an outdoor classroom/seating area, building on the limestone boulders already in the space.

2) Provision of structures around the creek such as "bee bricks" or bat houses can support varied habitat. Numerous research and learning benefits are already provided within this space, but additional interactive or augmented reality apps could be developed to display a model sustainable campus design, with real-time data collection through water quality monitoring. The existing hidden underground geothermal borehole field could also be highlighted through augmented reality applications. This would further enhance the educational opportunities for ecology and civil engineering for example.

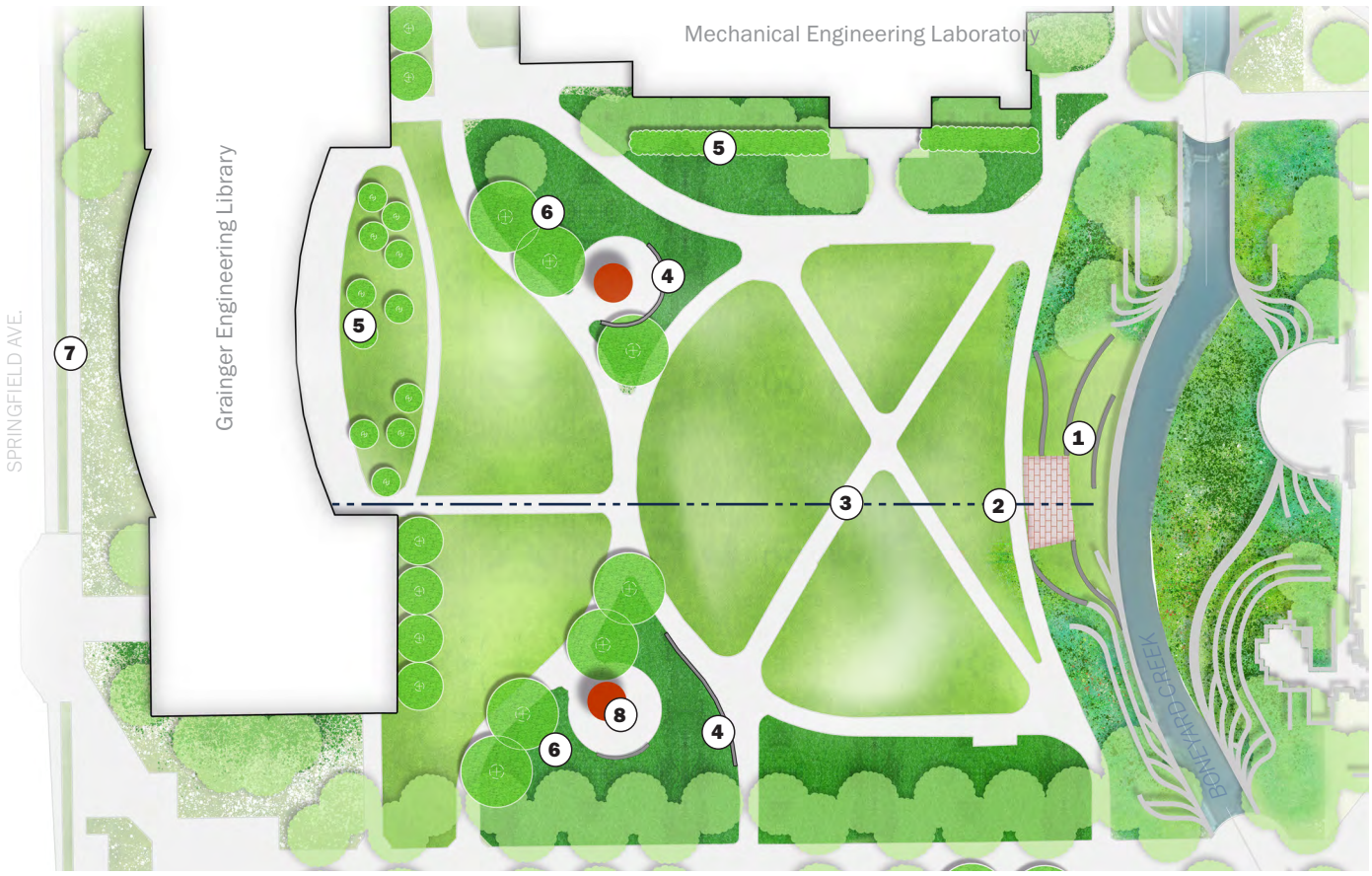
3) Additional seating and shade trees in the central area of the Bardeen Quad, with layering in foundational plantings to replace turf. This approach not only increases native plantings on this quad, but provides habitat and reduces mowing demands. A sculptural element can be located within the western native planting understory, to balance the symmetry of the sculpture on the west side of the quad. This sculpture could reinforce the ecological assets within this quad by artistically providing bee/pollinator habitat to highlight sustainability in this prominent space. Lastly, planting soil remediation should take place in a phased approach within the turf panels of both the Bardeen Quad and the Oval Allee. Implementing a sand-based soil system will improve durability, increase rainwater infiltration, increase weed resistance and reduce tree root compaction.

4) Apply historic planting vocabulary at the northern end of the Bardeen Quad, including addition of the foundational flowering trees and yew hedges. In the near term, foundational flowering trees should be installed at Grainger Engineering Library.

Historic planting vocabulary application flanking the Oval Allee

The Boneyard Creek as it intersects with the Bardeen Quad

ENGINEERING QUAD DISTRICT: PROTOTYPE PROJECT



SCALE 1"=80'

5) The Oval Allee needs an additional path on the central east-west alignment to better accommodate demand for direct travel across this space. A new plaza is recommended for the eastern side of the quad to balance the symmetry of the western oval plaza. The historic landscape vocabulary should be realized on the west side of this quad to align with the historic design intent and aesthetic.

6) As noted in the Campus Master Plan, update existing gateways within this district to reflect current branding and enhance with new plantings. This includes gateway locations at University Avenue and Wright Street, Wright Street and Springfield Avenue and Springfield Avenue and Goodwin Avenue.

7) As redevelopment occurs along Springfield Avenue within this district, implement a green streets approach (refer to the Rainwater Toolkit) to ensure all modes of transportation are safely supported and opportunities for rainwater management are identified, particularly at curb extensions. This will require coordination with the City of Urbana as owners of Springfield Avenue through the extent of this district.

ENGINEERING QUAD PROJECT RECOMMENDATIONS

1. Outdoor classroom / passive seating space
2. Accessible entry plaza
3. Realigned path
4. Seat wall
5. Restored foundation planting
6. Increased tree canopy and understory planting
7. Removal of abandoned bicycle path
8. Additional opportunites for art

ENGINEERING QUAD DISTRICT

ICAP GOAL CONTRIBUTION

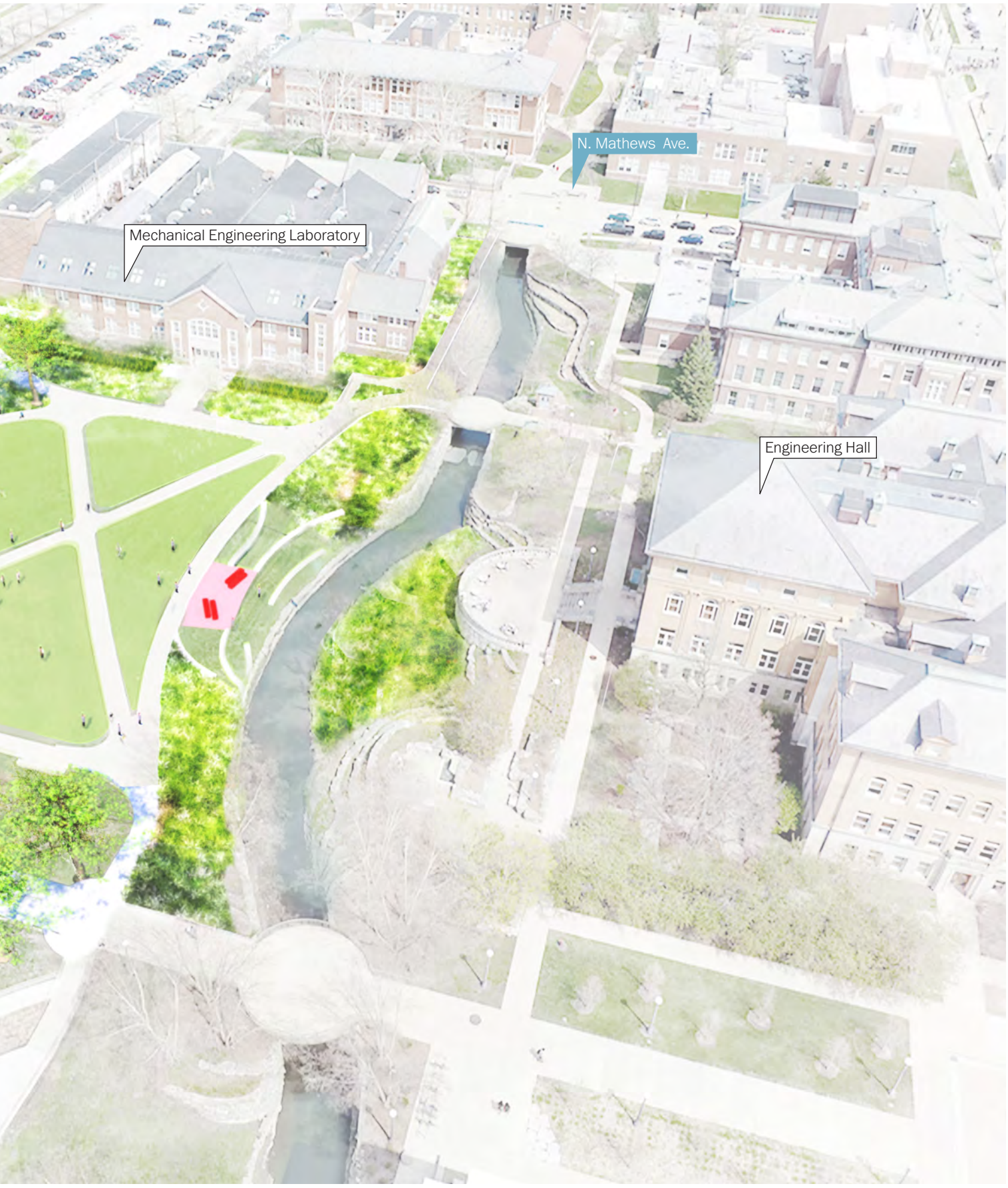
- Increases in pollinator-friendly planting by 18,500 sq. ft.
- Implementation of green stormwater strategies though riparian enhancement and creating a wetland bench treating approximately 7,000 cubic feet of rainwater.
- Increases tree canopy by 14,000 sq. ft.

8) The Rainwater Toolkit within this district recommends bioretention strategies be retrofitted within existing surface parking lots.

As the Bardeen Quad and Oval Allee are high visibility spaces on campus, these quads should be a high priority for maintenance. The following maintenance strategies will contribute to this goal:

1) Installation of smart irrigation. Both quads will benefit from the installation of a smart irrigation system paired with weather stations and remote web access.

2) Converting the turf type from Kentucky Bluegrass to a tall fescue mix. This strategy has proven successful in other areas of campus, therefore all turf on campus will implement this existing standard.



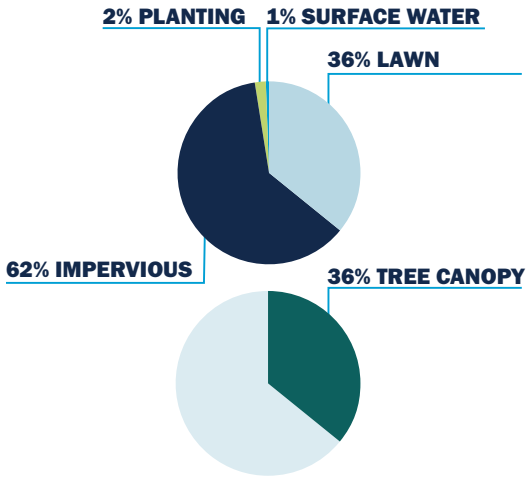
Conceptual view of the Bardeen Quad looking East

URBAN CAMPUS DISTRICT

CURRENT CHALLENGES

The Urban Campus is the transitional zone between the small-scale residential neighborhoods to the east and the Sacred Landscapes and Campus Quads to the west. The Urban Campus District is one of the “front doors” of campus given the visitation to Krannert Center for the Performing Arts, Spurlock Museum and the Alice Campbell Alumni Center. Campus tours frequent this district of campus. Given this high visibility, stakeholder input during the CLMP process indicated a need for a higher standard of maintenance in this district.

Predominantly defined by the urban grid, safety along and across Lincoln Avenue was a shared concern of pedestrians and cyclists. Oregon Street and Nevada Street were also highlighted as areas in need of aesthetic and safety improvements. The connections between this district and the Arboretum and Athletics District lack clarity and need pedestrian infrastructure, safer intersection crossings and visual indicators. Given the outward growth of campus from the core and into Urbana, there is a lack of gateways or thresholds signaling arrival on campus, and a lack of secondary or tertiary placemaking to highlight special places within this district. Lastly, the Campus Master Plan notes that the east-west corridors that lead to the Main Quad should be enhanced to reinforce these connections and relationships between districts.



Quick Facts:

- Campus Master Plan Landscape Typology: Urban Campus/Urban Town Gown
- Existing % Impervious: 62%
- Existing % Turf: 36%
- Existing Tree Canopy: 36%

To address these challenges the CLMP recommends the following:

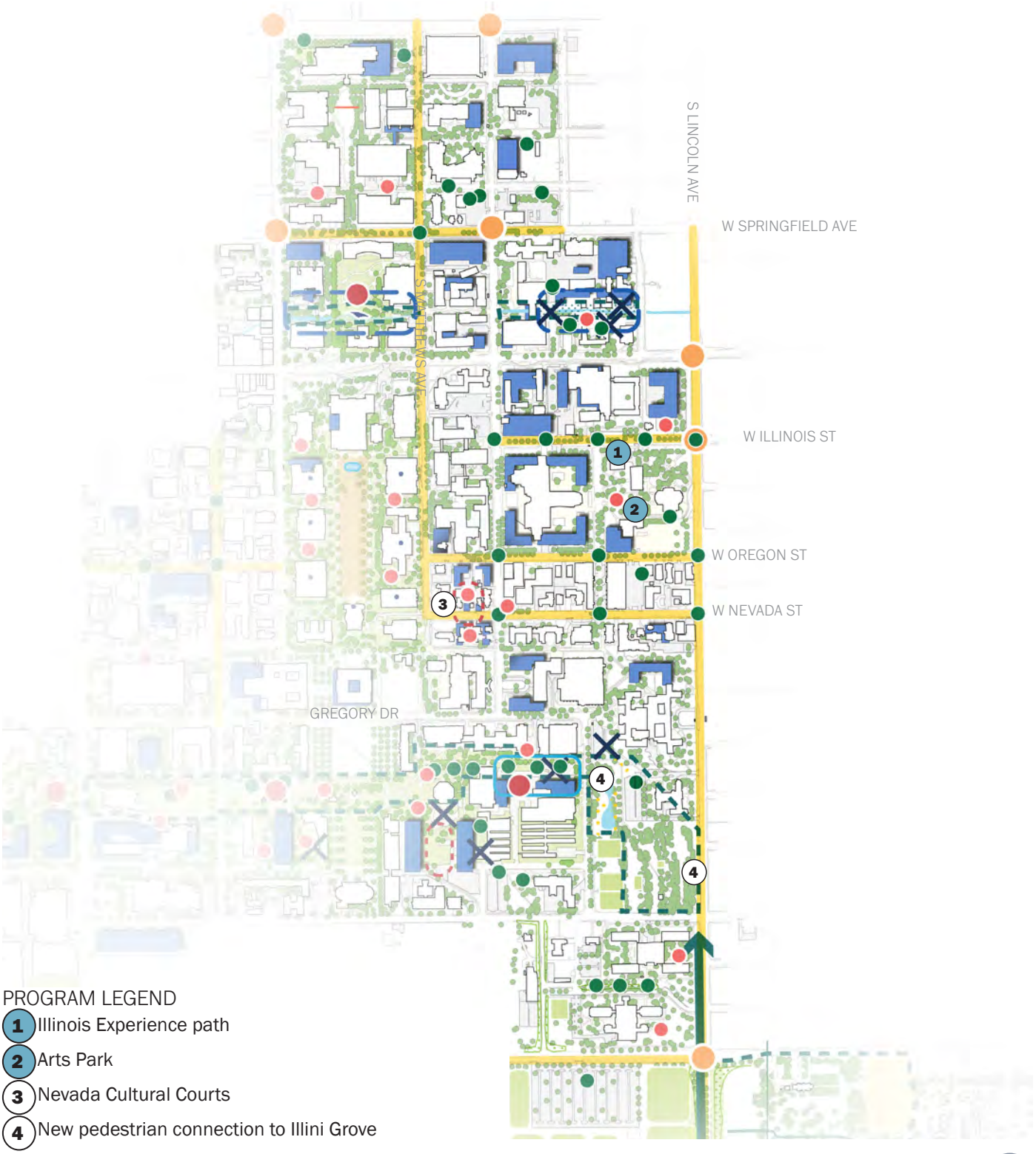
1) Reinforce the primary east-west movement corridors and their relationship to the Main Quad. To that end and per the Campus Master Plan, Illinois Street should be rebranded as a major route into the campus core becoming the “Illinois Experience.” This street would become a new urban contemporary streetscape with amenities, public art, rich landscape and interpretive and cultural displays. Secondly, the relationship of the collection of cultural houses should be reinforced by positioning the terminus of Nevada Street as a primary pedestrian corridor and threshold to the Main Quad. (See prototype recommendations for this district for further detail). Lastly, as adjacent redevelopment occurs, Oregon Street should be redesigned as a green street. These three roadways, owned by the City of Urbana, will require coordination and discussion of funding opportunities to implement these improvements.

2) Convert all roadways within this district into green streets. Lincoln Avenue will benefit from a corridor study to improve safety and mobility along and across the roadway as well as improve the aesthetic continuity along the campus edge. Mathews Avenue provides additional opportunities to improve accessibility and safety within this district, as well as increase tree canopy and application of the Rainwater Toolkit.

3) Reinforce existing and create new gateways and thresholds within this district. Lincoln Avenue serves as the eastern edge of campus and has the potential to reinforce thresholds between residential Urbana and campus through the use of “pillars” or pedestrian scaled gateways. The gateway at Illinois and Lincoln should be updated as it is a highly visited location for prospective students, faculty and donors.

In addition, the Hallene Gateway grounds should be prioritized for replacement of failing concrete, as well as upgraded planting design. The Kirby-Florida/Lincoln Avenue intersection is a highly utilized corridor for visitors to the campus and should be celebrated as a gateway and branding opportunity. Consideration should be made for burying overhead utilities in this location to improve overall aesthetics.

URBAN CAMPUS DISTRICT: RECOMMENDED IMPROVEMENTS



PROGRAM LEGEND

1. Illinois Experience path
2. Arts Park
3. Nevada Cultural Courts
4. New pedestrian connection to Illini Grove

PROPOSED RECOMMENDATIONS

- Outdoor classroom
- Stream restoration
- Wetland creation
- Impervious surface removal
- Bioretention/rain garden
- Green street
- Future building*
- Quad space
- Gathering space
- Enhanced gateway
- Eco-asset
- Eco-corridor
- Prairie planting

NTS

(*ALL REFERENCES TO FUTURE BUILDINGS ARE PER THE 2017 CAMPUS MASTER PLAN)

URBAN CAMPUS DISTRICT

4) Implement campus-wide “eco-corridors.” Connections between ecological assets such as Illini Grove, Red Oak Rain Garden and Dorner Pond can be reinforced through additional native plantings and green infrastructure. Dorner Pond should be further naturalized to become a native prairie providing park-like amenities with overlooks and seating.

5) Create new gathering spaces. The Campus Master Plan recommends the creation of an “Arts Park” north of the Spurlock Museum which would reinforce the connection and views to the Krannert Center for the performing Arts. In addition, two new “cultural quads” are recommended between S. Mathews Avenue and S. Goodwin Avenue both north and south of W. Nevada Street. (See prototype recommendations for this district for further detail.)

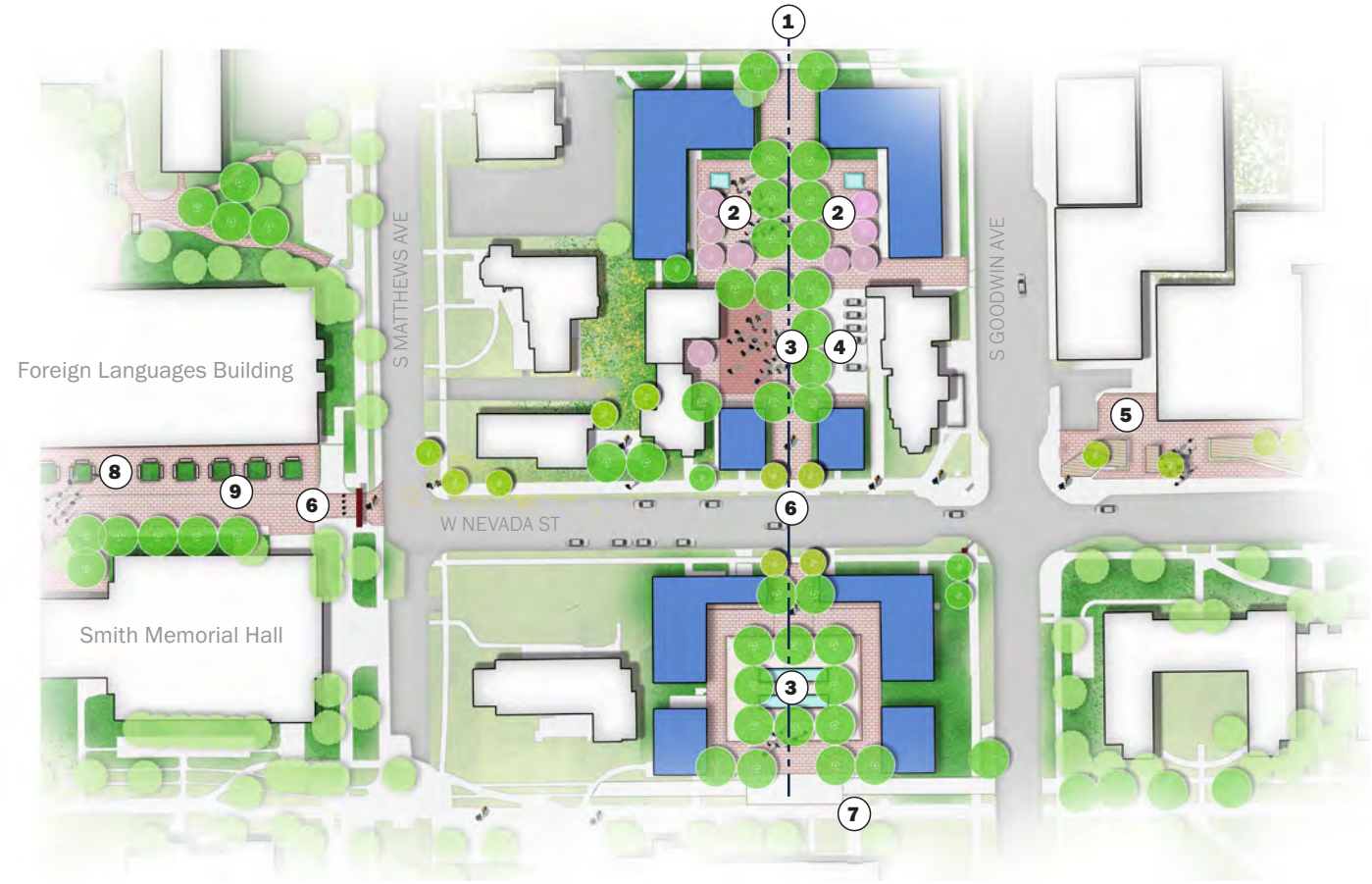
PROTOTYPE PROJECT APPLICATION

The prototype for the Urban Campus district is the Nevada Street Cultural Courts located between S. Mathews Avenue and S. Goodwin Avenue both north and south of W. Nevada Street. This area is where the cultural houses and centers are located on campus. This is also one of the major access points to the Main Quad, yet the landscape is neither reflective of its prominence as a major pedestrian corridor nor a reflection of its rich cultural context. Stakeholders noted that the collection of cultural houses feels “safe” as they are organized together, as one unit. They however desired the transformation of this area to provide places to gather and celebrate community.

A priority for this concept is to address the condition of the streetscape along Nevada Street, improve accessibility and improve this important collection of facilities relationship with the Main Quad. Improvements on Nevada Street will need to be coordinated with the City of Urbana.

View of the cultural houses along the Nevada Street corridor, looking southwest

URBAN CAMPUS DISTRICT: PROTOTYPE PROJECT



URBAN CAMPUS PROJECT RECOMMENDATIONS

1. New North-south axis
2. Private courtyard
3. Shared courtyard
4. Flex area/parking court
5. “Night Plaza”
6. Gateway marker and removable bollards
7. Enhanced bicycle parking
8. Additional seating
9. Enhanced pedestrian walkway/ reconfigured service drive

SCALE 1”=120’

URBAN CAMPUS DISTRICT

The concept creates a number of shared courtyard spaces both north and south of Nevada Street. The future redevelopment could be positioned to reinforce a series of flexible spaces; small plaza gathering spaces adjacent to each facility with identities and design elements that reinforce those individual places, while also reinforcing the “community” of cultural centers and houses. A linear walkway creates a new north-south axis between Oregon and Nevada Streets and reinforces the relationship of the two “cultural house pods.” This axis also connects these quads to the major east-west pedestrian and bicycle path to the south. Enhanced bicycle accommodation is provided at this intersection. Note that some level of parking is proposed to remain within the northern courtyard – while still allowing the space to be closed off to vehicles during scheduled events.

The Campus Master Plan notes the need to enhance the east-west pedestrian connections to the Main Quad. This concept proposes that Nevada Street terminate as a pedestrian walkway with a primary relationship to the Main Quad and reinforce the view of Foellinger Auditorium. Service vehicle accommodation will be made but the pedestrian movement will be prioritized. To reinforce the relationship between the Main Quad and the cultural houses, a gateway threshold is proposed at the west edge of S. Mathews Avenue, between the Foreign Languages Building and Smith Memorial Hall. Service vehicles and trucks should be accommodated in the gateway treatment. In addition, the paver area on the roof deck at the Foreign Language Building should accommodate more seating and shade within the load-bearing limits.

Conceptual view of the Nevada Cultural Courts looking towards the Main Quad

URBAN CAMPUS DISTRICT

ICAP GOAL CONTRIBUTION

- Increases green infrastructure installations on campus with approximately 40,000 sq. ft. of permeable paving, treating 47,000 cubic feet of rainwater.
- Increases tree canopy by 14,850 sq. ft.

This corridor can contribute to the goals of the iCAP through increased native plantings, increased tree canopy, and increased rainwater infiltration. The Native American house identity would be reinforced through the use of native plantings.

On the east side of Nevada Street at the intersection with S. Goodwin Avenue, a redesigned plaza is proposed at the south side of the Music Building to create a safe nighttime gathering space for the students. Stakeholders indicated a need for such a space and given the diverse uses in this block including retail, entertainment, residential and office, this space would be ideal to accommodate this need. The existing wide sidewalk area would provide large planters with fixed, built-in seating, arranged to accommodate a single user to a small group. Overhead and integrated lighting would reinforce a safe environment while the flexible plaza space could also accommodate small music performances. This plaza space is an opportunity to engage donors in creating a dynamic and engaging space on campus that has the potential to create a renewed social energy at the entry to an important cultural corridor.

View of the Asian American Cultural Center, looking north


View of the plaza space south of the Music Building, looking east

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URBAN TOWN/GOWN DISTRICT

CURRENT CHALLENGES

Urban Town/Gown district is located at the western edge of campus, at the intersection of campus and the City of Champaign. Streetscapes within this district lack a consistent and cohesive aesthetic. There is a general lack of shade and green stormwater infrastructure, and various locations need accessibility improvements.

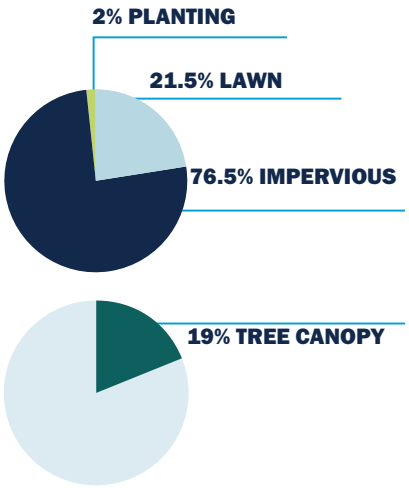
To address these challenges, the CLMP recommends the following:

1) Reinforce visual connectivity through the use of a unified landscape materials palette.

2) Address accessibility concerns through maintenance of paths and mobility infrastructure.

3) Application of a green streets approach to roadway design.

4) Creation of new gathering spaces at curb extensions.



Quick Facts:

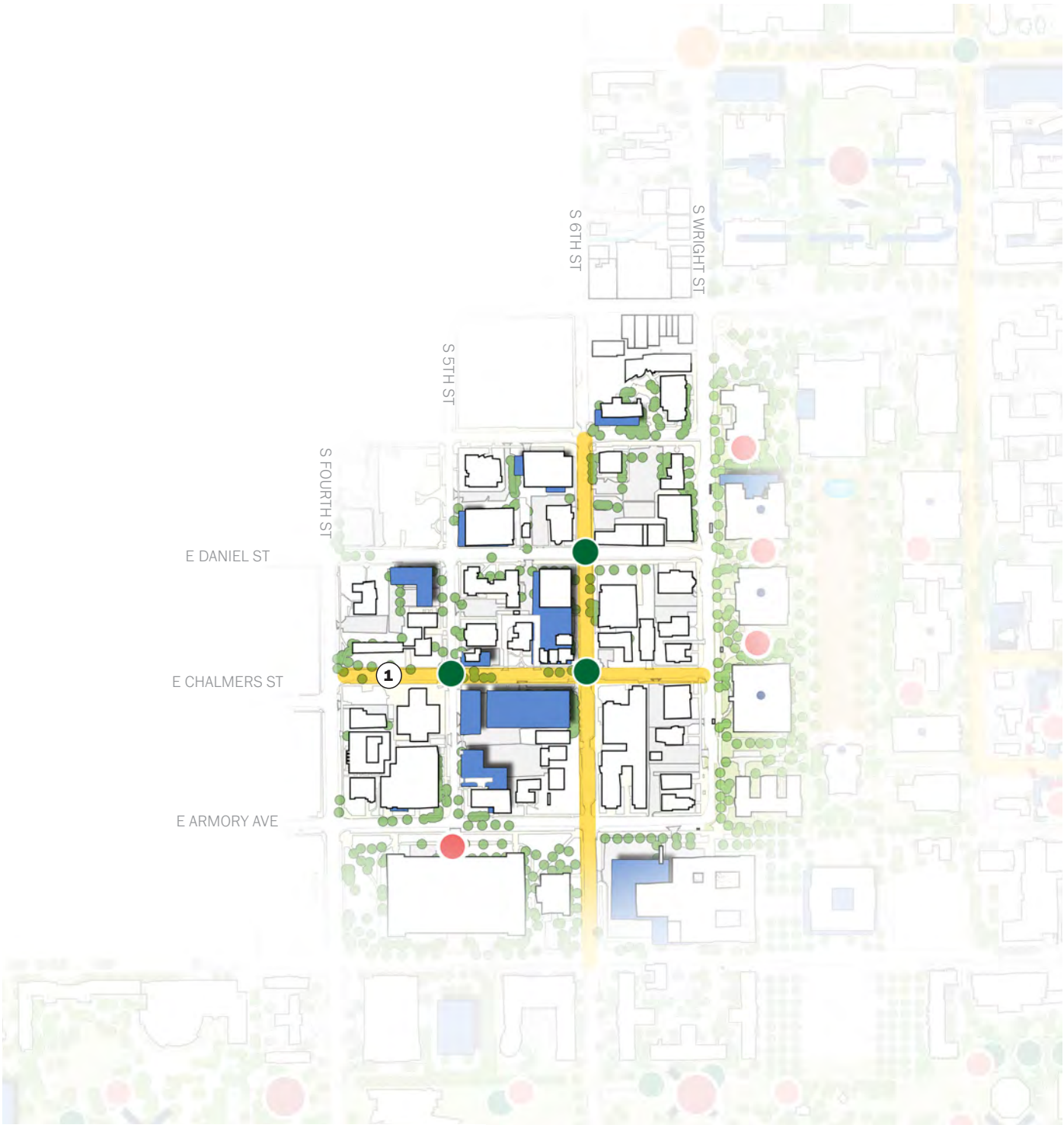
- Campus Master Plan Landscape Typology: Urban Town/Gown
- Existing % Impervious: 76.5%
- Existing % Turf: 21.5%
- Existing Tree Canopy: 19%

PROTOTYPE PROJECT APPLICATION

The application within this district is largely represented in the “Landscape Standards” section of this plan. As redevelopment occurs along E. Chalmers Street, a new gateway at the intersection of S. Fourth Street and E. Chalmers Street should signal sense of arrival onto the Campus. A unified materials, signage and furniture palette reinforces the standard campus application of clay brick pavers and the use of wrought iron and back powdercoat. As redevelopment and infill occurs along Chalmers, a consistent building edge and reduction of surface parking lots will improve continuity and reinforce the public realm.

The campus standard LED lighting should be applied within this district. Given the narrow right of ways within this district, a consistent use of tree grates in suspended paving will maximize usable space for pedestrians, seating and amenity zones within the streetscape. A green streets application of curb extensions will improve safety and create opportunities for green stormwater infrastructure. Permeable clay pavers can be utilized with tree grates to improve water infiltration to the tree root zones. Tree pits should provide a minimum of 1,000 cubic feet of soil within the streetscapes in this district. Through the application of the Rainwater Toolkit bioretention and permeable pavers combined with large tree pits, the three-block streetscape prototype can treat 9,500 cubic feet of rainwater volume.

URBAN TOWN/GOWN DISTRICT: RECOMMENDED IMPROVEMENTS



PROGRAM LEGEND

(1) Streetscape revitalization

PROPOSED RECOMMENDATIONS

- Gathering space
- Green street
- Bioretention/rain garden
- Future building*

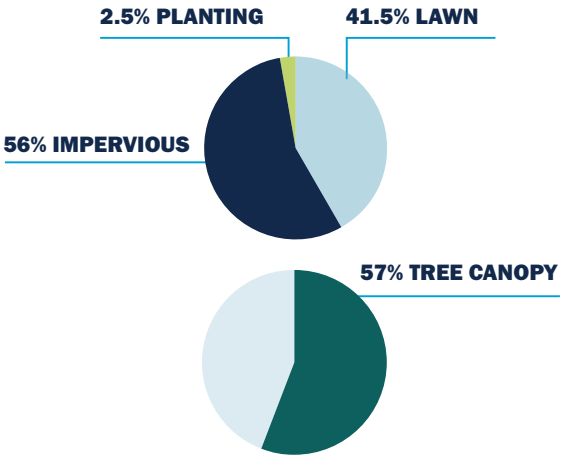
NTS

(**ALL REFERENCES TO FUTURE BUILDINGS ARE PER THE 2017 CAMPUS MASTER PLAN)*

IKENBERRY QUAD DISTRICT

CURRENT CHALLENGES

Historically, the Ikenberry District served as the military parade grounds on campus, positioned as the terminus of the “military axis” which is a prominent east-west axis established on campus during the 1920s. This district of campus is currently 41.5% turf, which gets heavy use due to its location within the residential quads and, thereby, requires considerable maintenance. The stakeholder community indicated an overall need to integrate areas of collaboration, socializing and general health and wellbeing across the entire campus. Numerous new buildings are expected to be added to this quad in the future, providing a tremendous potential to not only provide a suitable terminus to the Military Axis District and integrate different experiences for the students, but also integrate a number of productive landscape ecosystems.



Quick Facts:

- Campus Master Plan Landscape Typology: Campus Quads
- Existing % Impervious: 56%
- Existing % Turf: 41.5%
- Existing Tree Canopy: 57%

View of Ikenberry Commons, looking north

IKENBERRY QUAD DISTRICT: RECOMMENDED IMPROVEMENTS

PROGRAM LEGEND

1 Ikenberry Innovation Commons

2 Illinois student showcase

PROPOSED RECOMMENDATIONS

- Outdoor classroom
- Proposed gathering space
- Bioretention/rain garden
- Green street
- Impervious surface removal
- Future building*

NTS

(*ALL REFERENCES TO FUTURE BUILDINGS ARE PER THE 2017 CAMPUS MASTER PLAN)

IKENBERRY QUAD DISTRICT

PROTOTYPE PROJECT APPLICATION

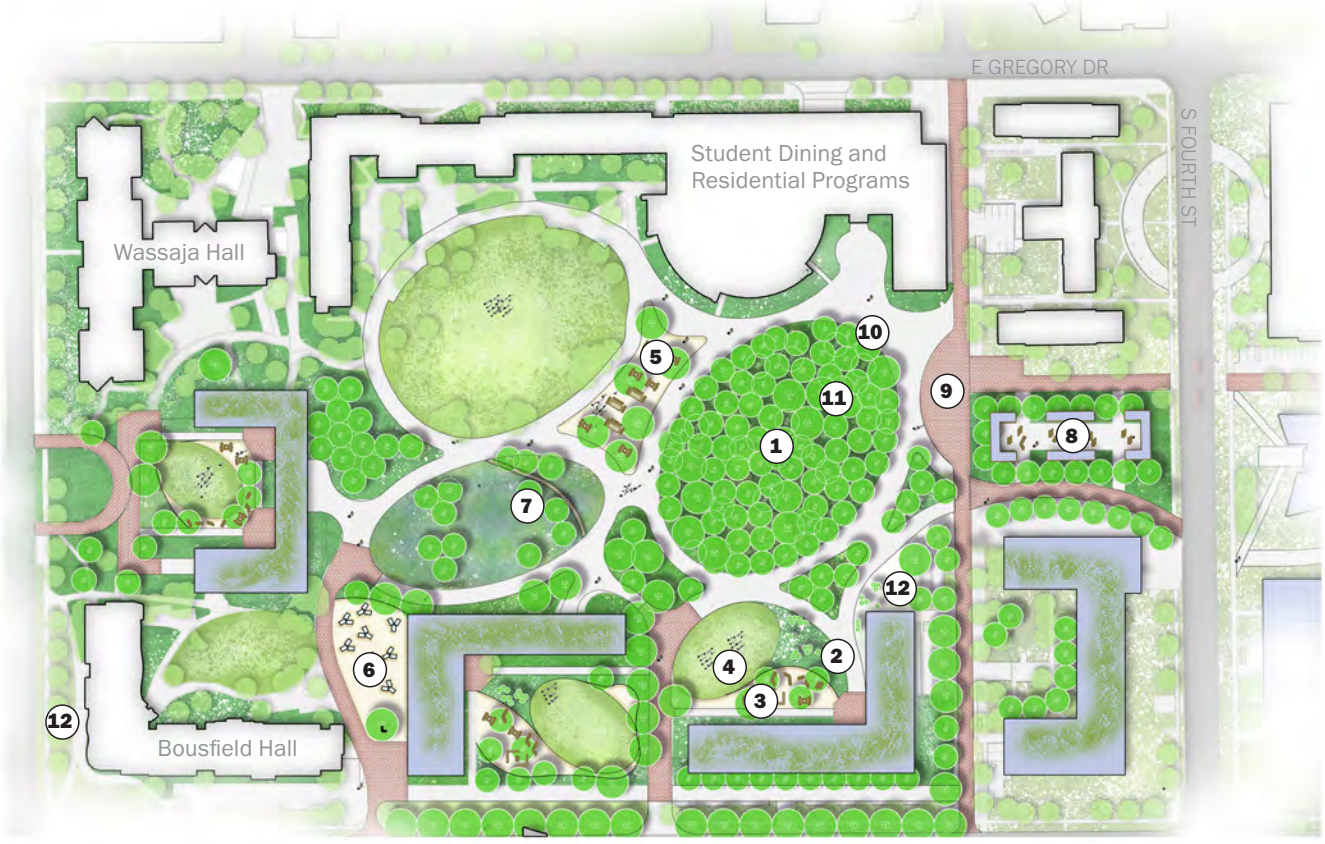
To address these challenges, the CLMP recommends the following. Note that the boundary of the Ikenberry Quad District aligns with the extent of the prototype application concept, referred to often as Ikenberry Commons. The prototype project proposes to further refine the name to Ikenberry Innovation Commons. When redevelopment occurs per the Campus Master Plan, this district will further demonstrate and contribute to the landscape framework goals and become a model for sustainable residence hall design.

As future facilities plans are implemented, the Ikenberry Quad will connect to the Siebel Center for Design between Fourth Street and Euclid Street through a plaza and classroom space serving as place of outdoor collaboration for students to display their work, make presentations, host celebrations and learn. To the west across Euclid Street, an entry plaza flanked by a picnic grove will serve as host to food trucks and temporary pop-ups. As one approaches the new residence hall entry courts, outdoor "living room" style seating is flanked by raingardens. A small turf area has been included within each residence and serves as a flex space.

This concept continues the departure from a traditional "quad" space – while preserving the existing well utilized turf circle, the additional open spaces create new landscape experiences. Stakeholders expressed a desire for more diverse landscape experiences on campus. To achieve this, a "quad forest" creates a sense of enclosure, while also providing the many benefits from trees. A hammock grove is provided within this space as a place of respite for students. This forest can serve as the "lungs" of the Ikenberry Quad, reducing its carbon footprint. During design of this concept, consideration should be made to ensure inclusion of tree species diversity per the iCAP diversity targets. Between the existing turf oval and the forest, an outdoor collaboration hub is proposed to provide flexible workspaces with Wi-Fi hubs and power outlets, and the ability to reconfigure the seating and tables to meet the diverse needs of individuals, small groups and larger gatherings. Adjacent to this area is a shaded sensory garden to ensure all users are accommodated. All principles of universal design should be applied as redevelopment occurs within this district. This space has the potential to test and evaluate sustainable technologies like "solar trees" or solar umbrella tables and smart lighting. A small solar generation pod provides an education opportunity to understand the relationship and scales of power generation.

Courtyard space within the Ikenberry Quad District

IKENBERRY INNOVATION COMMONS: PROTOTYPE PROJECT



IKENBERRY QUAD DISTRICT PROJECT RECOMMENDATIONS

SCALE 1"=200'

1. Quad Forest
2. Rain Garden
3. Residence outdoor "living rooms"
4. Turf
5. Flexible collaboration work spaces
6. Power generation solar trees
7. Wet prairie and boardwalk
8. Showcase and presentation space
9. Food truck plaza
10. Bicycle parking
11. Hammock grove
12. Remove invasive species

IKENBERRY QUAD DISTRICT

ICAP GOAL CONTRIBUTION

- Increases pollinator-friendly planting by 33,000 sq. ft.
- Implementation of green stormwater strategies through permeable paving, treating approximately 91,000 cubic feet of rainwater.
- Increases tree canopy by 174,240 sq. ft.

Numerous Rainwater Toolkit strategies are deployed here including permeable walkways, reduction of overall turf, native and pollinator plantings, rain gardens and increased tree canopy. Green roofs should be encouraged for future residence halls. A prairie allows the quad to manage rainwater in a visible way – allowing students to learn the importance of rainwater capture, as well as represent the Indigenous Midwest plant palette within this district. Removal of invasive species should occur throughout this district with a focus on the removal of the extensive burning bush plantings and replacement with a suitable native species. An augmented reality app or physical message board could serve to educate students on the power generation, carbon sequestration, energy saved, runoff captured and other sustainable features of this space. Turf areas to remain should be retrofitted to a sand-based soil system and resilient tall fescue seed mix to improve turf health and improve resiliency. Irrigation needs should be met through the implementation of smart irrigation systems or recycled water systems to reduce potable water use.

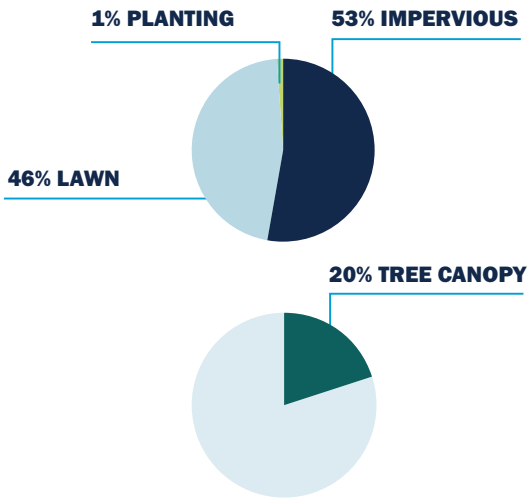
Conceptual view of Ikenberry Innovation Commons looking West

MILITARY AXIS DISTRICT

CURRENT CHALLENGES

Historically, the “military axis” was a prominent east-west axis established during campus planning in the 1920s. Today, the Military axis serves as a quad space with turf, framed with Bald Cypress trees on the north and is largely dominated by vehicular drives and parking on the east. The desire to strengthen and define this primary axis is identified in the Campus Master Plan. Stakeholder input indicates there is considerable potential for this space to serve the campus further and significant support was shown for positioning this district as a major east-west “eco-corridor” of campus.

The Campus Master Plan defines campus quads as a series of formal and informal pedestrian oriented open lawn spaces, framed with buildings and consisting of walkways and large canopy trees. The definition allows for passive recreational uses in addition to a wide range of programmed events. The Campus Master Plan indicates the need to strengthen and define this primary axis, creating a major new campus open space. The Campus Master Plan recommends relocating surface parking, incorporating sustainability through stormwater management and utilizing a palette of Illinois native plantings and additional canopy trees for carbon sequestration. The concept for the Military Axis District takes on a deliberate representation of the indigenous Midwest plant palette and aesthetic, capitalizing on the opportunity to provide a wide range of spaces to serve the campus community. It is recommended that the university consider changing the official district name to reflect this new vision.

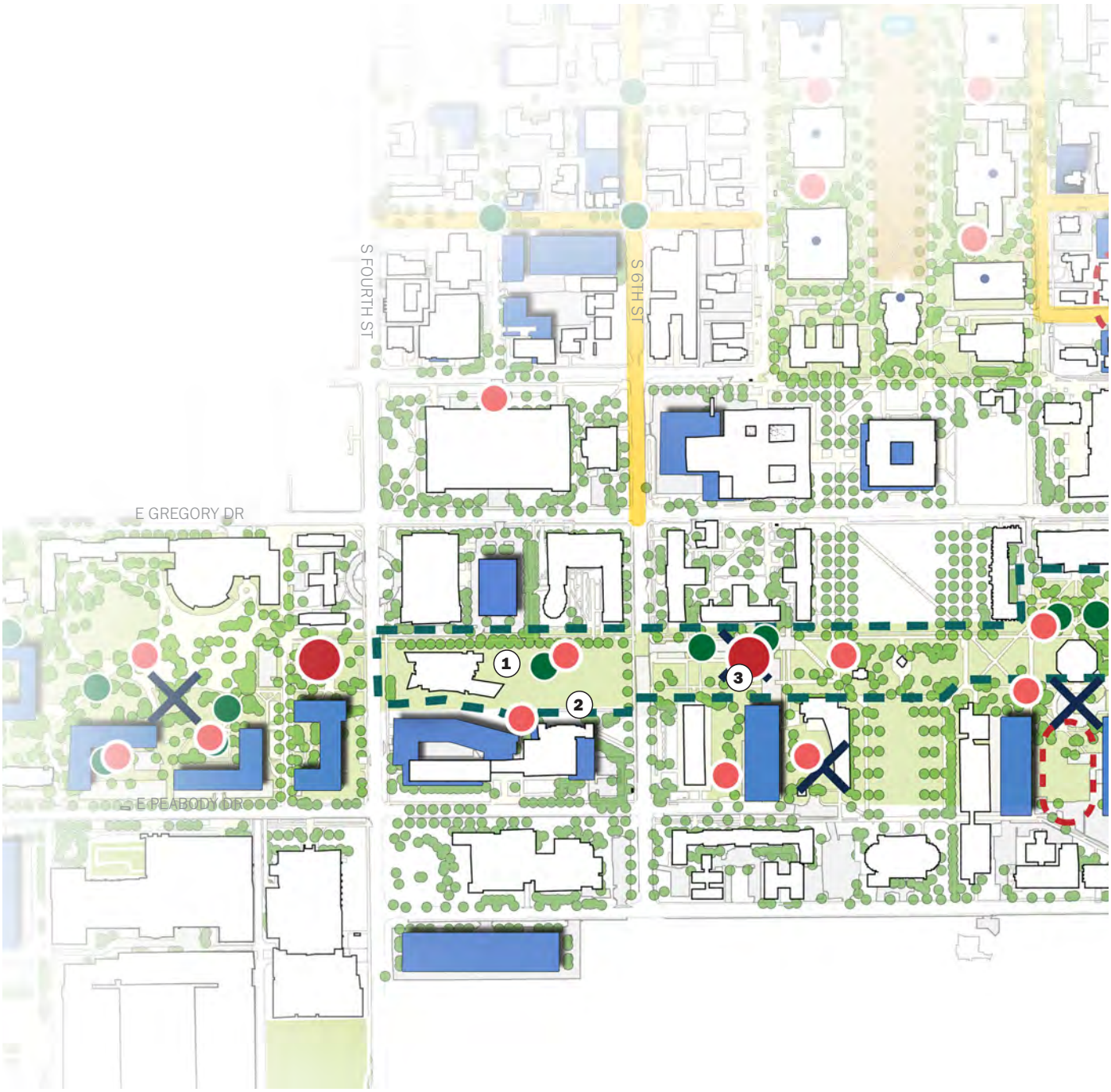


Quick Facts:

- Campus Master Plan Landscape Typology: Campus Quads
- Existing % Impervious: 63%
- Existing % Turf: 35%
- Existing Tree Canopy: 42%

View of the Military Axis, looking east

MILITARY AXIS DISTRICT: RECOMMENDED IMPROVEMENTS



PROGRAM LEGEND

1. Event lawn
2. Eco-region experiential path
3. Outdoor Classroom

PROPOSED RECOMMENDATIONS

- Outdoor classroom
- Proposed gathering space
- Quad space
- Bioretention/rain garden
- Eco-asset
- Impervious surface removal
- Future building*
- Green street

NTS

(*ALL REFERENCES TO FUTURE BUILDINGS ARE PER THE 2017 CAMPUS MASTER PLAN)

MILITARY AXIS DISTRICT

PROTOTYPE PROJECT APPLICATION

The concept for the Military Axis transformation includes transitioning existing turf and parking areas to a series of spaces of restoration and quiet as a mark of respect to the Native peoples in the campus community, while welcoming the entire campus community to learn about the rich history of the native peoples and immerse them in learning about active contributions of the native peoples in land preservation and restoration of the prototype project area. The space should demonstrate a pre-colonial plant palette focused on mimicking Illinois' native ecoregions. Implementation of this approach has the opportunity to reposition this underutilized east-west axis of campus as a series of "eco-asset," creating a ecolgically diverse and sustainble core on campus. This proposed "eco-asset" links to the north-south ACES Legacy Corridor, connecting the core of campus to its early agricultuaral legacy-represented within this axis by the Mumford House.

The redesign of the Military Axis is a refining of the ideas that were promoted in the 2017 Campus Master Plan. "This is an important space to include stormwater management, native plantings, and additional canopy trees. A variety of ideas have been considered for the space such as a learning laboratory with native Illinois plantings, carbon sequestration canopy. The Military Axis provides a significant opportunity for further design to determine the optimal landscape treatment for the Military Axis." The Campus Master Plan and the CLMP position this space to accomplish numerous resiliency goals set forth in the iCAP, as well as demonstrate an innovative approach to place making on campus.

A series of spaces would host study and gathering spaces, contemplative spaces tucked in within lush woodlands, open prairies, and rain gardens, and seating groves connected by winding paths intended to provide an experience through constantly changing views, thresholds and intersections. An observation point is provided at a high point, reinforcing the newly sculpted topography brought into the space.

Concept view of Eco-region Path

MILITARY AXIS DISTRICT: PROTOTYPE PROJECT

MILITARY AXIS PROJECT RECOMMENDATIONS

SCALE 1”=200’

1. Event lawn
2. Boardwalk and tree grove
3. Wet prairie
4. Dry prairie
5. Observation point deck
6. Outdoor classroom
7. Mumford house renovation and plaza
8. Woodland
9. Seating grove
10. Art display area
11. Interpretive/educational signage related to Indigenous knowledge sharing
12. Pathway widened with foundational planting

MILITARY AXIS DISTRICT

ICAP GOAL CONTRIBUTION

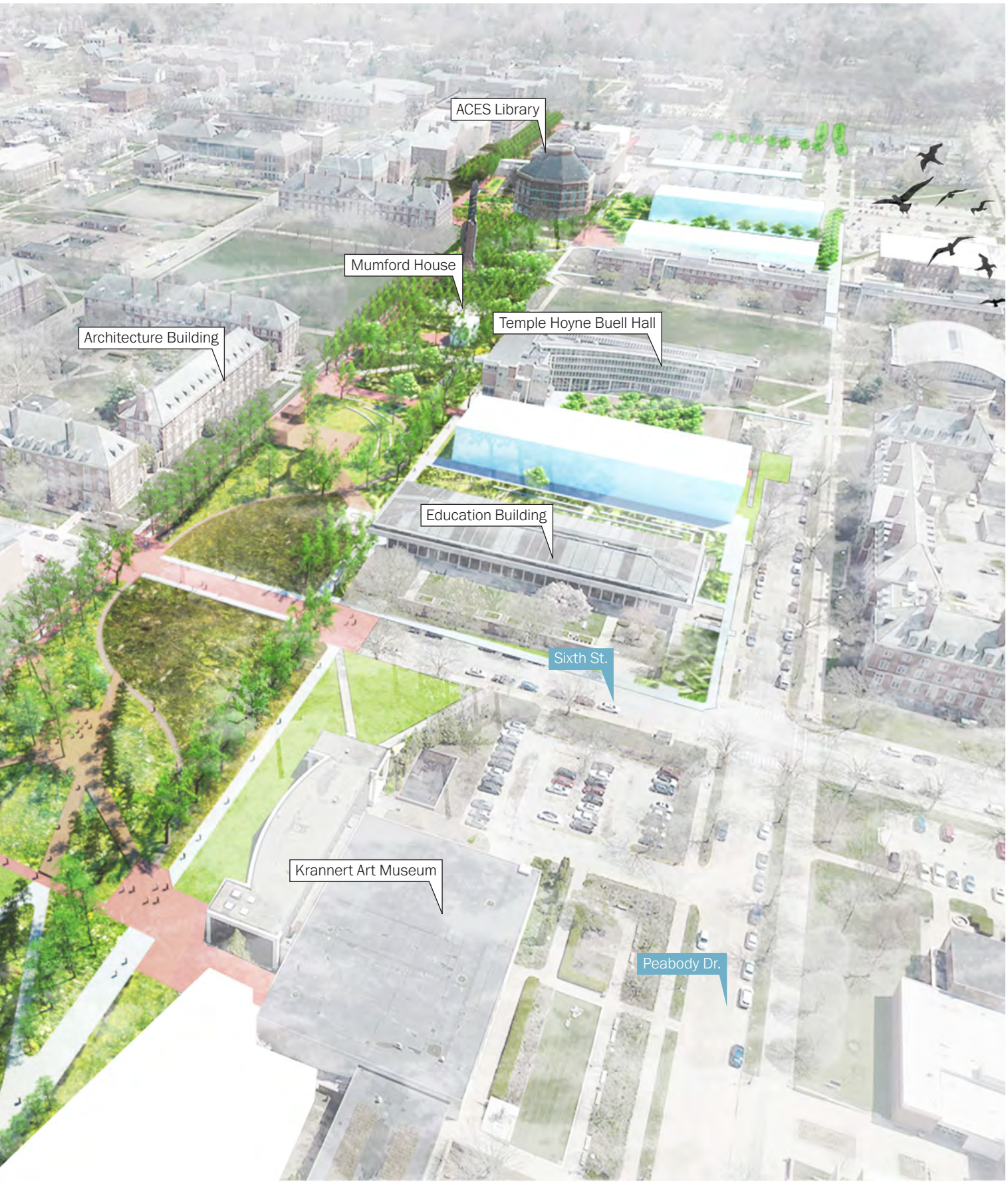
- Reduces turf by 130,680 sq. ft.
- Implementation of green stormwater strategies though bioretention and permeable paving, treating approximately 130,000 cubic feet or 3 acre feet of rainwater.
- Increases tree canopy by 104,544 sq. ft.

The concept connects campus to the regional habitat and provides wildlife corridors for pollinators, birds, insects, bats, etc. Sustainable and local materials can support the experiential vocabulary of the native ecoregions of Illinois. Interpretive educational signage is provided to facilitate Indigenous knowledge sharing. This axis should be designed in collaboration with Native American designers to ensure the space truly represents the indigenous Midwest and respects the knowledge of Native Americans.

As part of this linear axis, the area outside of the Mumford House could be positioned as an outdoor patio and seating area. A space for art display is provided outside of the Krannert Art Museum, while an event lawn accommodates tents and gatherings outside of the Siebel Center for Design.

Considerable increase in tree canopy will provide numerous benefits including rainwater capture and reduction of the heat island effect. Natural systems will remediate soils. A series of rain gardens and bioswales terminating in a prairie will demonstrate the value of rainwater as a precious resource. These benefits, along with plant identification and systems monitoring, could be communicated in real-time displays contributing to the body of ongoing research. This space could be designed as “windows” into research happening in other parts of campus, such as the Polinatarium in the Arboretum.

The redesign of the Military Axis per the direction of the Campus Master Plan will activate this area of campus in a bold way. The proposed composition and program will stand in stark contrast to the Engineering Campus and would draw people to this axis, as well as draw people from the neighboring community to engage with and on campus.



Conceptual view of the Military Axis looking East

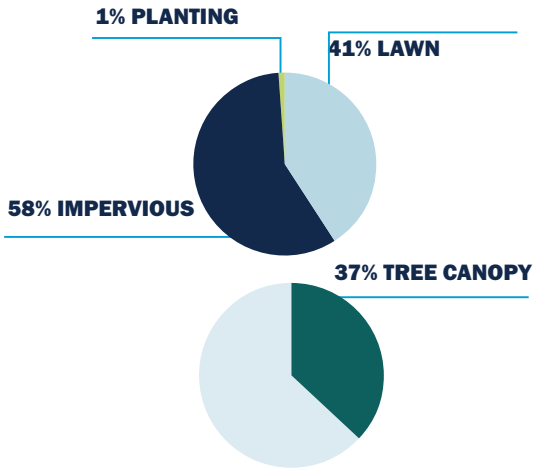
SOUTH QUAD DISTRICT

CURRENT CHALLENGES

As a “Campus Quads” typology as defined in the Campus Master Plan, the South Quad District is comprised of a series of formal pedestrian oriented open lawn spaces and linear walkways, framed by large canopy trees. Historically the South Quad district housed the facilities which are now provided in the Agriculture District, or South Farms area of campus. When campus had a smaller footprint, focused on the Main Quad, the South Quad and uses like the Stock Pavilion represented the agricultural legacy of this area of campus.

Buildings within this district are somewhat oriented toward these open spaces, and there is opportunity to further this relationship and create enhanced connections between them, with canopy trees remaining as the organizing structure within the ground plane. Significant infill and building additions are planned for this district per the Campus Master Plan, greatly reducing the large footprint of surface parking lots that exist here currently. To reinforce the quad framework as infill occurs, the Campus Master Plan suggests a new quad space south of the ACES Library.

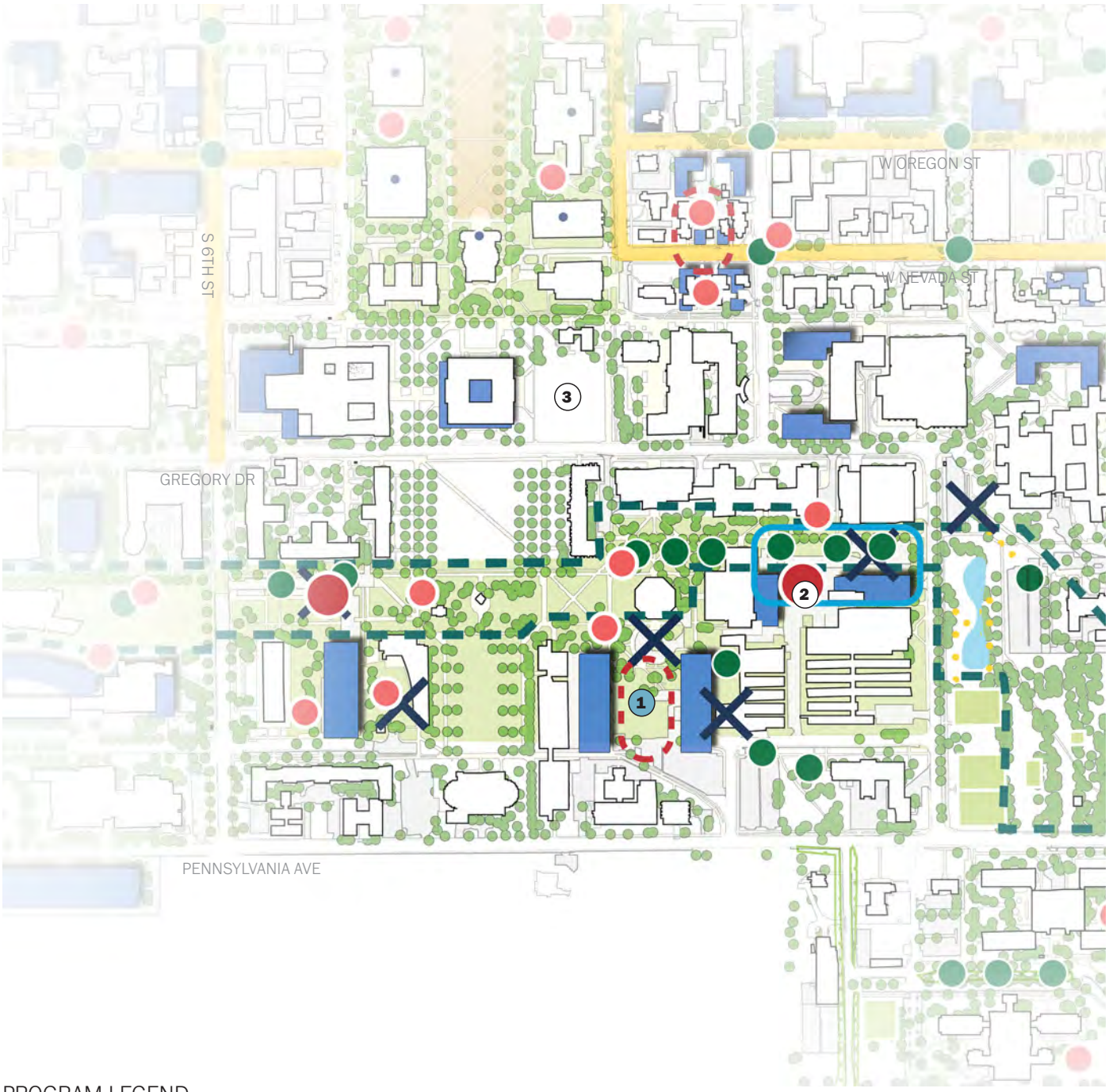
The Campus Master Plan notes the intent for a simplified plant and materials palette with native plantings applied in broad sweeps and masses. Limited application of this approach occurs currently, with the majority implemented at the Red Oak Rain Garden, Illinois Street Residence Hall and the Siebel Center for Design. The linear walkway located south of, and parallel to, W. Gregory Drive is a major connector of the residence halls to the east such as Florida Avenue Residence Halls, Lincoln Avenue Residence Halls, Pennsylvania Avenue Residence Halls and Allen Hall to the core of campus. Outreach with students indicates a lack of trees and shade along this major linkage and a lack of learning and gathering spaces within this district.



Quick Facts:

- *Campus Master Plan Landscape Typology: Campus Quads*
- *Existing % Impervious: 58%*
- *Existing % Turf: 41%*
- *Existing Tree Canopy: 37%*

SOUTH QUAD DISTRICT: RECOMMENDED IMPROVEMENTS



PROGRAM LEGEND

1 ACES Quad

2 Rainwater Showcase

3 Morrow Plots enhancement

PROPOSED RECOMMENDATIONS

- Outdoor classroom
- Gathering space
- Quad space
- Prairie planting
- Bioretention/rain garden
- Eco-asset
- Eco-corridor
- Impervious surface removal
- Future building*
- Green street

NTS

(*ALL REFERENCES TO FUTURE BUILDINGS ARE PER THE 2017 CAMPUS MASTER PLAN)

SOUTH QUAD DISTRICT

The prototype project within this district, aligns with the boundaries of the district itself. Therefore, the following recommendations address the challenges within this district through the proposed prototype, which focuses on the application of the larger framework goals.

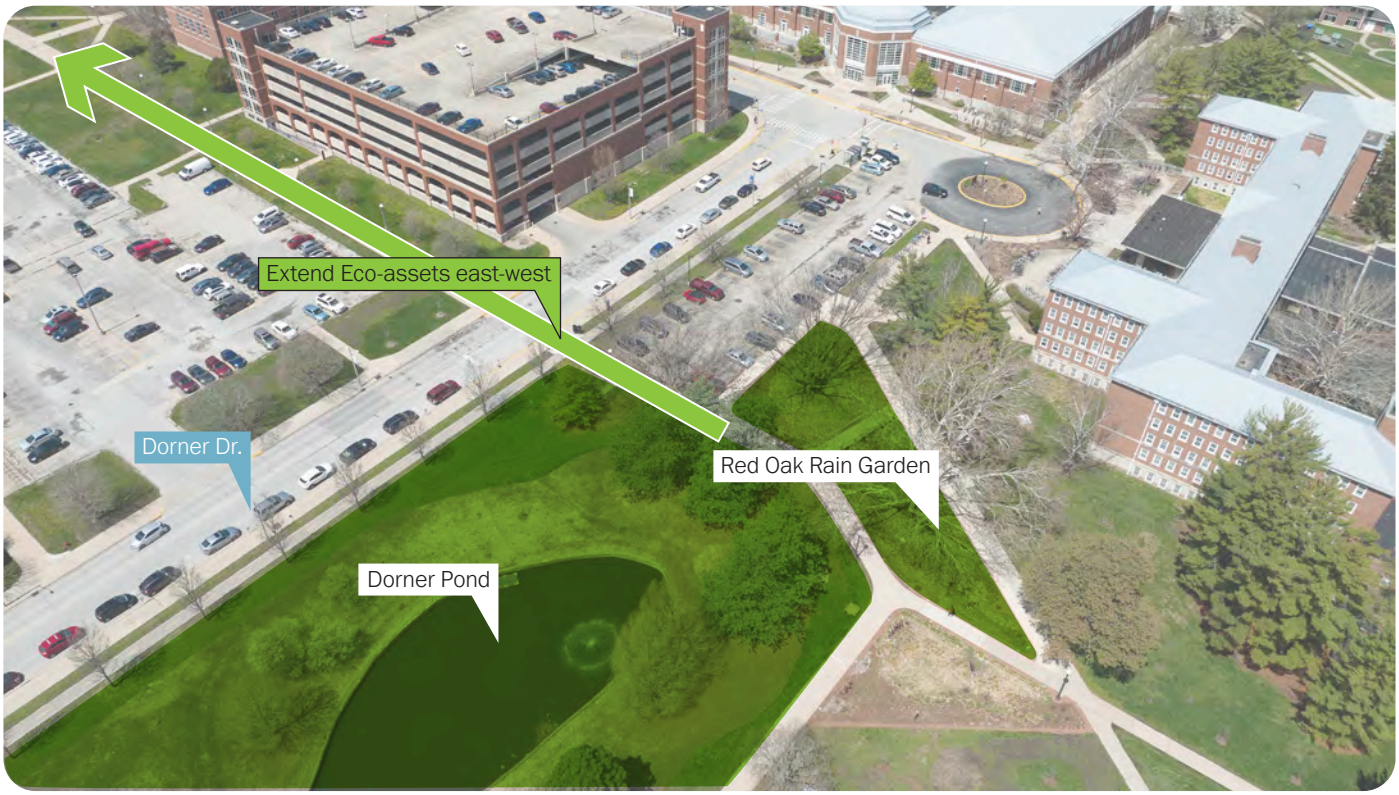
1) Connect existing campus assets and provide additional gathering and learning spaces. The Red Oak Rain Garden has become a special place for students, faculty and staff to celebrate rainwater and native plantings. This space around the Dorner Pond and Illini Grove can be connected to the South Quad and Military Axis through a system of linear rain gardens, native plantings, plazas and spaces creating a larger series of “eco-assets.” This ecologically rich space on campus links to the ACES Legacy Corridor to reinforce the framework goal of connecting to the larger ecological context. (See recommendations for the Agriculture District and the ACES Legacy Corridor and Trail.)

2) A new sidewalk connection into Illini Grove is proposed to improve exposure and visibility within and to this space, while achieving the larger framework goal of creating more opportunity for mental health and well-being on campus. The series of rain gardens and bioretention areas significantly reduces the impermeable percentage of landcover within this district and increases the native pollinators throughout, while reinforcing the Indigenous Midwest landscape across campus. The Rainwater Toolkit should be applied throughout this district.

3) While not visible in the plan graphic to the right, as part of the South Quad District, the hedges surrounding the Morrow Plots should be removed due to their size and difficulty to maintain. The hedge should be replaced with a metal fence, consistent with the campus aesthetic, with a foreground planting of pollinator friendly natives. In addition, the northern boundary of the Morrow Plots should be replaced with a brick wall, consistent with the campus aesthetic.

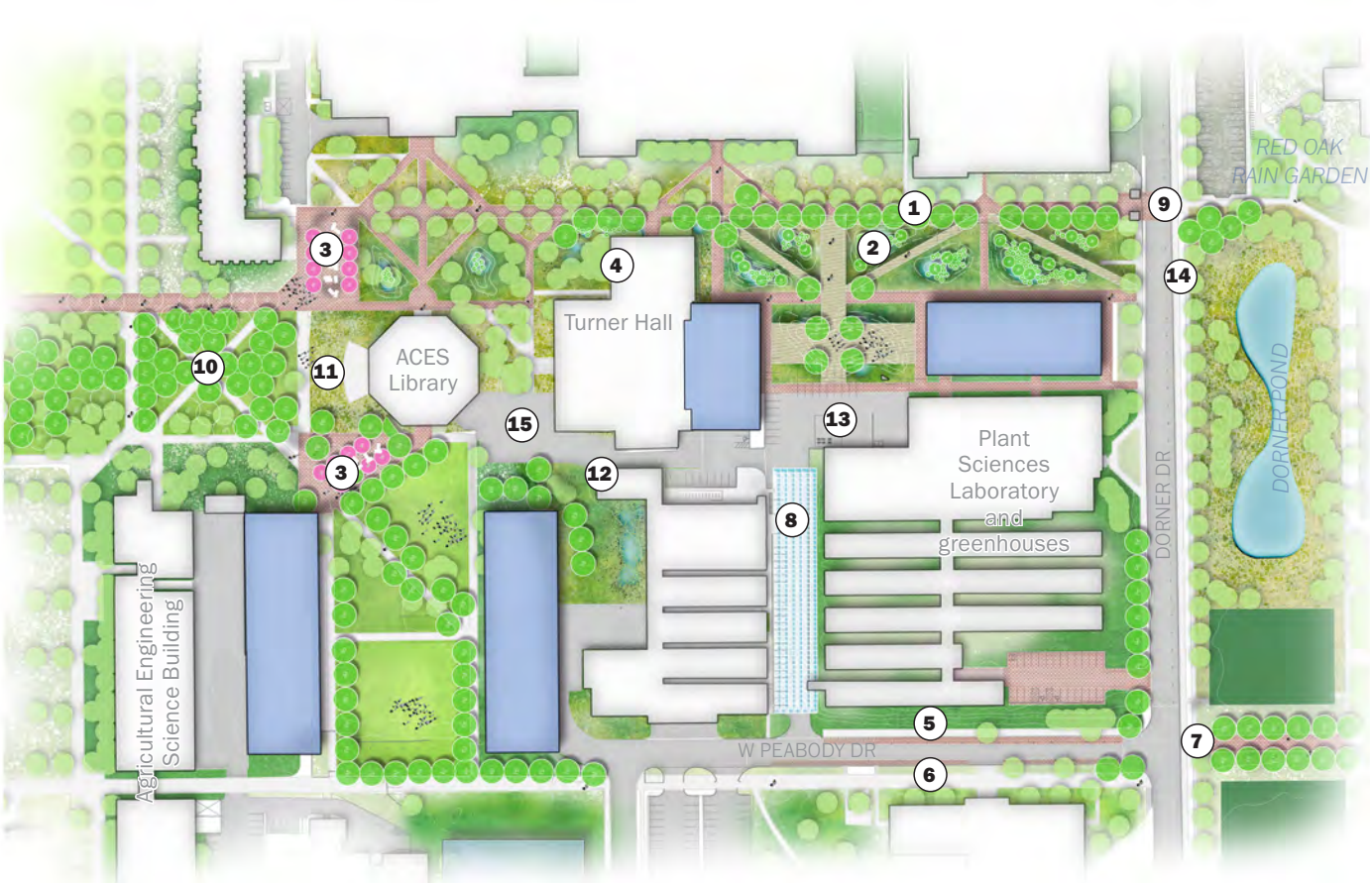
PROTOTYPE PROJECT APPLICATION

A living laboratory is proposed adjacent to the Plant Sciences Laboratory that could demonstrate the collection and reuse of rainwater to the benefit of researchers and students. The new development proposed for this area creates an opportunity for a new quad space south of the ACES Library and connection can be established to new outdoor gathering and learning spaces. Downspouts from adjacent buildings can be rerouted to rain gardens and



View of South Quad in relation to the Red Oak Rain Garden and Dorner Pond

SOUTH QUAD DISTRICT: PROTOTYPE PROJECT



SOUTH QUAD PROJECT RECOMMENDATIONS

SCALE 1"=200'

1. Linear rain gardens
2. Living laboratory rainwater showcase
3. Plaza
4. ACES Quad
5. New sidewalk connection
6. Widened sidewalk
7. Connection to Illini Grove
8. Solar canopy
9. Enhanced pedestrian crossing to the Red Oak Rain Garden
10. Woodland
11. Native plantings
12. Rain garden
13. Parking and service area
14. Dorner Drive restoration
15. Reconfigured service drive and parking

SOUTH QUAD DISTRICT

ICAP GOAL CONTRIBUTION

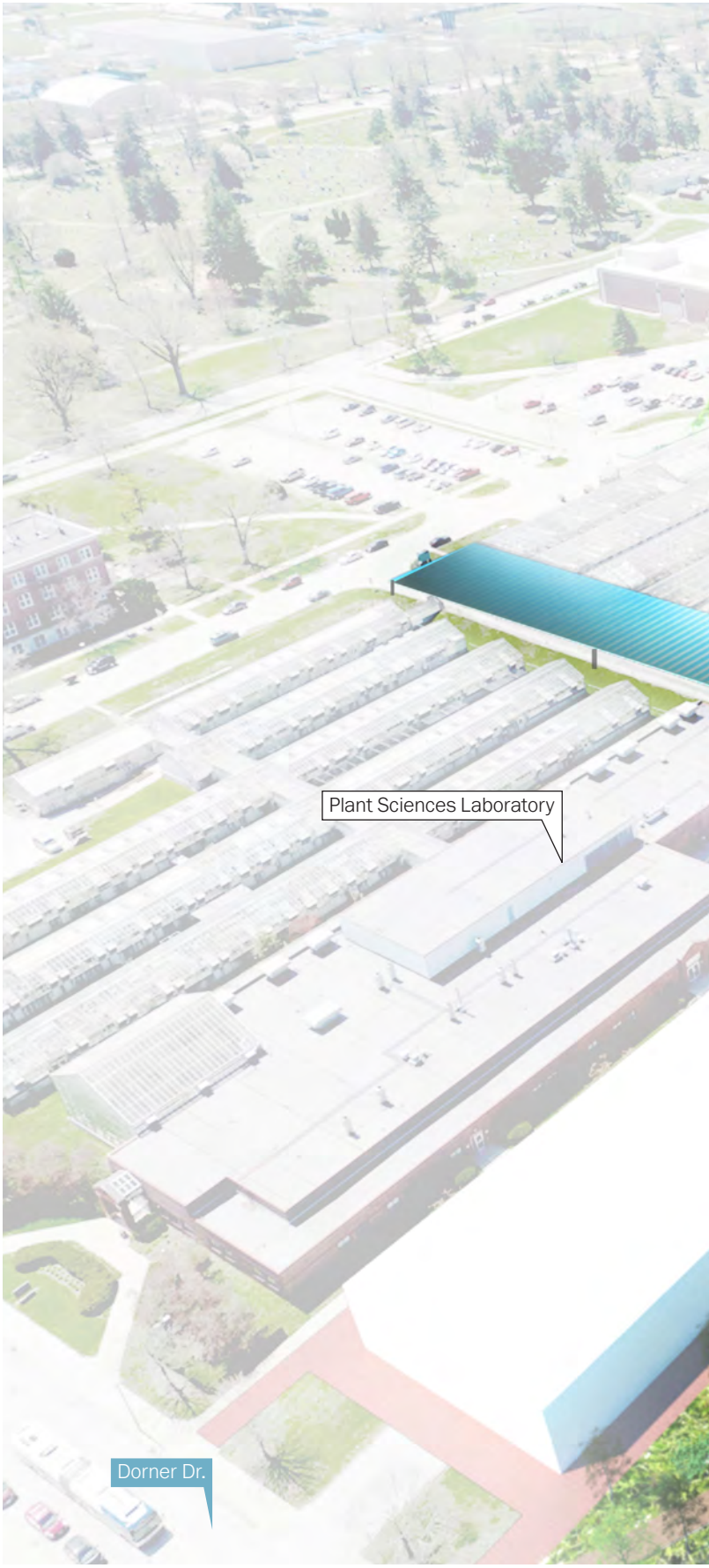
- Increases pollinator-friendly planting by 75,000 sq. ft.
- Implementation of green stormwater strategies though approximately 96,000 sq. ft. (surface area) of bioretention and 66,000 sq. ft. of permeable paving treating approximately 102,000 cubic feet or 2.34 acre feet of rainwater.
- Increases tree canopy by 71,400 sq. ft.

underground rainwater storage addressing the framework goal to reduce water consumption within the campus landscape. Collected rainwater can potentially be reused in the neighboring greenhouses. Increased tree canopy and plantings will reduce the heat island effect and create an improved experience connecting residence halls to the core of campus.

In the short-term, there is potential to implement small scale solar canopies over parking or service drives to further educate and reinforce sustainability in this district. Doing so will achieve the larger goal to test new and emerging technologies that utilize recycled or low-impact materials, landscape components that generate power and landscape management technologies that minimize environmental impact. Creating a living laboratory in this location will allow students and researchers to monitor and study sustainable maintenance techniques.

New plaza spaces encourage gathering and interaction, demonstrating application of the goal to maximize innovation potential within the campus landscape by creating opportunities for idea-sharing. These spaces should be fit with Wi-Fi hubs and power outlets to further meet the needs expressed by the campus community.

Implementation within this district should include outreach and engagement with interested programs within the College of Fine and Applied Arts and the College of Agricultural, Consumer & Environmental Sciences that are located within the district. Programs of related disciplines might include landscape architecture, sustainable design, architecture, horticulture, natural resources and environmental sciences, for example.



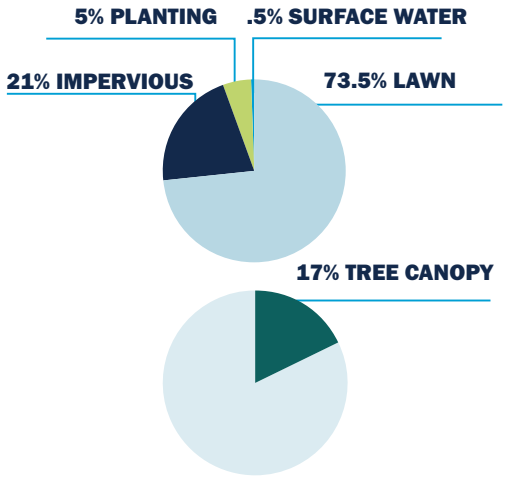
Conceptual view of the Rainwater Showcase looking West

AGRICULTURE DISTRICT

CURRENT CHALLENGES

The Agriculture District is primarily vehicular oriented with uses accessed by roadway networks and associated parking arrangements with a secondary focus on pedestrian level circulation. The immense scale of these spaces is typically experienced by passing through at a fast pace rather than on foot at a close range. Roadway character is largely rural in nature as the surrounding, vast open spaces reveal sprawling views of the surrounding agricultural landscape.

Stakeholders shared a desire for more exposure and connections to the research and innovation occurring within the South Farms area of campus. The Campus Master Plan defines the ACES Legacy Corridor within this district, with clear opportunities to visually brand it and establish gateways on the south side of campus. Existing amenities within this district lack clear entries, identification, and access. There is limited safe access to the Student Sustainable Farm, and the campus community is largely unaware that trails exist within the South Arboretum Woods. While the Illini Forest is an asset to campus, the area is not leveraged in terms of providing an amenity to the campus community and serving as a critical ecosystem for the region. The University has initiated progress on several projects to tackle nutrient loss reduction in the South Farms and address the iCAP goals. While monitoring equipment and measures to improve the quality of water flowing downstream (away from campus) have been installed, additional opportunities exist for further capturing rainwater and filtering runoff before it reaches the Embarras River within this district. Located just south of St. Mary's Road west of Lincoln Avenue, the Round Barns, also known as the Experimental Dairy Barns, is a complex comprised of three round barns and a Dairy Horse Barn with attached silo and residence. The three round barns are listed on the National Register of Historic Places. As a long-standing representation of the agricultural history of the university, these deteriorating building assets and their open space setting require preservation and new compatible uses.

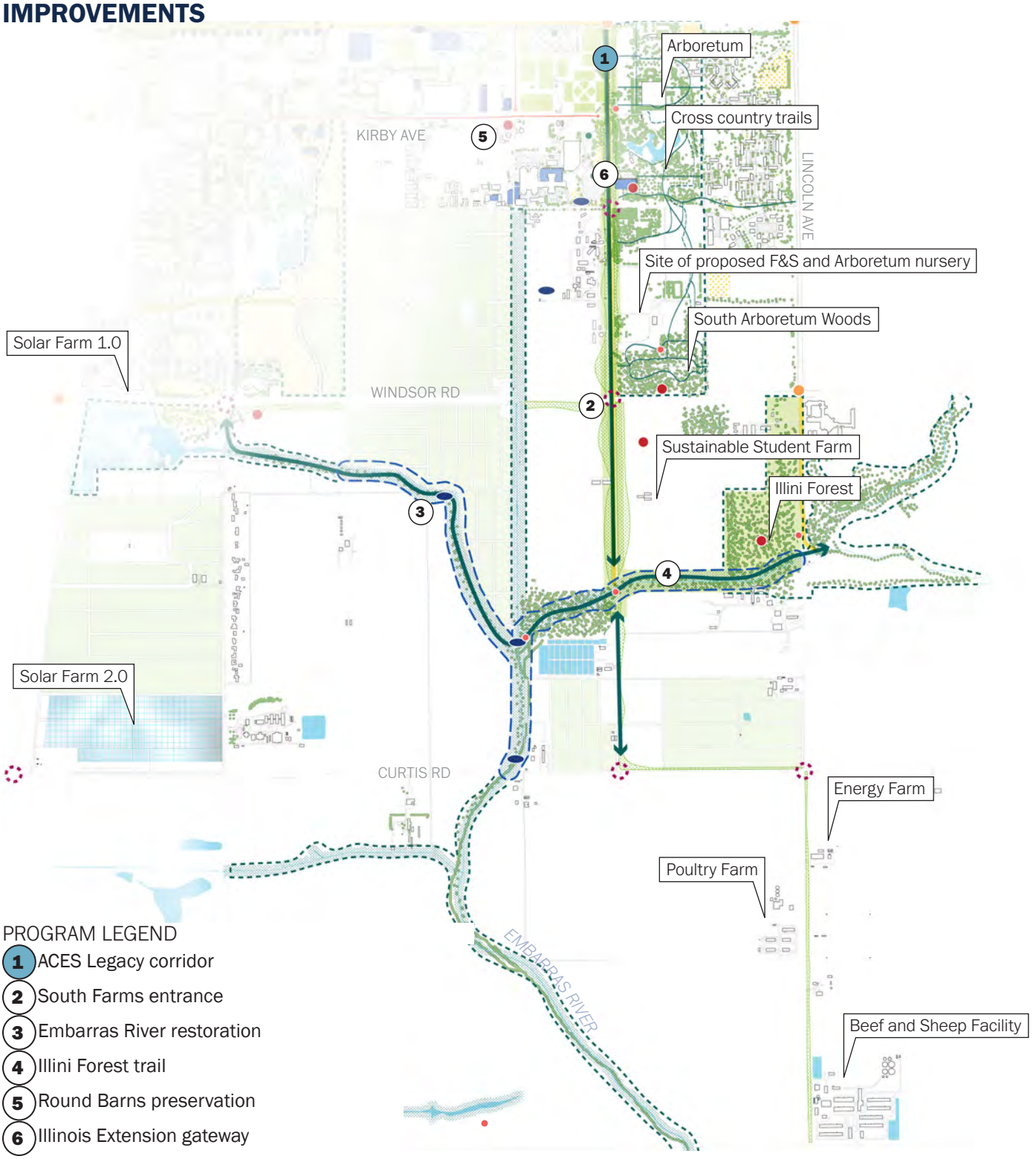


Quick Facts:

- Campus Master Plan Landscape Typology: Contemplative Landscapes, Learning and Research Landscapes, Passive Landscapes
- Existing % Impervious: 21%
- Existing Tree Canopy: 17%

View of the Embarras River looking east towards Illini Forest

AGRICULTURE DISTRICT (EXTENDED TO SOUTH FARMS): RECOMMENDED IMPROVEMENTS



(*ALL REFERENCES TO FUTURE BUILDINGS ARE PER THE 2017 CAMPUS MASTER PLAN)

AGRICULTURE DISTRICT

To address these challenges, the CLMP recommends the following:

1) Establish new gateways to delineate the edges of this District and the South Farms to communicate that ACES is active in these areas. Add new vehicular gateways at at the intersections of Curtis Road & Race Street, Curtis Road & Lincoln Avenue, and Windsor Road & Lincoln Avenue and at the entrance to Veterinary Medicine/Extension Building. Feasibility studies should be performed to study a potential roundabout on Lincoln Avenue, to improve access to the highly visited Vet Med complex and slow traffic entering the core of campus.

2) Continue to address the impacts to water quality including nutrient loss reduction strategies, through planting of cover crops, retaining a forested buffer along the Embarras River and implementation of the Rainwater Toolkit within this district.

3) Provide improved access to the Round Barns area to establish a new sidewalk on Goodwin Avenue, a new sidewalk along St. Mary's Road, as well as the creation of a "landing" site for visitors.

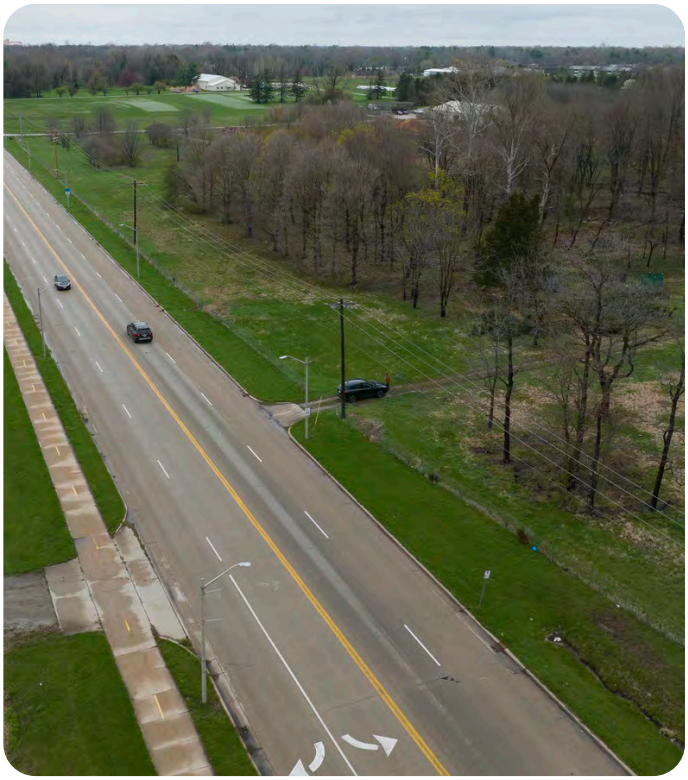
4) Refer to the "Landscape Standards" section of the CLMP for recommendations related to materials palette and planting approach. Elements including fencing, signage, sidewalk treatments, lighting and roadway plantings should unify this outlying district with the larger campus character.

5) Establish a tree nursery near the F&S Grounds facility to serve as a shared facility between F&S and the Arboretum. The nursery would serve the demand for new trees across campus, as well as provide outreach and educational opportunities through Extension. In addition the new facility could provide forestry education in partnership with the NRES Department and Landscape Architecture Department. An on-campus tree nursery would allow trees that are difficult to procure to be purchased as nursery stock and grown to ideal transplanting size and therefore ensure overall tree diversity on campus to meet the iCAP diversity goals. The nursery could also be used as a test site for trees that might help campus become more resilient to climate change and rising temperatures. To ensure success, it is critical though that staffing levels within F&S are increased to support the operation of this facility. In addition, procurement of specialized equipment such as a tree spade will be necessary to support ongoing and future needs of the campus.

PROTOTYPE APPLICATION: "ACES LEGACY TRAIL"

The ACES Legacy Corridor was designated in the Campus Master Plan as an important corridor to celebrate the agricultural legacy of campus and create an improved entry experience for visitors. Numerous stakeholders indicated the desire to better connect the core of campus to the South Farms as well as generate more exposure to the incredible research and testing happening in this district.

This concept positions Lincoln Avenue as the north-south "eco-corridor" of campus, while it connects the newly envisioned Military Axis, across the South Quad District to the Red Oak Rain Garden, the Dorner Pond restoration area, Illini Grove, the Arboretum and the South Arboretum Woods, to the south and onward to the Student Sustainable Farm, across the Embarras River, through Illini Forest and into Meadowbrook Park. The proposed concept demonstrates the overall campus-wide goal of connecting the existing ecological assets on campus. These incredible assets are somewhat underutilized and are under celebrated. Through a multi-use path on the east side of Lincoln Avenue and a continued trail along the Embarras



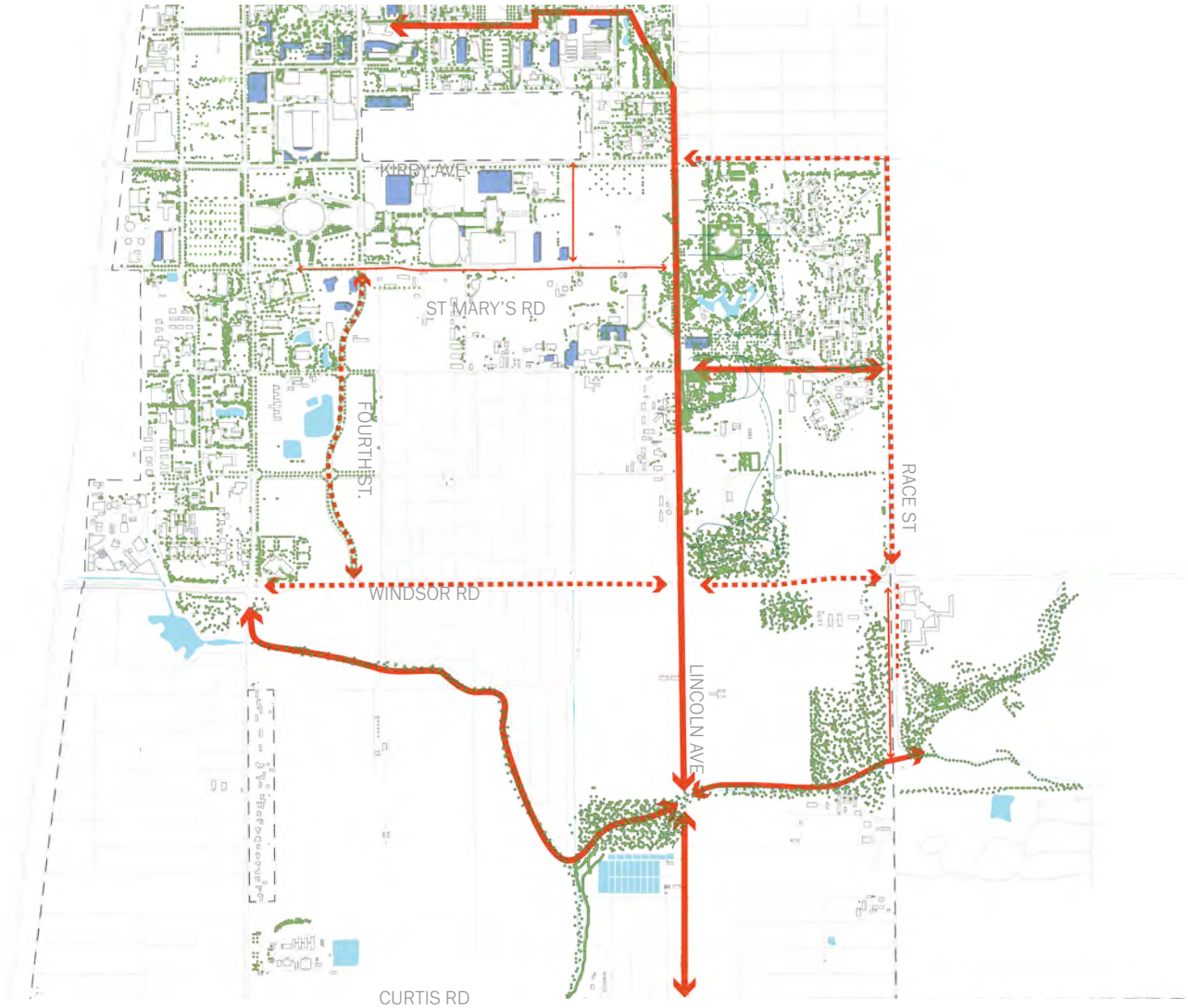
View of the South Arboretum Woods entry along Lincoln Avenue looking north

River, the campus will be connected to the larger regional ecological context, while creating access and exposure to these spaces through new experiences. Stakeholders expressed a desire for more diverse landscape experiences across campus. Provision of a safe, multi-use trail that allows for walking, jogging, and slower paced cycling will create a new experience on campus in the form of a continuous loop. As part of this experience, a new entry court could be created at the South Arboretum Woods, as depicted in the conceptual view on page 126. Vertical pillars could visually reinforce the ACES Legacy Corridor and trail, indicating a new access point to the woods and existing trails and providing a rest stop and opportunity for new interpretive and educational elements.

In addition to the proposed off-street multi-use trail, Lincoln Avenue should be reconfigured with on-street bicycle routes to connect to the existing bicycle routes within the ACES Legacy Corridor area including Windsor Road, Race Street, as well as the planned bicycle route along Curtis Road, as shown in the diagram below.

The proposed trail is recommended to begin at the Florida Avenue intersection with Lincoln Avenue, with improvements to address safety while creating an improved connection to the Arboretum. This intersection would include a gateway treatment on all corners to signal entry into the core of campus from the south, into the Athletics District from the east and the ACES Legacy

ACES TRAIL LOOP RECOMMENDATIONS



PROPOSED RECOMMENDATIONS

- Proposed gathering space
- Proposed outdoor classroom
- Future building*
- ACES Legacy Trail: bicycle facility
- ACES Legacy Trail: sidewalk addition
- Enhanced ACES Legacy Trail (at existing bicycle facility)

NTS

(*ALL REFERENCES TO FUTURE BUILDINGS ARE PER THE 2017 CAMPUS MASTER PLAN)

AGRICULTURE DISTRICT

corridor from the north and west. The multi-use trail would accommodate local bicycle users and pedestrians, while Lincoln Avenue right-of-way should accommodate on street bicycle routes for commuters and users traveling at higher speeds.

The trail would run along the Arboretum entrance and create new entrances to the Japan House and Dorris Kelley Christopher Illinois Extension Center, while also creating a new node entry plaza and resting space at the South Arboretum Woods. The trail would proceed south to create a gateway with branding of the Student Sustainable Farm at the Windsor Road intersection. As Lincoln Avenue proceeds south towards Curtis Road, the trail would split with one spur continuing south on Lincoln Avenue to connect to the proposed bicycle routes on Curtis Road while providing views of the solar farm, one turning east to follow the Embarras River into the Illini Forest, and the other turning west to follow the Embarras River north-west to Solar Farm 1.0 on Windsor Road.

The Rainwater Toolkit would be applied along the Embarras River to reinforce a wooded buffer and infiltrate and filter runoff before it enters the river. As the proposed trail proceeds east, an elevated outdoor classroom could be located within the Illini Forest to enhance exposure and provide a unique learning setting for NRES, Landscape Architecture and other programs to engage with this ecological zone. As the trail weaves through the forest to the north, it connects to bicycle routes along Race Street and then connects directly into Meadowbrook Park to the east. The bicycle routes can then connect to the existing bicycle route along Windsor Road or connect north on Race Street to the Hazelwood Drive alignment, creating a new bicycle and pedestrian connection into the Arboretum from the east.

Conceptual view of the ACES Legacy Corridor, multi-use trail, new entry to the South Arboretum Woods, and proposed intersection gateway, looking towards the South Farms

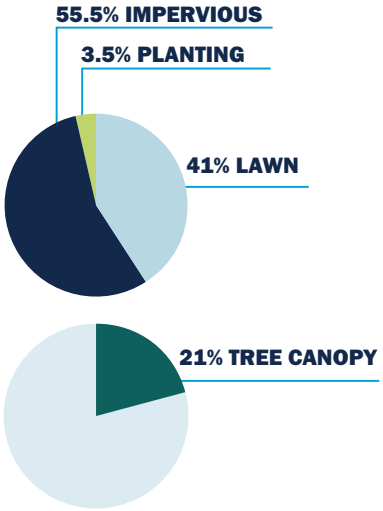
INDUSTRIAL + ATHLETICS DISTRICT

CURRENT CHALLENGES

Comprised of indoor and outdoor recreational facilities and set within large auto-oriented blocks, this district is largely vehicular oriented, characterized by large parking lots and open spaces. The district lacks visual consistency in the use of landscape materials and lacks a cohesive brand. Neil Street and W. Kirby Avenue is a major entry point to the campus given the location of the State Farm Center, Memorial Stadium and the many athletics destinations along this corridor such as baseball, softball and tennis. Therefore, elevating the visitor experience in this corridor is necessary.

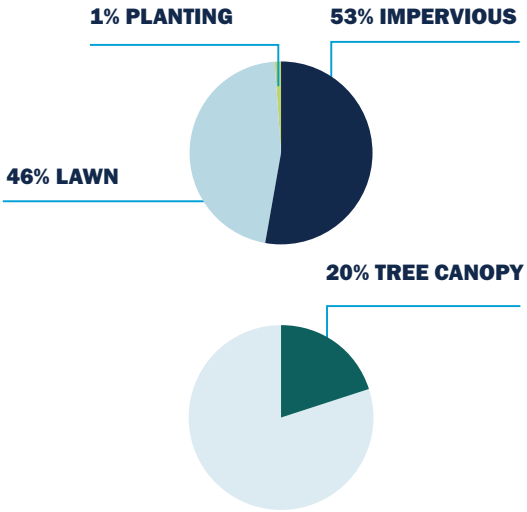
Kirby Avenue is a highly traveled corridor both along the roadway and across the roadway due to the relationship of parking to key destinations. Crosswalks at Kirby Avenue intersections have small queuing areas and do not accommodate large volumes of pedestrians during events. Mid-block crossings on Kirby Avenue are in need of safety improvements, as they are not provided at signalized locations and are not easily visible to drivers. The aesthetics of the district do not reflect its importance as a major destination on campus.

Input from stakeholders indicated a strong need for additional gateways on campus to delineate the entries. Neil Street is a key opportunity to welcome visitors to campus given its regional context as a popular entry for events at Memorial Stadium and the State Farm Center. Large parking lots including E-14 and the State Farm Center create significant rainwater runoff and demand on utilities. Stadium terrace is underutilized outside of game days and the associated tailgating that occurs in this space. The experience of tailgating can be improved alongside better communication, highlighting it as an important space on campus; a space for gathering and celebration.



Quick Facts: Industrial District

- Campus Master Plan Landscape Typology: Active Landscapes
- Existing % Impervious: 55.5%
- Existing % Turf: 41%
- Existing Tree Canopy: 21%



Quick Facts: Athletics District

- Campus Master Plan Landscape Typology: Active Landscapes
- Existing % Impervious: 53%
- Existing % Turf: 46%
- Existing Tree Canopy: 20%

INDUSTRIAL DISTRICT: RECOMMENDED IMPROVEMENTS

PROGRAM LEGEND

1. Stadium Terrace soil restoration and tree canopy
2. Kirby Avenue corridor
3. Multi-functional parking

PROPOSED RECOMMENDATIONS

- Outdoor classroom
- Gathering space
- Enhanced gateway
- New gateway
- Bioretention/rain garden
- Green street
- Future building*
- Soil Restoration

NTS

(*ALL REFERENCES TO FUTURE BUILDINGS ARE PER THE 2017 CAMPUS MASTER PLAN)

INDUSTRIAL + ATHLETICS DISTRICT

To address these challenges, the CLMP recommends the following. Note that the recommendations include both the Industrial and Athletics District as Kirby Avenue serves as a connector between them.

1) New vehicular gateways are proposed at the intersections of Neil Street & W. Kirby Avenue and Neil Street & Stadium Drive to reinforce the arrival on campus and the approach to the State Farm Center, Memorial Stadium and the Athletics Quad. These gateways should also be applied to the railroad underpasses and coordinated with railroad entities and the City of Champaign. See proposed conceptual design of the proposed gateway approach at these locations. In addition, a secondary gateway provided at the intersection of S. First Street and Kirby Avenue will announce the arrival to the core of campus and visually reinforce the relationship of Grange Grove to Stadium Terrace.

2) Work with the City of Champaign and City of Urbana to integrate a complete streets approach on Kirby Avenue from Neil Street east to Lincoln Avenue. Additional tree canopy on south side of Kirby Avenue between S. Oak Street and S. First Street will create a narrowing effect to the wide right-of-way, indicating to drivers a sense of arrival and reinforcing the sense of place. A long, linear rain garden should be provided to capture rainwater runoff from parking lot E-14 while also setting the aesthetic tone for plantings within this district. Larger pedestrian queuing areas are provided at the intersection of S. Oak and S. First Street. Crosswalks will be highly visible within both districts given the volume of visitors.

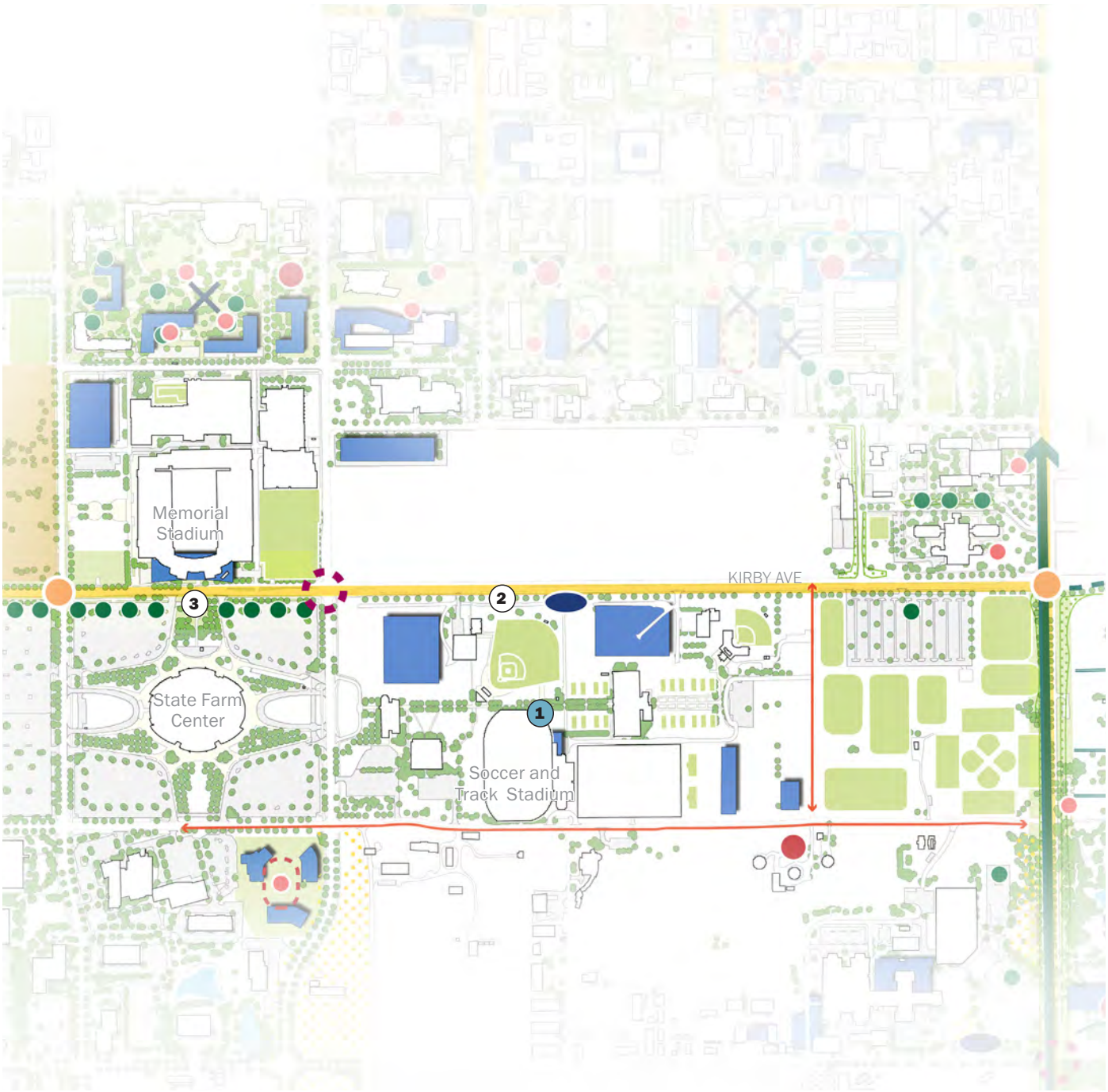
3) Incorporate the “Landscape Standards” provided within the CLMP for this district, including the consistent application of site furnishings such as bicycle racks, benches, lighting and signage. Updated LED street lighting should be implemented throughout, and new branding elements that will provide a sense of place and arrival, such as the “Illini” block letters sign at the intersection of S. Oak Street and Kirby Avenue.

4) Replace the existing Physical Plant Services Building fence on the North side of Kirby Avenue with an opaque fence, reducing views into the service areas and elevating the landscape treatment within this area. The existing large shrubs in this zone should be replaced with native plantings to reinforce the campus aesthetic as visitors proceed east on Kirby Avenue, with improved plantings at all intersections. The new screening fence can support UIUC branding as visitors pass through the highly traveled corridor.

5) Transition the low mow landscape on the south side of Kirby Avenue, between Neil Street and Oak Street to a native or adaptive meadow landscape. Doing so in a prominent corridor would allow UIUC to promote sustainability in this processional space to the stadium and arena here.

View of Kirby Avenue looking east.

ATHLETICS DISTRICT: RECOMMENDED IMPROVEMENTS



PROGRAM LEGEND

1. Fighting Illini Promenade
2. Kirby Avenue corridor enhancements
3. Memorial Stadium entry plaza

PROPOSED RECOMMENDATIONS

- Outdoor classroom
- Gathering space
- Enhanced gateway
- New gateway
- Wetland creation
- Green street
- Future building*
- Eco-asset
- Eco-corridor
- Native planting
- Sidewalk addition

NTS

(*ALL REFERENCES TO FUTURE BUILDINGS ARE PER THE 2017 CAMPUS MASTER PLAN)

INDUSTRIAL + ATHLETICS DISTRICT

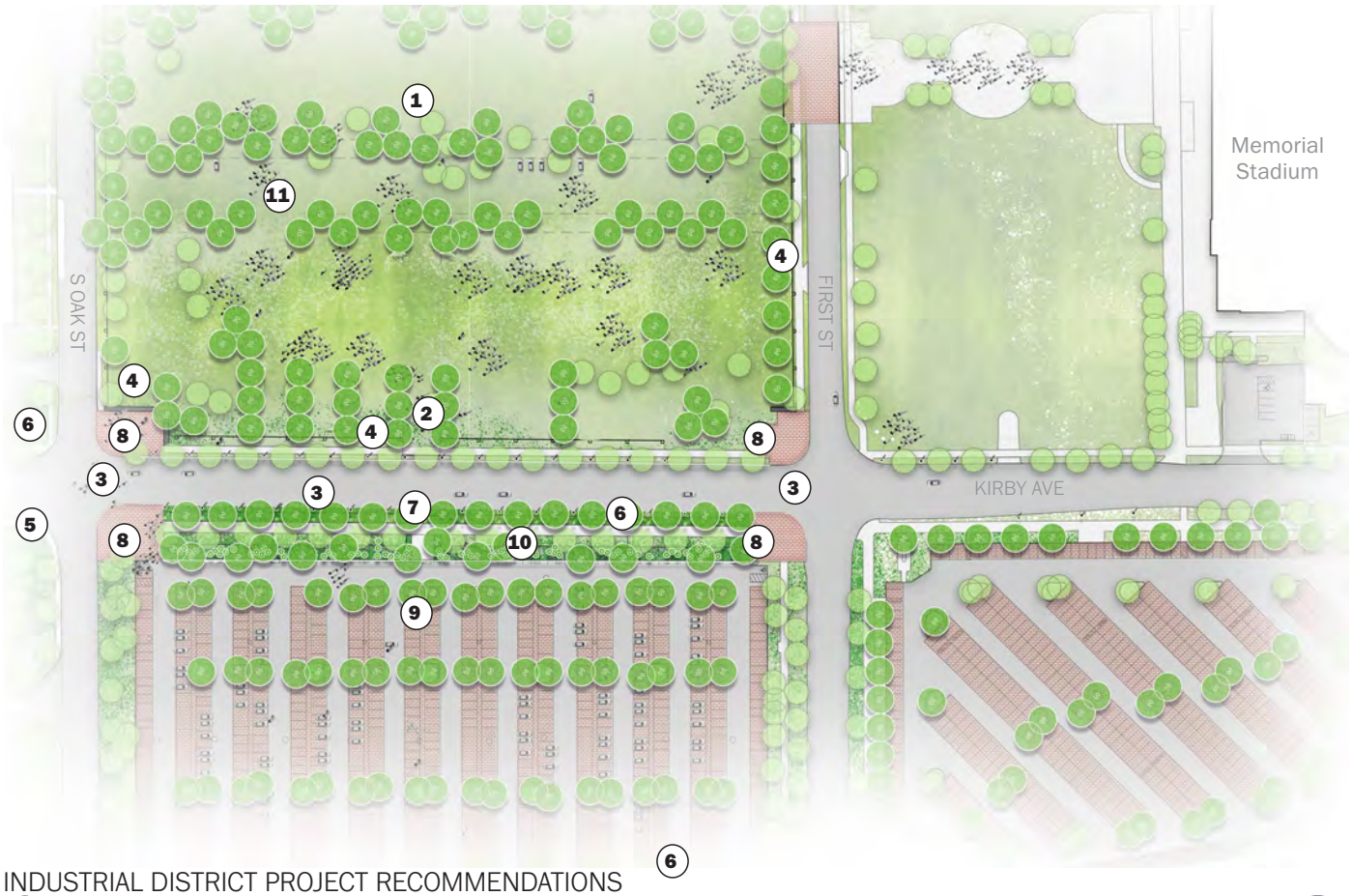
6) The Division of Intercollegiate Athletics will work on a future athletics master plan that meets the needs of the Athletic District, aligns with the wishes of our donors, and provides a cohesive unified athletics image. The interaction of this landscaping should work with and be cohesive with the surrounding campus landscape but respect the unique aspects and requirements of the athletic venues and grounds (examples: Fencing and pylons around Grange Grove as a cohesive element for the entire athletic campus that is not necessarily seen in other campus locations).

7) The Fighting Illini Promenade within the Athletics Quad can be enhanced with a series of small courtyards and support amenities for visitors and athletes during events. In addition, a continuous fence around the Athletics Quad will better control access and strengthen overall identity, such as the fence around Grange Grove. Integration of smart irrigation in the athletics facilities should also be incorporated in the proposed athletics master plan.

8) Given the extent of future development in this district, stakeholders indicated the desire for St. Mary's Road to remain passive in nature and continue to maintain a contextual relationship to the Round Barns site. The campus community is drawn to this area due to its rural character and maintaining this character will continue to celebrate the agricultural history of the university and the region. However, given the roadway serves as a popular recreational destination for joggers, it is recommended that a sidewalk be provided along St. Mary's Road and Goodwin Avenue which will also provide safe access to a proposed "landing" or gathering plaza at the entry to the Round Barns. (See recommendations for the Agriculture District.)

ENHANCED GATEWAY PROTOTYPES FOR ALL VIADUCT CONDITIONS

INDUSTRIAL DISTRICT: PROTOTYPE PROJECT



INDUSTRIAL DISTRICT PROJECT RECOMMENDATIONS

1. Restored tree planting
2. "I" Block letter sculpture
3. Gateway signage
4. Pillars and fencing
5. "Illini" block letter sign
6. Renovated planting
7. Continuous tree allee
8. Corner pedestrian plaza
9. Multi-functional parking lot
10. Bioretention/rain garden
11. Soil restoration area

SCALE 1"=200'

PROTOTYPE PROJECT APPLICATION: KIRBY AVE. FROM S. OAK TO S. FIRST STREET

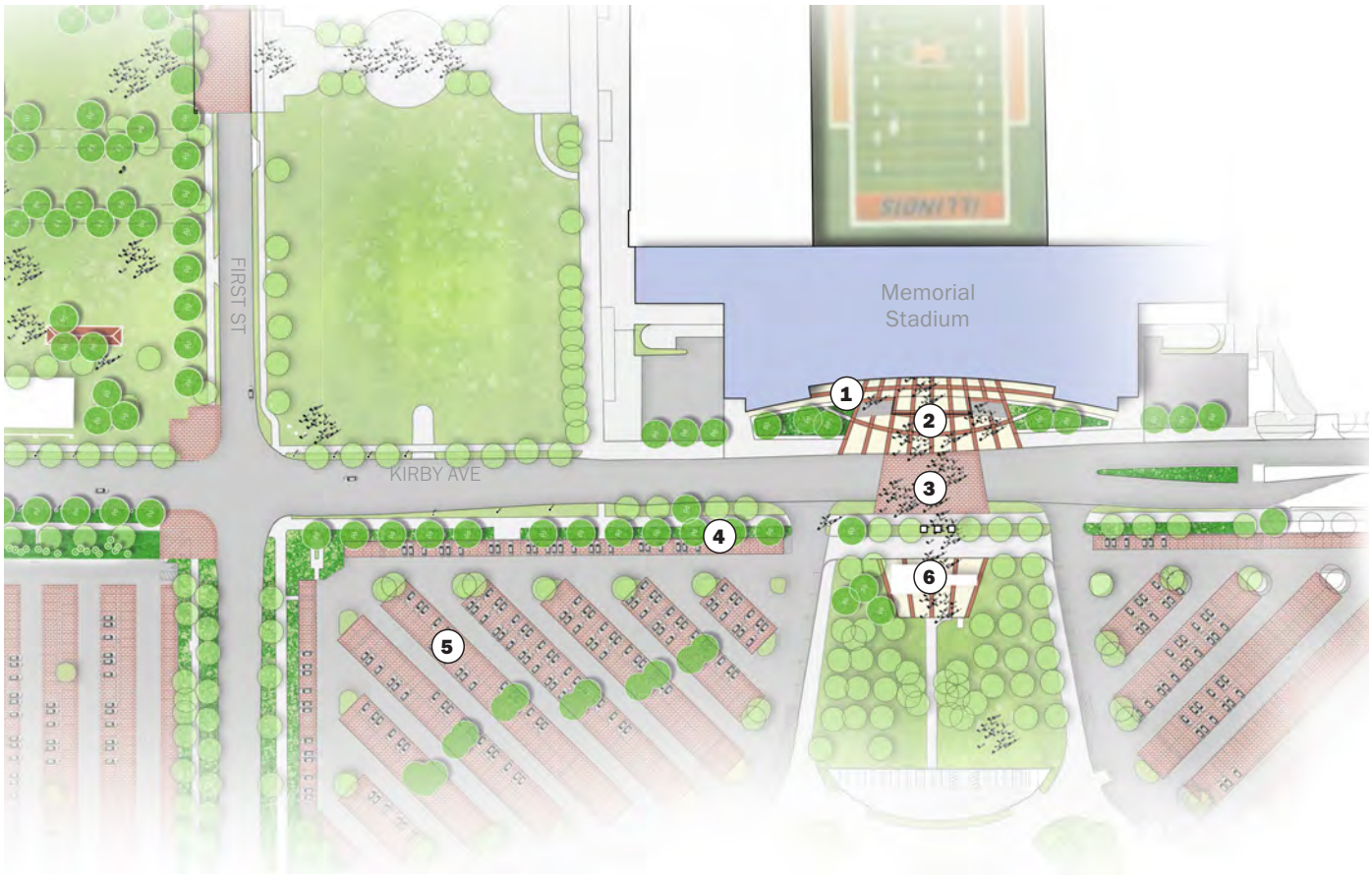
1) Provide a continuation of the fencing and brick pillars at Grange Grove along Kirby Avenue, wrapping the corners of Stadium Terrace at S. Oak Street to make Stadium Terrace a formalized part of the campus experience as it takes on the visual indicators of Grange Grove and provides more formalized entry points. At the center entry to Stadium Terrace, consider a sculptural "I" to reinforce this area as a gathering space on game days. Providing passive recreation programming at Stadium Terrace would reinforce this space as accessible at all times by the campus community. Goals for disc golf should be provided to meet the demand for a dedicated space for this activity on campus.

INDUSTRIAL + ATHLETICS DISTRICT

ICAP GOAL CONTRIBUTION

- Increases pollinator-friendly planting by 11,000 sq. ft.
- The proposed program and composition of the combined prototype along Kirby Avenue treats approximately 185,600 cubic feet of rainwater through approximately 155,000 sq. ft. of permeable paving
- Increases tree canopy by 174,240 sq. ft.

ATHLETICS DISTRICT: PROTOTYPE PROJECT



ATHLETICS DISTRICT PROJECT RECOMMENDATIONS

1. Seasonal interest plantings
2. New entry plaza
3. Permeable crosswalk
4. Restore street tree planting
5. Multi-functional parking lot
6. Events plaza and storage

SCALE 1"=200'

Conceptual view of the Kirby Avenue Corridor looking East

2) A linear rain garden along the north edge of parking lot E-14 provides rainwater management, and a more pleasant walking experience along this corridor. Many students' first impression of campus is parking and walking along this corridor, as early as freshman registration. Large parking lots like E-14 and the State Farm Center parking lot should transition to permeable surfaces when repaving is required. Permeable pavers and/or permeable asphalt is recommended in these locations. In addition, these parking lots should incorporate additional parking islands with trees combined with bioretention.

3) Engineered soils can be used where possible within Stadium Terrace to increase infiltration. Considerable tree canopy should be added within this space to create a place of respite when not in use for tailgating.

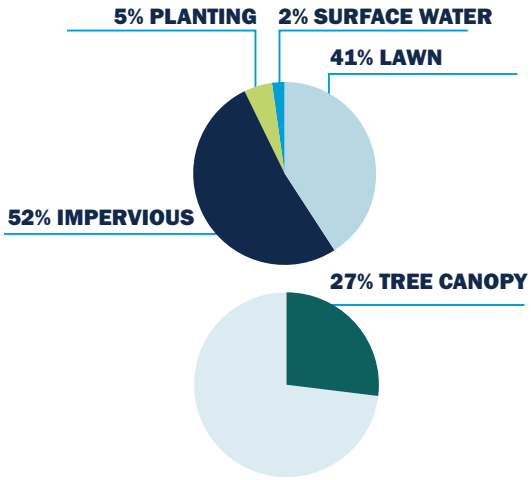
PROTOTYPE PROJECT APPLICATION: KIRBY AVE AT MEMORIAL STADIUM (ILLINI PLAZA)

The mid-block crossings east of S. First Street along Kirby Avenue should be consolidated into one prominent crossing when redevelopment occurs at the south side of Memorial Stadium. This new pedestrian crossing from the State Farm Center parking lot is intended to be utilized on game days when this block of Kirby Avenue is closed to vehicular traffic, providing a safer and more aesthetically pleasing crossing experience into Memorial Stadium. The proposed solution recommends the crossing area become a "pedestrian plaza" treatment along with narrowing the crossing distance. Future planning for this should be coordinated with DIA planning.

RESEARCH PARK DISTRICT

CURRENT CHALLENGES

The Campus Master Plan defines Research Park as a passive landscape, characterized by suburban style development with large setbacks, primarily vehicular oriented with a secondary focus on pedestrian circulation. Given its location, stakeholder engagement indicates that this area generally feels disconnected from the core of campus with lack of character relationship to other areas of campus. Rainwater within this district is largely managed with regional detention areas and engineered pipes. This area also lacks any gateways that would reinforce the campus branding and create a sense of arrival.



Quick Facts:

- Campus Master Plan Landscape Typology: Passive Landscapes
- Existing % Impervious: 52%
- Existing % Turf: 41%
- Existing Tree Canopy: 27%

PROTOTYPE PROJECT APPLICATION: RESEARCH PARK QUAD

The prototype concept is intended to create a shared quad space within this future development area of campus, using a similar design language as the core of campus to make Research Park “feel” more connected to the core of campus. The Campus Master Plan recommends a “simplified prairie style” landscape approach within this district and encourages rainwater infiltration through natural systems (See Rainwater Toolkit section of the CLMP in Appendix A).

The design concept builds on the iconic productive landscapes of Central Illinois that are part of its context, reinforced by rectilinear spaces of various scales and an enhanced tree canopy. As pedestrians approach the site from the corner of St. Mary’s Road and Fourth Street, the future building acts as a pedestrian gateway that welcomes the campus community into a shared central green, setting the groundwork for a pedestrian-first experience. The entry plaza weaves through mounded prairie plantings reflecting the Indigenous Midwest materials palette and directs movement onto curvilinear walks along the central green, culminating into a forest seating grove. This shared public space is intended to create a variety of outdoor seating opportunities that encourage exchange and comfortable working and collaboration. A food truck plaza is provided to serve the adjacent new buildings as well as the campus community and positions this space as a destination for gathering on campus. There will also be a significant increase in the tree canopy within this suburban style development.

Rainwater management is celebrated through rain gardens and bioswales that allow visitors to experience and interact with this critical natural process. The prairie at the forefront creates the illusion of the future buildings rising out of the native Illinois ecology, while at the same time significantly increasing native pollinator habitat in this area of campus. Existing low-mow areas within this district should transition to short-grass prairie over time. As this area of campus is anticipated to be highly visited given the proposed users and adjacency to the I Hotel and Conference Center, it is critical that this area reflect the goals of the landscape master plan though demonstration of resilient landscape practices outlined in the Rainwater Toolkit.

RESEARCH PARK DISTRICT: RECOMMENDED IMPROVEMENTS

PROGRAM LEGEND

1 Research Park Quad

PROPOSED RECOMMENDATIONS

- Gathering space
- Enhanced gateway
- New gateway
- Wetland creation
- Green street
- Future building*
- Eco-asset
- Eco-corridor
- Native planting
- Prairie planting
- Sidewalk addition
- Quad space

NTS

(*ALL REFERENCES TO FUTURE BUILDINGS ARE PER THE 2017 CAMPUS MASTER PLAN)

RESEARCH PARK DISTRICT

ICAP GOAL CONTRIBUTION

- Increases in pollinator-friendly planting by 45,600 sq. ft.
- Implementation of green stormwater strategies though bioretention and permeable paving, treating approximately 120,000 cubic feet of rainwater.
- Increases tree canopy by 82,000 sq. ft.

RESEARCH PARK DISTRICT: PROTOTYPE PROJECT

RESEARCH PARK DISTRICT PROJECT RECOMMENDATIONS

1. Sculptural gateway
2. Shared green
3. Collaboration spaces
4. Seating/outdoor dining
5. Entry court
6. Intensify native planting
7. Sidewalk addition

SCALE 1"=200'

Conceptual view of the proposed Research Park Quad looking southeast.
Note: Concept rendering only. The design process will determine final program, locations and access.

4

LANDSCAPE STANDARDS

Landscape Standards are used to implement the recommendations of the Campus Landscape Master Plan. This chapter establishes the appropriate design intent, materials, and long-term maintenance and care considerations for campus landscape elements. Recommendations for specific updates to UIUC Facilities Standards and technical sections are included in the Appendix.

THE NEED FOR A COHESIVE CAMPUS

The University of Illinois landscape development began with the plans of landscape architect Ferruccio Vitale in 1929. His vision of a simple aesthetic shaped this campus with its axial open space arrangements, long rows of elm tree plantings and formal yew hedges defining the building edges. Over time, as the campus greatly expanded, and the historic landscape design vocabulary became difficult to maintain. Landscape designs became a mix of the historic landscape and a newer aesthetic where environmental concerns of today started to define the design aesthetic. Over several decades, any consistent message conveyed through historic landscape planning and treatments has become diluted, degraded, and inconsistent. Historic areas of the campus, such as the Main Quad, have maintained their timeless look, but new development areas have lost their connection to the campus identity, losing the cohesive qualities needed for a unified campus aesthetic. As part of the CLMP engagement, stakeholders expressed a desire to address the varying levels of quality across campus and bring all landscape up to the same quality level. They also shared a desire to communicate to visitors and the campus community that one is on campus through a consistent aesthetic.

The Campus Master Plan notes, “While individual project decisions may seem minor at the time they are made, a series of uncoordinated changes will result in an ad-hoc campus aesthetic.” The Campus Master Plan provides high-level Design Guidelines, while the CLMP provides the necessary detail to ensure a cohesive campus is achieved.

THE HISTORIC LANDSCAPE VOCABULARY

The historic landscape vocabulary was intended to create a sense of scale and relate to the large campus buildings. The planting approach was intended to provide a feeling of restraint and serenity as a fundamental conception of the design.

The historic planting vocabulary includes:

- Tall native deciduous trees, planted in single rows and double allees;
- Evergreen hedges, predominately taxus/yew;
- Flowering trees, particularly Malus species;
- Turf grass, mown on the ground plane;
- Street trees creating uniform frontage and framing campus buildings.

The historic landscape materials vocabulary includes:

- Clay brick pavers;
- Brickwalls with a stone cap;
- Concrete broadwalks with a designed scoring pattern;
- The use of wrought iron and bronze in signage, gateways and thresholds.

PLANTING AND SOILS

The appropriate design and selection of campus plantings is critical to ensure proper landscape character, shape outdoor spaces, and implement a resilient landscape. The following guidelines, paired with the technical requirements outlined in the UIUC Facilities Standards, are intended to assist designers working on campus and cover elements of Design Character, Plant Selection, and Soils, Installation, and Maintenance.

DESIGN CHARACTER

The Campus Master Plan states that the use of native and naturalized plantings should have a strong orderly design ethic. When located around buildings, planting beds should not be randomly mixed, but should be carefully thought out to provide plant massing appropriate in scale and diversity to the large educational buildings on campus.

Planting design across all districts should reinforce the essential character of campus as shaped by campus streets, pathways, and buildings in order to define outdoor space and create views and vistas. Planting should be organized into large swaths, especially in primary public-facing areas. Intricate planting designs are generally inappropriate on campus as they do not relate to the scale of institutional buildings. Select areas in more private zones, such as residential courtyards and garden spaces may include more diverse planting layouts, but care should still be taken to ensure straightforward maintenance.

Districts near the campus core including the Main Quad and Engineering Quad should reflect the historic planting design vocabulary, prioritizing lawn panels, shade trees, groundcovers, hedges, and ornamental trees as foundation planting. Across campus, institutional scaled buildings should employ small flowering trees as foundational planting. Urban districts should reflect their surroundings, utilizing streetscape plantings and urban landscape features. Planting in districts marked by auto-oriented and/or rural uses should prioritize large rows and masses. In particular, plantings in the agricultural districts should reflect the agricultural character and natural landscape of Central Illinois.

View capturing the historic landscape vocabulary at the Oval Allee

Example application of a native understory planting and tree grove at the Siebel Center for Design

Example historic vocabulary foundational planting approach on the Main Quad

PLANTING AND SOILS

Planting design should be scaled appropriately for the site, setting, and adjacent building(s). Planting intensity should be focused on enhanced building entries, with a reduction in landscape intensity on the secondary and tertiary facades. As the campus buildings can be defined as “institutional scale,” it is appropriate to reduce the intricacies of plantings at the foundation, allowing for turf up to the maintenance edge is appropriate at this scale.

Quads such as the Main Quad, Engineering Quad and South Quad Districts should employ simple and restrained planting designs to frame views and buildings. Building entries should add interesting highlights such as flowering trees or perennial displays. Courtyards, residential quads, and other less public areas should employ more variety of planting form and design, allowing for more mixing of species and a greater diversity of spaces.

Example of utilization of annual plantings at high visibility spaces on campus

PLANT SELECTION

All plant species should be selected from the plant list in the UIUC Facilities Standards. Native species should be prioritized throughout campus, except in situations where specific non-native species are more appropriate programmatically, functionally, or horticulturally. For example, in the campus quads, it is appropriate to accentuate the building entries with annual plantings. Pollinator support should be inclusive in all designs. The use of native and adaptive plant materials should be prioritized. Plants that support the local and migratory species should be incorporated to assist the local wildlife ecology. Plantings in civic spaces and front yard landscapes should be simple and restrained.

Example of large canopy trees utilized to frame views and reinforce open space on quads

Plants in the historic quads (Main Quad and Engineering Quad) should reflect the historic plant vocabulary. Outside of the Main Quad, replacement of historic species with carefully selected natives is possible, provided they fulfill the original design intent.

Plants should be selected to match the existing soil and exposure conditions. Selections should consider plants adaptive to warmer climates to ensure long-term success. Soil testing should become standard practice as part of the UIUC Facilities Standards technical sections.

See UIUC Facilities Standards for the approved plant list.

Example native prairie planting on campus

SOILS, INSTALLATION, AND MAINTENANCE

Soils and drainage patterns should be restored or modified to support native plantings. Planting beds should be mulched with on-site generated mulch using landscape waste. As native plantings naturalize over time, less mulch will be required. Turf in highly visible areas should be supported with smart irrigation systems including the Main Quad and Engineering Quad as a priority.

Street trees planting areas should contain a minimum of 1,000 cubic feet of soil volume. In areas with wide sidewalks, this can be accommodated within large open planters, such as some streets within the Urban Campus District. In areas with more limited space, structural soils or soil cells should be used. Permeable pavers are encouraged in these more urban applications such as within the Urban Town/Gown District and the Urban Campus District, to aid in tree root water and air uptake.

Mixed group plantings should be used sparingly and sited appropriately into more courtyard spaces, as opposed to civic or public spaces. Planting beds should be larger, with complexities reduced to improve maintainability.

Planting areas should be separated from turf panels and non-vegetated spaces with ¼" steel edging, per UIUC Facilities Standards. Additionally, building maintenance bands should be established between planting areas and building facades to ensure plant material and mulch do not build up against the building facade. Maintenance bands should be 2' wide, filled with crushed stone, and edged with ¼" steel edging. At maintenance bands around buildings, through-wall flashings and weep holes should be provided in the masonry veneer and design and maintenance should ensure these do not get obstructed with mulch, rock or plant material.

Recommendations for specific updates to UIUC Facilities Standards and technical sections are included in Appendix B.

Example native planting design approach along Armory Avenue

Example application of annual plantings at main entries on quads

Example planting application at the Red Oak Rain Garden, a bioretention area on campus

PAVING

The design and materiality of paving helps set the character of campus while also providing efficient and comfortable circulation. Routes should be sized to accommodate the intended level of traffic and paved with durable and attractive materials. When possible, recycled materials such as recycled concrete, recycled asphalt and permeable pavers should be utilized, ensuring that the resulting aesthetic is appropriate for the given campus context.

PRIMARY WALKWAYS

Primary walkways are intended to support considerable pedestrian traffic and must be serviceable by maintenance and snow removal vehicles. These routes are appropriate in primary campus landscapes such as quads, open courtyards, and areas between campus districts. They should be a minimum of 6' wide, though 8' is preferred and 10' is most comfortable when intense pedestrian traffic is anticipated. Primary walkways should be designed to meet all state and federal accessibility requirements. Primary walkways are to be constructed of reinforced, poured in place concrete a minimum of 8" thick per UIUC Facilities Standards. Plans should include scoring detail, which should match the context. Jointing patterns on the Main Quad are on a 45-degree angle with a wide border.

SECONDARY WALKWAYS

Walkways in more private landscapes such as residential courtyards and in less trafficked areas of campus should also be designed to accommodate maintenance and construction vehicles, unless there is already a service or maintenance route designated for the area under design. While 6' widths are still required for pedestrian comfort, thickness of concrete secondary walkways can be reduced to 6" if not intended to support maintenance and construction vehicles. In addition, not all secondary walkways are required to be concrete. Both standard and permeable pavers are appropriate for secondary walks in highly visible areas of campus. Note that application of pavers will still need to accommodate maintenance and/or construction vehicles if designated as such in the design process. In the South Quad, Military Axis District, and Ikenberry Quad District, secondary walks can be constructed as boardwalks.

Primary walkway concrete application with 45-degree jointing pattern on the Main Quad

Primary walkway concrete application with standard jointing pattern in the Military Axis

Clay permeable paver application on a secondary walkway

TERTIARY WALKWAYS

Tertiary walkways are intended for minor routes located in very low-volume spaces such as private courtyards. In order to signify their limited traffic, these walks should be constructed of crushed gravel, decomposed granite or stone pavers to soften their appearance. Path widths can be narrower than 6', though pedestrian comfort, accessibility and safety should still be a priority.

TRAILS

Like tertiary walkways, trails are appropriate for limited pedestrian traffic, with widths between 5'-8'. Trail paving materials should be coordinated with the district in which the trail is set: concrete in more central areas of campus, crushed gravel or decomposed granite in more remote areas, and wood decking in areas with more naturalized plantings and/or drainage ways.

BIKE ROUTES

Off-street bicycle routes should accommodate two-way traffic, therefore 8-foot widths are standard. Pavement markings should make clear that dedicated bicycle routes are for bikes only. Poured in place concrete is appropriate in most campus districts, though gravel paths are acceptable in the Agriculture District and Industrial + Athletics District.

PARKING LOTS

Parking bays should transition to permeable pavement over time. Bays begin and end with a planting island. Island treatments should have curb cuts for water infiltration.

SERVICE AND MAINTENANCE ROADS

Service and maintenance roads are needed throughout campus to provide necessary vehicular access. Such drives should be sized and designed to allow for emergency egress, per UIUC Facilities Standards. However, the design of these drives in highly visible areas should blend into the pedestrianized design of campus walkways, utilizing concrete and high-quality finishes.

Fire lanes should meet width and locational placement requirements as set by local fire codes. Paving materials should be drivable and rated to support vehicular traffic, such as concrete or concrete pavers. To prevent damage along edges and at entries of service drives, a range of applications can be applied. In highest visibility districts like the Main Quad, a flush edging paver can be added to service drives to provide the necessary width for navigation and turning. In less-visible areas, service drives can have a low 4" curb where feasible and desired. These can be installed in combination with green infrastructure systems and after a further analysis of surface flows. In addition, a low curb could be provided at the point of entry to service drives to prevent damage to the surrounding planting and turf areas, with the low curb fading out to grade.

Recommendations for specific updates to UIUC Facilities Standards and technical sections are included in Appendix B.

Trails within the Arboretum

Example service and emergency access

GATEWAYS AND THRESHOLDS

Gateways and thresholds should signify passage between two areas of campus. The effect of a “threshold” is made possible by pillars, walls, or openings that are taller than human height. The importance of a gateway within the campus hierarchy should be reflected in its monumentality. For example, gateways into campus from off-campus areas should be sized and designed to highlight their importance, whereas smaller thresholds into building courtyards or between campus open spaces should be scaled appropriate to the pedestrian experience.

The emphasis in gateway design should be placed on longevity, uniformity, and a timeless appeal. Gateways should be primarily brick and cast stone and feature a capstone and base. Scale and massing of the piece should always be well-proportioned. Metal work, with a dark finish, may be considered as an ornamental accent or fencing. Decorative finials or friezes are encouraged, provided the style is consistent with the context.

Gateways should avoid explicit use of branded colors, typefaces, or logo. General references to the University, and artful, but classic, implementations are encouraged: consider “Illinois” or “1867”. Lettering constructed of metal should be non-illuminated, set in a modern serif typeface (see Clarendon in example shown), and mechanically fastened. Surface finishes or paint colors should be harmonious with the context. No raceways or visible attachments. Lettering may be etched, engraved, or sandblasted into a cast stone surface and infilled with stain.

Gateways should incorporate landscape, planting, and up-lighting. Specifically, they should be positioned to allow for a sufficient area for foundational planting of at least 8’ min. depth. Consider burying prominent utilities at prominent/visible corners.

See the Landscape Framework section of the CLMP for design concepts for gateways, pillars and thresholds on campus.

Example pedestrian threshold

Example concrete wall on campus

Example limestone wall application in a natural area or along a natural edge

WALLS

Wall design should reflect the purpose of the wall, whether that is definition of space, screening, grade retention, or seating.

Brick or concrete paired with metal (steel, wrought iron, and/or bronze) are suitable for campus walls. Brick walls should be capped with stone elements to align with the traditional campus design aesthetic. Concrete walls should be designed with gaps or indentations in the formwork to prevent damage from skate boards.

Walls within riparian or native planting zones can take on a more informal character, such as the limestone walls at the Boneyard Creek.

Typical wall and screening design approach

SCREENING

Service areas, utility equipment, waste areas, and other back-of-house elements should be screened from public view. Screening elements should be 6-12” taller than the element being screened.

Preferred materials include brick, stone, and metal (steel, wrought iron, and/or bronze). Secondary means could include evergreen trees and hedges when appropriate and as approved by the Architectural Review Committee (ARC).

Recommendations for specific updates to UIUC Facilities Standards and technical sections are included in Appendix B.

Typical wall design approach

Standard bollard and chain application

LIGHTING

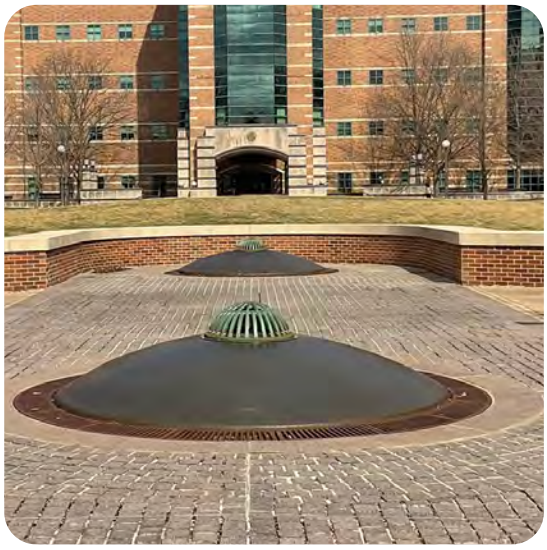
Lighting must conform to UIUC Facilities Standards. Pedestrian lighting should follow routes of circulation and be organized in legible patterns, both in terms of fixture placement and lighting effect. When lighting is required on only one side of a path, pole locations should not alternate, but instead should be aligned on a single side. When two rows of lighting are needed, poles should be aligned opposite one another along the path, rather than staggered. Poles and fixtures should be coordinated with tree canopies, walls, and screens. Building lighting should be confined to entrances and special architectural features.

Poles and fixtures should comply with UIUC Facilities Standards and Dark Sky standards. They should be compatible with existing campus lighting. Fixtures in service areas should be mounted on 30- to 35-foot poles.

Pathway lights sources should be LED with uniform illumination of ½ foot-candles. All lighting should confirm with Dark Sky standards. When possible, lighting should incorporate solar power and integrate smart lighting technologies to improve efficiency.

Recommendations for specific updates to UIUC Facilities Standards and technical sections are included in the Appendix B.

Standard LED lighting across campus



Fountain on axis with the Beckman Institute for Advanced Science and Technology

SIGNAGE

Campus signage should provide a clear visual identity and allow easy navigation across campus. All building signage should comply with UIUC Facilities Standards. Other fixed signage should be coordinated with UIUC Facilities Standards and must be reviewed by the Director of F&S Planning. Signage lighting should utilize high-efficiency LED and incorporate Dark Sky principles.

Sculpture at the Wright Street entrance of Electrical and Computer Engineering Building

SCULPTURES + FOUNTAINS

Sculptures, fountains, and other physical artwork should be sized to fit with the surrounding space without overpowering the setting. Design should be integrated into the site and should utilize a timeless quality.

Stone and metal are the most appropriate materials for campus artwork and fountains, though other materials such as brick, concrete, and glass may be appropriate in certain instances.

The design of any project with a visual impact on the character of campus must be coordinated with the Director of Capital Programs at F&S. As deemed appropriate, any project or its unique design element/ quality will be reviewed by ARC and the Chancellor's Design Advisory Committee (CDAC). The Director of Capital Programs at F&S and/or the ARC will review any design elements not covered by or are deviations from the UIUC Facilities Standards and/or Design Guidelines before the project can proceed with the new design.

Preferred trash receptacle design

FURNISHINGS

UIUC Facilities Standards for site furnishings, including benches, bicycle racks, bollards, planters, trash receptacles, etc. should be followed whenever possible. Example furnishings are provided in Appendix B as a basis of design. In particular, public courtyards, streetscapes and plazas, as well as all campus districts should utilize all campus standard furnishings or approved equal. Private building courtyards, residential quads, plazas and courtyards, and other more "private" spaces can employ more specialized furnishings as programmatic needs dictate. Due to the public nature of campus spaces, fixed furnishings are preferred; movable furniture should be reserved for areas with monitored access. Opportunities should be sought to include emerging technologies in site furnishings such as elements that provide internet connectivity, power, and other technologies. When possible, furnishings that require power should utilize solar-integrated power.

Recommendations for specific updates to UIUC Facilities Standards and technical sections are included in Appendix B.


Standard concrete bench custom made by Facilities and Services


Standard bicycle rack application

5

PROPOSED IMPLEMENTATION RECOMMENDATIONS

During the extensive engagement during the CLMP process, stakeholders expressed a clear desire for: 1) areas of deferred landscape maintenance across campus to be addressed first, and 2) the investment in the campus landscape to be more equitable across campus. Stakeholders acknowledged that this may require a shift in the way the landscape is funded, a significant increase in the level of investment, and structural changes in the way landscape is managed and maintained.

While much of the CLMP is focused on prototype demonstration projects that implement the larger framework goals, the first implementation task is to develop a staged approach to address deferred maintenance and investment in existing landscape assets. Some implementation of each of the prototype projects is indicated for year 1-2 within the recommended phasing, however a holistic campus landscape will require implementation of these goals and standards outside of the prototype projects within each district.

Transitioning to a resilient landscape approach and implementing the Rainwater Toolkit across campus will take considerable time. Implementation should focus on aligning UIUC Facilities Standards with this plan to ensure capital projects moving forward align with these concepts. However, as the landscape requires investment beyond new capital projects, the funding structure for campus landscape will need to acknowledge this retrofit, rather than simply "fixing" what is already there. Additionally, the staffing structure will need to reflect the goals and intentions of this approach. Both funding and staffing recommendations will also support continued service levels.

FUNDING STRUCTURE

1) IMPLEMENT TOTAL ASSET MANAGEMENT

According to the iCAP, sustainability is "meeting the needs of the present without compromising the ability of future generations to meet their own needs." In the context of the campus landscape, this definition extends to encompass the management of financial resources and acknowledging the condition of the landscape provided to future generations. Over the next 50-75 years, the university will need to replace all the campus landscape – hence the need to understand what this will cost and begin to invest in this need now. (See Landscape Framework section of the CLMP.)

Just as a significant effort has been made for the deferred maintenance backlog for buildings, an equally strong effort should be made to address deferred maintenance in the landscape and in the primary group that maintains it. This effort should focus on bringing the campus landscape and staffing levels up to peer standards and even higher to reach the landscape vision of a world-renowned university.

2) CONSIDER NEW FUNDING STRATEGIES

There are opportunities to fund campus landscape improvements through direct funding, donor engagement, and utility fees. Campus Administration should consider the following strategies as the future funding needs are defined:

1: Earmark capital project funding for landscapes tied to capital projects. Campus landscape improvements are most often funded as part of capital building projects, but the scope of the site improvements may be impacted by the project team's efforts to deliver the projects on budget. To address this issue, the CLMP recommends defining a percentage of all capital project budgets to be dedicated to the exterior landscape. A sliding scale could be implemented to account for projects of various sizes.

While considering limits of project improvements, consideration should be given to include areas that tie the new projects to the existing landscape. This will ensure that there are no gaps in amenities provided to the campus community resulting in safety concerns or aesthetic inconsistencies as defined in the campus standards.

2: Create a separate Tree Planting fund for planting trees. Any activities on campus that result in removing a tree should contribute to a Tree Planting fund. This fund will be used to plant new trees, not necessarily in the boundaries of that project, but anywhere on campus. This fund could also receive donor funding for additional trees.

3: Provide direct annual funding for landscape improvements. Currently, areas of campus that are not part of capital improvement projects do not have any significant funding allocations for landscape improvements. This sets up a system of social inequity where new projects from well-funded colleges tend to be the most aesthetically pleasing, with modern planting designs focusing on native plant communities and environmental benefits. Future funding infrastructure should support the idea that "campus is a community." In a community, it is understood that expenditures may not directly benefit a particular site or project, but that to keep the community up to standards and codes, while creating a consistent aesthetic, there are significant expenditures outside of capital projects that require a budget. The funding structure to support the UIUC landscape should reinforce this "community" approach.

Therefore, it is recommended that a direct line of annual funding for landscape improvements be established and managed through F&S. This funding can support large-scale improvement projects, such as the CLMP prototype projects, as well as smaller-scale efforts that are beyond the current ability of F&S Grounds to fund.

4: Consider a Rainwater Management utility fee to fund green stormwater infrastructure maintenance. Such a fee is based on the concept that every square foot of land in a watershed contributes stormwater runoff and should support the operation, maintenance, and rehabilitation of stormwater drainage systems on campus. Such fees currently exist on campus for other utility systems.

3) INCREASE DONOR SUPPORT

Prioritize efforts to seek donor funding for campus landscapes. Historically, the University of Illinois Foundation has not been heavily involved in efforts to fund small landscape projects. However, past success in this realm indicates that a network of donors does exist to assist with small projects. For example, recent improvements at the Stock Pavilion were donor initiated and funded. As part of this effort, donor funds should be sought for endowment to support long-term maintenance of dedication landscapes. Peer institutions have also shown that smaller donors are willing to pool funding into accounts that can be used for general campus landscape beautification.

A gift account should be set up to support implementation of the CLMP to enable the assistance from UIF to prioritize donor support for this plan. Additionally, the University Landscape Architect (ULA) should work with the UIF to establish a closer relationship and collaborate to seek donor funds for prospective landscape projects and needs.

STAFFING STRUCTURE

1) ESTABLISH A CAMPUS LANDSCAPES DEPARTMENT WITHIN F&S

The ULA is currently an employee in the Project Planning department in the Capital Programs division of F&S. In this position, the ULA is serving both as a planner and as the ULA. To elevate the campus landscape to the level commensurate with this CLMP, the campus should establish a separate Campus Landscapes department within the Capital Programs division.

Within this new department, the responsibilities of the ULA should be clearly communicated to the campus. These include reviewing site plans for capital and small construction projects, serving on the ARC to ensure landscape improvements are aligned with the Campus Master Plan, designing small site and landscape projects, administering donor landscapes, and preparing UIUC Facilities Standards to codify resilient landscape requirements. Given the role of the ULA, it is recommended that sufficient supporting staff be hired with the goal to align staffing with peer institutions.

2) COORDINATE MAINTENANCE PROGRAMS

Over time, university lands have been split between various responsible units for maintenance and associated operational costs. The lands are split between F&S Grounds, auxiliary units (Athletics, University Housing, Parking, Campus Recreation, McKinley Health Center, and the Illini Union), and Chancellor's Office units (Willard Airport and Allerton Retreat and Conference Center). Although some auxiliaries and other units contract with F&S Grounds for maintenance; Athletics, Campus Recreation, and Allerton have their own maintenance crews. In addition, the Arboretum and the majority of South Farms in the College of Agricultural, Consumer and Environmental Sciences (ACES) are not the responsibility of F&S Grounds to maintain, further contributing to a disconnect from the wider landscape vision and needs of the university.

Currently, F&S is responsible for maintaining 580 acres of the campus landscape, with direct funding from the campus. They maintain an additional 360 acres that are the financial responsibility of two auxiliaries, University Housing and Parking, for an associated fee. Each of the maintenance departments across campus have similar responsibilities, and there could be efficiencies found through coordination with the different maintenance programs. Coordination could include consolidating resources (equipment, staff, procurement, etc.) for increased efficiencies and holding regular meetings with the multiple departments. Well-established coordination would result in a consistent application of landscape standards across campus. Additionally, it would be beneficial to develop a Division of Responsibility (DOR) map showing the lands that are assigned to the various departments.

3) INVEST IN TRAINING AND HIRE EXPERTISE

The current F&S Grounds workforce needs additional training in sustainable landscape management. With the increase of native plantings and a call for more diversity in planting beds, there is a need for a more skilled workforce. In particular, there is a need for Horticulturists, Ecologists, and Grounds Gardeners to bring campus aesthetics up in quality. With the increase in the use of native plantings, additional training and certifications are needed for successful maintenance. The application of the Sustainable Sites Initiative (SITES) will continue to push the envelope of what the current work force is able to handle. Increased pollinator support around buildings and in low-mow areas will also necessitate a different set of skills than what is currently available.

To support these improvements, it is recommended that F&S Grounds consider the following additional staff:

1. Tree Surgeons: Currently F&S Grounds has one tree crew that mostly handles dead/dying tree removal. The tree crews should be focused on tree health and aesthetics, rather than removals. Tree removals should be tasked to an outside contractor to allow for this focus. With the iCAP objective to increase tree canopy across campus for the benefit of carbon sequestration, as well as for aesthetics and the reduction of ambient temperatures, there will be a need for additional tree work.

2. Reinstate the Horticulturist position. The Horticulturist will report to the F&S Grounds Superintendent, handle all planting plans for annual events, and assist the Campus Landscapes department.

3. Supplement the F&S Grounds crew with an Ecologist. The Ecologist will assist with the management of natural areas, including green rainwater infrastructure. This position will also be responsible for training related stakeholders, both within F&S and in other departments on campus.

4. Reinstate the position of Grounds Gardener for maintenance of the new diverse planting areas.

Actively investing in the knowledge, skills and abilities of F&S Grounds will lead to improved maintenance and overall campus aesthetics. Grounds staff should receive additional training on green infrastructure, native plant maintenance, and traditional ecological knowledge. Partnerships with Parkland College or collaborations with UI faculty and staff could be pursed to create short learning courses.

4) PROVIDE MODERN EQUIPMENT

Investing in newer equipment will reduce downtime for repairs, while allowing campus to take advantage of technological advances. The use of newer technologies should be explored, including autonomous mowers for difficult to maintain areas where turf is previously established, such as in interior building courtyards. To support excellent landscape maintenance, it is recommended that F&S be provided additional funding to invest in new and efficient equipment. Inefficient, hazardous, and aging equipment should be at the top of the priority list for replacement.

The following CLMP recommendations contribute to a need for this investment:

- Technologies like permeable pavers may require investment in new equipment for maintaining permeability.

- The proposed tree nursery would require investment in new equipment to maintain and utilize trees.

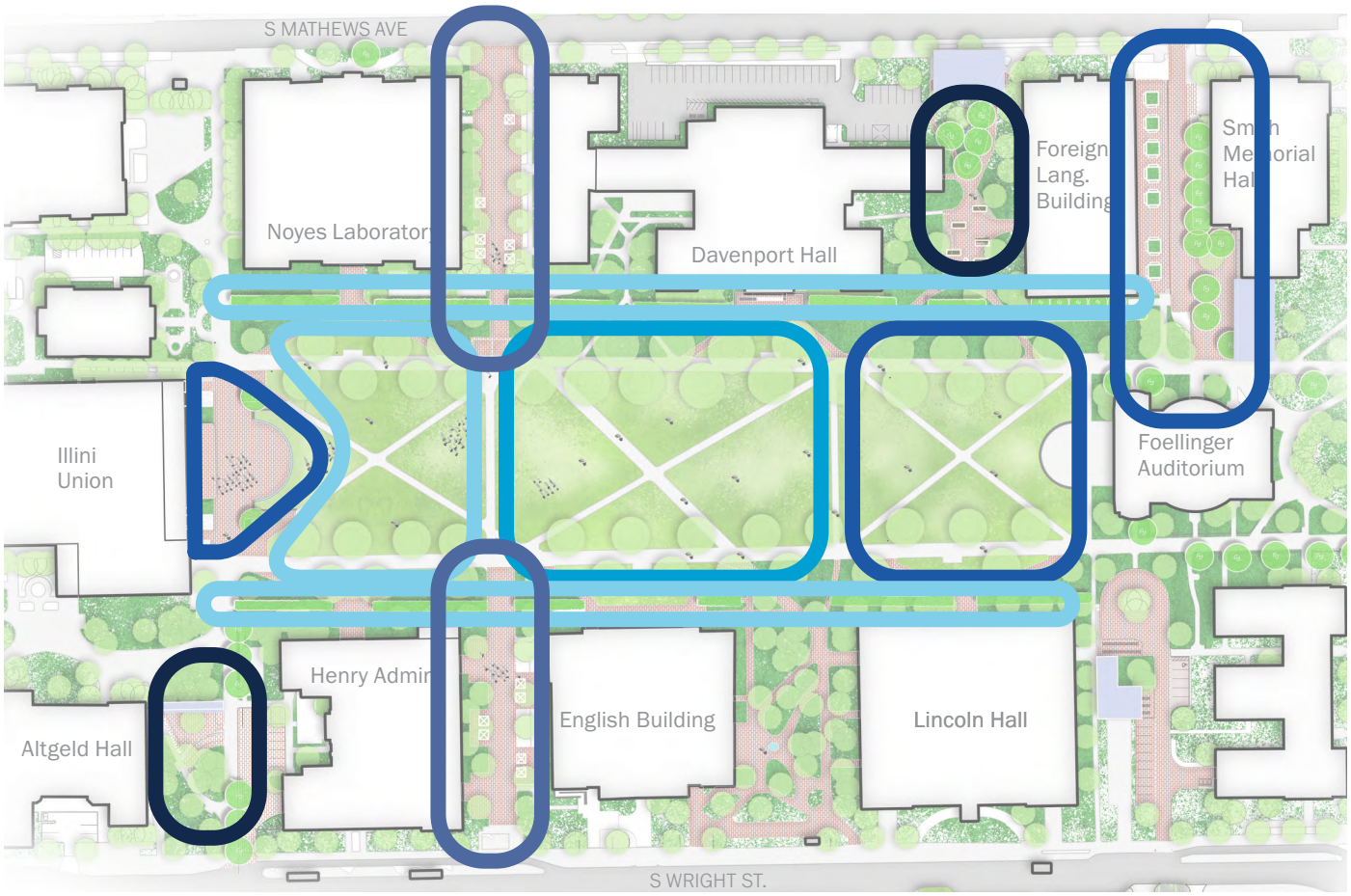
- Transitioning to the purchase and use of more battery powered hand tools will advance sustainability goals, while resulting in lower noise levels.

- Placement of additional substations across campus may require additional equipment to ensure efficient deployment of staff. (See Framework section of the CLMP).

- Additional tree crews may require additional equipment to ensure they are fully operational.

Within the equipment funding plan, continue the transition to electric equipment. Smaller tools should be converted to electric to reduce emissions and sound levels. Electric four-wheeled utility vehicles should also be strategically deployed, especially where quiet equipment would be of particular value to the campus.

MAIN QUAD DISTRICT: PROJECT PHASING

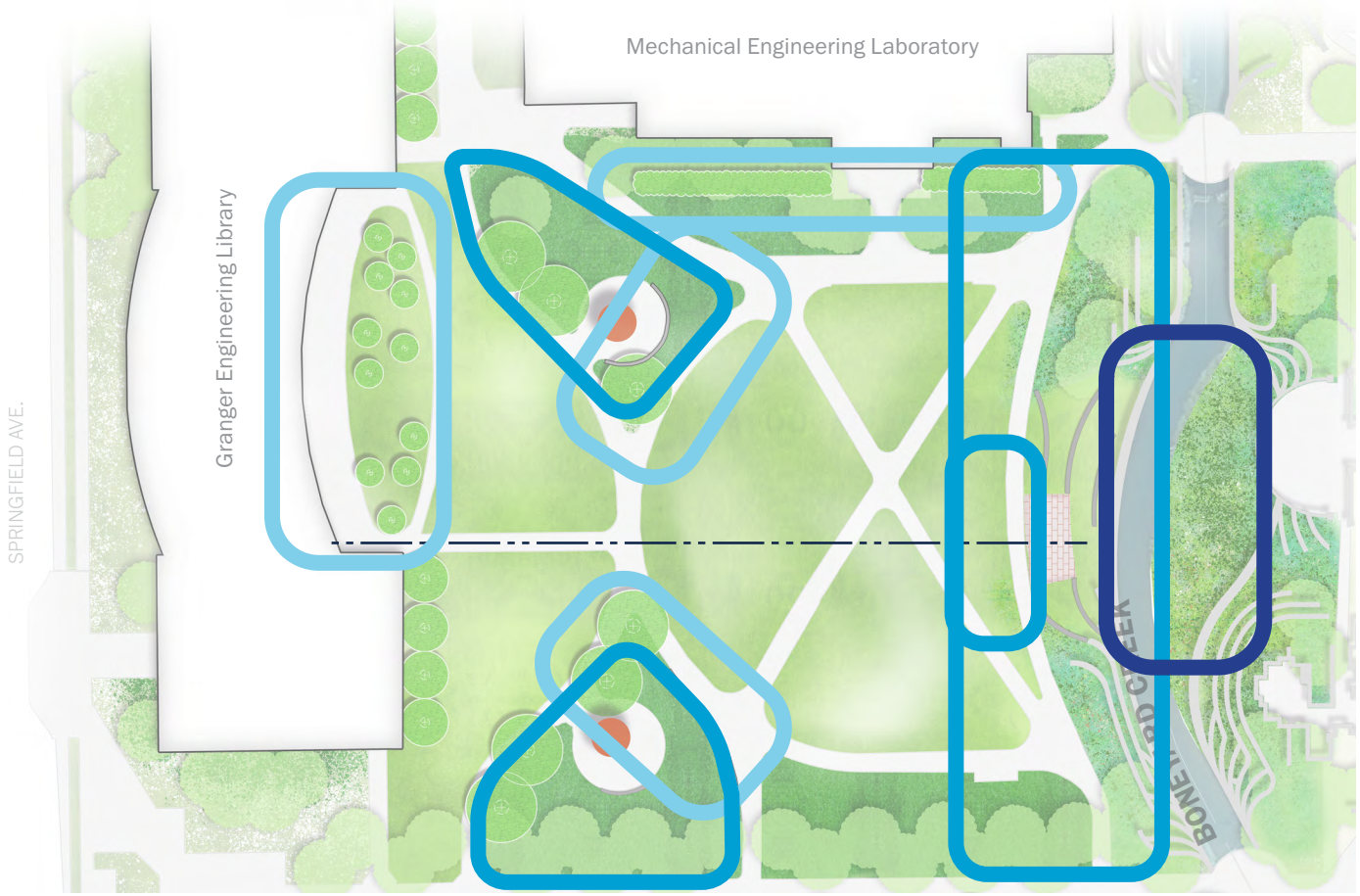


SCALE 1”=200’

PROJECT TIMELINE

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8

ENGINEERING QUAD DISTRICT: PROJECT PHASING

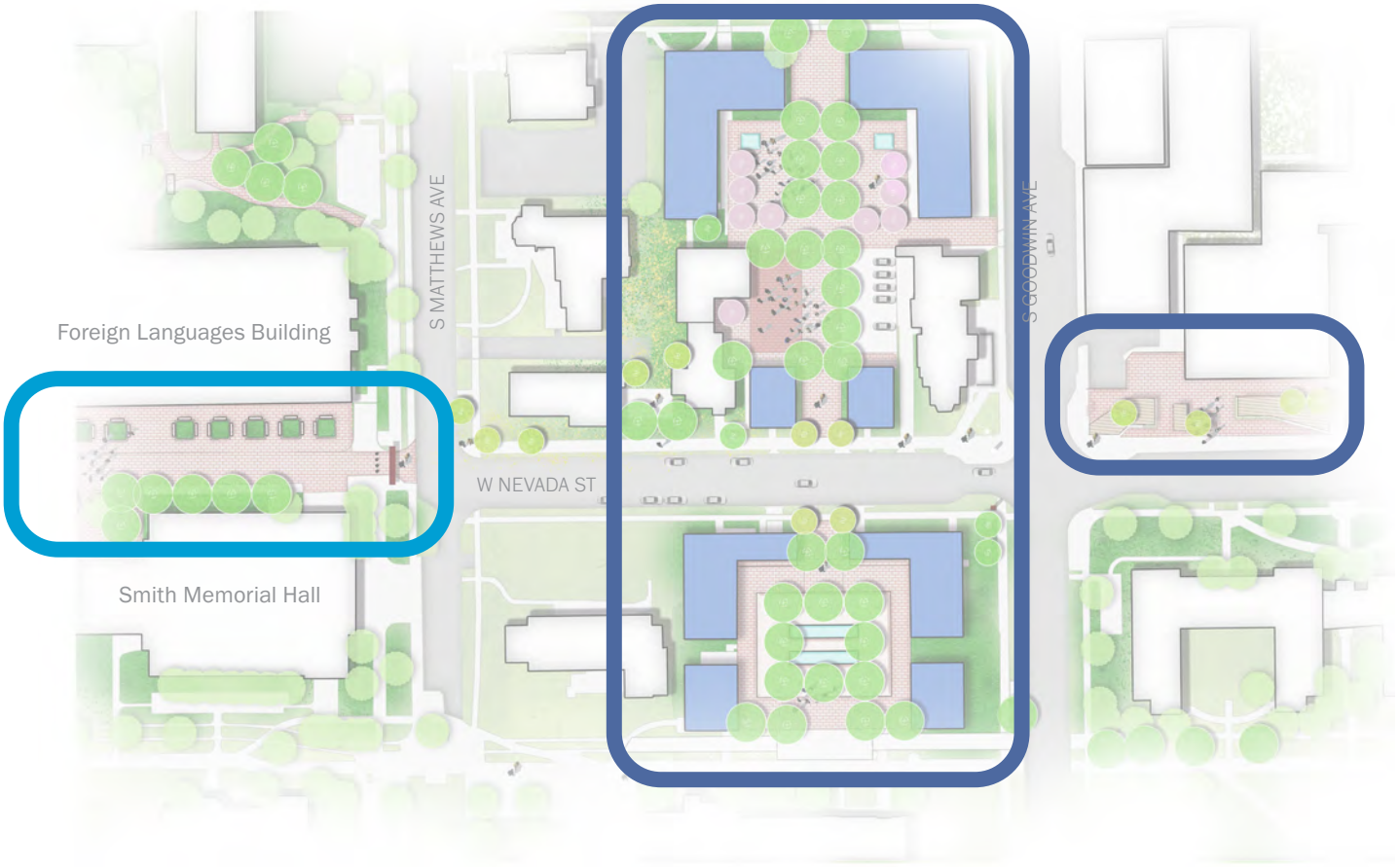


SCALE 1”=80’

PROJECT TIMELINE

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8

URBAN CAMPUS DISTRICT: PROJECT PHASING



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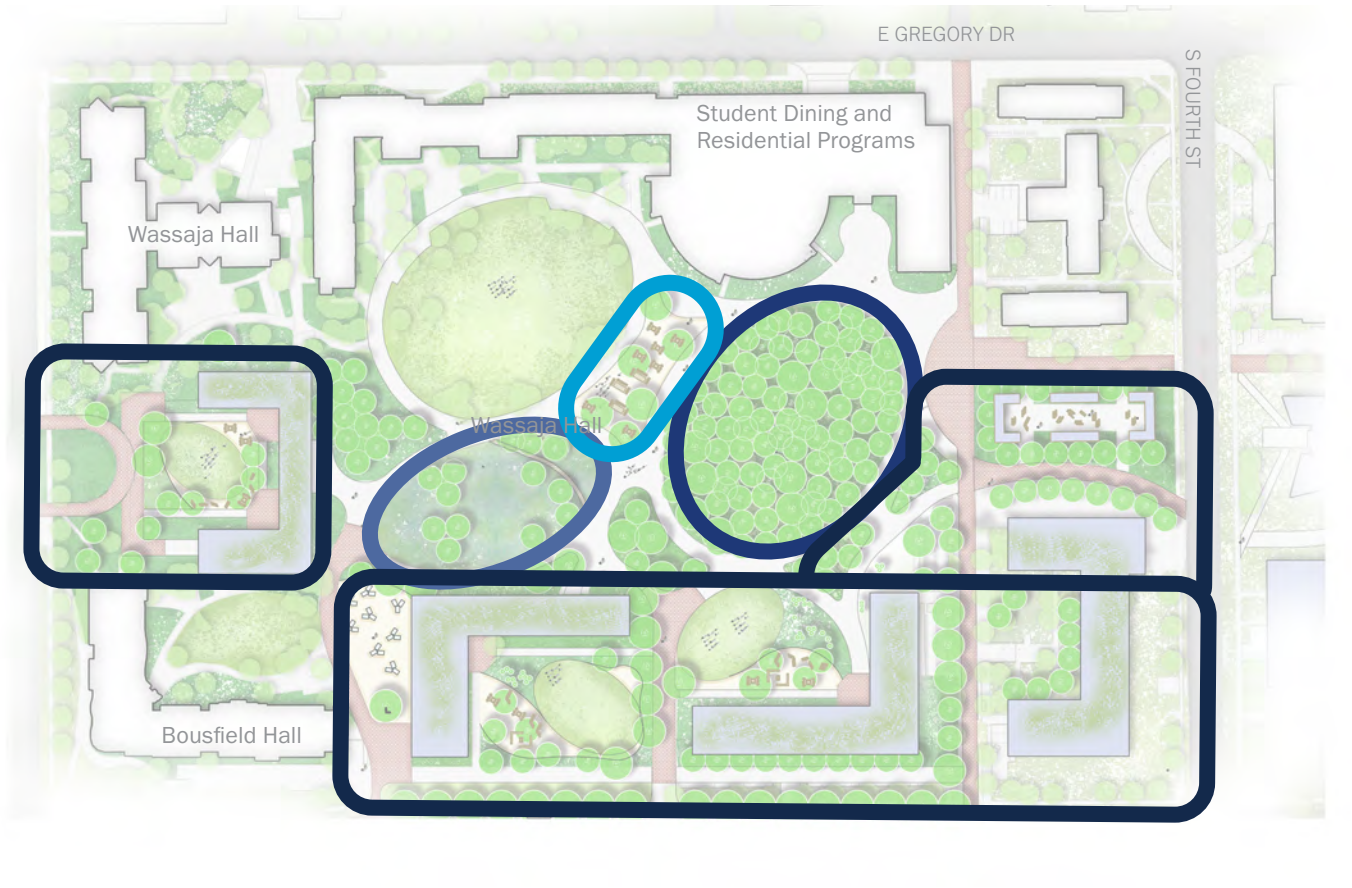
PROJECT TIMELINE

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8

IKENBERRY QUAD DISTRICT: PROJECT PHASING

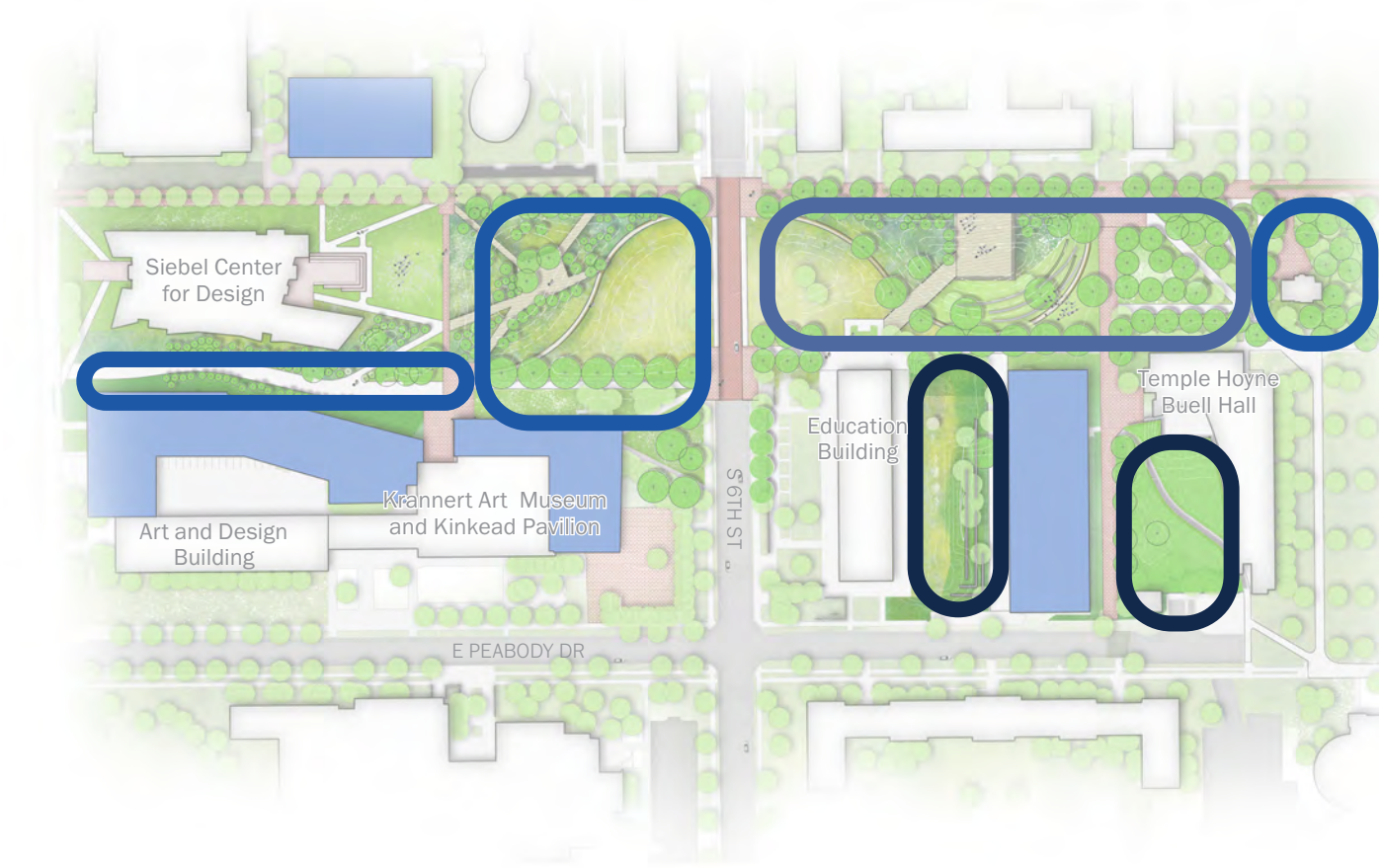


SCALE 1”=200’

PROJECT TIMELINE

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8

MILITARY AXIS DISTRICT: PROJECT PHASING

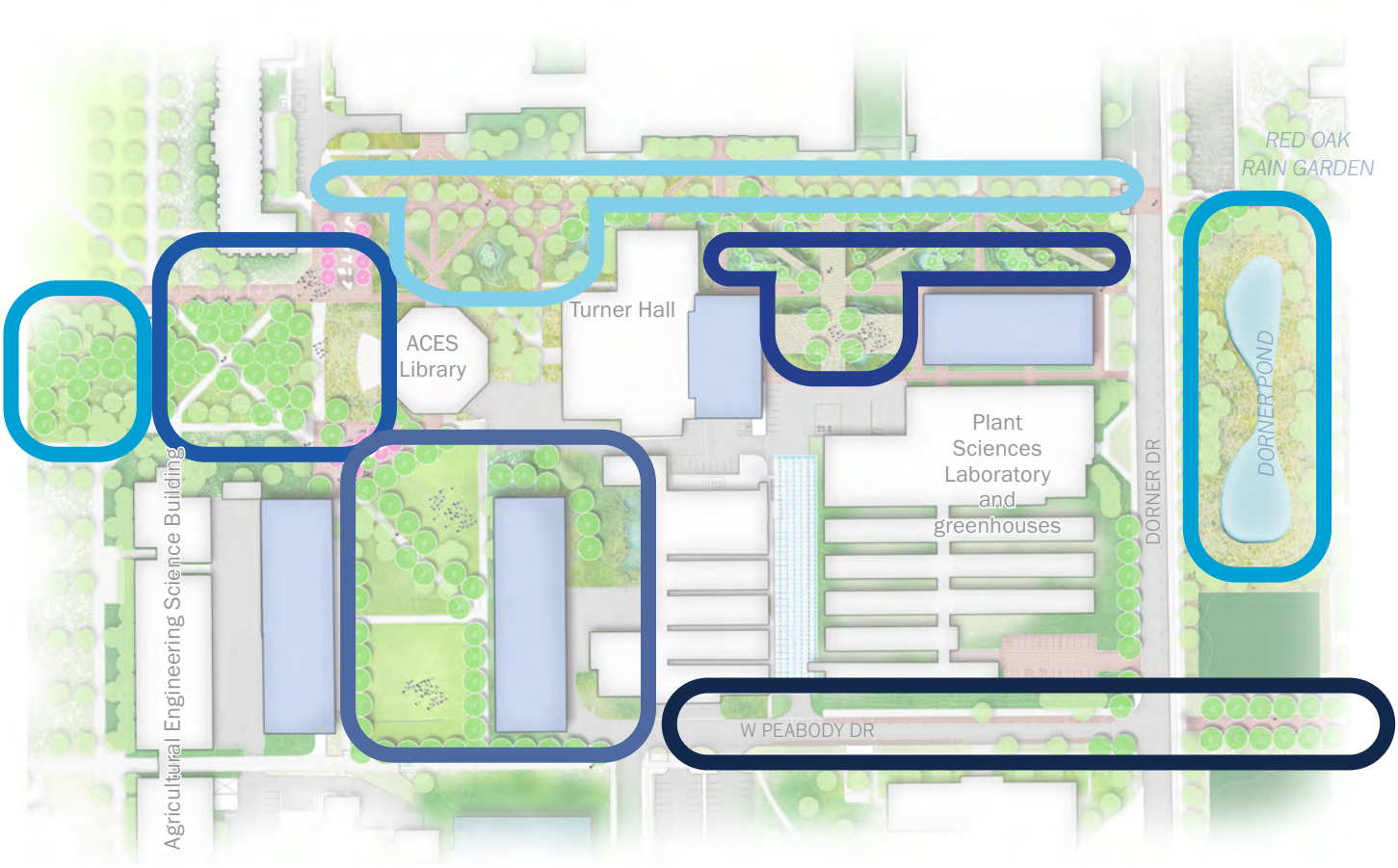


SCALE 1”=120’

PROJECT TIMELINE

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8

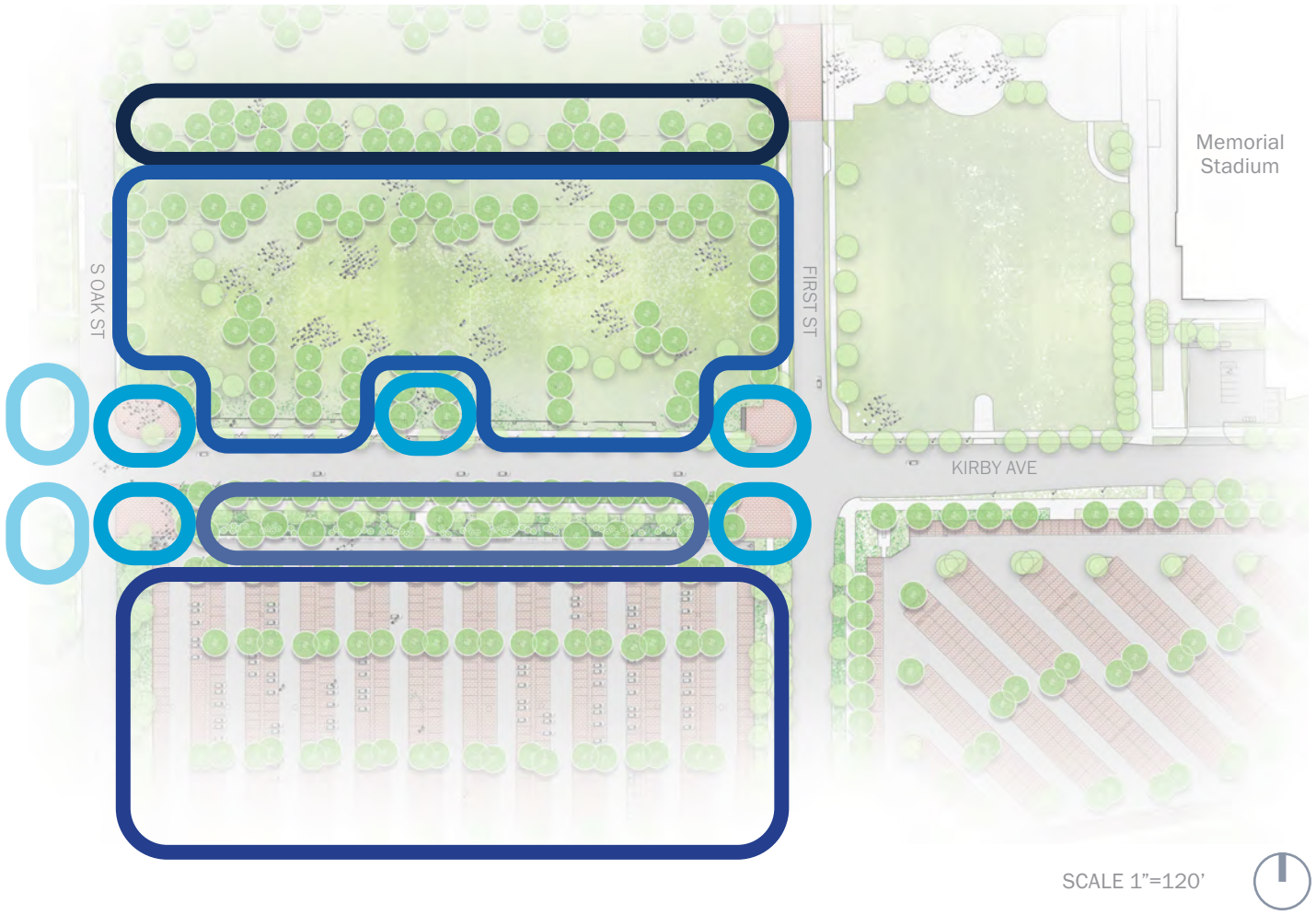
SOUTH QUAD DISTRICT: PROJECT PHASING



PROJECT TIMELINE

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8

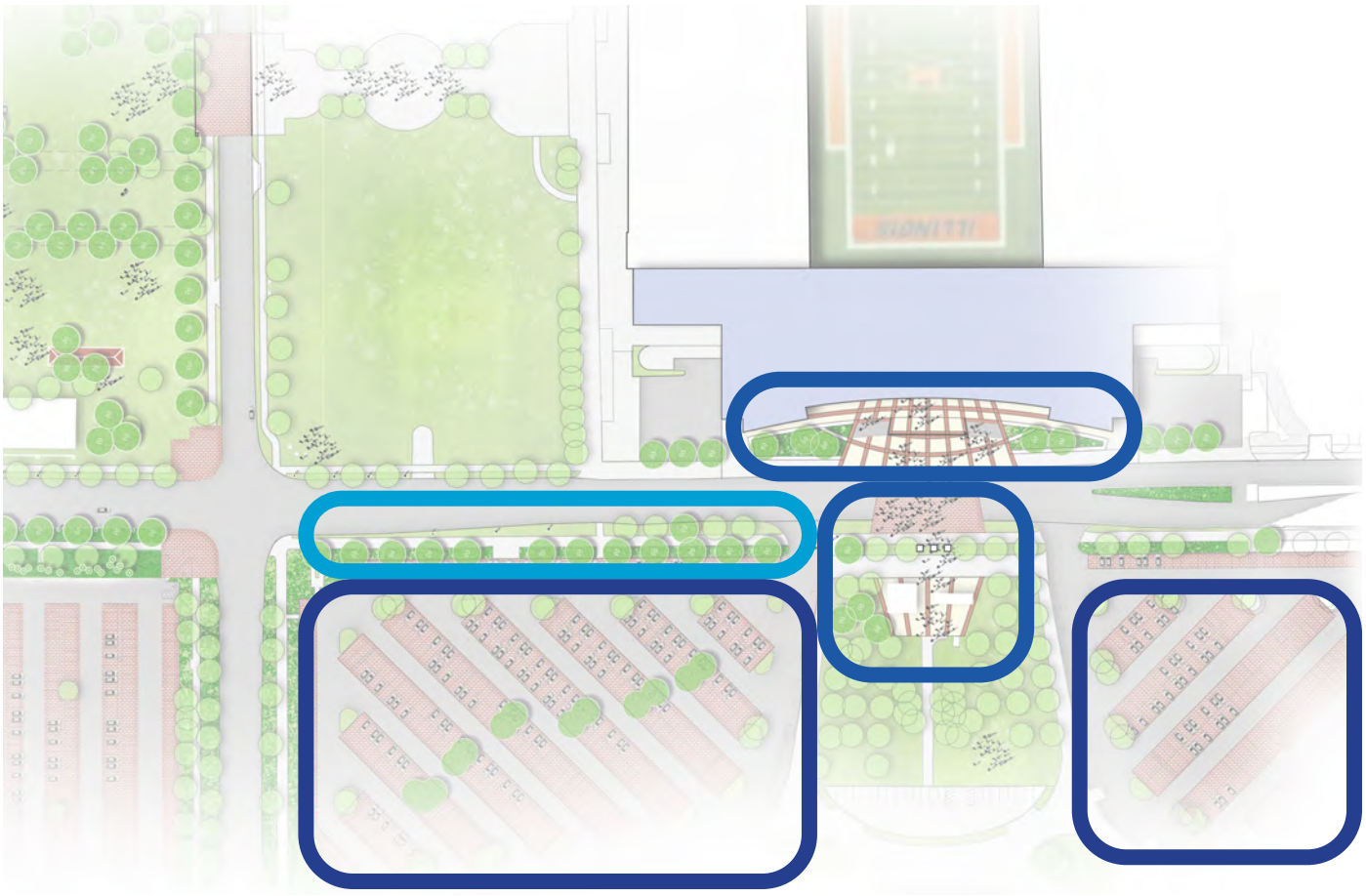
INDUSTRIAL DISTRICT: PROJECT PHASING



PROJECT TIMELINE

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8

ATHLETICS DISTRICT: PROJECT PHASING

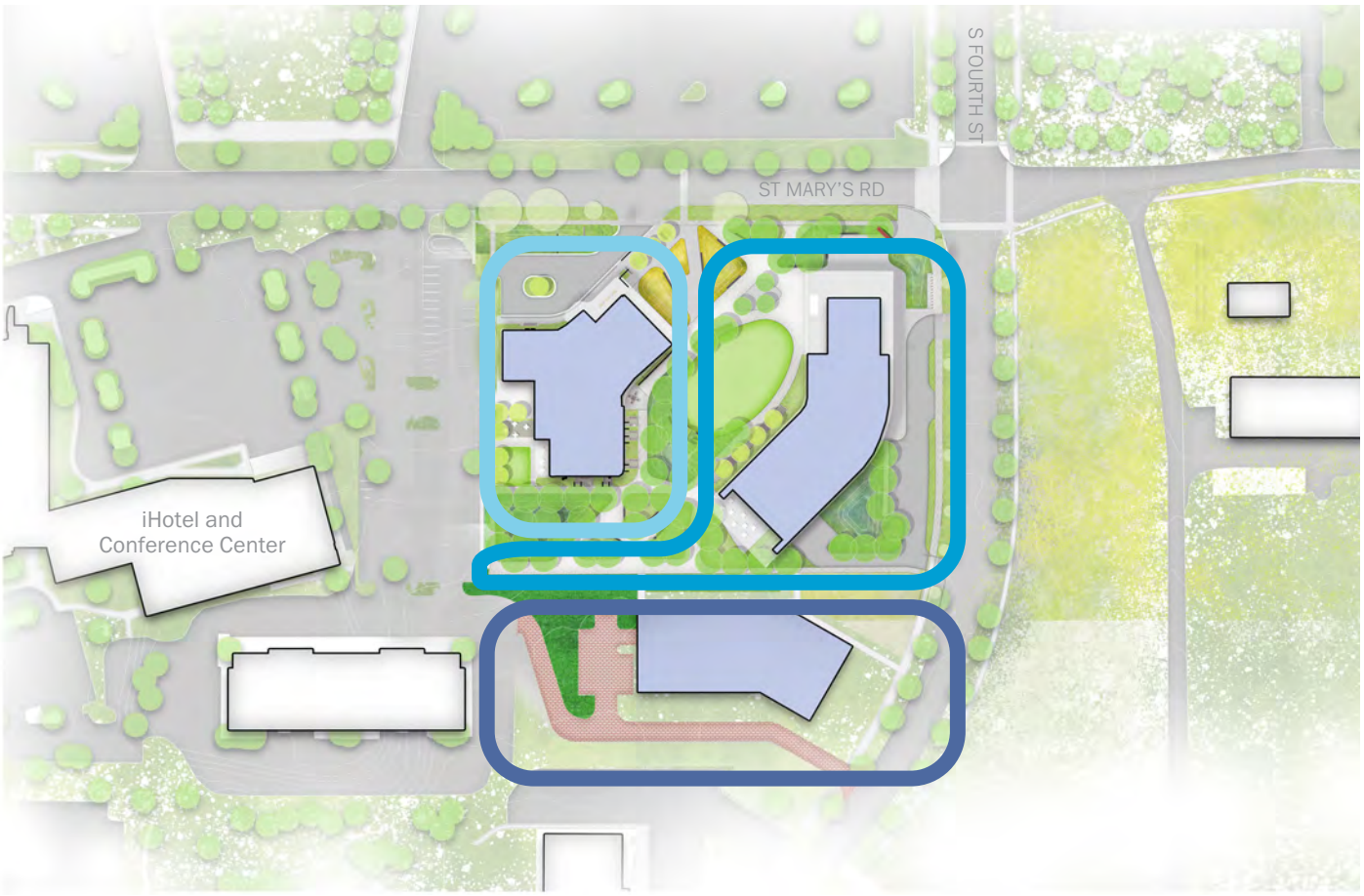


SCALE 1”=200’

PROJECT TIMELINE

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8

RESEARCH PARK DISTRICT: PROJECT PHASING



SCALE 1”=120’

PROJECT TIMELINE

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8

CONCLUSION

ADVANCING A FOUNDATION OF PRIOR PLANNING

The CLMP provides the detail necessary to implement three foundational plans that provide agreed upon direction for the campus landscape including the Campus Master Plan; the Resilient Landscape Strategy; and the components of the iCAP 2020 that pertain to land and water.

The CLMP presents a shared vision for the overall campus landscape that is a resilient, sustainable campus landscape.

AN EQUITABLE APPROACH

The Campus Master Plan defines eleven districts across the campus to serve as a framework for planning purposes. The scope of the CLMP provides goals and strategies pertaining to each of the campus districts. The district goals and strategies are then applied through demonstration prototype projects within each district. This approach ensured that the application and implementation of the CLMP equitably studies and provides recommendations across the entirety of campus.

While aspirational projects were identified throughout campus, it is important to note that stakeholders communicated that utmost priority be placed on investing in the existing landscape assets, including addressing various levels of deferred maintenance.

APPROVALS

As noted throughout the document, the recommendations within the CLMP may require many levels of approval for funding and implementation, including the approval of the Board of Trustees in some cases. The levels of approval required will be determined on a case-by-case basis.

A PATH TOWARD IMPLEMENTATION

The realization of this vision will require a commitment towards phased investment year by year over the coming decades. By committing to a sustainable campus, the University of Illinois Urbana-Champaign (UIUC) will embody resilience as a model landscape in the Midwest and a world-leader in campus native landscape expression and honoring rain water as a valued resource.

THE CAMPUS COMMUNITY DESIRES A LANDSCAPE THAT...

- Inspires, nurtures, restores and educates
- Provides opportunities for collaboration, celebration and gathering
- Defines the University of Illinois Urbana-Champaign brand
- Provides a universally accessible, safe, inviting and manageable landscape
- Respects the campus origins and heritage
- Amplifies the region's biodiversity
- Assists the University's Climate Leadership Commitments.

A

APPENDIX A

Rainwater Tooklit to provide definitions and further detail in support of the campus-wide landscape goals.

RAINWATER TOOLKIT

STRATEGIES:

BIORETENTION

GREEN STREETS

RIPARIAN ENHANCEMENT

GREEN ROOF

IMPERVIOUS SURFACE REMOVAL

LANDSCAPE CONVERSION

PERMEABLE PAVEMENT

CONSTRUCTED WETLAND

RAINWATER HARVESTING

SOIL RESTORATION

STREAM RESTORATION

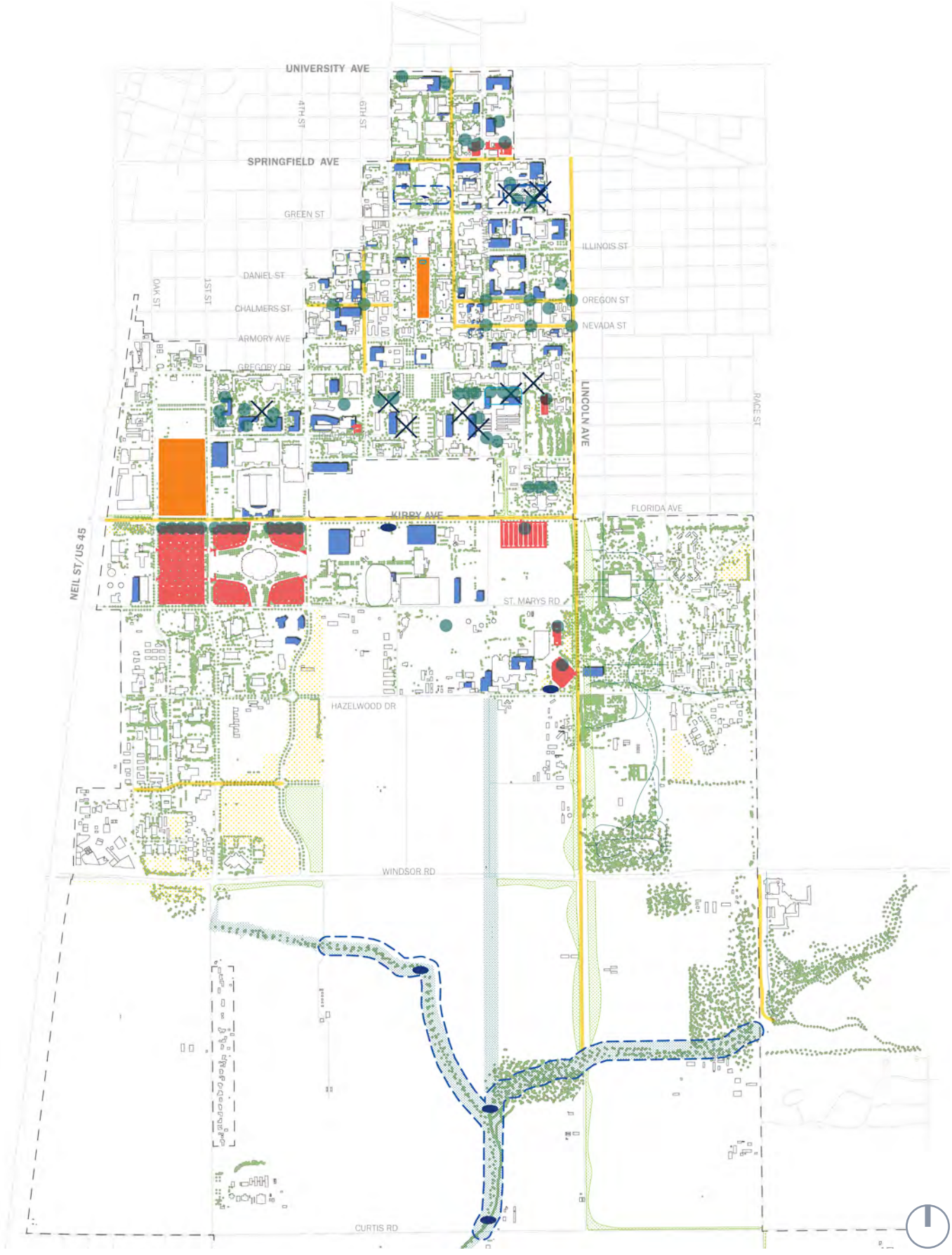
The Rainwater Toolkit seeks to provide UIUC with a suite of strategies to address rainwater within the landscape. These strategies were specifically selected and tailored for use within the campus. They take into consideration the historic geologic context including soil conditions, current conditions on campus, and future campus growth shown in the 2017 Campus Master Plan. A review of past stormwater reports and projects, such as the 2016 CERL Report (off-campus), the 2011 Ikenberry Drainage Study, and the 2009 Gregory Drive Study, indicate that much of the existing campus was developed prior to modern stormwater management strategies and in distinct phases. The reports also indicate that, the existing infrastructure is at or over capacity in addition to approaching the end of its useful life. The backwatering of the drainage network by Boneyard Creek in large storm events contribute to the flooding experienced on campus during large or intense rain events. A full stormwater management master plan is recommended to fully understand and characterize the existing systems and chart a path forward. Management of rainwater both in terms of quality and quantity will be increasingly important as storms become more intense and the existing infrastructure continues to age.

Green infrastructure practices included in this toolkit have been shown to be an effective way to manage rainwater, thereby, reducing the burden on stormwater infrastructure while providing a host of additional ecosystem benefits. This toolkit will provide guidance to assist with implementation of green infrastructure practices throughout campus. A description, key design considerations, expected benefits, and anticipated construction costs are provided for each recommended strategy or practice type. These parameters were adapted for UIUC from industry design standards. Potential locations were identified by the project team based on a desktop assessment and site visit. (See Rainwater Toolkit locations on the following page). These should be viewed as a starting point rather than an exhaustive list of opportunities. These practices also appear within each of the prototypical concepts included for each district. Implementation of these practices throughout campus will help position UIUC to achieve the goals laid out in the iCAP, develop responsibly, and be a prominent leader when it comes to rainwater management. The rainwater toolkit will require increased staff, equipment and training for implementation.

RAINWATER TOOLKIT GRAPHIC LEGEND

- Stream restoration
- Constructed wetland creation
- Impervious surface removal
- Riparian enhancement and planting
- Rainwater harvesting (cistern)
- Bioretention/rain garden
- Green street
- Permeable pavement
- Prairie planting
- Native planting (conversion)
- Soil restoration
- Proposed building

RAINWATER TOOLKIT (CORE CAMPUS)



RAINWATER TOOLKIT

BIORETENTION

APPLICATION

Bioretention is a functional landscape that consists of a surface depression and specially engineered soil media with (ideally) native vegetation. Bioretention systems can be installed at a variety of scales depending on the site constraints and drainage area. Runoff is collected in an inlet or through surface flow and directed to the bioretention area where a combination of plants and soil media remove pollutants through adsorption, filtration, and sedimentation while infiltrating runoff into the subsoil. If subsoils do not allow for infiltration, underdrains or overflows may be used to collect excess rainwater and direct it to the storm drain system. Practices may be manicured and confined if located in a formal urban space or may have more natural aesthetic in a less dense environment. Seating walls, boardwalks, or other design features can be incorporated to allow for human interaction, sensory experiences, and facilitate outdoor education spaces. Bioretention practices can provide relief to existing conveyance systems within the watershed while also providing pollinator habitat and serving as a connection between natural and urban areas of campus.

Rain Garden at Rutgers University Livingston Campus in NJ

Bioretention Basin in Lynchburg, VA

DESIGN CONSIDERATIONS

Functional Value: Runoff Reduction Volume (medium/high), Groundwater Recharge (medium/high), Peak Rate (medium), Water Quality (high), Habitat Value (medium)

Drainage Area & Size: Bioretention area should be approximately 20% of the contributing impervious drainage area.

Setback: Setback at least 10 feet from building line.

Vegetation: Vegetation should be native species of up to three species or designed in an organized manner that simplifies maintenance.

Engineered Soil: Soil media should consist of a mixture of sand, soil, and organic matter (woodchips or aged compost) to facilitate infiltration, support a biological community, and nurture vegetative communities. Amendments may be added to allow for processing or capture of specific pollutants such as salts or heavy metals. Depth of soil media can vary but should be offset from the groundwater by a foot or lined with an impervious liner.

MAINTENANCE BEST PRACTICES

Most maintenance is necessary during the vegetation establishment period in years 1-3

Vegetation Maintenance: watering, weeding, pruning

Sediment and debris removal should occur after large storm events.

Inspect and clean (as necessary) underdrains and other pipes at least once a year.

VOLUME OF RAINWATER CAPTURED

Based on an average surface ponding depth of 1.0 foot and three feet of subsurface soil media with a porosity of 0.3, 1.90 cubic feet (CF) of rainwater may be stored in each 1.0 square foot (SF) of bioretention surface area.

Variations: Bioswales, Rain Gardens, Vegetated Swales, Street Tree Filters, Stormwater Planter

Components: Inlet, a depressed planting bed with engineered soil media, native plants, overflow mechanism

Function: Receive runoff from adjacent impervious surfaces, temporarily pool water in the depression, uptake water through plants, filter runoff, infiltrate runoff into the subsoil, and attenuate storm flows.

GREEN STREETS

APPLICATION

Green streets maintain the function of a roadway corridor but also seek to incorporate green infrastructure within the right of way. It is applicable to both new development and retrofit projects where the roadway corridor is being redesigned or redeveloped. Green streets can serve as secondary eco-corridors on campus by providing a continuous tree canopy and layering in ground level native plantings to support habitat.

Permeable pavement (See Permeable Pavement for more information) is most suitable in sidewalks, bike routes, fire lanes, parking stalls, and pedestrian crossing where the permeable material replaces all or a portion of the existing impervious surface. Permeable pavement can be designed to blend in with existing pavement as in parking lots and sidewalks where a consistent aesthetic is preferred. It is also an effective visual demarcation from travel lanes, serving as a traffic calming feature. Permeable interlocking pavers, porous asphalt, and permeable concrete are commonly used variations.

Variations: Green Streets

Components: Permeable surfaces, Bioretention, Tree Boxes, Vegetated Swales, and usually combined with subsurface storage components such as coarse stone bed, and underdrain.

Function: Replaces a traditional roadway with a multifunctional space that incorporates bike routes, pedestrian walkways, and green infrastructure practices.

RAINWATER TOOLKIT

Bioretention practices (see Bioretention and Rain Garden for more information) can be installed between the curb and sidewalk to capture runoff from streets.

Tree boxes can be located in areas where there is not space for a bioretention within the ROW. Tree box designs vary ranging from shallow tree pits in native soils to proprietary structures designed to integrate into the roadway.

Vegetated swales are a variation of bioretention that consist of shallow uncompacted vegetated channels that slow and filter runoff from adjacent impervious areas and serve as an alternative to curb and gutter systems. While the level of construction can vary, vegetated swales can be as simple as hand excavated 2 ft. wide and 4 in. deep channels with vegetation, which make them relatively versatile. By adding check dams such as rock, wood or concrete, it is possible to detain additional water and promote infiltration to enhance stormwater management goals. Surface storage is often combined with subsurface detention or infiltration systems consisting of stone aggregate, perforated pipes, or other structural storage units.

DESIGN CONSIDERATIONS

Functional Value: Runoff Reduction Volume (high), Groundwater Recharge (medium/high), Peak Rate (medium/high), Water Quality (high) , Habitat Value (medium/low)

Type: Type of practices used should be consistent with the function of the space such as porous asphalt more appropriate for parking stalls and bike routes, pervious concrete more appropriate for sidewalks, and permeable block pavers more appropriate for crosswalks.

Size: The treatment area should be a minimum of 20% of the impervious drainage area.

Location: Use in right of way areas with existing roadways corridors and low sediment load.

MAINTENANCE BEST PRACTICES

Vacuum permeable pavement twice a year with a commercial cleaning unit.

Stabilize any soil or landscaped areas upstream of the permeable surface.

Vegetation Maintenance: watering, weeding, pruning.

Sediment and debris removal should occur after large storm events.

Inspect and clean (as necessary) underdrains and other pipes at least once a year.

VOLUME OF RAINWATER CAPTURED

Tree Boxes: Varies based on box size and available depth.

Permeable Pavement: Based on an assumed 3 feet of subsurface gravel reservoir, 1.2 cubic feet (CF) of rainwater may be stored in each 1.0 square foot (SF) of permeable pavement surface area.

Bioretention: Based on an average surface ponding depth of 1 foot and 3 feet of subsurface soil media, 1.9 cubic feet (CF) of rainwater may be stored in each 1.0 square foot (SF) of bioretention surface area.

Vegetated Swales: Based on a triangular swale geometry, an average surface ponding depth of 0.5 feet and 3 feet of subsurface soil media, 0.70 cubic feet (CF) of rainwater many stored in each 1.0 square foot (SF) of vegetated swale area.

RIPARIAN ENHANCEMENT

Components: Stream channel, riparian vegetation, understory vegetation

Function: Restores the natural dynamic hydrology and diverse habitat to improve overall health and function of stream corridors and forest communities

APPLICATION

Riparian enhancement targets existing degraded riparian areas such as stream corridors, forest stands, and naturalized open spaces. A healthy riparian corridor provides rainwater storage, filtering of runoff through vegetation and soil matrix, shading for stream and trails, and habitat for native plants and animals. Stormwater seeps into the ground, being filtered along the way through plant roots and soils, and eventually feeds the groundwater and hyporheic zones of the stream. The vegetative riparian buffer not only filters runoff but it can serve as a connection to the university's natural resources in campus spaces such as greenways, walking paths, and playing fields. Understory plantings and invasive management can help improve the quality of existing forest communities. Supplementing mature trees with young trees can ensure healthy forest succession over time.

Battle Grove Riparian Enhancement and Stream Restoration UNC Chapel Hill

DESIGN CONSIDERATIONS

Functional Value: Runoff Volume Reduction (low/medium), Groundwater Recharge (low/medium), Peak Flow Rate (low/medium), Water Quality (medium/high), Habitat Value (high)

Soil and Surrounding Communities: Selected species should be native and suited for site conditions.

MAINTENANCE BEST PRACTICES

Maintenance is most critical during the first 3 to 5 years to establish canopy closure.

Plantings will require regular watering during the first growing season.

Invasive species and herbivory should be controlled for to allow for plant establishment.

Maintain (leave) debris such as logs from fallen trees and standing snags, which provide habitat for raptors and other wildlife in addition to hydrological benefits associated with nutrient processing.

VOLUME OF RAINWATER RETAINED

By converting Open Space to Woods with a healthy understory, a 15% reduction of runoff is achievable for the 2-year storm event assuming a hydrologic soil group of D.

RAINWATER TOOLKIT

GREEN ROOF

Variations: Extensive, Semi-Intensive, Intensive

Components: Waterproof membrane, drainage and root barrier layer, soil media, vegetation

Function: Detain and filter rainwater while providing habitat and heat island mitigation benefits

APPLICATION

Green roofs are a functional landscape that consists of a series of membrane layers and soil media with vegetation. These systems can be installed at a variety of scales depending on the site constraints but fall into three primary design types. The primary difference between extensive, semi-intensive, and intensive is the depth of the soil media and type of vegetation. An extensive green roof has the shallowest soil media layer at 3-4 inches and is typically planted with sedum. For extensive green roofs, modular or flexible tray systems exist which can simplify the design, construction, and maintenance of these systems. An intensive green roof has a soil media layer of 8-12 inches and is capable of supporting larger vegetation including shrubs and trees. The semi-intensive green roof bridges the gap between the two and typically is planted with herbaceous perennials and grasses. In addition to providing runoff reduction benefits and habitat, green roofs provide additional insulation thereby reducing heating and cooling costs. These practices are most appropriate for new construction where the weight of the system can be accounted for in the structural design of the building. Due to the need for a variance, green roofs are most appropriate for buildings that are unlikely to undergo renovations that would require roof penetration (i.e., labs and classrooms) and are more appropriate over residential buildings, office buildings, or storage buildings. Extensive green roofs can be used to retrofit existing roofs including and overhangs.

DESIGN CONSIDERATIONS

Functional Value: Runoff Reduction Volume (medium/high), Groundwater Recharge (low), Peak Rate (medium), Water Quality (medium), Habitat Value (medium/high).

Physical: Pitch of Roof, Visibility, Access

Structural Loading: An extensive roof adds approximately 15-30 lbs. per square foot to a roof load whereas an intensive green roof can add up to 150 lbs. per square foot.

Vegetation: Vegetation should be drought tolerant species, preferably native, suited to site conditions (soil media depth, sunlight, etc.). Species composition should consider maintenance and aesthetic preferences.

MAINTENANCE BEST PRACTICES

Maintenance required is driven by the design approach and is ideally performed in house.

Most vegetative maintenance is necessary during the establishment period in years 1-3

Vegetation Maintenance: watering, weeding, pruning

VOLUME OF RAINWATER CAPTURED

Based on the thickness of the soil media layer for each category 1.0 square feet of green roof is capable of capturing the following volume of rainwater;

Extensive (assumes 3 inch thickness): 0.08 cubic feet (CF)

Semi-Intensive (assumes 6 inch thickness): 0.15 cubic feet (CF)

Intensive (assumes 8 inch thickness): 0.20 cubic feet (CF)

IMPERVIOUS REMOVAL

APPLICATION

Impervious removal is the practice of removing existing impervious surfaces such as underutilized or deteriorated sidewalks, bike routes, concrete pads, and extraneous pavement (including deactivated surfaces that remain) and replacing with natural surfaces. Gravel or compacted base courses should also be removed. Native soils should be disced or tilled to restore infiltration capacity. Topsoil should be added to achieve desired final grade and area planted with native plantings, trees, and other low maintenance plantings appropriate for the setting. Revegetation with native plants achieves stormwater management goals by slowing and filtering runoff, modifying soils through root growth, and through interception, evapotranspiration, and the addition of organic matter. Since native species are well adapted to local climatic and soil conditions, landscape conversion reduces maintenance requirements associated with mowing and irrigation, while also reducing the need for chemical fertilizers and pesticides, which improves water quality.

DESIGN CONSIDERATIONS

Functional Value: Runoff Reduction Volume (varies), Groundwater Recharge (varies), Peak Rate (low/medium), Water Quality (high), Habitat Value (High)

Type: Prairie Meadow, Woodland, Wetland, No-Mow Lawn

Location: Areas with low traffic or programmatic value. Areas with large expanses of impervious surfaces that could be modified to include green infrastructure practices.

MAINTENANCE BEST PRACTICES

Initial maintenance routine is necessary for first 2-3 years and up to 5 years for woodland

Control of weeds and other invasive species until plantings establish

VOLUME OF RAINWATER RETAINED

By converting Impervious Surfaces to Open Space in good condition, a 60% reduction of runoff is achievable for the 2-year storm event assuming a hydrologic soil group of C.

By converting Impervious Surfaces to Prairie or Woods in good condition, a 70% reduction of runoff is achievable for the 2-year storm event assuming a hydrologic soil group of C.

Variations/Components: Landscape conversion, native plantings, reforestation, low maintenance plantings

Function: Replaces an existing impervious surface including the base course with a natural surface that is more desirable from a stormwater quality and quantity perspective to slow, infiltrate, and filter runoff

Innovative Application of Impervious Removal at Washington Avenue Green in Philadelphia, PA

Green Roof at University of MD (Photo Credit: Ted Brown)

RAINWATER TOOLKIT

LANDSCAPE CONVERSION

Variations/Components: Native plantings, reforestation, low maintenance plantings

Function: Replaces a highly maintained landscape with species that are more desirable from an ecological and water quality perspective; increases ecosystem services including provision of pollinator habitat and increased biodiversity and resilience

APPLICATION

Landscape conversion is the practice of converting highly maintained landscaped areas such as turf grass to low-mow areas, native meadow or prairie, and woodland species. Benefits associated with landscape conversion include the reduction of runoff, increased biodiversity, and creation of a habitats that can support an array of species. Revegetation with native plants achieves stormwater management goals by slowing and filtering runoff, modifying soils through root growth, and through interception, evapotranspiration, and the addition of organic matter. Since native species are well adapted to local climatic and soil conditions, landscape conversion reduces maintenance requirements associated with mowing and irrigation, while also reducing the need for chemical fertilizers and pesticides, which improves water quality. Recognizing that turf lawns hold an important function on campus, landscape conversion should be targeted in areas that are not currently programmed including on steep slopes, spaces envisioned for a new or heightened experience, and interstitial spaces. While naturalized landscapes tend to have a less formal (less manicured) landscape aesthetic, inclusion of mown edges and careful selection of native plant species and layout demonstrates intentionality and reinforces that these spaces are designed and maintained as such. This approach reflects the principle of “cues to care” as defined by landscape architect Joan Nassauer. Landscape conversion also enhances pollinator habitat and can help the University meet the goals of the iCAP.

DESIGN CONSIDERATIONS

Functional Value: Runoff Reduction Volume (varies), Groundwater Recharge (varies), Peak Rate (low/medium), Water Quality (high), Habitat Value (High)

Type: Prairie Meadow, Woodland, Wetland, No-Mow Lawn

Growth: It may take up to 3 years for prairie plantings to become aesthetically pleasing and more for woodland restoration areas.

Location: Areas with low programmatic value but high buffer capacity, as well as steep slope areas that are difficult to maintain as turf.

MAINTENANCE BEST PRACTICES

Maintenance by an ecologist or specialized workforce is necessary for first 2-3 years and up to 5 years for woodland

Control of weeds and other invasive species until plantings establish

For prairie systems, low mowing or burning approximately 2 years

VOLUME OF RAINWATER RETAINED

By converting Turf to Native Prairie, a 18% reduction of runoff is achievable for the 2-year storm event assuming a hydrologic soil group of C.

By converting Turf to Woods in good condition, a 22% reduction of runoff is achievable for the 2-year storm event assuming a hydrologic soil group of C.

Landscape conversion to native meadow with a mown edge condition in St. Mary’s MD

PERMEABLE PAVEMENT

APPLICATION

Permeable pavement maintains the function of traditional impervious areas such as sidewalks and parking lots while allowing runoff to infiltrate. Permeable pavement is most suitable in parking lots, plazas, service roadways and sidewalks where the permeable material replaces all or a portion of the existing impervious surface. It is applicable to both new development and retrofit projects where a portion of a site's pavement is being replaced. Permeable pavement is often combined with subsurface detention or infiltration systems consisting of stone aggregate, perforated pipes, or other structural storage units. In areas such as plazas and courtyards, permeable pavement can provide aesthetic value through innovative and interpretive designs that connect the public with water. Alternatively, permeable pavement can be designed to blend in with existing pavement as in parking lots and sidewalks where a consistent aesthetic is preferred. Subsurface infiltration systems consist of an excavated area that is backfilled with storage components in the form of stone aggregate, pipes, or chambers, which are used to temporarily store runoff during storm events while infiltrating into the soil below. Similar to subsurface detention systems, subsurface infiltration systems are widely applicable since they preserve the function of the above ground space, which can be maintained as parking, roadway, athletic fields, plazas, or pathways.

DESIGN CONSIDERATIONS

Functional Value: Runoff Reduction Volume (high), Groundwater Recharge (high), Peak Rate (medium/high), Water Quality (high) , Habitat Value (low)

Type: Type of permeable surface should be consistent with the function of the space, with porous asphalt or interlocking permeable pavers, more appropriate for parking lots, pervious concrete more appropriate for sidewalks, and permeable block pavers more appropriate for walkways and plazas.

Size: The treatment area should be at least 20% of the impervious drainage area.

Location: Use in areas with existing hard surfaces but low sediment load and relatively low traffic.

Variations: Porous Asphalt, Permeable Paver Blocks, Interlocking Permeable Pavers, Pervious Concrete, Reinforced Turf/ Gravel

Components: Permeable surface, choker course, and usually combined with subsurface storage components such as coarse stone bed, and underdrain

Function: Replaces a traditionally impervious paved surface with a permeable but structural alternative that allows infiltration into a storage area

Metrics: For every 1 SF of permeable surface with 2.5 ft. deep subsurface system manages at least 1 CF or 7.48 gallons of runoff.

Outflow: To ensure proper functioning, systems should consider a mechanism such as an underdrain that daylights or connects to an existing storm drainage system.

MAINTENANCE BEST PRACTICES

Vacuum twice a year with a commercial cleaning unit

Stabilize any soil or landscaped areas upstream of the permeable surface

VOLUME OF RAINWATER CAPTURED

Based on an assumed 3 feet of subsurface gravel reservoir, 1.2 cubic feet (CF) of rainwater may be stored in each 1.0 square foot (SF) of permeable pavement surface area.

RAINWATER TOOLKIT

CONSTRUCTED WETLAND

Variations: Pocket Wetlands, Shallow Wetlands, Extended Detention Wetlands, Pond Wetlands, Subsurface Gravel Wetlands

Components: Inflow, sediment forebay, wetland and emergent vegetation, embankment, high groundwater or impermeable liner, outlet structure

Function: Capture, treat, and store runoff through a shallow marsh system with semi-permanent ponded water and emergent vegetation, which also provides habitat and aesthetic value.

APPLICATION

As a functional landscape, constructed wetlands occupy relatively large spaces and may require a frequent source of inflow, shallow groundwater, or an impermeable liner as water is generally ponded. Constructed wetlands can be incorporated into open spaces to capture runoff from large impervious areas associated with new or existing development. Online systems receive runoff from all size storms and treat to their design capacity while conveying overflow from larger storms and off-line systems receive only the water-quality design volume through an upstream diversion. It is also possible to retrofit existing stormwater basins into constructed wetlands to increase their treatment capabilities and ecological benefits. In addition to stormwater management and treatment, constructed wetlands provide considerable habitat value and can serve as uniquely natural aesthetic features on campus. Finally, these systems often serve as excellent opportunities for applied research tied to multi-disciplinary studies (e.g., engineering, ecology, environmental sciences, landscape architecture, etc.).

DESIGN CONSIDERATIONS

Functional Value: Runoff Reduction Water Volume (low), Groundwater Recharge (low), Peak Flow Rate (high), Water Quality (high), Habitat Value (high)

Drainage Area & Size: Size is generally constrained by available space, but systems should be designed to treat at least the water quality volume from the drainage area, which is generally 10 acres – 50 acres but can be as small as 5 acres for a pocket wetland.

Location: Given the size of this practice, constructed wetlands are generally located in more natural areas where there is sufficient space.

Setback: Constructed wetlands should be located at least 10 ft. away from property line and building foundations.

Soils: Constructed wetlands should be constructed with poor infiltrating soils or include an impermeable barrier to maintain water levels.

Vegetation: Vegetation consists of emergent and wetland species; selection must consider the design hydrology.

MAINTENANCE BEST PRACTICES

Inspect structures for clogging and debris at least 4 times per year and after storms greater than 1-inch.

Inspect and test wetland drain at least 4 times annually.

Mowing and pruning of vegetation as necessary to maintain aesthetic and to remove invasive species.

VOLUME OF RAINWATER CAPTURED

Based on an average ponding depth of 1.5 feet, 1.5 cubic feet (CF) of rainwater may be stored in each 1.0 square foot (SF) of wetland area.

Constructed Wetland on University of Delaware's Agricultural Campus, Newark, DE

RAINWATER HARVESTING

APPLICATION

Rather than treating stormwater as a nuisance, rainwater harvesting captures and reuses this valuable resource. This practice is most often used in areas where there is a need for supplemental water for greywater or irrigation. Systems may vary from rain barrels collecting runoff from limited roof areas to highly engineered subsurface storage systems with pumping mechanisms collecting runoff from large roof areas. To reduce the need for pumping, practices should be sited up gradient of reuse locations and in areas where there is a need for irrigation. As a storage and reuse practice, rainwater harvesting provides the multiple benefits of reducing stormwater runoff and reducing potable water consumption in flushing and irrigation. It is applicable in locations where there is insufficient space or unsuitable soil conditions for more nature-based green infrastructure. Rainwater Harvesting helps the university achieve the goals stated in the iCAP while also promoting educations opportunities and community engagement around stormwater.

Variations: Above Ground Cisterns, Rain Barrels, Subsurface Storage Tanks

Components: Inlet/collection pipe, filter screen, storage component (cistern, barrel, tank, etc.), overflow, release mechanism, outlet pipe, pump (optional)

Function: Intercept runoff from an impervious surface, usually at a raised elevation (e.g., roof, parking garage, plaza) and store the water for reuse on site as greywater or irrigation

Cistern and Water Feature at Indigo Hotel in Athens, GA

DESIGN CONSIDERATIONS

Functional Value: Runoff Reduction Volume (high), Groundwater Recharge (low), Peak Rate (variable), Water Quality (medium), Habitat Value (low)

Drainage Area & Size: Should be sized based on water demand, but general rule of thumb is 50-gallons of storage can manage a 500 SF roof area.

Location: Use in areas with high water demand and locate storage unit up gradient of end water use to eliminate need for pumping.

Setback: Overflow should be setback at least 10 ft. from building foundation.

Covers/Lids: Should have a tight fit to keep out insects (mosquitos), surface water, and dust.

MAINTENANCE BEST PRACTICES

Remove debris from filter screens.

Cycle water regularly to prevent mosquitos.

Release water before storm events to increase storage capacity.

VOLUME OF RAINWATER CAPTURED

Directly correlated to the volume of the cistern, barrel, or tank.

RAINWATER TOOLKIT

SOIL RESTORATION

APPLICATION

Soil restoration is the physical alteration of an existing soil to promote its stormwater management capacity, create suitable conditions for beneficial microbial activity, and to support a healthy vegetative community. This practice is applicable in areas where the underlying soil has undergone compaction as a result of construction, programming, vehicular traffic or other uses. There are generally two approaches to soil restoration, tilling and soil amendments. Tilling, or subsoiling, breaks up the compacted layers of the soil and subsequently soil amendments are added to enhance soil characteristics. Soil amendments can include organic media such as compost and biochar or inorganic media such as sand and pea gravel. This best management practice is widely applicable and requires relatively little construction to implement, which makes it a low-profile approach to stormwater management.

Variations: Decompaction, soil amendments

Components: Existing soil, soil amendments

Function: Enhances and restores soils to increase infiltration, water retention, and improve overall soil health

DESIGN CONSIDERATIONS

Functional Value: Runoff Volume Reduction (medium), Groundwater Recharge (medium), Peak Flow Rate (low), Water Quality (high), Habitat Value (medium)

Location: Avoid drip line of trees, shallow subsurface utilities, and where compaction is intentional.

Depth: Decompaction should ensure that it is to the full depth of compaction (usually 20 inches).

Decompaction Equipment: No disc cultivators, chisel plows, rippers

Soil Amendments: Compost, biochar, sawdust, woodchips, perlite, pea gravel sand

MAINTENANCE BEST PRACTICES

Soil restoration may need to be repeated over time.

Avoid use of heavy vehicles and machinery on restored soils.

VOLUME OF RAINWATER RETAINED

Restoring soil permeability results in increased infiltration potential which can be approximated by changing the hydrologic soil group from C to B for open space or turf, resulting in a 70% decrease in runoff for the 2-year storm event.

Emmett Street Stream Restoration at University of Virginia, Charlottesville, VA

Subsoiling at Rock Creek Tennis Center in Washington, DC

STREAM RESTORATION

APPLICATION

Stream restoration targets existing degraded streams, stormwater channels, and potentially piped underground networks to restore a more natural flow path with woody material, boulders, and native vegetative buffers along the corridor. A healthy stream corridor provides floodplain storage, which decreases erosive forces within the stream, filtering of runoff through riparian buffer vegetation, shading for reducing water temperatures, and habitat for native plants and animals. During large storms, flood waters will expand on the associated floodplains, the water slows, and silt settles out. Some water seeps into the ground, being filtered along the way through plant roots and soils, and eventually feeding groundwater. The vegetative riparian buffer not only filters runoff but it can serve a connection with the University's natural resources in campus spaces such as greenways, walking paths, and playing fields.

Variations: Floodplain Connection, Daylighting, Outfall Treatment

Components: Stream channel, stream banks, floodplain, riparian vegetation, boulders, woody material

Function: Restores the natural dynamic hydrology and diverse habitat to improve overall health and function of stream corridors and floodplains

DESIGN CONSIDERATIONS

Functional Value: Runoff Volume Reduction (low/medium), Groundwater Recharge (low/medium), Peak Flow Rate (low/medium), Water Quality (medium/high), Habitat Value (high)

Physical: Streamflow, hydrodynamic forces, historic stream conditions, and site constraints influence the stream restoration approach and materials. A highly urban stream corridor with higher flows and forces will likely require larger boulders, stream bed material, and have less planform variability. A less urban stream corridor with lower flow and forces will require less large material and have larger variability in planform.

MAINTENANCE BEST PRACTICES

Maintenance is most critical during the first 1 to 3 years to establish vegetation and monitor overall stability of the stream corridor

Plantings will require regular watering during the first growing season

Invasive species and herbivory should be controlled to allow for planting establishment

Maintain (leave) debris such as logs from fallen trees, which provide habitat and hydrological benefits

VOLUME OF RAINWATER CAPTURED

Riparian Enhancement: By converting Open Space to Woods with a healthy understory, a 15% reduction of runoff is achievable for the 2-year storm event assuming a hydrologic soil group of D.

Wetland Creation: Based on an average ponding depth of 1.5 feet, 1.5 cubic feet (CF) of rainwater may be stored in each 1.0 square foot (SF) of wetland area.

Stream Restoration: Varies depending on design objectives and technique used, higher for floodplain reconnection versus streambank stabilization.

B

APPENDIX B

Recommendations for updates or additions to UIUC Facilities Standards and technical sections

Landscape Component	Design Guideline (Character, Intent)	Current Standard	
PLANTING AND SOILS			
Turf	Lawn panels in both highly visible and more passive areas.	Section 329200 - Turf and Grasses	
Mulch	Hardwood mulch; refreshed often.	Section 329300 - Plants	
Topsoil		Section 329119.13 - Topsoil Placement and Grading	
Post-Construction Back-fill	Soils post construction should to be returned to the quality pre development.	None	
Plant Selection	Plants should be selected to match the existing soil and exposure conditions. Selections should consider plants adaptive to warmer climates to ensure long-term success. Native plants should be used whenever possible, with individual species planted in large groupings / swaths. Planting in historic areas can utilize native species, but should be sensitive to the historic planting design approach.	Section 329300 - Plants	
Street Trees	In areas with wide sidewalks, street trees can be accommodated within large open planters with a minimum 1000 cubic feet of soil volume to support long term tree health. In areas with minimal right of way and narrow pedestrian zones, structural soils or soil cells should be utilized to achieve the targeted soil volume. Permeable pavers are encouraged within this application to aid in water and air uptake by tree roots. Slow release water bags or tree diapers should be utilized to aid in establishment.	None	

	Recommended Standard (Appearance, Maintenance Considerations, Product/Vendor)	**District Application**
	100% turf type tall fescue with a 9” sand base, Vendor: Central Wisconsin Sod and Landscaping or approved equal. Use top quality, 12 to18 month old turf type tall fescue sod consisting of a minimum of 3 varieties evenly blended. Turf within the Main Quad should be retrofitted with the sand-based turf system and be supported with smart irrigation systems.	All districts
	Standard practice by F&S is to utilize landscape waste to create hardwood mulch. New construction should utilize shredded hardwood bark, not larger than 2 square inches. 3” depth for trees and shrubs, 1-3” for perennials appropriate to the type.	All districts
	No changes	All districts
	UIUC Faciliites Standards should include a specification for amended soils. Preconstruction soil analyses should be documented as a basis for amendments. Existing, on-site surface soil with the duff layer, if any, retained and stockpiled on-site; modified to produce viable planting soil as a constituent of other soil mixes only.	All districts
	See Exhibit 32 93 00-1, Approved Plant List.	Most Districts Main Quad, Engineering Quad - maintain historic planting vocabulary
	See Exhibit 32 93 00-1, Approved Plant List. Tree replacement policy should be updated to be replacement tree for any tree 6” caliper or less; 2 replacement trees for 6-12; and 3 for 18+. Utilize slow release water bags or tree diapers to aid in establishment. Structural Soil: Facilities Standard Specifications should include a specification for structural soil. The structural soil mix as defined has been based general on the requirements of “CU-Soil” as patented by Cornell University. “CU-Soil” is a mixture of crushed stone, clay loam and Hydrogel, which is a potassium-propenamide colypolymer.	All districts

Landscape Component	Design Guideline (Character, Intent)	Current F&S Standard	
PAVING			
Primary Walkway (Pedestrian + Vehicular)	Sidewalks shall be a minimum of 6 ft. wide with a maximum cross slope of 2% and shall comply with the requirements of the Illinois Accessibility Code. Areas of high pedestrian use should be concrete, while secondary walkways can become permeable. Pathways over 6' width should be designed to accommodate vehicular traffic for service and snow removal at a minimum 8" pavement thickness. Jointing plans need to be included with all submittals.	See UIUC FACILITIES STANDARDS: STREETS, SIDEWALKS AND BICYCLE NETWORK. SEE Technical Section 321313 - Sidewalks & Pavers. See F&S Technical Detail: Concrete Sidewalk Installation	
Secondary Walkway (concrete)	Pedestrian paths should be a minimum of 6' width to meet accessibility needs. All construction projects should include detailed jointing patters on plans.	See UIUC FACILITIES STANDARDS: STREETS, SIDEWALKS AND BICYCLE NETWORK. SEE Technical Section 321313 - Sidewalks & Pavers. See F&S Technical Detail: Concrete Sidewalk Installation	
Secondary Walkway (pavers)	The design intent for pavers is to create a standard aesthetic across all districts for high-visibility, highly public walkways and spaces.	See UIUC FACILITIES STANDARDS: STREETS, SIDEWALKS AND BICYCLE NETWORK. SEE Technical Section 321313 - Sidewalks & Pavers. See F&S Technical Detail: Paver Walkway Installation.	
Secondary Walkway (permeable pavers)	The design intent for pavers is to create a standard aesthetic across all districts for high-visibility, highly public walkways and spaces.	See UIUC FACILITIES STANDARDS: STREETS, SIDEWALKS AND BICYCLE NETWORK. SEE Technical Section 321313 - Sidewalks & Pavers.	

	Recommended Standard (Appearance, Maintenance Considerations, Product/Vendor)	**District Application**
	No changes	All districts
	No changes	All districts
	UIUC Facilities Standards should be updated to include preferred product and at least two alternative products. A new technical section for “unit paving” should be included. The technical specification should include a CA16 base. Depending on the location and use of the walkways for maintenance access or construction access or soil and runoff conditions, consideration for a concrete base with weep holes and concrete edges should be made. Preferred Product: Belden. Color: Regimental Red Full Range. Pattern: Herringbone. Alternate Preferred Product: Endicott clay paver. Color: Red Blend. Alternate Preferred Product: Pine Hall clay paver. Color: Full Range Red.	All districts Courtyards and interstitial spaces of campus may accommodate more flexibility in product and color selection.
	UIUC Facilities Standards should be updated to include preferred product and at least two alternative products. A new technical section for “unit paving” should be included. Preferred Product: Belden. Color: Regimental Red Full Range. Pattern: Herringbone. Alternate Preferred Product: Endicott clay paver. Color: Red Blend. Alternate Preferred Product: Pine Hall clay paver. Color: Full Range Red.	All districts Courtyards and interstitial spaces of campus may accommodate more flexibility in product and color selection.

Landscape Component	Design Guideline (Character, Intent)	Current F&S Standard	
Tertiary Walkway (crushed gravel)	Binded, crushed gravel or decomposed granite should be utilized in low-volume spaces on campus such as small or private courtyards, low-volume tertiary walkways. Consideration should be made for regular maintenance needs as the material is loose in nature.	See UIUC FACILITIES STANDARDS: STREETS, SIDEWALKS AND BICYCLE NETWORK.	
Bicycle Path	Bicycle paths should follow the Campus Bike Plan recommendations, with a preferred width of 10' for two-way travel. See U of I FACILITIES STANDARDS: STREETS, SIDEWALKS AND BICYCLE NETWORK.	None	
Detectable Warning	Accessible truncated-dome detectable warning tiles configured for setting flush in new concrete walkway surfaces, with slip-resistant surface treatment on domes and field of tile.	None	
Permeable Asphalt	Permeable asphalt should be utilized in large paved areas, such as parking lots.	None	

	Recommended Standard (Appearance, Maintenance Considerations, Product/Vendor)	**District Application**
	UIUC Facilities Standards should be updated to include preferred product and at least two alternative products. A new technical section for “crushed stone paving” should be included. Preferred Product: Kafka Granite; decomposed granite. Color range should coordinate with building façade material. Alternate Preferred Product: Earthstone Rock, decomposed granite. Alternate Preferred Product: Approved equal.	All districts Courtyards and interstitial spaces of campus may accommodate more flexibility in product and color selection.
	No changes	All districts
	UIUC Facilities Standards should be updated to include preferred product and at least two alternative products. A new technical section for “detectable warning surfacing” should be included. Preferred Product (Streetscape Application): East Jordan. Material: Gray Iron. Coating: Dipped. Finish: Black asphaltic dip. Preferred Product: NEI Neenah Enterprises, Inc. Detectable Warning Plates. Material: Cast Iron. Preferred Product: Detectable Warning Concrete Unit Pavers: Unilock or Approved equal.	All districts Streetscape application should be consistent throughout all Districts. Internal areas may require the use of an alternative material based on context.
	UIUC Facilities Standards should be expanded to include requirements for permeable asphalt.	Permeable asphalt should be used in a limited capacity within the Main Quad, Engineering Quad, South Quad, and Military Axis Districts of campus.

Landscape Component	Design Guideline (Character, Intent)	Current F&S Standard	
Structural Cell	Intended for use to increase soil volume for tree growth. Use should be paired with permeable paving. Basis of Design: Structural Cell system must provide a minimum of 1,000 cubic feet of soil volume per tree planted within the Structural Cell area and should be capable of being filled by soil.	None	
Paver Grate	Intended for use to support paving over tree soil zone.	None	
Tree Grate	Intended for use to support pedestrian use over tree soil zone.	None	
Street Name Plaque	Identification of street name in paving zone.	None	

	Recommended Standard (Appearance, Maintenance Considerations, Product/Vendor)	**District Application**
	UIUC Facilities Standards should be updated to include preferred product at least two alternative products. A new technical section for “structural cell” should be included. Preferred Product: GreenBlue Urban, RootSpace 600 Upright. Preferred Product: DeepRoot Green Infrastructure LLC. Silva Cell or approved equal.	All districts
	UIUC Facilities Standards should be updated to include preferred product at least two alternative products. A new technical section for “paver grates” should be included. Preferred Product: Ironsmith, Inc. paver grate suspended paver system. Trim Ring Style: Market Street or Approved equal. *Note: Ironsmith Market Street is utilized by the City of Champaign standards within the university-adjacent zones.*	Streetscape application should be consistent throughout all districts.
	UIUC Facilities Standards should be updated to include preferred product at least two alternative products. A new technical section for “tree grates” should be included. Preferred Product: Ironsmith, Inc. paver suspension system. Style: Market Street Preferred Product: NEI Neenah Enterprises, Inc. or Approved equal.	
	Plaque - Street Name: Shall be Cast Bronze CDA 922, and shall have a polyurethane clear coat finish, as manufactured by Architectural Aluminum & Bronze Company, or approved equal. Plaques are encouraged as part of the streetscape design on campus.	All districts

Landscape Component	Design Guideline (Character, Intent)	Current F&S Standard	
WALLS/COLUMNS			
Seat Wall	Masonry (brick, stone and wrought iron) capped with cast stone. Provide through-wall cap flashing of stainless steel to prevent water infiltration into the wall construction from above. Walls should consider placement to allow for sufficient planting in front and/or for framing. Designs should consider maintenance, with the inclusion of mow strips to reduce detailed trimming needs.	None	
Landscape Column or Pillar	Masonry (brick, stone and wrought iron) capped with cast stone. Designs should consider maintenance, with the inclusion of mow strips to reduce detailed trimming needs.	None	
Enclosures	Enclosures for mechanical equipment or dumpsters should incorporate opaque metal gates or doors to allow for access and screen uses from view.	See UIUC Facilities Standards Technical Section: Chain Link Fences and Gates	
Exterior Stairs and Ramps		None	
Handrails and Guardrails		None	

	Recommended Standard (Appearance, Maintenance Considerations, Product/Vendor)	**District Application**
	UIUC Facilities Standards should include a new section for walls and columns. Site specific/custom.	All districts
	Site specific/custom.	All districts
	Pre-fabricated alternative: Landscape Forms, LINE Landscape Panels. Pre-fabricated alternative: Master Halco ornamental fences, Ameristar, or approved equal.	All districts
	UIUC Facilities Standards should be updated to include preferred product at least two alternative products. A new technical section for “Exterior Stairs and Ramps” should be included.	All districts
	UIUC Facilities Standards should be updated to include preferred product at least two alternative products. A new technical section for “Handrails and Guardrails” should be included.	All districts

Landscape Component	Design Guideline (Character, Intent)	Current F&S Standard	
FURNITURE			
Bench Type 1 (Standard Concrete)		See UIUC Facilities Standards detail: “Concrete Bench”	
Bench Type 2 (6’ standard)		None	
Bench Type 3 (backless)		None	
Fixed Table + Chairs		None	
Moveable Tables + Chairs		None	
Bollards (standard)		See UIUC Facilities Standards detail: “Fixed Bollard” and “Multiple Bollard Installation”	
Ornamental Bollard		None	
Security Bollard		None	
Removable Bollard		See UIUC Facilities Standards details: “Removable Bollard Assembly” and related sub details	

	Recommended Standard (Appearance, Maintenance Considerations, Product/Vendor)	**District Application**
	Utilize UIUC Facilities Standards precast bench custom made on site w/stainless stake stoppers.	Main Quad, Engineering Quad, South Quad, Military Axis
	Basis of Design: Landscape Forms Plexus. Finish: Stainless Alternate Preferred Product: Forms + Surfaces. Ratio Bench. Finish: Stainless. Backed Seat. Alternate Preferred Product: DuMor Bench 93. Finish: Powdercoat Textured Silver or Black. Or approved equal.	All districts Courtyards and interstitial spaces of campus may accommodate more flexibility in product and color selection.
	Basis of Design: Landscape Forms Plexus (backless) Alternate Preferred Product: Forms + Surfaces. Ratio Bench. Finish: Stainless. Backless. Or approved equal.	All districts Courtyards and interstitial spaces of campus may accommodate more flexibility in product and color selection.
	Basis of Design: Landscape Forms Carousel. Finish: Stainless steel. Alternate Preferred Product: Forms + Surfaces. Knight Table Ensemble, backed, surface mounted w/ADA option. Finish: Aluminum slats, powdercoated. Color: Aluminum Texture. Alternate Preferred Product: Victor Stanley. N-426. Finish: Powdercoat Silver, Black or White. Seats - Recycled Plastic Seats. Alternate Preferred Product: DuMor Table 101-40. 3 seats (accessible). Finish: Powdercoat Textured Silver or Black.	All districts Courtyards and interstitial spaces of campus may accommodate more flexibility in product and color selection.
	Basis of Design: Landscape Forms Chipman. Finish: Stainless steel. Alternate Preferred Product: Forms + Surfaces Avivo. Finish: Stainless steel. Or approved equal.	Movable tables and chairs to be placed in areas with private oversight only.
	Steel post in concrete.	All districts
	Basis of Design: Urban Accessories San Francisco, powdercoated black, or approved equal.	All districts
	Basis of Design: MaxiForce. Style: Fixed MFRN-RS3-N3. Color: Powdercoated Black. (or approved equal)	All districts The Research Park District may consider an alternate style.
	Calpipe Security Bollards, dome cap, 4” internal locking, removable	All districts

Landscape Component	Design Guideline (Character, Intent)	Current F&S Standard	
Lighted Bollard		None	
Hanging Baskets	Provide internal irrigation.	None	
Planters		None	
Bicycle Racks		See UIUC Facilities Standards Detail: Bicycle Rack Installation.	
Covered Bicycle Parking		None	
Collaboration Spaces	Prefab flexible work spaces with the ability to be converted/transformed to meet the needs of students.	None	
Trash Bin	Dual bins with “recycling” and “landfill” labels.	See UIUC Facilities Standards detail: Recycling and Litter Receptacle	
Street Light	All campus lights should be retrofitted to LED, dark sky compliant. LED light level of ½ foot candle should be maintained along walkways and in surface parking lots and service areas.	See UIUC Facilities Standards - LIGHTING EXTERIOR. Technical Detail: Street Light Installation	
Pedestrian Scale Light		See UIUC Facilities Standards - LIGHTING EXTERIOR. Technical Detail: Pedestrian Area Light Installation	

	Recommended Standard (Appearance, Maintenance Considerations, Product/Vendor)	**District Application**
	Variance needed for use of lighted bollard. Note: responsibility for damage is by owner. Basis of Design: MaxiForce. Style: Fixed MFRN-RS3-N3. Color: Powdercoated Black. (or approved equal)	All districts Research Park may consider an alternate style.
	Basis of Design: Hooks & Lattice or approved equal. 17" Hanging Basket. Fiber Glass. Color: Blackto be confirmed with Owner. Mounting: Per Manufacturer's recommendation to light poles. Design is encouraged to work with light pole manufacturer to integrate irrigation. Precedent: Sternberg Lighting custom design.	Historic Style Bracket in Historic District with permanent irrigation. All districts. Integrated irrigation or self watering baskets in all other districts.
	Basis of Design: Longshadow Planters, Classic Garden Ornaments, Ltd. Material: Dry Cast Limestone. Color: Natural Dry Cast Limestone. Suggested alternate: Tournesol, Urban Collection. Lightweight GFRC concrete, rectilinear. Color: Shark, Shadow with Acid Etch finish or to match approved Architectural sample; or approved equal.	Urban Town/Gown District, Urban Campus District may propose alternate.
	Mount should utilize a surface mounted rail mount to aid in relocation/shifting. Basis of Design: Dero Hoop Rack Heavy Duty. Finish: Stainless or galvanized. Preferred Alternate: Victor Stanley BRCS - 101. Finish: Galvanized or stainless steel. Preferred Alternative: Dumor Bike Rack 290. Finish: Stainless or Powdercoated Black, or approved equal.	All districts
	Basis of Design: Brasco International Aero w/Solar Powered Lighting. Fit with Solar Powered USB Port. Finish: Powdercoat Black or Silver.	All districts
	Basis of Design: Landscape Forms, Upfit. Finish Stainless Steel, or approved equal. Or approved equal.	Ikenberry Quad, Research Park only.
	Basis of Design: MF 3302 Receptacle from Wausau Tile. Color: black. Finish: Powdercoated - or approved equal.	All districts Research Park may consider an alternate style.
	Technical Detail includes decorative and non-decorative lighting. Exceptions may be made for "smart" poles that provide Wi-Fi hubs, power outlets and/or plug-ins for electric vehicles.	All districts
	Basis of Design: Cooper Lighting. MSA Mesa LED or approved equal. Color: UIUC - Black. Housing - Grey.	All districts

Landscape Component	Design Guideline (Character, Intent)	Current F&S Standard	
Wi-Fi Hub		None	
Charging Stations		None	
Planter Ornamental Fence or Pedestrian Rail	Planter rails provide a formal boundary and plant protection to open planters in streetscape conditions; mounted on 6”-12” curb. Pedestrian rails or the same aesthetic are intended to provide a safety barrier between sidewalks and vehicular travel lanes. The aesthetic is intended to carry through the look and feel of the City of Champaign streetscape standards adjacent to the Urban Town/ Gown District, yet differentiate University properties. Application/use is intended for urban streetscape conditions.	None	
PARKING LOTS			
Islands	Island treatments need curb cuts for water infiltration etc. Permeable pavers in parking aisles, drive aisles to be concrete.	See UIUC Facilities Standards - PARKING Green Stormwater Infrastructure Standards	
Tree Planting	Curbed planting islands should be used in the interior of surface lots. These islands provide shade for vehicles and pedestrians, assist in stormwater retention, add wildlife habitat, and add to the beautification of campus for students, staff and visitors.	See UIUC Facilities Standards - PARKING	
Curbs (slotted)	Intended to allow stormwater infiltration into parking islands, adjacent planted areas and/or biofiltration applications.	None	

	Recommended Standard (Appearance, Maintenance Considerations, Product/Vendor)	**District Application**
	Consider integration of Wi-Fi in smart light poles. Design should coordinate with University Tech Services.	All districts
	Basis of Design: Outdoor Power by Legrand. Material: Aluminum body, or approved equal.	All districts
	Streetscapes on campus are not required to utlize ornamental fence around open planters, given the added expense and limited benefit. However if this approch is utilized for consistency adjacent to areas that utilize it, the following approach should be taken: 12” Steel Ornamental Fence around planters. 36” Steel Pedestrian safety barrier. Panels adjusted to accommodate concrete planter curb length.	Urban Town/Gown District, Urban Campus District
	Typically, each planting island should be the size of two parking spaces, or roughly 20 x 20 ft. minimum. The perimeter of each planting island should be provided with a continuous 18” wide by 10” tall reinforced concrete mountable curb. Parking bays should begin and end with a planting island. Continuous rows with more than 20 island and tree. Double bay parking should be broken up at the same rate of no more than 40 stalls without a planting island. Species should be selected from the Approved Plant List.	All districts
	Each landscaping island should include at least one tree. Tree replacement policy should be updated to be replacement tree for any tree 6” caliper or less; 2 replacement trees for 6-12; and 3 for 18+.	All districts
	UIUC Facilities Standards for parking should be modified to include language about the use of slotted curbs for rainwater infiltration. Curb height requirement should be changed to 4-6” max.	All districts

Landscape Component	Design Guideline (Character, Intent)	Current F&S Standard	
SIGNAGE			
Gateways	Emphasis should be placed on longevity and uniformity. Consider burying prominent utilities at prominent/visible corners. Gateways should be brick, stone and metal (wrought iron and/or bronze) Current gateways should be retrofitted with the updated UIUC logo. Future gateways should incorporate the use of “1867” and avoid the use of logos, as fonts and branding change over time. Gateways should incorporate landscape and lighting. Gateways should be positions to allow for a sufficient area for foundational planting of at least 8’ min. depth.	None	
Regulatory	All signs to match -All poles to be black -Consolidate signage where possible to reduce visual clutter -Consider custom UIUC street signage to strengthen the sense of place and reinforce when you are on campus i.e. branding “I” on reflective street signs	None	
Wayfinding	CLMP recommends a comprehensive signage and wayfinding master plan be completed to ensure consistent aesthetic, hierarchy and treatment. Currently all signage, temporary or permanent, is reviewed and approved by the Director of F&S Planning and the Architectural Review Committee.	None	
Building Signage	Update old branding panels on existing building signage across campus.	None	
Banners	Consistent graphic design. Information to include locational identification, not temporary information, such as events.	None	
Electronic Signage		None	

	Recommended Standard (Appearance, Maintenance Considerations, Product/Vendor)	**District Application**
	UIUC Facilities Standards should include a new section on signage.	All districts
	UIUC Facilities Standards should include a new section on signage.	All districts
	UIUC Facilities Standards should include a new section on signage.	All districts
	UIUC Facilities Standards should include a new section on signage.	All districts
	UIUC Facilities Standards should include a new section on signage.	All districts
	UIUC Facilities Standards should include a new section on signage.	All districts

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APPENDIX C

Stakeholder interview Meeting Notes

Stakeholder Interview Polling Results (all combined)

On-line Survey #1 Report

Public Forum LIve Polling Results

On-line sruvey #2 Results

APPENDIX C: STAKEHOLDER INTERVIEW MEETING NOTES

During the Month of February 2022, Design Workshop hosted a series of stakeholder listening sessions:

	Meeting #	Date	Day	Central Time	Participant Group
Week 1	1	4-Feb	Fri	1:10	CRAWG (Research Institutes)
Week 2	2	8-Feb	Tues	1:00	Architecture Review Committee (ARC)
	3	9-Feb	Wed	11:10	Surrounding Municipalities
	4	11-Feb	Fri	1:00	F&S Grounds and Maintenance
Week 3	5	14-Feb	Mon	10:00	Facilities Managers
	6	14-Feb	Mon	1:00	Division of Intercollegiate Athletics (DIA)
	7	15-Feb	Tues	11:00	Housing
	8	15-Feb	Tues	1:00	Faculty Experts
	9	16-Feb	Wed	9:00	XMT
	10	18-Feb	Fri	1:30	Campus Administration
Week 4	11	22-Feb	Tues	10:30	Facility Managers II
	12	22-Feb	Tues	1:30	Faculty Experts II
	13	22-Feb	Tues	6:00	Students
	14	23-Feb	Wed	11:30	Council of Deans
	15	24-Feb	Thurs	9:30	Make Up Session

CRAWG (Research Institutes)

- Major computing equipment (e.g. Blue Waters) could be names on a theme of the native nations listed at the beginning of the meeting segment
- Need more settings for outdoor meetings and classes. Starting with COVID, we have had a new emphasis on outdoor areas.
- Beckman is contemplating having a shipping container garden to grow food for our Cafe: BICEPS = Beckman Institute Controlled Environment Plant System
- Beckman, there is no entrance on University, they “Turn their back” on the community.
- The northwest corner could be more of a welcome gateway to campus
- More engagement with the plantings around campus - identifying what is planted and why via appropriate signage (as at a botanical garden)? Learning opportunities for campus and community.
- Ongoing maintenance and staffing expertise are currently an issue. We hope that this master plan will provide a backdrop for better funding and more highly educated staff so our landscapes do not decay over time.
- Could there be an innovation district? Or a way to brand the bus lines i.e. innovation line, etc.
- Maintenance needs to go along with REQUIRED practices – “sustainable landscapes” can become weedy and not maintained.

Architecture Review Committee

- Campus needs a cohesive brand
- If the campus demonstrates sustainable practices, then students will then take that expectation elsewhere
- Different spaces have different levels of quality. We need to bring all spaces up to the same level.

- Funding of site work and maintenance is an issue. Need to explore endowments.
- The pandemic has illustrated the demand for gathering in outdoor spaces. The smaller courtyards on campus need to be enhanced.
- Need to explore the ability to monitor the landscape in apps with on-demand data. For example, how much carbon sequestration is there in one tree?
- Signage is a challenge on campus. We cannot say yes to all signs, but communication can be done in the virtual reality world.
- The existing infrastructure on campus is undersized.
- Campus gateways need to say "sustainability" is important to us.
- Campus gateways need to be redesigned.
- Nevada Street cultural houses could utilize small courtyards.
- To honor native peoples, we could create theme gardens that honor them.
- To honor native peoples, we could provide them a dedicated Plaza space on campus.
- Military access has a lot of opportunity
- Sustainable Sites program - does require commitment from most participating schools to consider their exterior as an integrated part of building and part of education. Landscapes can be an extension of the classrooms. Most benchmarked universities have yearly operational budgets that take care of most of the campus grounds. An alternate route would be to build an overall campus endowment in order to address degraded areas. Perhaps an alumnus fund-raising effort. Brent noted that he likes the idea of an endowment that the Foundation would run and seek contributions on a continual basis. I have seen other universities that have these types of funds that campus can pull from to do landscape improvements.
- Big part of equity in campus landscapes is to make all the campus community feel welcome. How the landscapes present to the campus community is directly tied to what the campus community experiences and if they feel "part of" the community.
- Creating donor opportunities is a great idea
- Rainwater is a free resource. Would encourage thinking about re-using it
- The landscape is where the magic happens, ideas, concepts, discovery
- if we are monitoring the landscape, the data about the functional campus and climate can be available to students on demand. Also extend it to water use, storm runoff diverted from piped systems, rainwater reuse or make the carbon sequestration of specific heritage trees visible would be of interest.
- We do have a tree survey available that shows those environmental benefits. https://illinoisedu.treekeepersoftware.com/index.cfm

Surrounding Municipalities

- The boneyard Greenway provides learning opportunities for ecology stormwater and civil engineering. It should be program to include outdoor tours.
- Corridor is that need attention include Kirby, Springfield, Florida and Lincoln. Kirby needs to be narrowed with a pedestrian plaza. Florida Lincoln and Springfield are included in the Urbana five-year CIP. Also St. Mary’s Road east of Oak needs attention.
- Curtis Road needs a Gateway.
- Much of what's happening in the South Farms are not showcased. For example, there is bio fuel research going on there.
- We need to see creative ways to store rainwater on campus.
- We need bios s rather than field tile in the South Farms and we need to ensure water quality testing.

- Make sure that the campus plan doesn't focus in on itself but that it looks at connections into the community.
- The landscape should be inclusive and have sound texture and art.
- The city of Urbana does not have any stormwater requirements, only aspirations.
- The funding model needs to include maintenance. For example, adding tree canopy adds maintenance. The city of Urbana is behind on maintaining their tree canopy.
- There needs to be recurring funding for maintenance
- Need to focus on who's paying for an improved landscape.
- Campus town is not campus, but Green Street could feel more welcome to all.
- There could be a walking tour on campus through a walking path with signs on the trees to talk about how they used plants and trees by native peoples. Art by the native peoples could be placed in locations that make you ask questions.
- If you are going to set targets for infrastructure installation, a requirement for recurring funding to be allocated needs to be concurrent. Same issue you likely have with new building construction. Money to maintain!
- On the racial/social justice question, we may want to acknowledge past redlining and how people of color were at one time segregated in our community and I believe on campus as well as far as lodging etc, and the struggle to move past that. Also are there opportunities for the University to team with the Cities to work in distressed neighborhoods out in the community to assist with landscape built environment improvements.
- Regarding the question of inclusion, one thing to consider might be any opportunities to include sound or texture in the public art experience or landscaping (like a sound garden) to make sure the experience is inclusive to those who are visually impaired.

F&S Grounds

- Need funding in order to address the deferred maintenance long-term plan.
- The landscape needs to have more low maintenance such as the fescue which is easy to maintain. Entryways are OK to have high impact planting but elsewhere it's OK to just have lawn. Crushed granite on campus does work well.
- he soils are high pH so we need to focus on plants and trees that perform well in this, so we need to be careful with oaks. There are no original soils on the core campus due to construction.
- he water is hard with a high pH so it's hard on plants.
- The quality of the backfill soil is not good and we need a better standard for this. It needs to be returned to the quality of pre-development.
- Gregory Drive needs to be restored. We need to amend soils and restore soils for better water infiltration.
- The band practice field has a large cistern, open drain system.
- Standard parking lot design needs to have islands that have the curbs removed or that allow infiltration of stormwater.
- We need to use more permeable pavers with full depth to store water such as at the alma mater. Permeable pavers should not go on primary walkways but should be utilized in parking spaces with a concrete drive aisle.
- Individual pats require bringing water to those, how can we more easily get water to plant it pats? For example, water tanks are brought in to water the plants at the bell tower. Can we capture more rainwater in this location for reuse?
- Funding policies should address tree plantings to restore trees and require trees to be funded for capital projects or offsite of capital projects.

- Grounds has 44 staff total with two arborists. It's difficult for the campus to achieve its treat canopy goals due to limitations with staffing. Grounds needs more than two arborists; they need 2 to 3 full cruise of tree surgeons.
- The tree replacement policy needs to be by size rather than by quantity alone.
- Irrigation across campus is old. We need a smart irrigation system that prioritizes water use reduction and monitors weather.
- The south quad does not have irrigation currently. The fescue is much more resilient turf. DIA and campus recreation have large, irrigated areas.
- Infiltration rates at the Red Oak Rain Garden are not as good as they could be but it is functioning better now. Rain gardens need to be functional and consider maintenance.
- The quad hosts many events in the soil is at risk of being destroyed. The soil is being compacted around all of the existing canopy trees and the damage is long lasting. We need to build the quad like an athletic field. Could we look at Centennial Plaza as an event space with underground storage for water?
- In terms of furnishings, the concrete furnishings work well as they hold up and are easy to maintain. The tougher the better. There is a metal bench standard but it's used more in private courtyards.
- In terms of paving materials, there are about 90 miles of sidewalks on campus. Permeable pavers are good but they do settle in fade. Maintenance uses the broom to clear those but they use salt and metal attachments for maintenance. Permeable pavers are only on secondary walks. Permeable concrete areas are OK, there is an area south of Lincoln Hall.
- IDPH now allows us to reuse water, such as chiller water. There are three main chiller plants on campus so you would have to pump condensate from those.
- Ground accessibility and staging: there is opportunity to create better placement of staff across campus as they are based south on Lincoln Avenue. Staff indoor equipment needs to be better staged. Staff reports by zones now. They need a site closer to the northern core of campus for an office staffing and staging such as pairing with a new parking structure.

Facilities Managers #1

- Some of the biggest issues that facilities managers are facing include pest control and flooding issues.
- Additional issues include no funding to fix the landscape.
- Additionally, it's difficult to get things to grow over the steam tunnels.
- The plan needs to look at the natural travel path on campus.
- For landscapes that provide research opportunities, do they need to have a controlled environment? Boneyard Creek should allow testing of ideas.
- Could the idea garden concept expand across campus?
- Could there be more dedicated space for registered student organizations on campus?
- Campus Landscape Master Plan Student Team - we need to make an overall adjustment first on campus to manage what we have and then it needs to recommend various projects.
- LEED silver is now required on campus but we aspire to platinum.
- Will requirements within the landscape standards cost more? Will it make it unattainable?
- We need to be aware of who is doing the work on campus and make it inclusive of peoples of color, women and indigenous peoples.

- We need to maintain what we have. We want to make sure people are impressed by what they see. We have broken sidewalks, broken curbs etc.
- The space north of the armory very shady and is not usable. The space is used for teambuilding and ROTC.
- Funding needs to include a percentage for fixing landscape after things are installed.
- With fun elements like swings don't create swings without ADA accessibility.
- Need to make sure the landscape is inclusive for all Dash there should be interactive guidance for the physically impaired population.
- The landscape should consider safety and security with site lines and lighting.

DIA

- The campus aesthetic needs to be consistent.
- There is a lack of education/knowledge to maintain native landscapes.
- Need an overall fence for the entire area.
- Grange Grove is underutilized – used for tailgating on game days currently.
- There is opportunity to reuse water in this area, smart irrigation is needed.
- Parking on lawns is currently working ok.
- Need a two-tiered approach to the landscape plan. Firstly, we need to maintain what we have. Secondly, we can add more spaces that are aesthetically pleasing.
- DIA does not do plantings, they are mostly focused on management of turf.
- DIA does not have enough staff to make things look better.
- There needs to be more workers to create a higher level experience, the grounds don't match the facilities.
- Often the landscape gets cut with projects through DIA.
- There is little curb appeal within the facilities at DIA.
- We need to benchmark the athletics against peer universities.
- There are issues with sidewalks meeting fixed as well as drainage issues. The northwest corner of the athletic squad needs addressed in terms of rainwater management.
- There are multiple corridors that are opportunities including Kirby, which needs a plaza between Memorial Stadium and State Farm Center. This area is closed at game times. This area is also utilized by athletes that move between the spaces.
- Fourth Street and Kirby intersection needs to be a gateway as well as fourth Street and St. Mary's.
- The first thing that athletics recruit see is the Landscape at the athletic quad.
- There is opportunity for more trees at Stadium Terrace.

Housing

- Campus needs to have a sense of place.
- We need more resources to maintain what we have. There are things that are difficult to maintain and we don't have staff to do so. Is it possible to consider underground heaters for sidewalks? Could this be a new standard in certain places on campus?
- Watering trucks take a lot of time, how can we improve this efficiency?
- Bid documents for new projects have minimum standards including art.
- Champaign-Urbana is a park like atmosphere. Students want more landscapes that feel like home to them, more gathering spaces outdoors. Could we consider fire pits? Students want more outdoor gathering spaces post Covid.
- Picnic tables that were installed during Covid are highly valued.

- Planting pallets need to be scaled back for maintenance. Typically there is just too much to maintain and it gets overgrown. Often projects require reworking afterwards.
- More diversity in the plant pallets means we need more extra cheese on plant identification for maintenance.
- Ongoing maintenance costs are built into the annual operating budgets for housing. Facilities and services grounds maintains housing - housing is an auxiliary.
- New construction at the University of cheese lead silver so the landscape is part of that. Students are interested in sustainability efforts and they want to see these efforts highlighted. One example is the sustainable living learning greenhouse at LAR which is maintained by students.
- Trees on the larger campus are in bad shape. We are a tree campus. There needs to be a general fund for trees. We only have one tree crew and we need to manage the overall health of trees, not just take trees down.
- We want to see landscape maintenance levels more even across campus.
- Gateways need to be placed to indicate you are on campus. Especially on the west side. For example, Stadium Drive in Kirby at Green Street. We need to mark the boundaries of campus and could do this through simple pillars. Kertis needs a gateway as well. The branding could go back to 150 years ago with "1867" indicated and no logo.
- Consider partnerships.
- Opportunity to weave in plants from around the world.

Faculty Experts

- Pollinator gardens/compost gardens are examples of any space that is underutilized can be used. Students involved in these spaces are more aware now, and new research ideas have been sparked as a result.
- The cultural houses illustrate injustice of these spaces.
- There needs to be more awareness of research happening on campus – i.e. the energy farm on campus that is growing fuel or the polinatarium. There should be “Windows” into what’s going on on the larger campus.
- The Red Oak Rain Garden is a good example of partnerships between the university, community and students.
- The boneyard creek should demonstrate stormwater management.
- The plan needs to have requirements for landscape performance. There is a history of the D prioritizing sustainability on campus. Education of these benefits is key.
- The university was built on a wetland. Historic ecology needs to be integrated.
- The University needs to be a world leader in Rainwater management.
- The landscape master plan should use the sustainable sites criteria.
- The plan should touch on the cognitive benefits of contact with nature
- The plan should touch on the fact that the landscape should be utilized to support intellectual work, we can support students’ ability to think and recover.
- Outdoor social areas promote a sense of community collaboration and reduce stress.
- The landscape should be call cognitive and social space.
- The plan should provide opportunities to pilot ways for students and staff that want to engage and volunteer.
- We are spending on capital projects and it's not equitable across campus. Need to establish a new fund for Landscape.
- The landscape should employee an asset management approach or system just as it does for buildings. The landscapes should be evaluated to establish this.
- Stormwater "problems "should become amenities.

- Campus needs somewhere to get away from the noise – can we create a quiet space due to sensory overload.
- Understand the bird strikes research
- Requirements for landscape performance need to be flexible, but we need to project sustainability as part of the brand and values of UIUC.
- Consider more “closed loop” opportunities.
- High quality is not ancillary – it is part of the University’s core mission.

Facilities & Services: XMT

- Benefits of being in green space to reduce anxiety (mental health and well-being). The plan needs to speak to these benefits. LA Department has done research on this.
- Pay attention to quality level so you don’t have a “have” and “have not” circumstance across campus.
- Need to make more areas accessible across campus, particularly sidewalks or during special events when tents are used (football games/tailgating) – can we make these events more accessible?
- Landscape performance requirements - Any additional requirements can add to the initial capital costs. Funds need to support these requirements.
- DW shared that often campuses include some base requirements into the standard specifications rather than achieving some certifications.
- F&S Standards do address sustainability to some extent already.
- Need to address the standards for sidewalks/access for maintenance vehicles and large equipment as they do tend to damage adjacent turf. Walkways are utilized for access and are not designed to withstand this use – need to require additional protective measures.

Campus Administration

Landscape Resilience

- In every project, we have the same discussion: This is a campus/university initiative. How can we support this initiative? We have this for the building infrastructure but we do not have the same in the landscape. They do not have the same specific requirements.
- They are slowly moving their standards to not shock campus (needs and budget).
- The Budget standpoint is always a challenge.
- There are cost that support facilities - but there is not
- Pot hasn't grown because they have kept tuition stable.
- There is a policy in place to invest in landscape with the support of the foundation. There is opportunities for people to do that (invest in landscape)
- They have also been talking with advancement about sustainability in their next campaign. Concept of renewal, revitalization.

Policy changes

- Putting some of this in the standards and have a cost associated with that
- There is tension between spending money on parking and landscape vs something like more classrooms/cost

DEI

- They have spent a lot of time within the last 5 years trying to address the native American imagery on campus
- They are trying to create a space on campus dedicated to native populations
- Systematic way to honoring native peoples

- Embodiment of our land acknowledgement statement
- Establish a scholar's walk. Recognize the amazing scholars that graduated from the university. Represent a diverse set of people.

Economic return

- The quad is the major factor for how people perceive the university. It sets the tone for the well being of the university. We often focus efforts there
- We do need a plan that sustains are entire campus.
- Many people that stay at the illin hotel love to stay there because of the quad. There are a lot of students that use the quad.
- We need to talk to mental health experts about the campus
- The connection between healing and mental health and landscape. Echos thoughts from faculty experts.
- Area of William (Bill) Sullivan- there should be very easy access to landscapes that have lot of vegetation and comfort. Better if you can walk into them, but it also helps to just see them.
- The key is that the landscape is immediate and easily accessible. The more paving you have, the harder it is to see these benefits.
- Through this process, can we generate more places that are intensively loved (besides the quad). The benefits of those spaces will have economic impact, but they will also have immediate impact on mental health.
- It would be a powerful idea to think of the campus as a healing garden.
- Chancellor Jones- when people come to campus its the landscape that gives people a sense of how well the university is doing. Mental health is becoming more and more important.
    - You may only find 3-4 fountains on campus- and water is really special to well being.
    - Landscape architects that come from campus have commented about our lack of water on campus.
    - Chancellor likes the idea of Contemporary water features. Thinking about putting it on the quad. It will become more of a destination. Attracting people from the community. It is the interface between economics and mental health.
- Michael likes Bill's ideas of coming up with other spaces on campus that can be used for mental health- incorporating water into those spaces.

Maintenance

- This all needs to be decided in the master plan. A lot of these ideas cost a lot of money. What is the best way to carry out this plan with a structure to make these things happen.
- We have different funding models on campus.
- We need to sort out the funding first, Because there are many different funding models on campus.
- They do rely on volunteer support.
- The grounds department has a hard time staffing up to the level that is needed. Some areas are highly maintained and others are not highly maintained. He is given a budget to do the things that he needs to do and then the funds come in for the auxiliaries and he is not able to hire full time staff.
- There are zones and levels of maintenance on campus.
- There should be zones where if everything is the same. Currently areas within the same zone

Funding

- We need to engage in design solutions that reflect our values.
- In both cases, we now have examples that we can point to on campus.
- We need to define a sustainable funding mechanism that allows us to do the things that we are talking about today.
- We have a utility cost, maybe there is a landscape cost.
- On new buildings, we have done a sustainable operating plan.
- For new buildings, we could incorporate a plan for sustainable landscapes.

Facilities Managers #2

- Identity across campus needs to be consistent, it needs to express a brand.
- Visitors need to know that they are on campus, improved gateways is an opportunity.
- South campus needs more gateways.
- Inconsistent levels of maintenance and landscape across campus.
- Need to improve lighting.
- Need to clarify how the landscape improvements will be funded.
- Need nature trails on campus, Prairie areas, wooded area, etc. Campus needs to have this more than just at the Arboretum. There is also an issue with knowing the Arboretum is there.
- Don't create a lot of new safety hazards for police etc. makes bases nicer which will attract more people into the space to self police.
- Need to be careful with hedges as they can create some safety issues. The hedges have provided opportunities for break-ins and hiding adjacent to buildings.

Students

- There needs to be a prairie space closer to the quad for study purposes.
- There could be physical art to acknowledge the native nations.
- There needs to be an outdoor amphitheater on campus.
- Campus needs to be consistent with her values, what opportunities exist to advance racial equity in justice and inclusion in the campus landscape?
- There needs to be more car free areas on campus.
- Art needs to exist as a way to express the community's values.
- There needs to be consistency throughout campus, if we require things for new projects what does that mean for consistency? We need to thoughtfully act on values over the long term rather than showcasing symbolic gestures in the short term.

Council of Deans

- There is no sidewalks or bike path to campus from savoy, what are the Arteries that bring campus together? Note that Curtis to Windsor happening along first Street Which will improve access to the solar farm.
- We need to focus on the campus/community interface.
- We need to integrate the story of agriculture into the main campus. The south farms has a student sustainable farm which grows food for dorms and this area will keep growing per the Arboretum master plan. We need to look at better access to this farm and better integrate it with the arboretum.
- Crop sciences was working to create a visitor center at the south farms.

- We need to use the landscape for research on well-being, could do research on designing ADA for aging populations.
- We need to focus on mental health and wellness. Also consider the human animal burned which is therapeutic. There should be safe access to the South Farms to view animals or we should put in an acre of grass with sheep into the core of campus given the history of land grant institutions.
- Farming in real life are a very important part of where we are and who we are. We need to protect this way of life.
- Need to consider living learning spaces and additive or Rapid design in the landscape.
- There is a positive example of equity and justice with the African American cultural center which face is the quad and Nevada Street by holding the corner on the west side. Generally, the cultural houses are in adequate, and the quality is poor along Nevada Street.
- The art within campus needs to articulate groups and represent diversity. Is there an opportunity for non-permanent art rotation within campus? Could be done in a way that recognizes the different communities on camps.
- How can we produce energy in the landscape? Mechanical engineering is doing research. There should be monitoring and collaboration across department.
- We need flexible spaces in the outdoors. We need to be able to test ideas.
- Registered student organizations need spaces, places to gather, test, demonstrate, and maker spaces to create innovative ideas.
- We need to leverage the landscape for learning. We need permanent and temporary spaces. Maker spaces that are open and flexible: Spaces for students to innovate and think about building things. Red oak raingarden is an example of this
- The structure of the academic year makes it difficult to make the landscape look good. Why invest in a landscape when people are not even here? We need to focus the landscape on fall, spring and winter and don't plant for summer as much.
- We need more outdoor spaces as a result of Covid people want to gather outside more.

Make-Up Session

- Landscape is not just about looking good. Ecology is important. The landscape needs outdoor classrooms. It needs stormwater management that is visible. And it needs to address mobility, such as driverless cars. How much space can be freed up from cars in the future?
- We need to fix the hard lines between departments and funding. We need to encourage facilities and services to establish a landscape architecture department.
- We need to focus on the overall strategy of how to use and distribute funding.
- The Mumford house in the round barns are very disappointing landmarks. How can these be funded, through donors?
- The landscape master plan needs to communicate the value of the landscape.
- Need a higher level of understanding of how the landscape contributes to the economic success of the university. We need to raise the value of landscape architecture!
- University leader ship needs to know that we know the value Landscape, but how can we fund it better and communicate this? We are behind our peers.
- we need to initiate thinking about total asset management. In 50 to 75 years all of the campus landscapes will be replaced, what does this cost?
- We need a landmark at the southside of campus including gateways and plazas here.
- Can the plan include a "walk of fame"?

- To honor the native nations can we identify the oldest trees on campus that were here when native peoples were here?
- Can the campus landscape include fire pits?
- We need a pool of money that applies a holistic treatment across campus, balanced across campus.
- We need to look at the various funding pools including donors and private funding, large endowments, and state funding.
- We need to view the landscape as an investment as it does result in a return on investment.
- Research opportunities need to break through the barriers silos and departments. We cannot solve one issue just inside our boundaries of campus alone.
- Can the landscape be considered part of the Art and architecture program? We need to have creative sources of funding.
- Opportunity for anaerobic digestion for waste including food waist and landscape waste to process organic bio material for fuel or fertilizers. This needs to be visible on campus and utilize for research. ACES will have one at the dairy barn location on Race Street.
- We need to view water as a resource with a holistic approach to water on campus. Water includes rainwater, stormwater, wastewater, and condensate. The treatment plants are not part of the University system just the transport of water.
- Need to consider a purple pipe system on campus and or utilizing black water for reuse as well as gray water for irrigation.

UIUC Campus Landscape Master Plan: Stakeholder Interview Polling Results

1. What functions and programmatic spaces could the campus landscape provide more of? (Enter in your ideas in the blank. Your ideas will populate the screen live.)

Surrounding Municipalities 2/9/22

Outdoor seating and eating areas. Public gathering spaces.
outdoor class areas
Outdoor classrooms with informal hard scape seating areas for 20-25
Quiet green space
Gathering places for students and staff. Outdoor classroom space
Outdoor spaces with tech capabilities for study/classes
Quiet green space
Green space
Walking paths
Area for quiet meditation/thoughts

Facilities Managers 2/14/22

Power
Active recreation in different areas of campus
wifi
outdoor performance spaces
More outdoor interactive areas that are wifi enabled
more outdoor gathering places
green space
Food festivals
Outside gathering locations to eat lunch, study, etc.
seating
iconic nodal points
Out door classrooms / WiFi.
outdoor classrooms
outdoor gathering places
seating
Outdoor classrooms
More recreation opportunities on the north end of campus
Active Recreation in different areas and outside eating spaces.
More active rec areas, based on all activity that occurs within the quad. Outdoor wifi connected/study
Could we have a lake like Madison? :) The area outside their student union is really nice, and in all seriousnes
outdoor classrooms-
Outdoor classrooms/prayer meditation areas would neet a missing component .. seating for lunch
outdoor seating/gathering spaces w/wifi
Nature walk trails.

Group spaces for meetings, classes, lunch/break space.
Measured spaces for walks, exercise
More indoor/outdoor to extend seasons

Housing 2/15/222

Recreation
Outdoor meeting/eating
Outdoor classroom space
outdoor eating and meeting areas
covered spaces to wait for bus rides for students with disabilities
green/water spaces for relaxation and creative thinking
Spaces for food production and native species habitat
Outdoor meeting spaces with internet access
Outdoor classrooms, prayer, and mindfulness spaces
Spaces to interact with the landscape.
Outdoor work/study space, including power outlets
COVID and Climate emergencies necessitate outdoor classrooms.
Outdoor classrooms; outdoor meeting
more green accessible spaces
Outdoor spaces w/ power outlets and wifi, prayer spaces, covered outdoor auditorium, mindfulness spaces
Outdoor meeting spaces
spaces to showcase sustainability initiatives
social spaces, to meet people
Outdoor classrooms and work/study spaces
outdoor creative space
outdoor learning spaces; spaces to learn about biodiversity
Outdoor spaces with wi-fi, outdoor eating spaces, pollinato resources
outdoor meeting space
Community building: eating, recreation. Contact with nature for supporting cognitive function
Picnic tables or meeting tables
Immersive native habitat areas
covered outdoor auditorium
multiple-use spaces: stormwater management that you can play in; pollinator spaces that you can walk through
accessible picnic spaces
outdoor creative spaces

XMT 2/16/22

recreation; outdoor meeting space
Greenery
public art, outdoor performance spaces
Relaxation spaces to encourage wellness.
Laptop work spaces

recreation, brand identity
Outdoor classrooms and meeting spaces
Relaxation spaces
Flowers
outdoor working/studying space
Outdoor classroom, recreation
provide a positive and sustainable face of the University to attract and retain high quality students and faculty
Play areas
Prayer spaces
Prayer spaces
Relaxation spaces
Exercise areas
Focus on areas visited by perspective students and faculty
Wifi
Sheltered Bike parking
Shade
Seating areas
Witi
A canvas to encourage prospective students
outdoor classrooms

Facilities Managers 2/22/22

Outdoor classroom, outdoor seating/eating area
Outdoor classrooms, relaxation spaces, exercise and recreation spaces
Outdoor sitting spaces; gardens with ponds
Outdoor WiFi. Accessible outdoor restrooms at Arboretum and other park settings.
Outdoor quiet spaces
Even more bike paths. More outdoor art spaces. More fixtures/structures that v isually promote sustainability.
wheelchair accessible pathways. Wifi
Local infiltration of rain water. Using more recycled water. Enforcing regulations.
Soil profile. Canopy and trees. Composting. We get a ton of questions from campus about composting at the Idea Garden they want to help!

Student 2/23/22

Study spaces
Modern study spaces
Comfortable prospect & refuge sitting places
visually appealing outdoor study areas
More outdoor study spaces!
Outdoor seating for study and conversation
Walkability in harsh weather

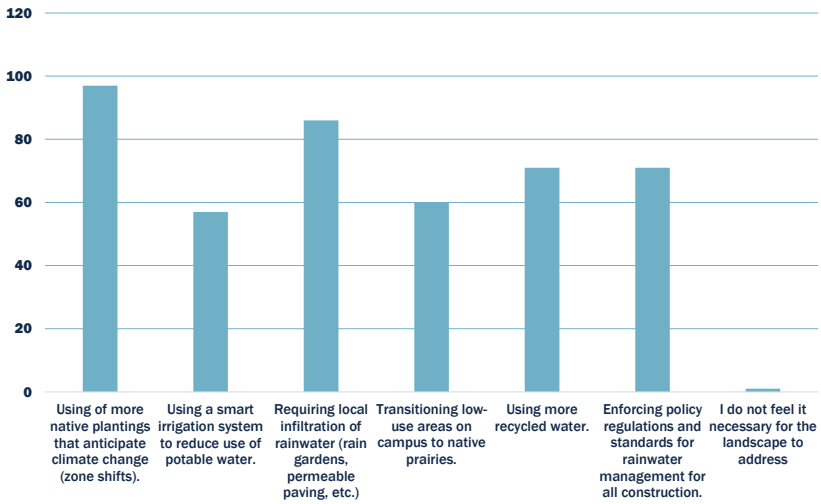
pollinator pockets
Benches/seating
There need to be more picnic benches around campus specifically in the Ike area and Frat Park
Public spaces to study that are not only in libraries / squatting in classrooms
Outdoor seating
More study spaces near Champaign, since Champaign and Urbana aesthetics are very polarized
more hidden outdoor study spaces
more shade!
Bioswales
outdoor seating
Outlets accessible outside
Skate park
Community gardens, sensory gardens, wetlands
Visible sustainable agriculture
Outdoor study spaces
Rain gardens!
Native ecosystems (prairie, woodland, wetlands), study spaces, activity spaces, ect
Outdoor seating
Spots for eating
native and diverse trees with ID information provided
Outdoor spaces that you can do work on, with shading for computer screens
outdoor seating & areas to gather
Open leisure space besides just open lawns or tables on blank plazas
Study spots
outdoor study spaces
Scents
Outdoor activities
more shade and large pavilions
rain gardens
native species gardens
Quiet places
outdoor study spaces
Gardens / Decorative Flower Beds
Monuments / acknowledgements of Native origins of this land
more native plants
clear roads for bikers
Skate park
native plants
skate park
an outdoor Skateboarding Park
zen gardens
nature walks/paths
Car-free spaces
interpretive signs describing the historical uses of this land (indigenous histories)
Gardens / pollinator areas that are close to campus (the Arboretum is very far away, the

Sustainable Student Farm isn't a place most people visit)
permeable pavers
Healing spaces,
Study spaces,
Adaptive reuse spaces
Pollinator habitat,
Restored natural systems,
Canopy,
Collaborative outdoor spaces,
Restored prairies,
Improved stormwater management,
Rain gardens,
So much more!
Outdoor recreation (that isn't on a grass lawn)
meditation areas outdoors
Quite spaces
Paths and Sidewalks for leisure walking
bird-friendly design that doesn't lead birds to glass collisions
More and better bike lanes
meditative spaces
Indigenous acknowledgement
Butterfly
Small gardens within some of the large patches of grass on campus
Reduced lawns!
a chance to learn about nature
Fewer huge lawns! They're just depressing.
pervious concrete in paved areas like parking
less lawn!
no more just green grass >:(
Pavers as a method of stormwater management

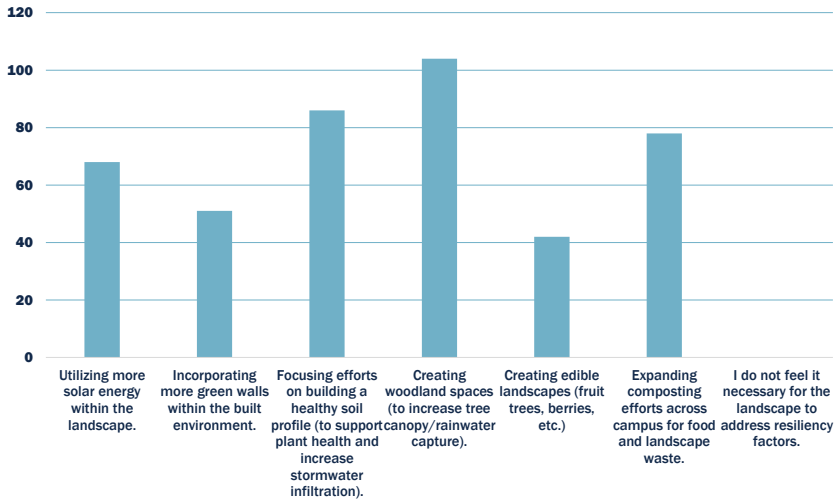
APPENDIX C: STAKEHOLDER INTERVIEW POLLING RESULTS (ALL COMBINED)

POLLING RESULTS

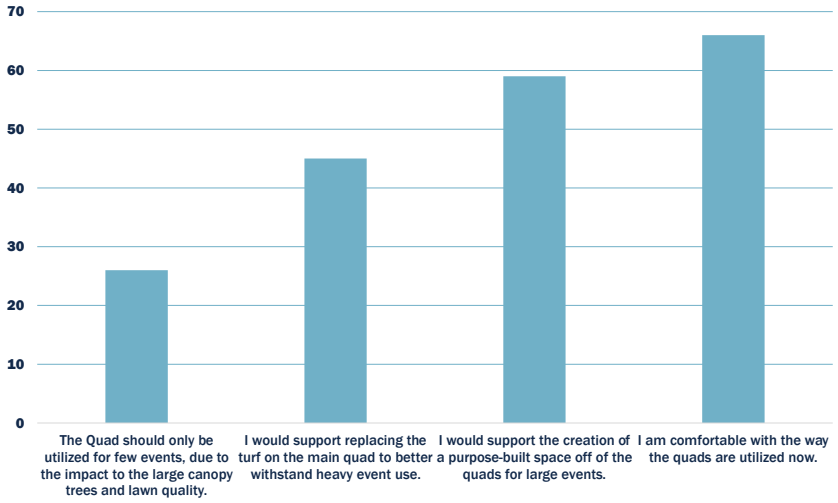
In your view, what strategies best support the resilient landscape approach? (Select all that apply.)



In your view, what strategies best support the resilient landscape approach? (Select all that apply.)

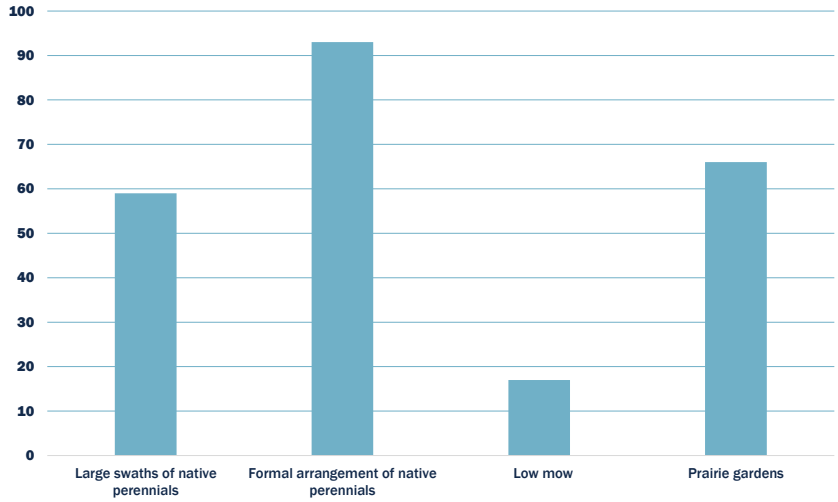


In your view, should there be limits to the use of the main quad and other quads as event spaces, knowing that these large events cause maintenance and detrimental impacts? (Select all that apply)

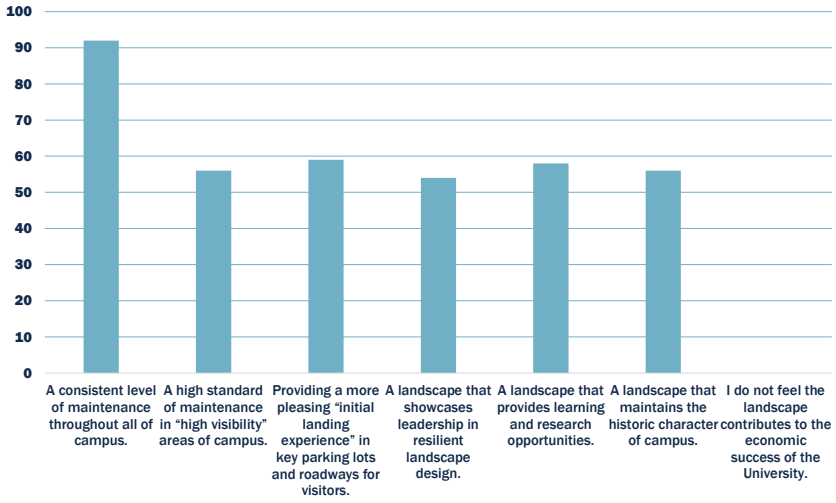


APPENDIX C: STAKEHOLDER INTERVIEW POLLING RESULTS (ALL COMBINED)

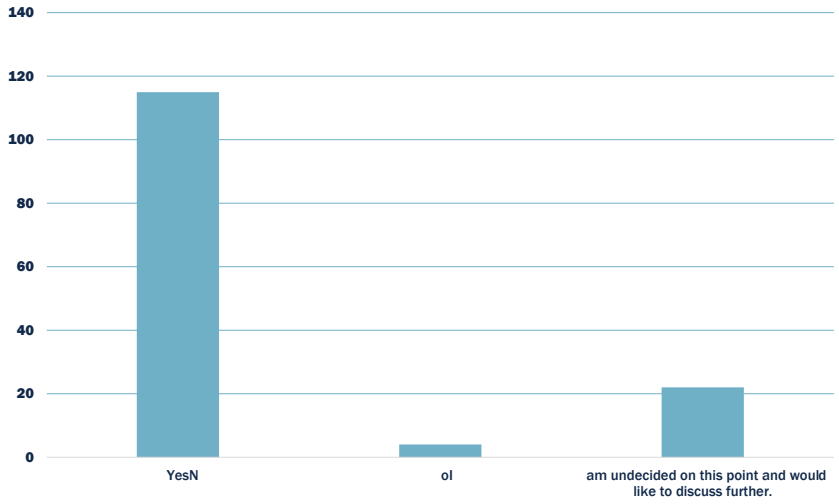
We would like to better understand your aesthetic preferences for the use of native plants. Which image in your view represents the desired style of planting in districts outside of the main quads on campus?



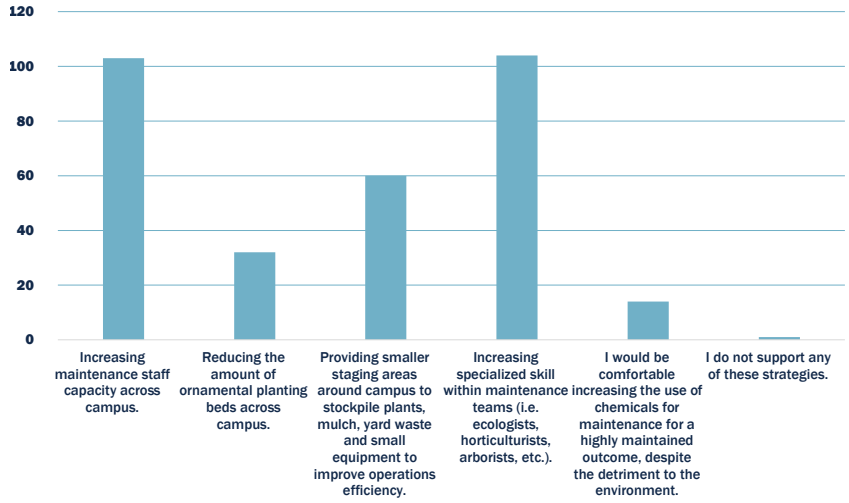
In your view, what are the most important aspects of the landscape that draw new students and donors? (Rank your top three.)



To increase tree canopy (and contribute to the iCAP carbon sequestration goal) in less formal settings, would you support a strategy to reforest specific locations on campus? (Select one.)

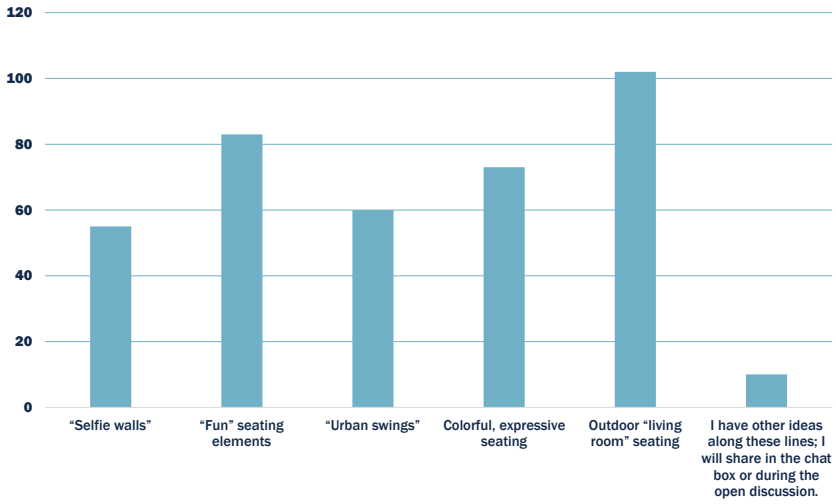


In your view, what strategies would result in a more highly maintained landscape? (Select all that apply.)

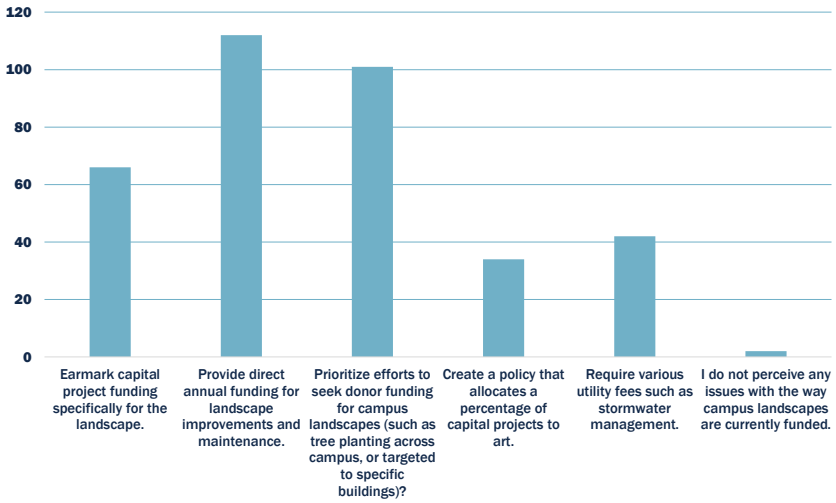


APPENDIX C: STAKEHOLDER INTERVIEW POLLING RESULTS (ALL COMBINED)

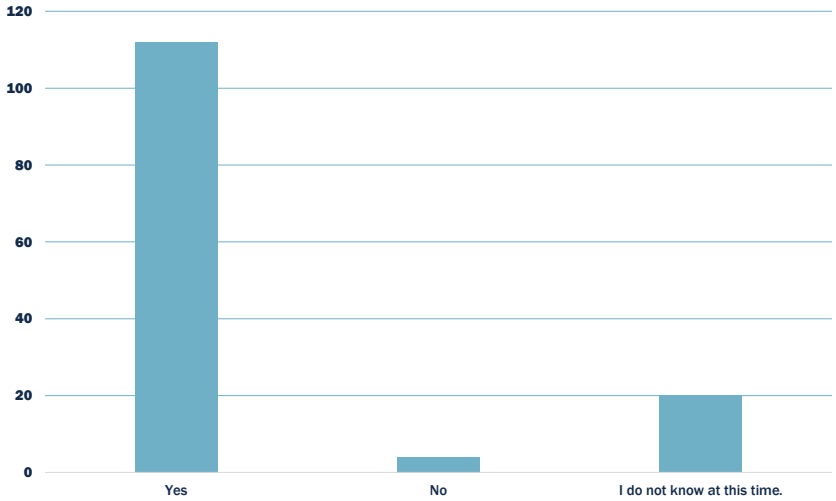
With the assumption that these elements would be located outside of any sacred or historic spaces of campus, are any of the following elements appropriate on campus in your view? (Select all that apply.)



What policies would you support going forward to ensure better funded and maintained landscapes? (Select all that apply.)



Should there be a revolving fund for restoring aging and overgrown landscapes, and new landscape improvements? (Select one.)

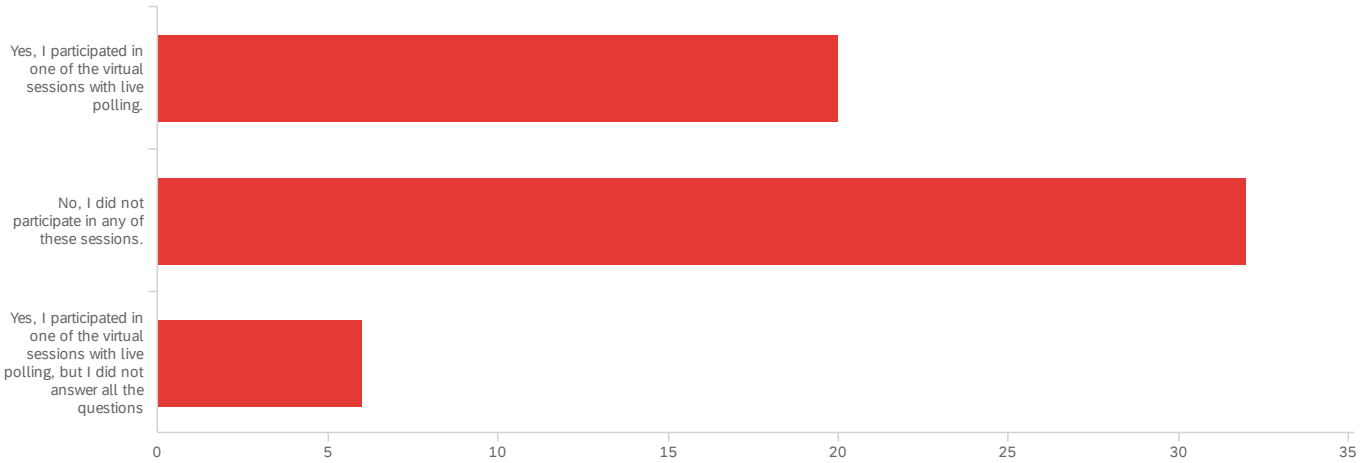


APPENDIX C: ON-LINE SURVEY #1 REPORT

UIUC Campus Landscape Master Plan: Qualtrics Results

note: the following survey results represent all questions posed; please disregard the question number

Q2 - To guide your survey experience, please tell us if you were you a participant in the February stakeholder interviews with the Facilities & Services team and the CLMP consultant.



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	To guide your survey experience, please tell us if you were you a participant in the February stakeholder interviews with the Facilities & Services team and the CLMP consultant.	1.00	3.00	1.76	0.62	0.39	58

#	Field		Choice Count
1	Yes, I participated in one of the virtual sessions with live polling.	34.48%	20
2	No, I did not participate in any of these sessions.	55.17%	32
3	Yes, I participated in one of the virtual sessions with live polling, but I did not answer all the questions	10.34%	6
			58

Showing rows 1 - 4 of 4

Q17 - MULTI FUNCTIONAL LANDSCAPES The Resilient Landscape Strategy Report states that with proper design, direction and support, our landscapes can provide numerous benefits from overall beautification to sustainable carbon sequestration, from living labs and outdoor classrooms to natural stress reduction and passive recreation. In addition to the many opportunities to rethink existing spaces on campus, the Campus Master Plan provides numerous new pedestrian and quad spaces within campus. We would like to understand what functions campus can better provide – In your view, what functions and programmatic spaces could the campus landscape provide more of? (Select all that apply)

APPENDIX C: ON-LINE SURVEY #1 REPORT

#	Field	Choice Count	
1	Campus needs more outdoor classrooms.	12.77%	12
2	Campus needs more passive recreation spaces.	17.02%	16
3	Campus needs more active recreation areas.	5.32%	5
4	Campus needs more gateways to welcome the campus community.	10.64%	10
5	Campus needs more outdoor eating/study areas.	15.96%	15
6	Campus needs more outdoor spaces with wi-fi, power outlets and improved lighting.	13.83%	13
7	Campus needs more meditation and prayer spaces.	3.19%	3
8	Campus needs more spaces dedicated to public art.	10.64%	10
9	I feel the campus landscape provides all of the necessary functions as it is.	0.00%	0

#	Field		Choice Count
10	Campus needs more....	10.64%	10
			94

Showing rows 1 - 11 of 11

Q17_10_TEXT - Campus needs more....

Campus needs more....
Local, perennial flowering plants. Everyone likes flowers.
Natural areas, pollinator resources, interpretive gardens, and native plantings.
They need to install security cameras for the areas around McKinley Health Center.
Native landscapes intermingled with the spaces above.
Some of the enterances to campus are really, really sad. The ones under the train tracks are expecially terrible looking. Graffiti, all sorts of stuff.
Low mow or no mow spaces. There needs to be a plan to reduce the embedded energy involved in maintaining the landscape, considering the need to make a difference on climate change goals
Well-maintained garden spaces
Native landscapes, seating areas, an outdoor auditorium type area that can be used by all.

APPENDIX C: ON-LINE SURVEY #1 REPORT

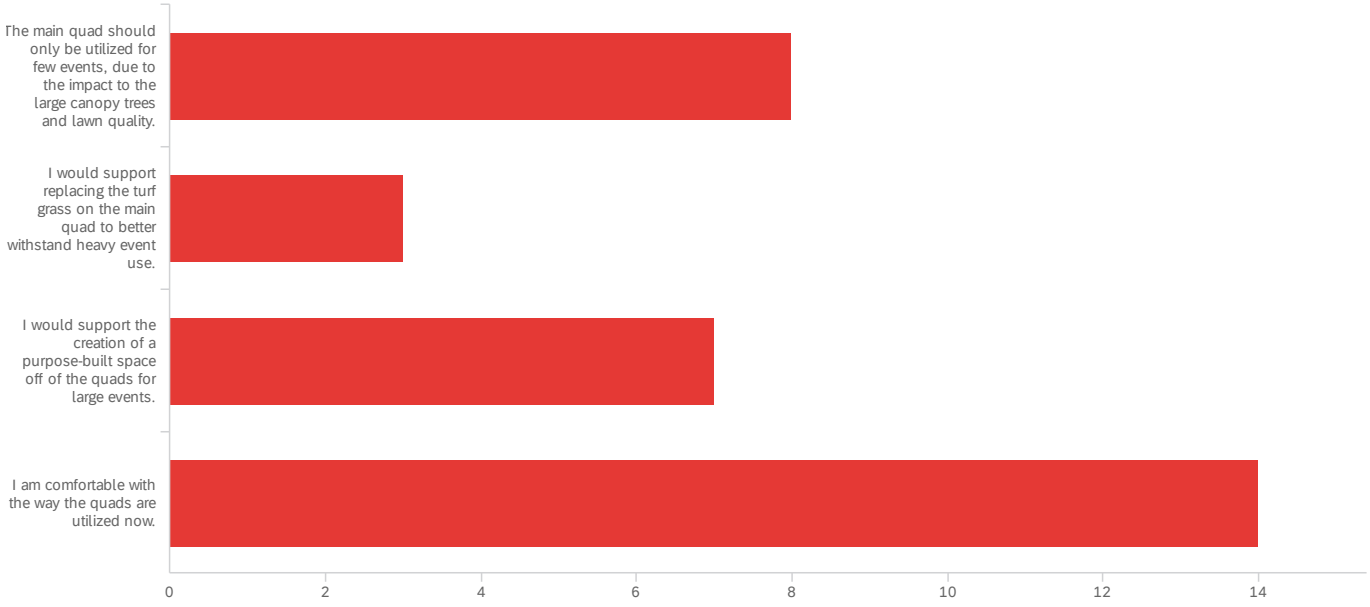
Q18 - LANDSCAPE RESILIENCE The campus landscape aims to be future focused - able to withstand and recover quickly from the challenges of tomorrow: climate change, large storm events and the heavy use by thousands of people. In other words, the future landscape will be “RESILIENT”. There are many sustainable practices already underway on campus. While these practices are becoming more common on our campus, they are not yet the norm in planning and development. We would like to understand which strategies you feel best support this approach in the following two questions. In your view, what strategies best support the resilient landscape approach? (Rate the strategies below based on a scale of 1-100, with a rating of 100 illustrating your full support of this strategy.)

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Using of more native plantings that anticipate climate change (zone shifts).	0.00	100.00	81.00	26.34	693.75	24
2	Using a smart irrigation system to reduce use of potable water.	2.00	100.00	83.42	24.62	606.16	24
3	Requiring local infiltration of rainwater (rain gardens, permeable paving, etc.)	32.00	100.00	84.67	16.99	288.60	21
4	Transitioning low-use areas on campus to native prairies.	5.00	100.00	74.43	32.61	1063.46	23
5	Using more recycled water.	55.00	100.00	84.29	15.24	232.20	21
6	Enforcing policy regulations and standards for rainwater management for all construction.	17.00	100.00	75.70	26.64	709.51	20
7	Utilizing more solar energy within the landscape.	0.00	100.00	78.29	27.56	759.82	21
8	Incorporating more green walls within the built environment.	0.00	100.00	66.79	32.20	1037.01	19

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
9	Focusing efforts on building a healthy soil profile (to support plant health and increase stormwater infiltration).	20.00	100.00	74.19	26.54	704.63	21
10	Creating woodland spaces (to increase tree canopy/rainwater capture).	21.00	100.00	82.59	21.47	460.79	22
11	Creating edible landscapes (fruit trees, berries, etc.)	0.00	100.00	64.86	29.69	881.66	22
12	Expanding composting efforts across campus for food and landscape waste.	20.00	100.00	76.25	26.86	721.39	20
13	I do not feel it necessary for the landscape to address resiliency factors.	0.00	100.00	20.60	39.70	1576.24	5

APPENDIX C: ON-LINE SURVEY #1 REPORT

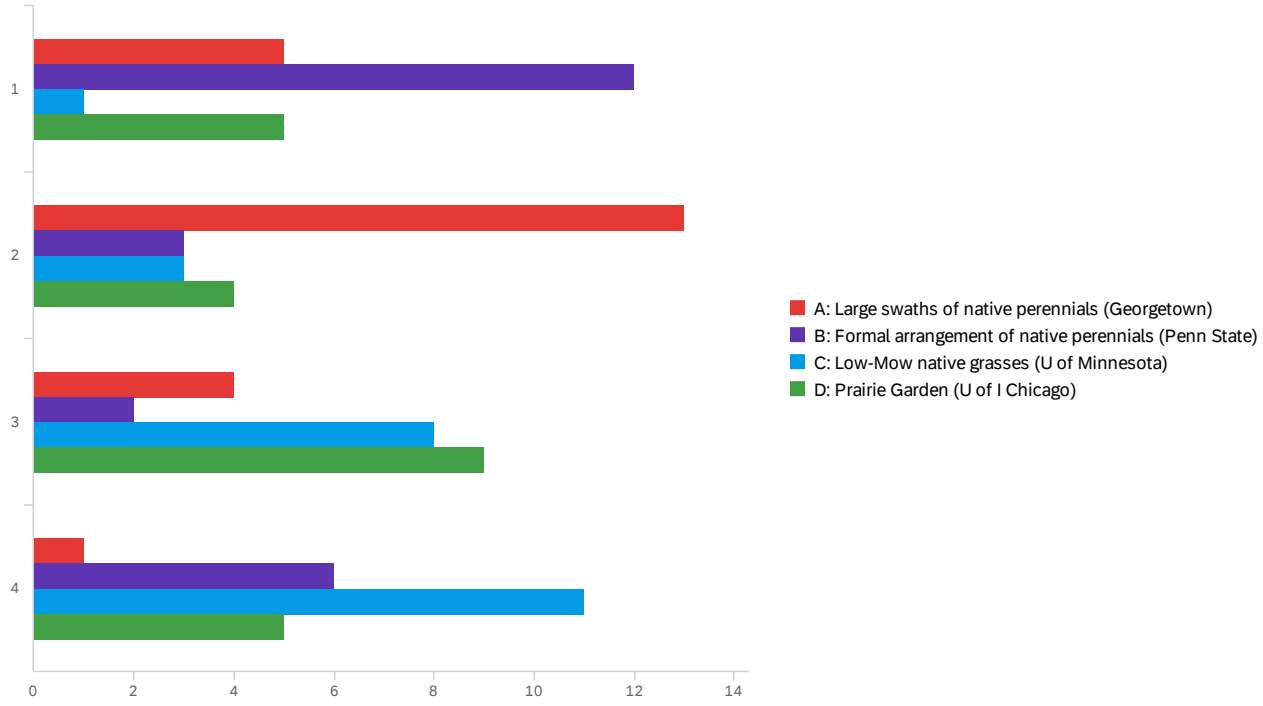
Q19 - In your view, should there be limits to the use of the main quad as an event space, knowing that large events can cause maintenance and detrimental impacts? (Select all that apply)



#	Field		Choice Count
1	The main quad should only be utilized for few events, due to the impact to the large canopy trees and lawn quality.	25.00%	8
2	I would support replacing the turf grass on the main quad to better withstand heavy event use.	9.38%	3
3	I would support the creation of a purpose-built space off of the quads for large events.	21.88%	7
4	I am comfortable with the way the quads are utilized now.	43.75%	14
			32

Showing rows 1 - 5 of 5

Q20 - PLANTING DESIGN The Illinois Climate Action Plan (iCAP) outlines a goal to reduce potable water consumption while also increasing pollinator-friendly areas by 50% from the FY2019 baseline. The use of native plants allows for significant reductions in irrigation demands while also increasing pollinator support. The style of planting design using native plants can and should differ depending on the location on campus. We would like to better understand your aesthetic preferences for the use of native plants. Which image in your view represents the DESIRED style of planting native plants? (Rank these by dragging and dropping).



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	A: Large swaths of native perennials (Georgetown)	1.00	4.00	2.04	0.75	0.56	23
2	B: Formal arrangement of native perennials (Penn State)	1.00	4.00	2.09	1.28	1.64	23

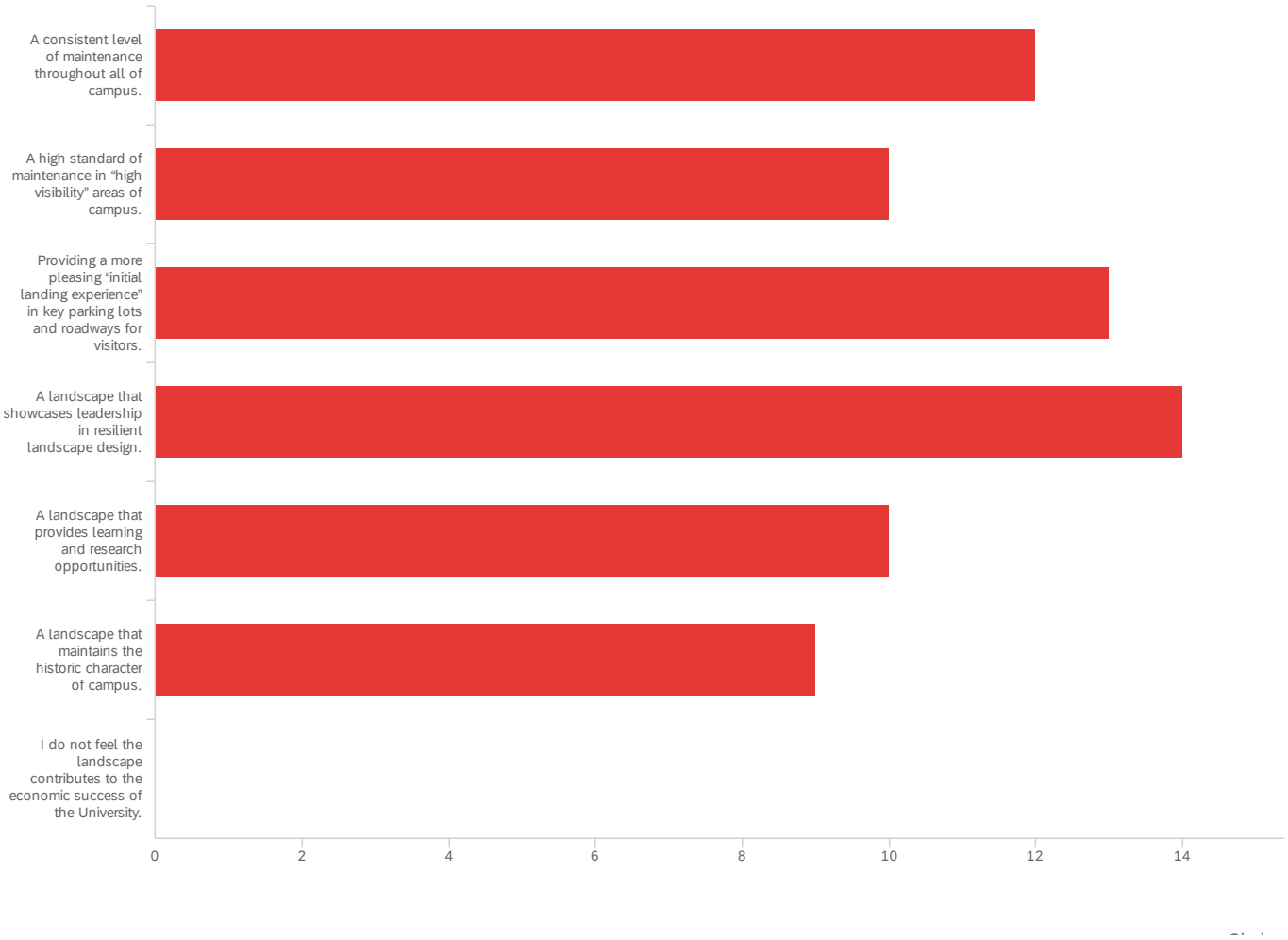
APPENDIX C: ON-LINE SURVEY #1 REPORT

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
3	C: Low-Mow native grasses (U of Minnesota)	1.00	4.00	3.26	0.85	0.71	23
4	D: Prairie Garden (U of I Chicago)	1.00	4.00	2.61	1.05	1.11	23

#	Field	1		2		3		4		Total
1	A: Large swaths of native perennials (Georgetown)	21.74%	5	56.52%	13	17.39%	4	4.35%	1	23
2	B: Formal arrangement of native perennials (Penn State)	52.17%	12	13.04%	3	8.70%	2	26.09%	6	23
3	C: Low-Mow native grasses (U of Minnesota)	4.35%	1	13.04%	3	34.78%	8	47.83%	11	23
4	D: Prairie Garden (U of I Chicago)	21.74%	5	17.39%	4	39.13%	9	21.74%	5	23

Showing rows 1 - 4 of 4

Q21 - ECONOMIC RETURN Campus grounds contribute to the economic sustainability of the university. Studies show that prospective students decide their future enrollment in the first ten minutes on campus. Likewise, potential donors and employees, visiting alumni and visitors from the public naturally make judgments about the excellence of our university based in part on the campus aesthetic. In your view, what are the most important aspects of the landscape that draw new students and donors? (Select your top three.)

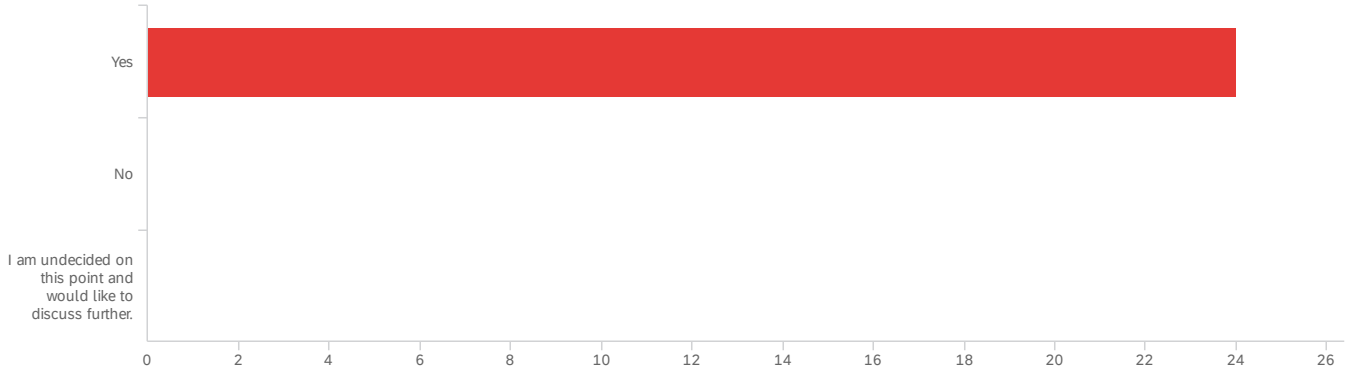


APPENDIX C: ON-LINE SURVEY #1 REPORT

#	Field		Choice Count
2	A high standard of maintenance in “high visibility” areas of campus.	14.71%	10
3	Providing a more pleasing “initial landing experience” in key parking lots and roadways for visitors.	19.12%	13
4	A landscape that showcases leadership in resilient landscape design.	20.59%	14
5	A landscape that provides learning and research opportunities.	14.71%	10
6	A landscape that maintains the historic character of campus.	13.24%	9
7	I do not feel the landscape contributes to the economic success of the University.	0.00%	0
			68

Showing rows 1 - 8 of 8

Q22 - CAMPUS TREES Based on a recent Tree Campus Inventory, the iCAP targets a goal to plant 1,500 new trees by 2025 and another 1,500 by 2030. In light of climate change and the resulting increase in temperatures and storm events, campuses around the world are looking to their trees to help mitigate challenges. Trees provide a multitude of services including carbon sequestration, runoff reduction, pollinator and wildlife habitat, shade and cooling. To increase tree canopy (and contribute to the iCAP carbon sequestration goal) in less formal settings, would you support a strategy to reforest specific locations on campus? (Select one.)



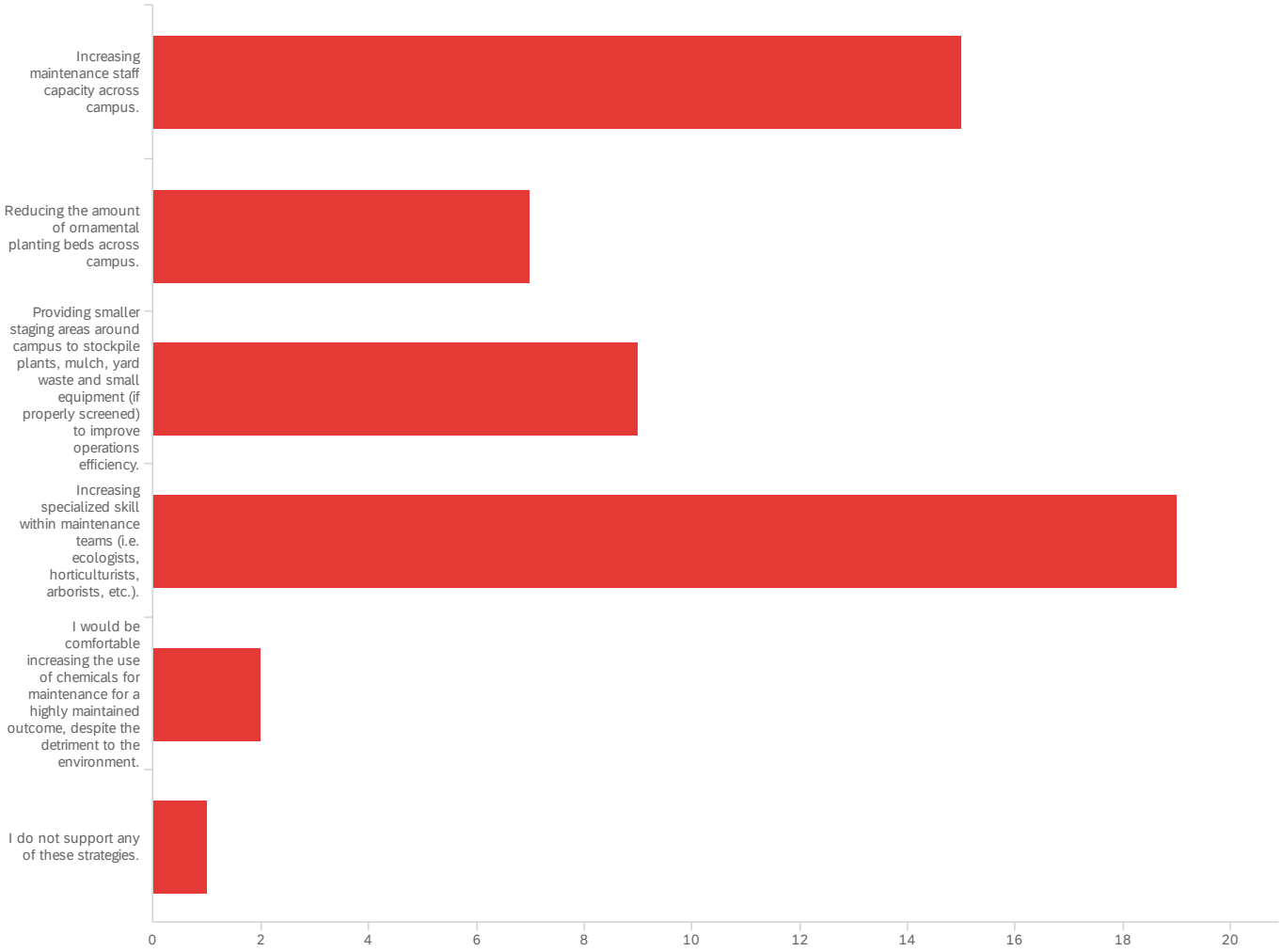
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	CAMPUS TREES Based on a recent Tree Campus Inventory, the iCAP targets a goal to plant 1,500 new trees by 2025 and another 1,500 by 2030. In light of climate change and the resulting increase in temperatures and storm events, campuses around the world are looking to their trees to help mitigate challenges. Trees provide a multitude of services including carbon sequestration, runoff reduction, pollinator and wildlife habitat, shade and cooling. To increase tree canopy (and contribute to the iCAP carbon sequestration goal) in less formal settings, would you support a strategy to reforest specific locations on campus? (Select one.)	1.00	1.00	1.00	0.00	0.00	24

APPENDIX C: ON-LINE SURVEY #1 REPORT

#	Field	Choice Count	
1	Yes	100.00%	24
2	No	0.00%	0
3	I am undecided on this point and would like to discuss further.	0.00%	0
			24

Showing rows 1 - 4 of 4

Q23 - LANDSCAPE MAINTENANCE The campus landscape must be designed and maintained in a fashion that is commensurate with the university's international world-class status. In your view, what strategies would result in a more highly maintained landscape across campus? (Select all that apply.)



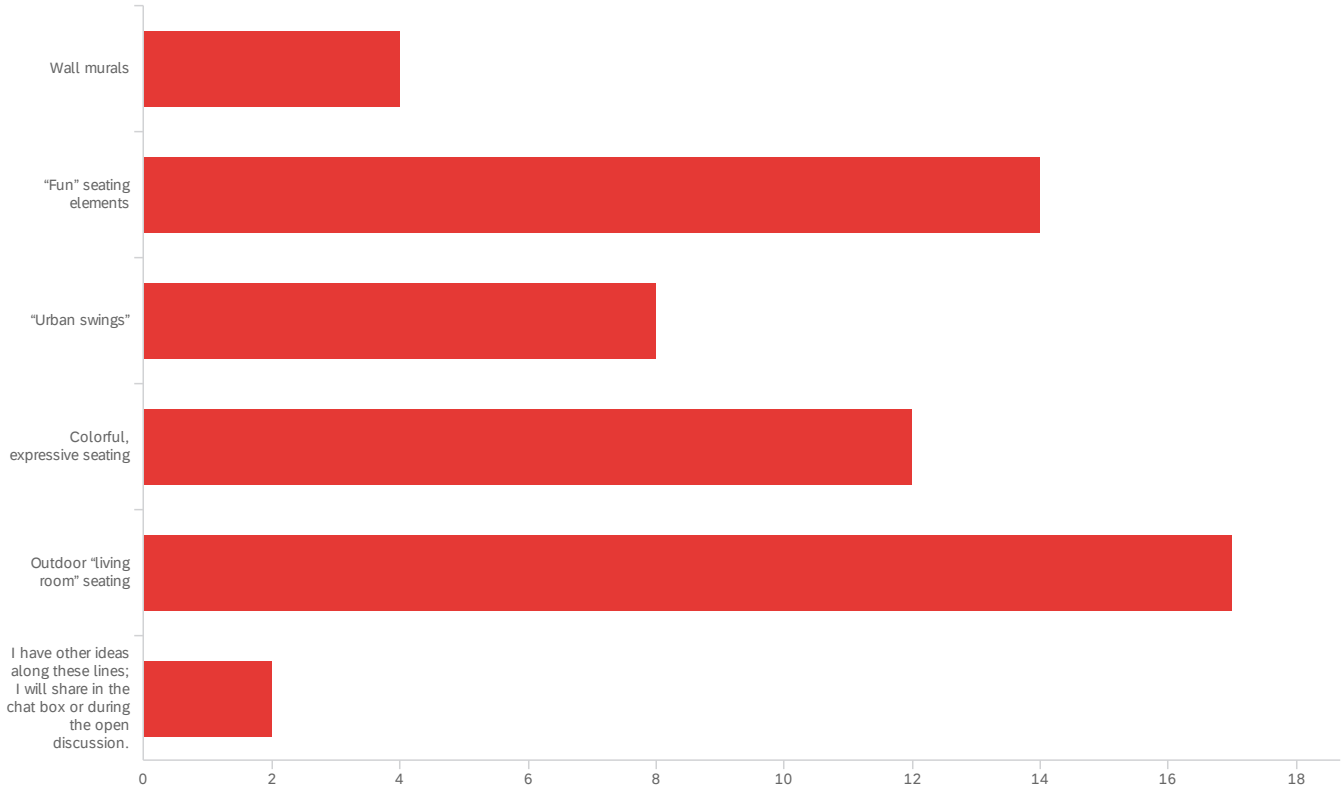
#	Field		Choice Count
1	Increasing maintenance staff capacity across campus.	28.30%	15
2	Reducing the amount of ornamental planting beds across campus.	13.21%	7
3	Providing smaller staging areas around campus to stockpile plants, mulch, yard waste and small equipment (if properly screened) to improve operations efficiency.	16.98%	9
4	Increasing specialized skill within maintenance teams (i.e. ecologists, horticulturists, arborists, etc.).	35.85%	19

APPENDIX C: ON-LINE SURVEY #1 REPORT

#	Field		Choice Count
5	I would be comfortable increasing the use of chemicals for maintenance for a highly maintained outcome, despite the detriment to the environment.	3.77%	2
6	I do not support any of these strategies.	1.89%	1
			53

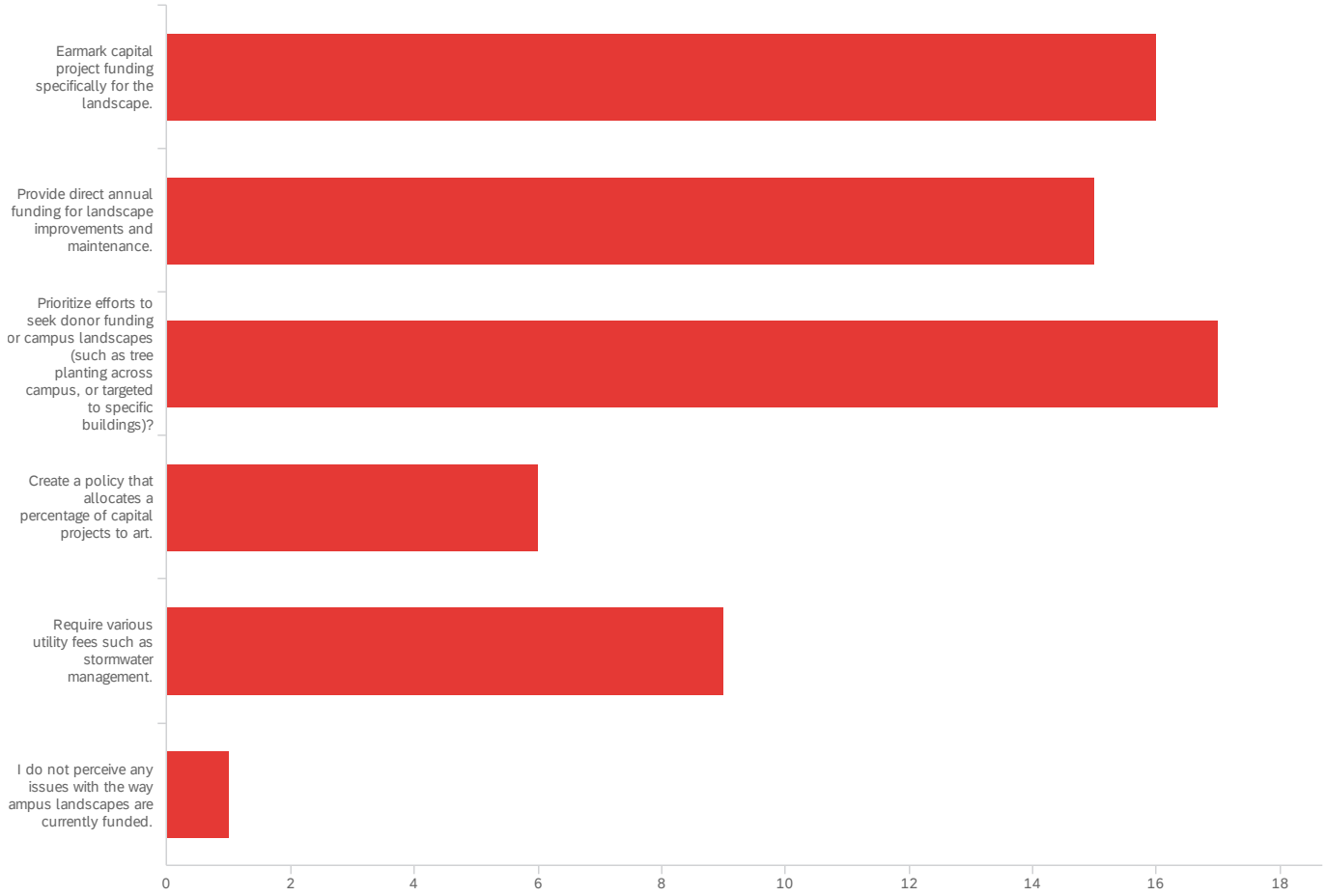
Showing rows 1 - 7 of 7

Q24 - FUNCTIONAL EXPRESSION WITHIN THE LANDSCAPE To appeal to new and prospective students, there are shifting preferences across many campuses to create more engaging and interactive spaces. With the assumption that these elements would be located outside of any historic spaces of campus, are any of the following elements appropriate on campus in your view? (Select all that apply.)



#	Field		Choice Count
1	Wall murals	7.02%	4
2	“Fun” seating elements	24.56%	14
3	“Urban swings”	14.04%	8
4	Colorful, expressive seating	21.05%	12
5	Outdoor “living room” seating	29.82%	17
6	I have other ideas along these lines; I will share in the chat box or during the open discussion.	3.51%	2

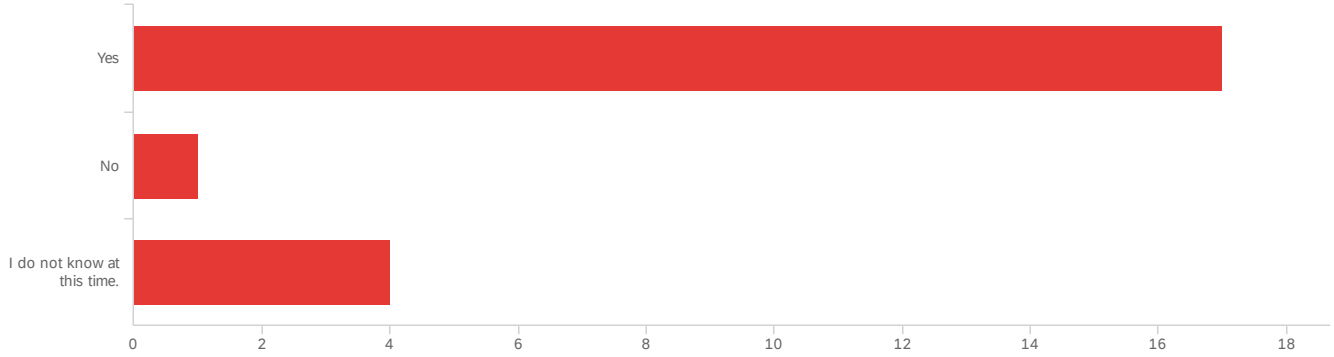
Q25 - LANDSCAPE FUNDING The Resilient Landscape Strategy describes a “cultural shift” that needs to happen within the campus community to elevate the importance of the role of the landscape and thus protect capital project funding for landscape improvements. By acquiring purposeful funding, campus landscapes can be more multi-functional, resilient and aesthetically beautiful. Currently, landscape improvements are primarily funded through capital projects, while other areas do not have any significant funding allocations for landscape improvements. What policies would you support going forward to ensure better funded and maintained landscapes? (Select all that apply.)



#	Field		Choice Count
1	Earmark capital project funding specifically for the landscape.	25.00%	16
2	Provide direct annual funding for landscape improvements and maintenance.	23.44%	15
3	Prioritize efforts to seek donor funding for campus landscapes (such as tree planting across campus, or targeted to specific buildings)?	26.56%	17
4	Create a policy that allocates a percentage of capital projects to art.	9.38%	6
5	Require various utility fees such as stormwater management.	14.06%	9
6	I do not perceive any issues with the way campus landscapes are currently funded.	1.56%	1
			64

Showing rows 1 - 7 of 7

Q26 - Should there be a revolving fund for restoring aging and overgrown landscapes, and new landscape improvements? (Select one.)



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Should there be a revolving fund for restoring aging and overgrown landscapes, and new landscape improvements? (Select one.)	1.00	3.00	1.41	0.78	0.61	22

#	Field		Choice Count
1	Yes	77.27%	17
2	No	4.55%	1
3	I do not know at this time.	18.18%	4
			22

Showing rows 1 - 4 of 4

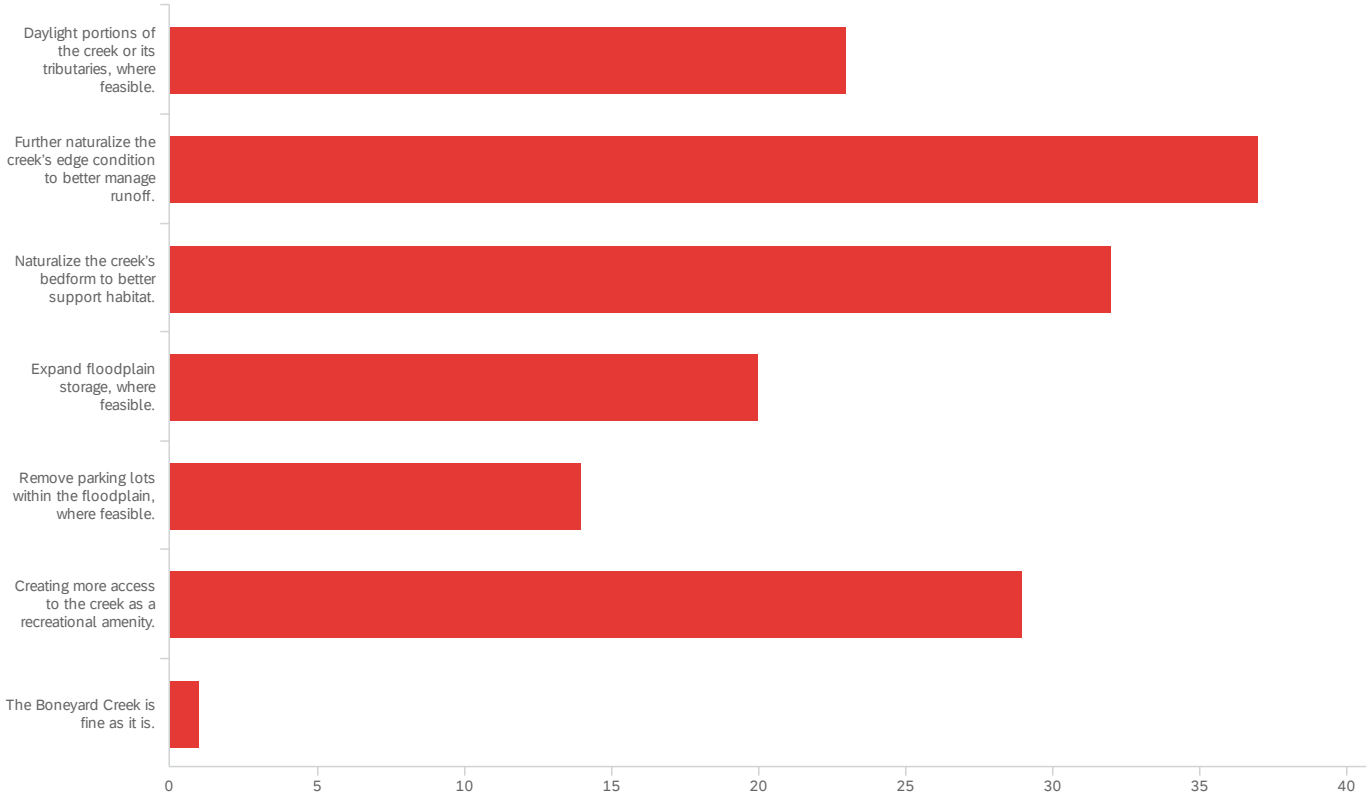
Q25 - GREEN STORMWATER PRACTICES The existing campus infrastructure primarily utilizes grey infrastructure that is designed to treat rainwater as a nuisance, sending it downstream and out of site. The CLMP will shift this approach to one that values water as a cherished resource to be protected and showcases stormwater infiltration strategies on campus. Currently, the university pays fees to Urbana and Champaign to discharge into their stormwater systems. While current design specifications outline a goal for detaining water from a 1 year/24-hour storm event, it is not required. The CLMP will outline a range of best management practices for rainwater management across all eleven districts of campus based on the iCAP goal to double the number of on-campus green infrastructure installations from 24 to 48 by 2024. In your view, what strategies will be most effective in helping the University become a global leader in exemplary rainwater management? (Rate each strategy.)

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	More rain gardens on campus like the Red Oak rain garden.	20.00	100.00	79.95	25.29	639.41	41
2	More permeable pavers like the ones in front of the Alma Mater.	6.00	100.00	75.50	25.59	654.93	38
3	More bioswales within parking lots.	6.00	100.00	75.38	25.49	649.96	37
4	More tree canopy in areas of high impermeable surfaces.	20.00	100.00	75.92	25.47	648.97	40
5	Visible demonstration of rainwater capture and water reuse on campus.	7.00	100.00	76.57	28.02	784.89	37
6	More stringent and binding policies focused on water quality and quantity management.	5.00	100.00	71.58	28.69	823.15	33

APPENDIX C: ON-LINE SURVEY #1 REPORT

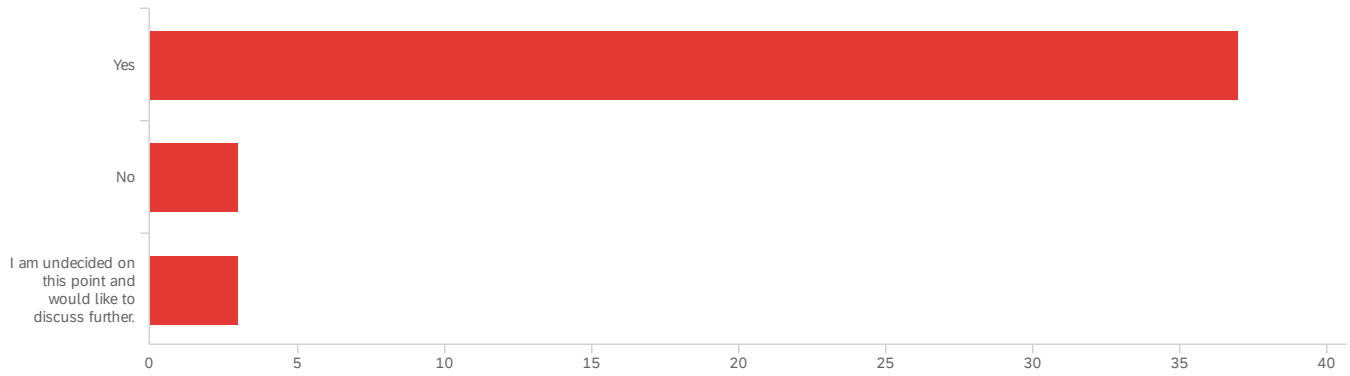
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
7	More landscape conversion to native (lower water use) species throughout campus.	16.00	100.00	81.41	24.73	611.58	39
8	I have additional ideas and I will share them in the chat box or discussion.	0.00	100.00	50.33	49.67	2466.89	6

Q26 - As a critical component of the northern watershed of campus, the Boneyard Creek manages significant runoff from campus development. The Boneyard Master Plan recommends strategies to restore the creek. What methods would you support to further restore the creek? (Select all that apply.)



#	Field	Choice Count
1	Daylight portions of the creek or its tributaries, where feasible.	14.74% 23
2	Further naturalize the creek's edge condition to better manage runoff.	23.72% 37
3	Naturalize the creek's bedform to better support habitat.	20.51% 32
4	Expand floodplain storage, where feasible.	12.82% 20
5	Remove parking lots within the floodplain, where feasible.	8.97% 14
6	Creating more access to the creek as a recreational amenity.	18.59% 29
7	The Boneyard Creek is fine as it is.	0.64% 1

Q27 - CAMPUS TREES Based on a recent Tree Campus Inventory, the iCAP targets a goal to plant 1,500 new trees by 2025 and another 1,500 by 2030. Many of these new trees will be located in urban settings along roadways and walkways. As both a functioning landscape and a demonstration space for students, campus roadway corridors can be reimagined to incorporate innovative strategies to capture rainwater. Landscape architects have learned that it is critical to provide a maximum area for root volume and water storage for tree plantings in these settings. In urban conditions, large tree pits provide greater soil volumes, air and nutrients to the trees, while an underdrain system provides the proper drainage. Specialized soil mixes ensure long-term tree health and better water infiltration. These methods can result in additional costs but have proven to reduce maintenance and tree replacement over time. Would you be in support of requirements for minimum soil volume for trees planted on campus to ensure long-term health, even if it results in a higher up-front investment? (Select one.)

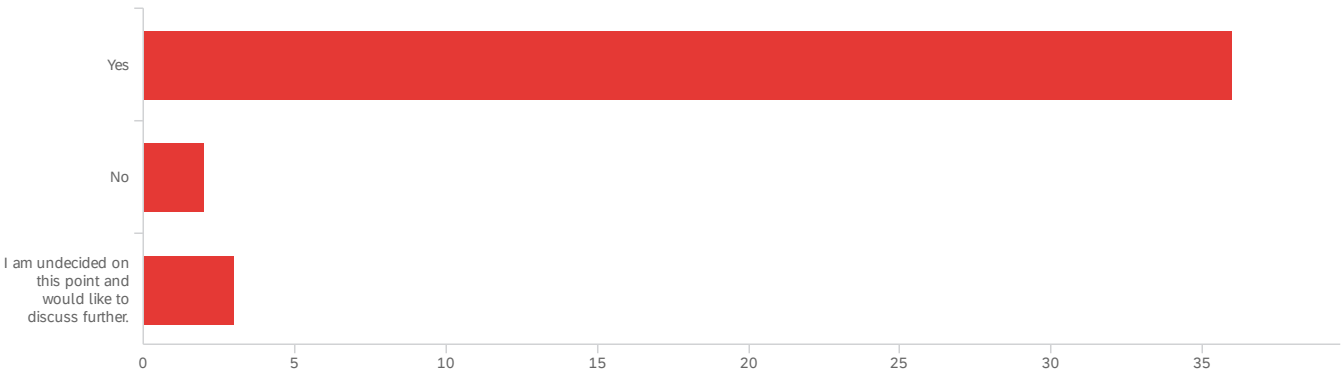


#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	CAMPUS TREES Based on a recent Tree Campus Inventory, the iCAP targets a goal to plant 1,500 new trees by 2025 and another 1,500 by 2030. Many of these new trees will be located in urban settings along roadways and walkways. As both a functioning landscape and a demonstration space for students, campus roadway corridors can be reimagined to incorporate innovative strategies to capture rainwater. Landscape architects have learned that it is critical to provide a maximum area for root volume and water storage for tree plantings in these settings. In urban conditions, large tree pits provide greater soil volumes, air and nutrients to the trees, while an underdrain system provides the proper drainage. Specialized soil mixes ensure long-term tree health and better water infiltration. These methods can result in additional costs but have proven to reduce maintenance and tree replacement over time. Would you be in support of requirements for minimum soil volume for trees planted on campus to ensure long-term health, even if it results in a higher up-front investment? (Select one.)	1.00	3.00	1.21	0.55	0.31	43

#	Field		Choice Count
1	Yes	86.05%	37
2	No	6.98%	3
3	I am undecided on this point and would like to discuss further.	6.98%	3
			43

Showing rows 1 - 4 of 4

Q34 - Based on a recent Tree Campus Inventory, the Illinois Climate Action Plan (iCAP) targets a goal to plant 1,500 new trees by 2025 and another 1,500 by 2030. Many of these new trees will be located in urban settings along roadways or walkways. As both a functioning landscape and a demonstration space for students, campus roadway corridors can be reimagined to incorporate innovative strategies to capture rainwater. Landscape architects have learned that it is critical to provide a maximum area for root volume and water storage for tree plantings in these settings. In largely urban conditions, large tree pits provide greater soil volumes, air and nutrients to the trees, while an underdrain system provides the proper drainage. Specialized soil mixes ensure long-term tree health and better water infiltration. These methods can result in additional costs but have proven to reduce maintenance and tree replacement over time. Would you be in support of requirements for minimum soil volume for trees planted on campus to ensure long-term health, even if it results in a higher up-front investment? (Select one.)

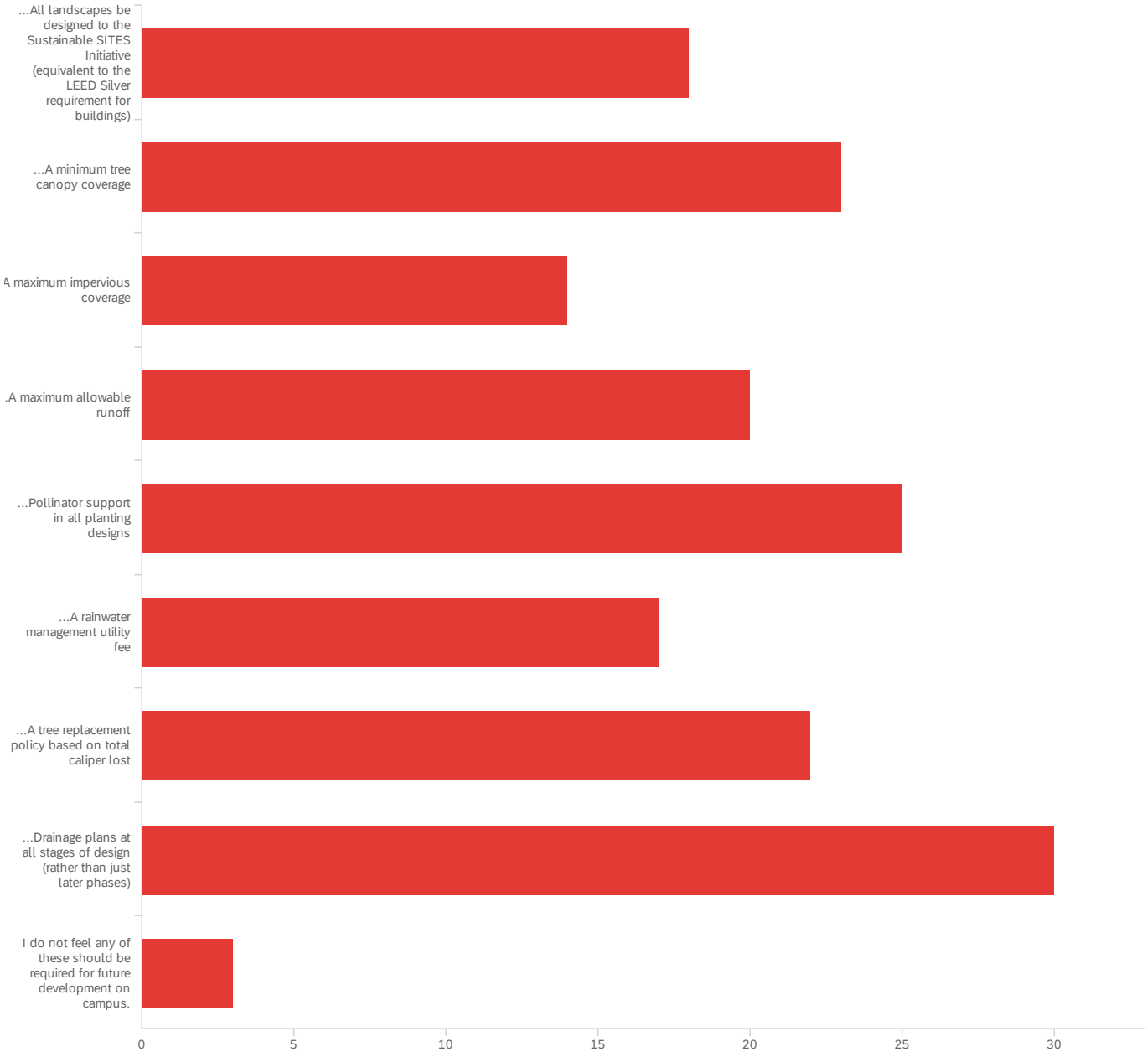


#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Based on a recent Tree Campus Inventory, the Illinois Climate Action Plan (iCAP) targets a goal to plant 1,500 new trees by 2025 and another 1,500 by 2030. Many of these new trees will be located in urban settings along roadways or walkways. As both a functioning landscape and a demonstration space for students, campus roadway corridors can be reimagined to incorporate innovative strategies to capture rainwater. Landscape architects have learned that it is critical to provide a maximum area for root volume and water storage for tree plantings in these settings. In largely urban conditions, large tree pits provide greater soil volumes, air and nutrients to the trees, while an underdrain system provides the proper drainage. Specialized soil mixes ensure long-term tree health and better water infiltration. These methods can result in additional costs but have proven to reduce maintenance and tree replacement over time. Would you be in support of requirements for minimum soil volume for trees planted on campus to ensure long-term health, even if it results in a higher up-front investment? (Select one.)	1.00	3.00	1.20	0.55	0.30	41

#	Field		Choice Count
1	Yes	87.80%	36
2	No	4.88%	2
3	I am undecided on this point and would like to discuss further.	7.32%	3
			41

Showing rows 1 - 4 of 4

Q28 - LANDSCAPE PERFORMANCE REQUIREMENTS There are many sustainable practices already underway on campus. While these practices are becoming more common on our campus, they are not yet the norm in planning and development. Further, there are no minimum requirements for what constitutes a sustainable landscape, which allows site developers the freedom to remove sustainable features to cut costs. Which of the following would you be in support of requiring for all capital projects going forward on campus? (In other words, rather than a guideline or suggestion, should these become mandatory for all projects?) I would support REQUIRING…. (Select all that apply.)



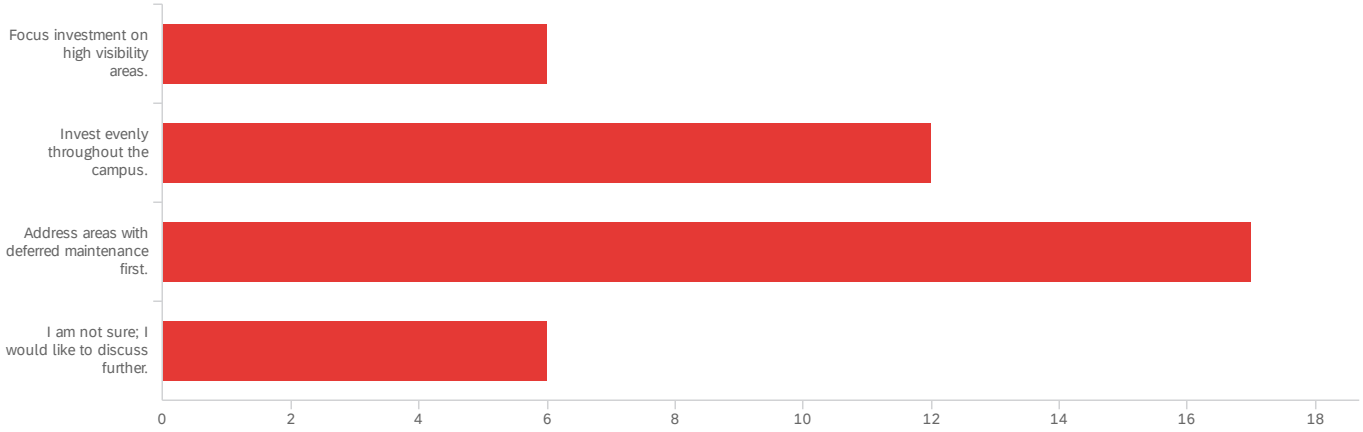
#	Field	Choice Count	
1	...All landscapes be designed to the Sustainable SITES Initiative (equivalent to the LEED Silver requirement for buildings)	10.47%	18
2	...A minimum tree canopy coverage	13.37%	23
3	...A maximum impervious coverage	8.14%	14
4	...A maximum allowable runoff	11.63%	20
5	...Pollinator support in all planting designs	14.53%	25
6	...A rainwater management utility fee	9.88%	17
7	...A tree replacement policy based on total caliper lost	12.79%	22
8	...Drainage plans at all stages of design (rather than just later phases)	17.44%	30

APPENDIX C: ON-LINE SURVEY #1 REPORT

#	Field	Choice Count	
9	I do not feel any of these should be required for future development on campus.	1.74%	3
			172

Showing rows 1 - 10 of 10

Q29 - Should highly visible landscapes be given greater attention in the master plan and be prioritized for capital investment, or should investment be applied in accordance to need regardless of the location on campus? (Select one.)



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Should highly visible landscapes be given greater attention in the master plan and be prioritized for capital investment, or should investment be applied in accordance to need regardless of the location on campus? (Select one.)	1.00	4.00	2.56	0.91	0.83	41

#	Field		Choice Count
1	Focus investment on high visibility areas.	14.63%	6
2	Invest evenly throughout the campus.	29.27%	12
3	Address areas with deferred maintenance first.	41.46%	17
4	I am not sure; I would like to discuss further.	14.63%	6
			41

Showing rows 1 - 5 of 5

End of Report

APPENDIX C: PUBLIC FORUM POLLING RESULTS

CLMP Public Forum Live Polling Results: April 27, 2022

Question	Do you support opportunities for student expression in the landscape where it might be a departure from the traditional campus aesthetic?
Respondents	30
Choices	**Votes**
Yes	24
No (Please share your feedback in the zoom chat box)	1
I don't know at this time	5

Question	Do you support the goal to recover, produce and share lost knowledge of the native tribes and restore pre-settlement functions in the landscape?
Respondents	31
Choices	**Votes**
Yes	25
No (Please share your feedback in the zoom chat box)	0
I don't know at this time	6

Question	Do you feel it is important that the university invest in connecting the campus's existing ecological assets to each other and to the larger region?
Respondents	32
Choices	**Votes**
Yes	28
No (Please share your feedback in the zoom chat box)	2
I don't know at this time	2

Question	Do you believe that the tangible and intangible benefits of the green stormwater toolkit outweigh the upfront costs of these strategies?
Respondents	32
Choices	**Votes**
Yes	18
No (Please share your feedback in the zoom chat box)	2
I don't know at this time	12

Question	Do you agree with an investment approach that supports significant restoration and maintenance in the landscape starting in the immediate future?
Respondents	34
Choices	**Votes**
Yes	32
No (Please share your feedback in the zoom chat box)	0
I don't know at this time	2

Question	Main Quad: Do you support the goals of this concept?
Respondents	35
Choices	**Votes**
Yes, I support with all or most of these goals	22
No, I don't support all or most of these goals (Please share your feedback in the zoom chat box)	1
I support some of these goals, but not all. (Please share your feedback in the zoom chat box)	6
I am not sure at this time and would prefer not to answer.	6

Question	Engineering Quad: Do you support the goals of this concept?
Respondents	31
Choices	**Votes**
Yes, I support all or most of these goals	21
No, I don't support all or most of these goals (Please share your feedback in the zoom chat box)	0
I support some of these goals, but not all. (Please share your feedback in the zoom chat box)	7
I am not sure at this time and would prefer not to answer.	3

Question	Nevada Cultural Quads: Do you support the goals of this concept?
Respondents	35
Choices	**Votes**

Yes, I support all or most of these goals	25
No, I don't support all or most of these goals	2
I support some of these goals, but not all. (Please share your feedback in the zoom chat box)	4
I am not sure at this time and would prefer not to answer.	4

Question	ACES Legacy/Eco Corridor: Do you support the goals of this concept?
Respondents	34
Choices	**Votes**
Yes, I support all or most of these goals	25
No, I don't support all or most of these goals (Please share your feedback in the zoom chat box)	1
I support some of these goals, but not all. (Please share your feedback in the zoom chat box)	4
I am not sure at this time and would prefer not to answer.	4

Question	South Quad: Do you support the goals of this concept?
Respondents	30
Choices	**Votes**
Yes, I support all or most of these goals	26
No, I don't support all or most of these goals (Please share your feedback in the zoom chat box)	0
I support some of these goals, but not all. (Please share your feedback in the zoom chat box)	3
I am not sure at this time and would prefer not to answer.	1

Question	Military Axis: Do you support the goals of this concept?
Respondents	28
Choices	**Votes**
Yes, I support all or most of these goals	25
No, I don't support all or most of these goals (Please share your feedback in the zoom chat box)	0
I support some of these goals, but not all. (Please share your feedback in the zoom chat box)	0
I am not sure at this time and would prefer not to answer.	3

Question	Ikenberry Quad: Do you support the goals of this concept?
Respondents	30
Choices	**Votes**
Yes, I support all or most of these goals	27
No, I don't support all or most of these goals (Please share your feedback in the zoom chat box)	0
I support some of these goals, but not all. (Please share your feedback in the zoom chat box)	3
I am not sure at this time and would prefer not to answer.	0

Question	Kirby Corridor: Do you support the goals of this concept?
Respondents	29
Choices	**Votes**
Yes, I support all or most of these goals	16
No, I don't support all or most of these goals (Please share your feedback in the zoom chat box)	1
I support some of these goals, but not all. (Please share your feedback in the zoom chat box)	8
I am not sure at this time and would prefer not to answer.	4

Question	Research Park: Do you support the goals of this concept?
Respondents	27
Choices	**Votes**
Yes, I support all or most of these goals	20
No, I don't support all or most of these goals (Please share your feedback in the zoom chat box)	2
I agree with some of these goals, but not all. (Please share your feedback in the zoom chat box)	3
I am not sure at this time and would prefer not to answer.	2

Default Report

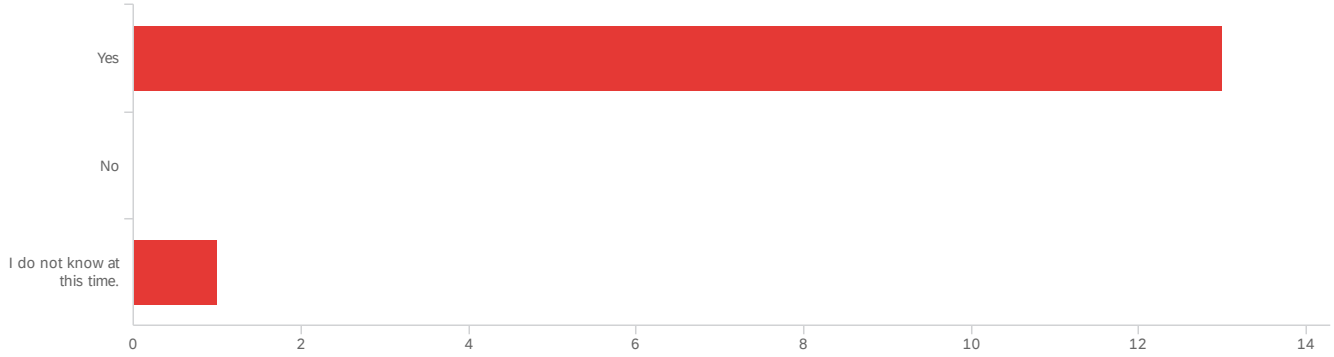
UIUC Campus Landscape MP Survey #2

May 13, 2022 11:42 AM CDT

Q_RecaptchaScore

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Q_RecaptchaScore	0.80	1.00	0.97	0.06	0.00	21

Q17 - A goal of the Master Plan is to "Celebrate the culture, achievements and interest of current and past students." Some strategies that will help us to achieve this are providing more opportunity for rotating student-driven art within the landscape, layering in, if you will, more “personality” within the landscape through expressive furniture, color, art, or other interactive elements. Do you support opportunities for student expression in the landscape where it might be a departure from the traditional campus aesthetic?



#	Field	Choice Count	
1	Yes	92.86%	13
2	No	0.00%	0
3	I do not know at this time.	7.14%	1
			14

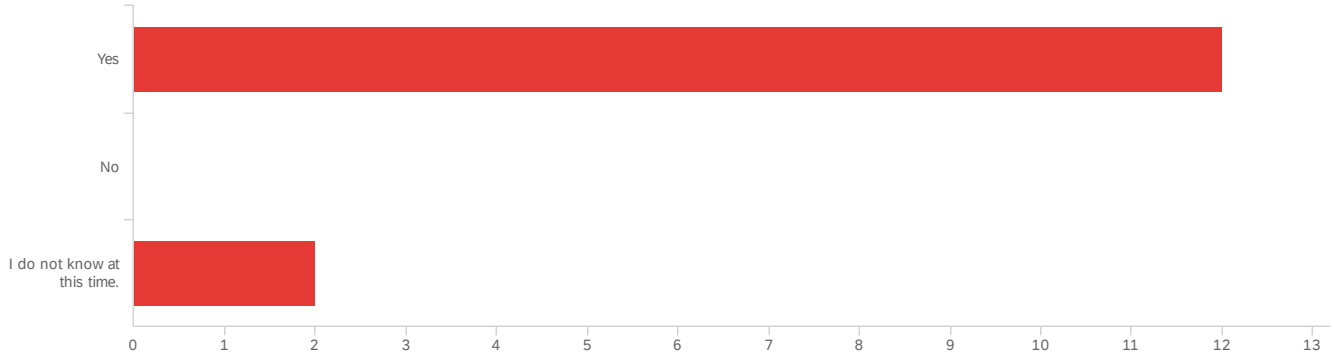
Showing rows 1 - 4 of 4

Q17_10_TEXT - Campus needs more....

WIDGET_ERROR.ERROR

APPENDIX C: ON-LINE SURVEY #2 REPORT

Q26 - Through this process, we have come to understand the desire of the campus community to recover, produce and share lost knowledge of the native tribes and provide experiences that tie the physical campus to its pre-settlement functions. Do you support this as a goal of the campus landscape master plan?

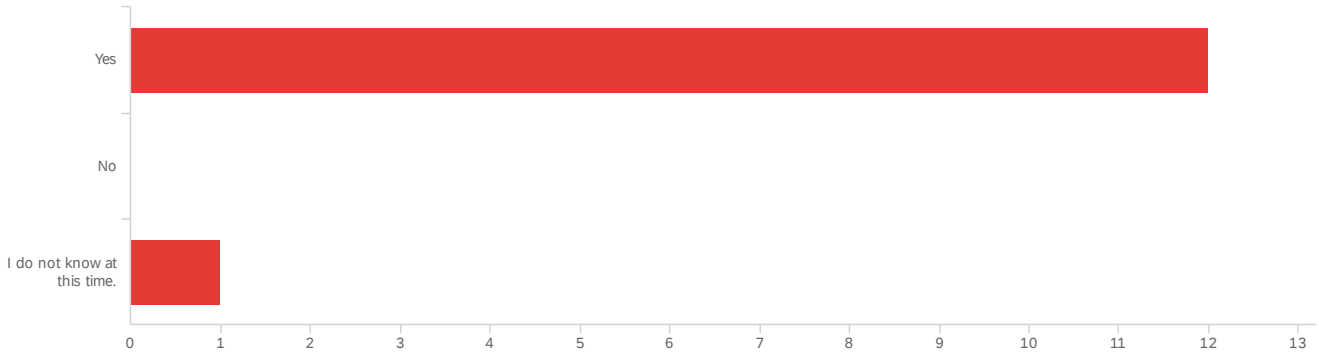


#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Through this process, we have come to understand the desire of the campus community to recover, produce and share lost knowledge of the native tribes and provide experiences that tie the physical campus to its pre-settlement functions. Do you support this as a goal of the campus landscape master plan?	1.00	3.00	1.29	0.70	0.49	14

#	Field		Choice Count
1	Yes	85.71%	12
2	No	0.00%	0
3	I do not know at this time.	14.29%	2
			14

Showing rows 1 - 4 of 4

Q27 - A goal of the Master Plan is to "Connect campus to the larger ecological context." One straightforward way we can accomplish that is by establishing “eco-corridors” on campus to connect existing ecological assets; provide an access loop to them so that they are appreciated and visible. If you are able to reference the presentation, you can see a graphic proposing paths and natural ecology to link tremendous assets, such as the Arboretum, Stadium Terrace, Illini Grove, the South Arboretum Woods, Illini Forest, South Farms and the Embarras River. These assets when linked can provide the campus community with places of respite as well as support ecological systems. Do you feel it is important that the university invest in connecting the campus’ existing ecological assets to each other and to the larger region?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count

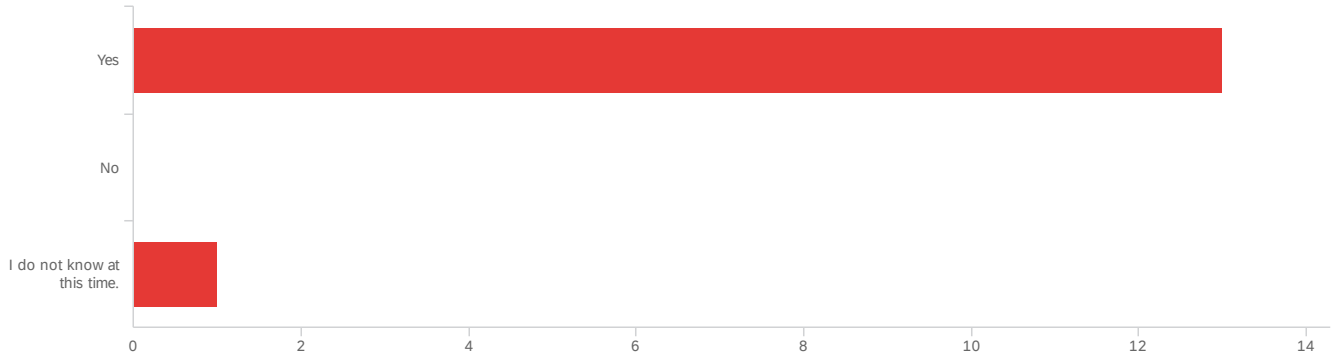
APPENDIX C: ON-LINE SURVEY #2 REPORT

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	A goal of the Master Plan is to "Connect campus to the larger ecological context." One straightforward way we can accomplish that is by establishing “eco-corridors” on campus to connect existing ecological assets; provide an access loop to them so that they are appreciated and visible. If you are able to reference the presentation, you can see a graphic proposing paths and natural ecology to link tremendous assets, such as the Arboretum, Stadium Terrace, Illini Grove, the South Arboretum Woods, Illini Forest, South Farms and the Embarras River. These assets when linked can provide the campus community with places of respite as well as support ecological systems. Do you feel it is important that the university invest in connecting the campus’ existing ecological assets to each other and to the larger region?	1.00	3.00	1.15	0.53	0.28	13

#	Field		Choice Count
1	Yes	92.31%	12
2	No	0.00%	0
3	I do not know at this time.	7.69%	1
			13

Showing rows 1 - 4 of 4

Q28 - A goal of the Master Plan is to "Highlight sustainability as a core value of the University by demonstrating the toolkit in high value, high visibility places on campus." As you follow along in the presentation, a map illustrates locations for these strategies based on infrastructure locations, drainage patterns and district characterGreen stormwater tools like bio-swales, rain gardens and Street Trees, etc. are often dropped from projects due to the upfront cost, however it is important to note that the benefits of keeping them in the projects are both tangible and intangible. Tangible benefits include things like offsetting stormwater utility fees or generating water quality credits, and strategies that reduce long-term maintenance or replacement costs, generate energy or create energy savings. Intangible benefits are things that enhance the experience of a space,. they might provide research opportunities, improve mental health or improve environmental factors. Do you believe that the tangible and intangible benefits of the green stormwater toolkit outweigh the upfront costs of these strategies?



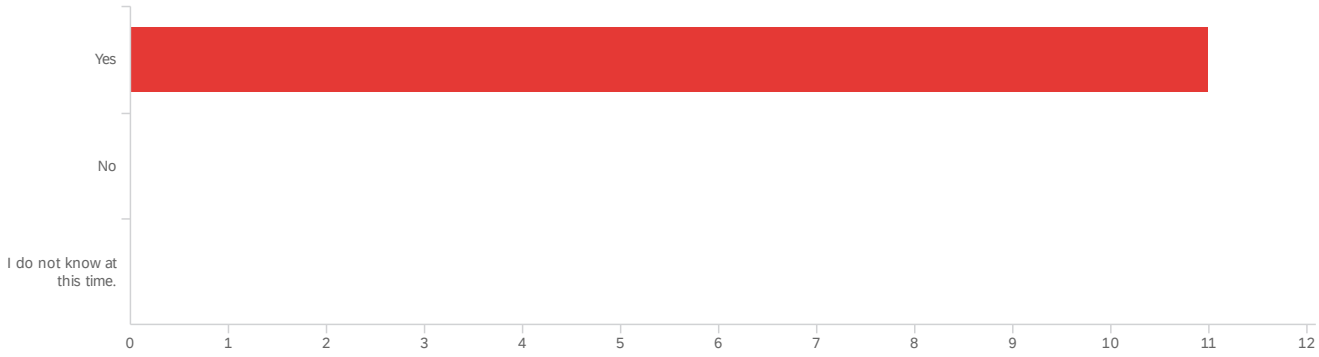
APPENDIX C: ON-LINE SURVEY #2 REPORT

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	A goal of the Master Plan is to "Highlight sustainability as a core value of the University by demonstrating the toolkit in high value, high visibility places on campus." As you follow along in the presentation, a map illustrates locations for these strategies based on infrastructure locations, drainage patterns and district characterGreen stormwater tools like bio-swales, rain gardens and Street Trees, etc. are often dropped from projects due to the upfront cost, however it is important to note that the benefits of keeping them in the projects are both tangible and intangible. Tangible benefits include things like offsetting stormwater utility fees or generating water quality credits, and strategies that reduce long-term maintenance or replacement costs, generate energy or create energy savings. Intangible benefits are things that enhance the experience of a space,. they might provide research opportunities, improve mental health or improve environmental factors. Do you believe that the tangible and intangible benefits of the green stormwater toolkit outweigh the upfront costs of these strategies?	1.00	3.00	1.14	0.52	0.27	14

#	Field		Choice Count
1	Yes	92.86%	13
2	No	0.00%	0
3	I do not know at this time.	7.14%	1
			14

Showing rows 1 - 4 of 4

Q29 - A goal of the Master Plan is to "Create a clear path to landscape investments for the next 50-75 years. Acknowledging that the landscape, much like the buildings are a key asset for the University. Implementing Total Asset Management for landscape assets – assumes that over that time, ALL campus landscapes will need to be replaced and that investment needs to begin now. This involves a commitment to restructure the current funding framework to address deferred maintenance across-campus. Ensuring that campus landscape investments are distributed more equitably across campus with a clear priority and implementation plan. Given the fact that the Campus' urban landscape will require significant restoration within the next 50-75 years, do you agree with an investment approach that supports significant restoration and maintenance in the landscape starting in the immediate future?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count

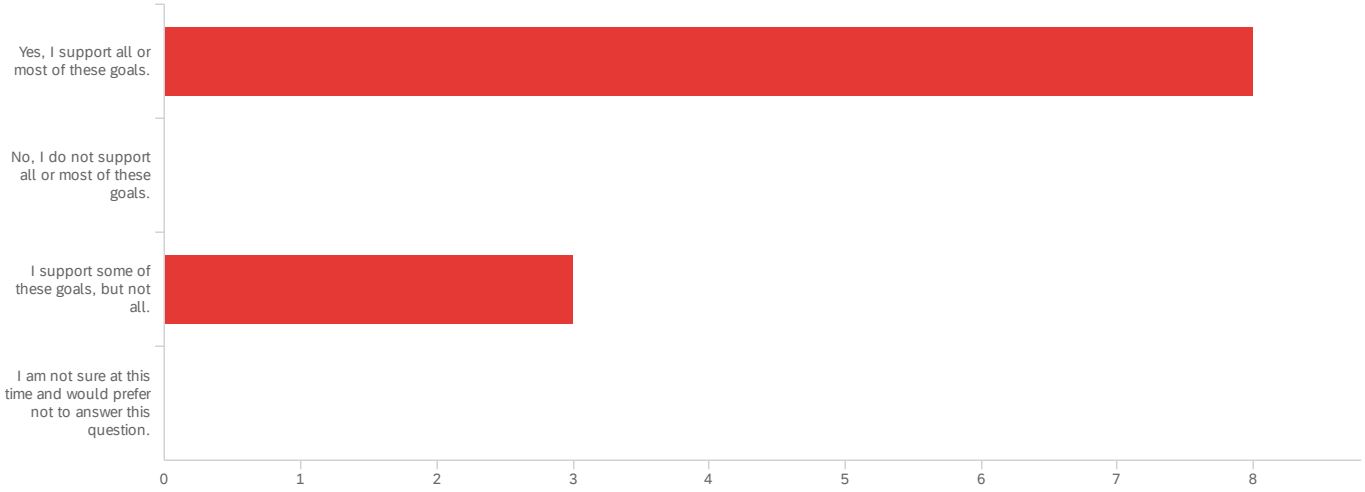
APPENDIX C: ON-LINE SURVEY #2 REPORT

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	A goal of the Master Plan is to "Create a clear path to landscape investments for the next 50-75 years. Acknowledging that the landscape, much like the buildings are a key asset for the University. Implementing Total Asset Management for landscape assets – assumes that over that time, ALL campus landscapes will need to be replaced and that investment needs to begin now. This involves a commitment to restructure the current funding framework to address deferred maintenance across-campus. Ensuring that campus landscape investments are distributed more equitably across campus with a clear priority and implementation plan. Given the fact that the Campus' urban landscape will require significant restoration within the next 50-75 years, do you agree with an investment approach that supports significant restoration and maintenance in the landscape starting in the immediate future?	1.00	1.00	1.00	0.00	0.00	11

#	Field		Choice Count
1	Yes	100.00%	11
2	No	0.00%	0
3	I do not know at this time.	0.00%	0
			11

Showing rows 1 - 4 of 4

Q30 - Prototype Project: Main Quad District Following a review of the draft recommendations in the presentation, do you support the goals of this concept?

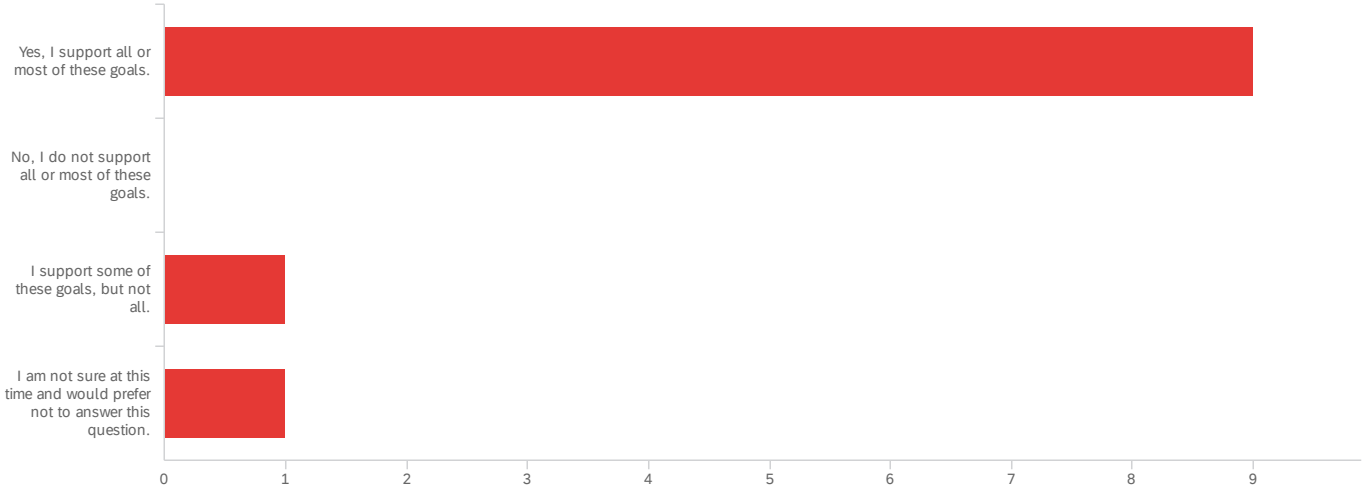


#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Prototype Project: Main Quad District Following a review of the draft recommendations in the presentation, do you support the goals of this concept?	1.00	3.00	1.55	0.89	0.79	11

#	Field		Choice Count
1	Yes, I support all or most of these goals.	72.73%	8
2	No, I do not support all or most of these goals.	0.00%	0
3	I support some of these goals, but not all.	27.27%	3
11	I am not sure at this time and would prefer not to answer this question.	0.00%	0
			11

Showing rows 1 - 5 of 5

Q21 - Prototype Project: Engineering Quad Following a review of the draft recommendations in the presentation, do you support the goals of this concept?

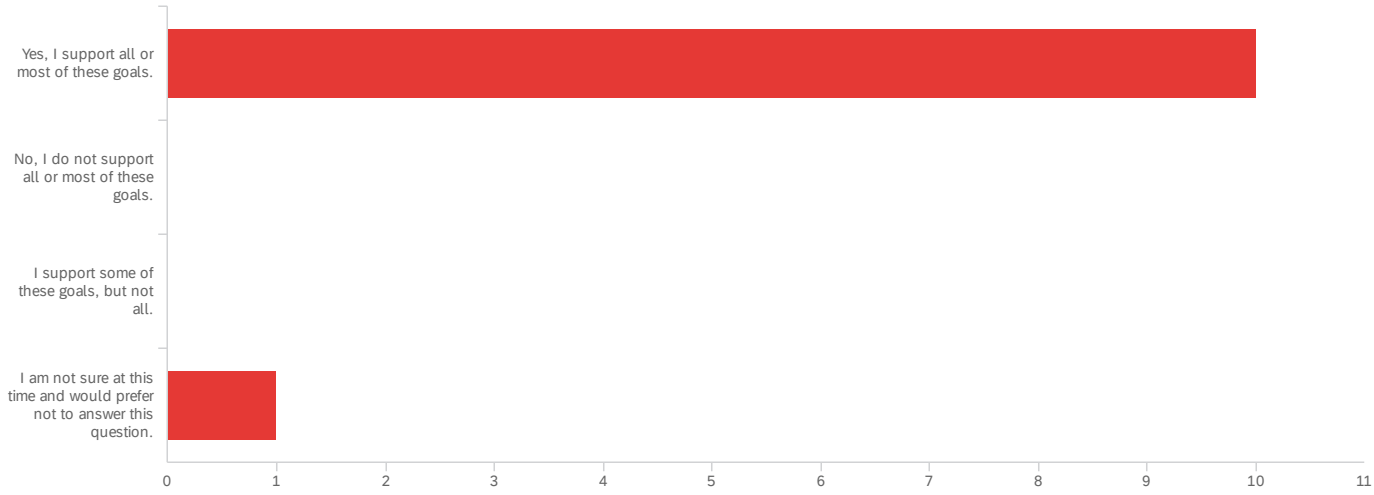


#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Prototype Project: Engineering Quad Following a review of the draft recommendations in the presentation, do you support the goals of this concept?	1.00	11.00	2.09	2.87	8.26	11

#	Field		Choice Count
1	Yes, I support all or most of these goals.	81.82%	9
2	No, I do not support all or most of these goals.	0.00%	0
3	I support some of these goals, but not all.	9.09%	1
11	I am not sure at this time and would prefer not to answer this question.	9.09%	1
			11

Showing rows 1 - 5 of 5

Q20 - Prototype Project: Urban Campus District (Nevada St. Cultural Quads) Following a review of the draft recommendations in the presentation, do you support the goals of this concept?

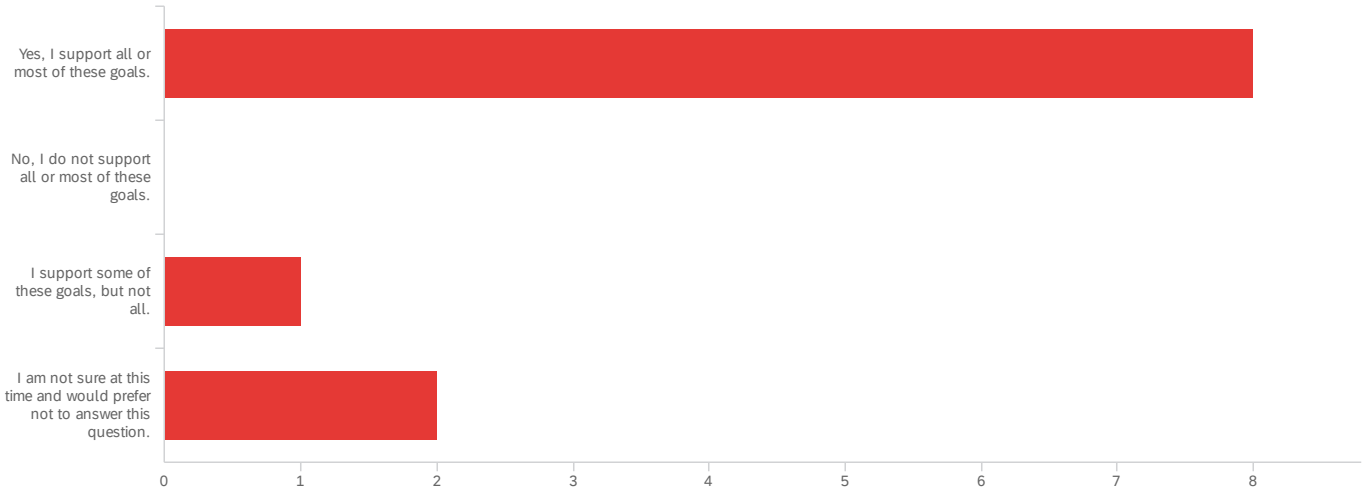


#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Prototype Project: Urban Campus District (Nevada St. Cultural Quads) Following a review of the draft recommendations in the presentation, do you support the goals of this concept?	1.00	11.00	1.91	2.87	8.26	11

#	Field		Choice Count
1	Yes, I support all or most of these goals.	90.91%	10
2	No, I do not support all or most of these goals.	0.00%	0
3	I support some of these goals, but not all.	0.00%	0
11	I am not sure at this time and would prefer not to answer this question.	9.09%	1
			11

Showing rows 1 - 5 of 5

Q19 - Prototype Project: Agriculture District (ACES Legacy Corridor) Following a review of the draft recommendations in the presentation, do you support the goals of this concept?

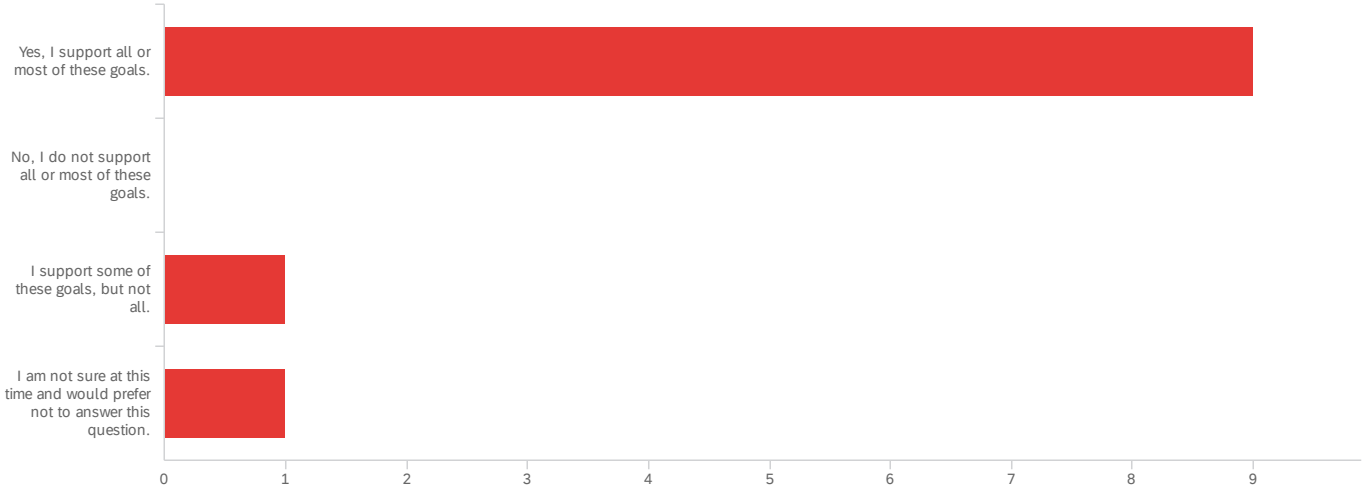


#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Prototype Project: Agriculture District (ACES Legacy Corridor) Following a review of the draft recommendations in the presentation, do you support the goals of this concept?	1.00	11.00	3.00	3.81	14.55	11

#	Field		Choice Count
1	Yes, I support all or most of these goals.	72.73%	8
2	No, I do not support all or most of these goals.	0.00%	0
3	I support some of these goals, but not all.	9.09%	1
11	I am not sure at this time and would prefer not to answer this question.	18.18%	2
			11

Showing rows 1 - 5 of 5

Q18 - Prototype Project: South Quad District Following a review of the draft recommendations in the presentation, do you support the goals of this concept?

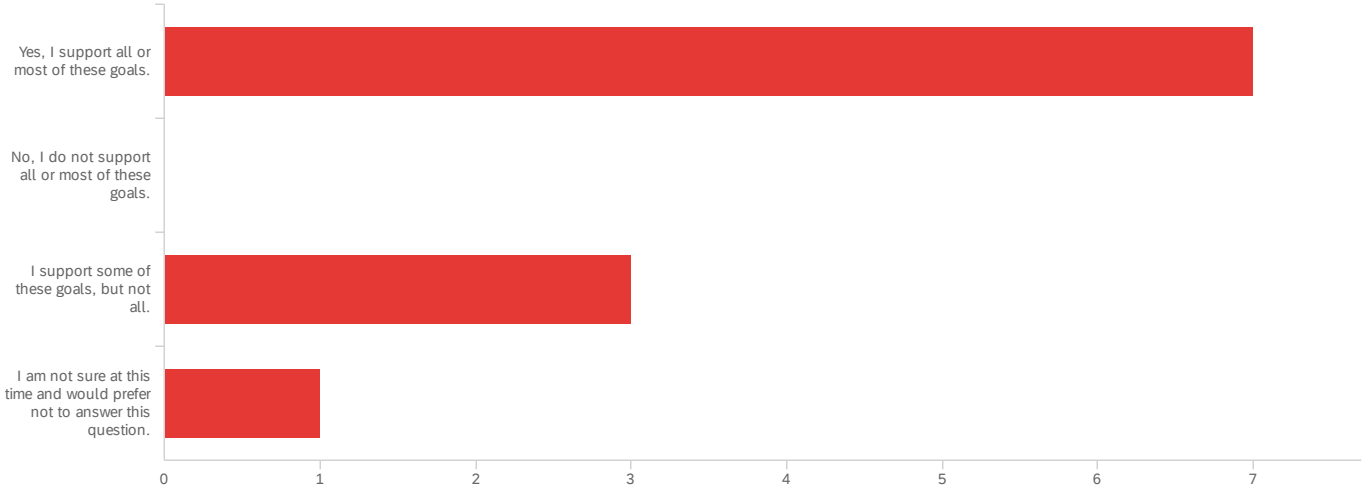


#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Prototype Project: South Quad District Following a review of the draft recommendations in the presentation, do you support the goals of this concept?	1.00	11.00	2.09	2.87	8.26	11

#	Field		Choice Count
1	Yes, I support all or most of these goals.	81.82%	9
2	No, I do not support all or most of these goals.	0.00%	0
3	I support some of these goals, but not all.	9.09%	1
11	I am not sure at this time and would prefer not to answer this question.	9.09%	1
			11

Showing rows 1 - 5 of 5

Q17 - Prototype Project: Military Axis District Following a review of the draft recommendations in the presentation, do you support the goals of this concept?

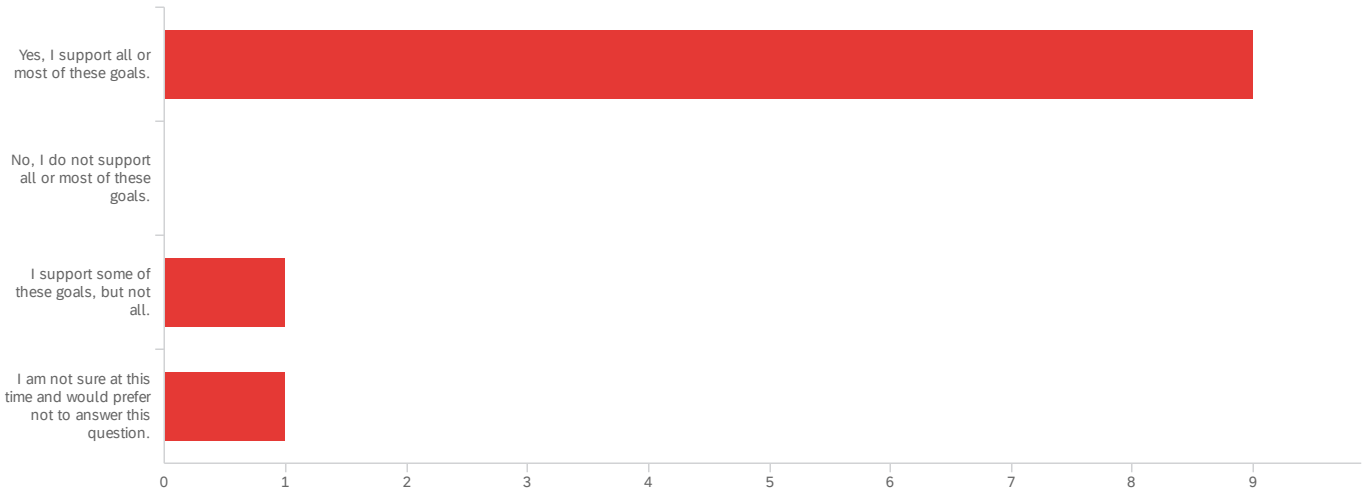


#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Prototype Project: Military Axis District Following a review of the draft recommendations in the presentation, do you support the goals of this concept?	1.00	11.00	2.45	2.84	8.07	11

#	Field		Choice Count
1	Yes, I support all or most of these goals.	63.64%	7
2	No, I do not support all or most of these goals.	0.00%	0
3	I support some of these goals, but not all.	27.27%	3
11	I am not sure at this time and would prefer not to answer this question.	9.09%	1
			11

Showing rows 1 - 5 of 5

Q16 - Prototype Project: Ikenberry Quad District Following a review of the draft recommendations in the presentation, do you support the goals of this concept?

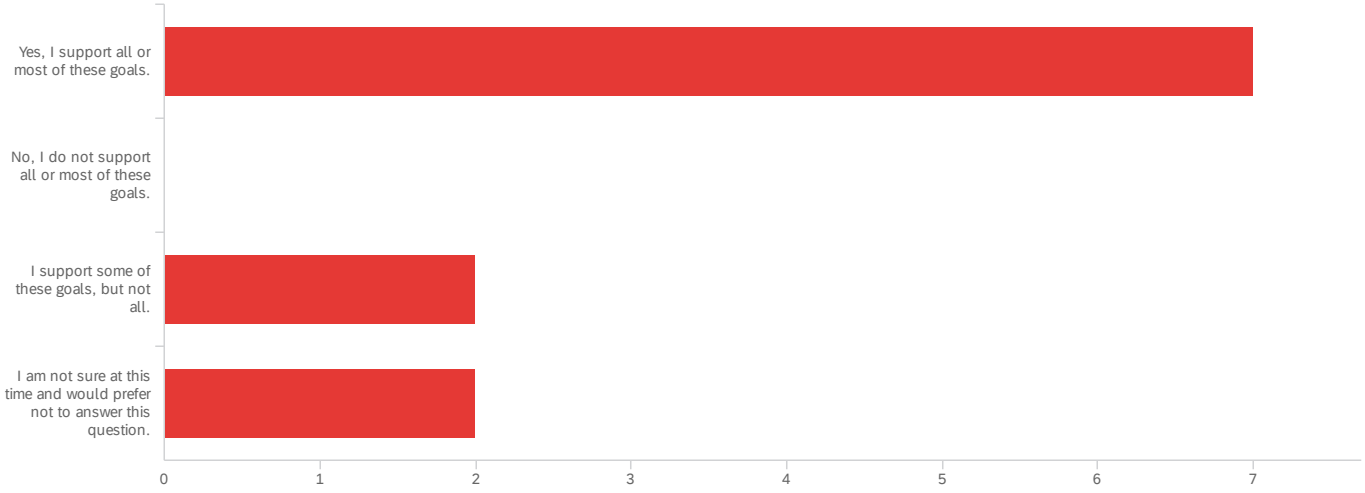


#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Prototype Project: Ikenberry Quad District Following a review of the draft recommendations in the presentation, do you support the goals of this concept?	1.00	11.00	2.09	2.87	8.26	11

#	Field		Choice Count
1	Yes, I support all or most of these goals.	81.82%	9
2	No, I do not support all or most of these goals.	0.00%	0
3	I support some of these goals, but not all.	9.09%	1
11	I am not sure at this time and would prefer not to answer this question.	9.09%	1
			11

Showing rows 1 - 5 of 5

Q15 - Prototype Project: Industrial and Athletics Districts (Kirby Ave. Corridor) Following a review of the draft recommendations in the presentation, do you support the goals of this concept?

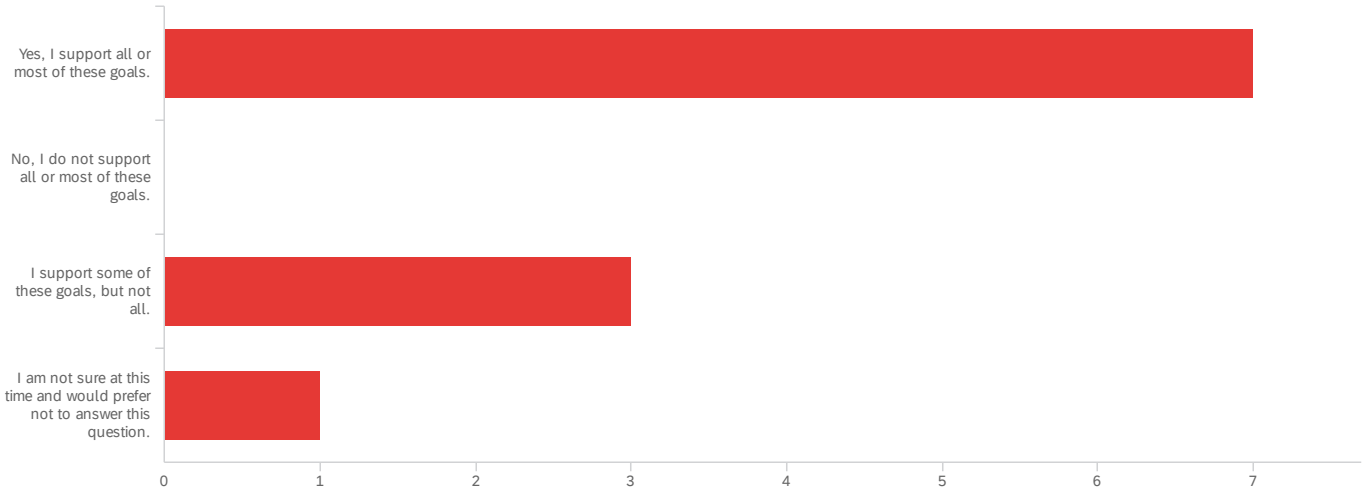


#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Prototype Project: Industrial and Athletics Districts (Kirby Ave. Corridor) Following a review of the draft recommendations in the presentation, do you support the goals of this concept?	1.00	11.00	3.18	3.76	14.15	11

#	Field		Choice Count
1	Yes, I support all or most of these goals.	63.64%	7
2	No, I do not support all or most of these goals.	0.00%	0
3	I support some of these goals, but not all.	18.18%	2
11	I am not sure at this time and would prefer not to answer this question.	18.18%	2
			11

Showing rows 1 - 5 of 5

Q14 - Prototype Project: Research Park District (Research Park Quad) Following a review of the draft recommendations in the presentation, do you support the goals of this concept?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Prototype Project: Research Park District (Research Park Quad) Following a review of the draft recommendations in the presentation, do you support the goals of this concept?	1.00	11.00	2.45	2.84	8.07	11

#	Field		Choice Count
1	Yes, I support all or most of these goals.	63.64%	7
2	No, I do not support all or most of these goals.	0.00%	0
3	I support some of these goals, but not all.	27.27%	3
11	I am not sure at this time and would prefer not to answer this question.	9.09%	1
			11

Showing rows 1 - 5 of 5

Q36 - What aspects of the campus landscape are most valuable to you? Please share in 1-2 sentences.

What aspects of the campus landscape are most valuable to you? Please share...
1) Education 2) Engagement
Native plantings, decreased maintenance, places for leisure and relaxation
Lots of green spaces that people can interact with and are useful. the restoration of native plants and ecosystes is very exciting to me.
Covered bike parking is very important and not emphasized. Also, the north engineering quad, where I work (ECEB), was not addressed. Why?
Huge increase in native plantings and a large reduction of turf. Also, the complete cessation of herbicide and fertilizer usage on remaining turf and lessened mowing schedule.
Supporting ecological diversity and sustainability through restoring and connecting native ecosystems on campus are extremely important to me.
ecological restoration, improved bike and non-vehicular traffic options (e.g. bikes & scooters)
There is no new green space around Armory, Band building, and Ice Arena. The corner of Armory and Sixth street would make a wonderful space for students.
There is a dire need for shade, especially between the architecture building and McKinnley (a route I take regularly). The spaces around Krannert center should also have more shade. In general, there are long sidewalks with no shade at all. I know it's difficult to manage trees in the winter, but feel there could be more done. It's exhausting to be a pedestrian in the summer and early fall.
Increased diversity of plantings on campus, making UIUC's compact campus and attractive buildings fit into nature, as opposed to the bland fields of Illinois
the verdure, native species dispersed throughout, active transit networks (which need expansion, too)

End of Report

DESIGNWORKSHOP