Student Sustainability Committee: Step 2 Application

Narrative and General Information

General Information

Project Name:

The Mahomet Lots: Designing Sustainable Parking Lots for the University of Illinois Campus

Total Amount Requested from SSC: \$25,000

Project Topic Area(s): Water & Land

Contact Information

Project Lead

Applicant Name: Mary Pat McGuire, RLA

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Primary Project Team

Name	Department	Email
Mary Pat McGuire	Landscape Architecture/College of Fine & Applied Arts	mpm1@illinois.edu
Keith Erickson	Facilities & Services	kericks@illinois.edu
Eliana Brown	Illinois-Indiana Sea Grant	brown12@illinois.edu
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A. Project Description

A.1 Please provide a brief background of the project, the goals, and the desired outcomes: Please address all of the above items including concrete examples of the desired outcomes.

A.1.1 Project summary

This project addresses parking lots on the University of Illinois as a major sustainability issue and design opportunity. There are currently over 85 acres of impervious surface parking lots within our academic campus. Each year, these lots contribute almost 90M gallons of surface run-off into Boneyard Creek, and a loss of potential infiltration and/or capture of water for re-use on campus. Retaining this water on campus will help to meet the Water and Stormwater goals of iCAP 2020 for infiltration and re-use.

The overall desired outcome of the "Mahomet Lot" project is to design and plan for the first pilot demonstration of a visible, high-performance stormwater parking lot on our campus. The project as applied for will support a Spring 2017 seminar-workshop, led by Professor McGuire in order to 1) inventory and investigate surface parking lot conditions on the campus, 2) select a parking lot site for design research, and 3) develop a comprehensive design for this first pilot sustainable parking lot. Based on the SSC-supported seminar-based design, the Mahomet Lot would be constructed in 2017-2018, in coordination with Facilities & Services. Students would be involved in the project from start-to-finish. The parking lot will be a ground up, student-centric push into the 21st century of parking lots for the campus. What we learn from the Mahomet Lot will help us (the University community) make long-term decisions about conversion of parking lots over time. The Lot project therefore falls into the topic area of Water and Land, meeting the criteria of Visibility and Student Engagement/Education, by promoting ecological practices for stormwater on the campus.

A.1.2 Background of the proposed project

Stormwater run-off is a huge sustainability issue, and impervious surfaces such as parking lots contribute large amounts of stormwater to this problem. Often for the very same user (such as a city or campus) that allows rainwater to run-off, potable water is brought to the site by pumping and treating water, often from far away sources, in a costly and energy-intensive manner. This pattern of allowing rainwater to run-off while bearing the additional cost of importing water from afar is a waste. It is expensive in infrastructure and energy costs, and does not fit with the goals of an economically and ecologically sustainable future.

Here, the University of Illinois was designed using this 19th and 20th century way of treating water as a linear and limitless resource. The Mahomet Lots project will contribute to closing the loop on this issue of stormwater in our university landscape, by shifting to a redesign of campus parking lots from impermeable to permeable surfaces in order to capture valuable rainwater. The project will be a

research and design demonstration of an important sustainability initiative, that of reducing stormwater run-off to meet the short, medium, and long term iCAP water goals of the University.

Just as in 1876 the Morrow Plots were established to research soil and the agricultural production of corn, the Mahomet Lots would be established to research parking lots and the sustainable design of water. The Mahomet Lots would be so named to highlight the connection between our aboveground treatment of rainwater and the deep water source of the region, the Mahomet Aquifer. However the immediate benefits of infiltration and re-use represent sustainable best practices. Thus, the project has the double impact of remediating the conditions of water on the campus, and the long-term effect of reducing our dependence on the Aquifer source. Everything we do to inhibit water from infiltrating back into the ground, at any level, and any withdrawals we take from the Mahomet Aquifer, create the double effect of degrading and diminishing water resources of the region. Therefore, the Mahomet Lots project is aimed at redesigning our parking lots to reduce runoff and instead to capture water for infiltration and re-use. Both reduction in run-off through infiltration and reducing our dependence on pumping water from the Aquifer are targets within the UIUC iCAP plan. Specifically, the target for 2020 is a 25% re-use of stormwater, to support water conservation and a reduction of pumped potable water withdrawal.

The long-term project of reconstructing to permeable parking surfaces is ambitious but very achievable as a series of phases. The technology already exists to do it. However, it will require buy-in and commitment by the University to begin the paradigm shift in thinking and planning. This paradigm shift has both "big picture" goals that contextualize the larger framework for the University going forward, and specific desired outcomes that will help to move the University from 'policy' to implementation. The outcomes listed below will be achieved by the Spring 2017 seminar design project.

A.1.3 Big goals of the Project

The "big picture" goals are the following:

- To help achieve the University iCAP goals related to stormwater, by converting impermeable parking lots (water run-off surfaces) to permeable parking lots (water capture systems), thereby increasing infiltration and reducing potable water use on campus through the potential for re-use;
- To support an educational process within the University that will build understanding, momentum and support to push forward on this parking surfaces project as a critical component of achieving sustainability on the campus;
- To support direct educational opportunities for students by working with faculty, staff and F&S to investigate and to realize this opportunity;
- To use the seminar-workshop to develop a prototype that the University can implement over the coming years,

- To maintain continued learning opportunities and participation as we transition campus parking lots over time;
- To extend education about sustainable stormwater strategies beyond the University to the broader regional community of the value of the infiltration and re-use practices, and to use the pilot project to demonstrate the result; and
- To develop a surface design project that puts Illinois on the national radar of sustainable and regenerative campuses.

A.1.4 Specific desired outcomes, from the Spring 2017 seminar-workshop

- To work in a seminar/workshop fashion wherein students will learn about the issue of imperviousness on campus, learn about options and strategies for sustainable parking surface design, and apply design strategies for a pilot project on campus;
- To work with F&S to investigate and inventory campus pavement, and to select a pilot site;
- To explore and develop both conceptual and technical approaches to convert the site to a sustainable parking lot pilot/prototype;
- To develop the design, combining the visual, technical and even the social aspects of the site design together as a demonstration of a sustainable 'whole-systems' approach to parking places on campus;
- To envision and enable multi-functional uses of the converted surface, such as an urban plaza, when not in use as a parking lot, (e.g. multi-functionality is a sustainability principle);
- To integrate measuring and monitoring methods and strategies to record the existing conditions as a benchmark, which will be used later to record the beneficial impact and performance of the new design;
- To present this project to the public, including: 1) once in an open forum to the general student body to get feedback and input on the design, and 2) once to campus administrators for buy-in and support;
- To work collaboratively with F&S, the Department of Civil & Environmental Engineering, and constructibility, sustainable pavement and soils consultants (contacts through Professor McGuire) to ensure the optimal design and a technically derived project;
- To provide a design development (DD) level design to F&S, with layout complete, and critical
 materials selected and detailed, so that the project can be bid during the Summer 2017 with a
 target construction period of Fall 2017; and
- To publicize the project on web media, social media, and possibly through conferences and other symposium venues so that Illinois faculty, staff and students can present the project regionally and nationally as a leading example of sustainable project in higher education.

A.2 How will the project improve the sustainability of the Illinois campus and how will the project go above and beyond campus standards? Any relevant opportunities for student involvement in your project?

A.2.1 Sustainability improvement, and campus standards

This project addresses stormwater for the campus, by developing a research and design program for sustainable parking lots for the future of the campus. Stormwater design and management is a huge issue for University campuses; as 'mini-cities', much of the existing infrastructure is designed to shed water off the campus. The project goes beyond campus standards, by introducing the potential for 100% capture and infiltration through the design of sustainable parking lots, changing the paradigm for parking surfaces for the campus.

Specifically, the project goes beyond the University's standard parking guidelines which require that parking surfaces "should all be constructed of either concrete or asphalt" and for which "adequate drainage should be provided for all parking facilities." (U OF I FACILITIES STANDARDS, Last Updated June 15, 2013) The parking lot pilot demonstration would not use a poured-in-place material such as concrete or asphalt, but instead would investigate the potential for alternative materials that promote infiltration and storage.

This parking lot pilot project would shift the paradigm by demonstrating that parking lot pavement can be a sustainable infrastructure, not a liability. An early estimate of the anticipated outcomes are that 100% of rainwater would be captured, infiltrated, stored and/or evaporated through this pavement. Water would pass through this pavement, be infiltrated and/or stored in a below-grade porous stone layer and/or held in a cistern. We have the possibility of designing the site so that no water leaves the site as run-off.

A.2.2 Student involvement

Students will be involved in every phase of this project. Professor McGuire will offer the LA587 course in Landscape Architecture, open to all interested students, that will teach the principles of design for rainwater, and how to apply those principles to urban, paved surfaces. In this course, students will study the condition of impervious parking lots on campus, evaluate candidate lots for conversion to permeable Mahomet Lots, and will make design and research proposals. Professor McGuire will work with the students to develop a design for the site such that we can collaborate with Campus F&S to implement and construct the design. During the Spring semester design phase, outside sustainability consultants would be involved in the course to provide landscape architecture design and constructibility recommendations and review, through which the students will have the opportunity to learn and engage this expertise.

Through our partnership with F&S, students will observe and learn about the site construction process during the construction period; and thereafter, may become involved in measuring, observing and reporting how well the sites perform.

Throughout this process, students would share their learning and progress in public formats. Illinois-Indiana Sea Grant communication and extension personnel will serve as guest lecturers during the class, advising students and helping them to learn the importance of effectively engaging stakeholders in sustainability projects. The students will also make public presentations of the proposed design, including the sustainability research and evidence, to students across the campus, soliciting ideas and feedback for the project. Student research projects, led by faculty from other departments and disciplines, could be incorporated where possible, and we would create a process for input and involvement. Webpages on existing sites, devoted to sharing information and live reporting would be advantageous. The Mahomet Lots themselves, once constructed, will be live demonstration sites, and student activities and research projects would take place there in the coming years.

A.3 Where will the project be located? Will special permissions be required to enact the project on this site? If so, please explain and submit any relevant letters of support with the application. If the project has a physical site, please include it here. Consider any special considerations that may be required for this location. A consultation between applicant and Facilities and Services can be arranged as needed.

A.3.1 Location

The parking lot site will be located on the University of Illinois - Urbana Champaign campus, and will be specifically selected during the Spring seminar, on the basis of the initial research investigation. An inventory of pavement will be made for the campus, to survey the extent of impervious cover. Collaborative meetings with Facilities & Services will be used to review the status of capital planning projects, identifying the parking lot sites that are most likely to be reconstructed in 2017-2018, thereby isolating the best opportunities. Of the project site opportunities, we will be seeking the most visible parking lot site, to support one of SSC's goals of high visibility, so that the majority of the University community can learn from the project, by walking by, (or parking on!), the site on a regular basis.

A.3.2 Permissions

No special permissions are needed, as the campus is state sovereign, and can initiate the sustainable parking lot without approvals outside of the campus. Internally, the proposed design will be presented to appropriate campus administration, sustainability offices, as well as to the campus Provost and Chancellor. As an advocate for education and outreach, and as our desire is for the project to be a living example of 21st century practices, we foresee support coming from all sides.

A.4 Other than the project team, who will have a stake in the project? Please list other individuals, groups, or departments affiliated directly or indirectly by the project. This includes any entity providing funding (immediate, future, ongoing, matching, in-kind, etc.) and any entities that will be benefitting from this project. Please attach letters of commitment or support at the end of the application. Please list any other involved parties here as well as their role in the project, and attach letters of support as needed.

The largest stakeholder, in addition to the campus community (as explained in sections A.5 and C. 2.1.) is Facilities & Services. F&S is seeking ways to improve sustainability of the campus grounds infrastructure to meet the goals of iCAP, and supports this project as it can set the direction for future implementation of permeable parking lots as a systematic shift away from 'business-as-usual' to a model of sustainable facilities at UIUC. There is a lot of learning ahead, but this project is considered to be a critical step toward enabling implementation. Keith Erickson, a key collaborator on this proposal, and a long standing member and former chair of the Water SwatTeam has stated that F&S is poised to move in this direction. They are expected to provide valuable input, support and collaboration on potential design directions as they affect capital planning, project budgeting and maintenance.

University Parking Services will also have a stake. Facilities & Services will work with Parking to communicate and coordinate any impact to the parking lot facility, and will engage representatives as needed. We anticipate this coordination and discussion to be part of our Spring and Summer activities.

Illinois-Indiana Sea Grant and the Illinois Water Resources Center will have a stake in the project in terms of helping students create effective outreach plans. They will also help to promote the project to broader news outlets, extension and education networks as appropriate.

A.5 Please indicate how this project will involve or impact students. What role will students play in the project? How will students benefit from this project? This could be direct benefits, indirect benefits, or student involvement opportunities during the implementation of the project.

I answered this question in A.2.2 regarding the Spring seminar, project presentations, student feedback processes across campus, and of ongoing potential research and design projects related to parking lots in future semesters.

I can reinforce here that student involvement, student learning and student impact are essential to this project. The project is intended to generate student learning and leadership. Direct benefits include student learning through hands-on classroom activities, assignments and collaboration with experts and invested departments, as well as the opportunity to design the actual project. We will be able to say, with guidance from Professor McGuire, that students will be the designers of this parking lot project, and hence setting the course for the future of such sites across campus. Students across campus can learn from their process through dissemination of research and the design proposal, and will have the opportunity to input into the design process. Additional direct benefits will accrue over time, in the form of a healthier campus, with a more sustainable attention and performance through the landscape function. This might include reduction in heat island, flood management, and improved stormwater control in adjacent waterways. Indirect benefits may include increased attention to the campus by visitors, and increased pride within the University for investing in its campus landscape for student health, well-being and beauty.

There is a lot of discussion on campus (and in higher education) right now about student learning, and about the importance of university campuses as "living laboratories". As a professor of sustainable design, I feel that students must be directly involved in projects from conception through to their lived state. This is essential to their learned participation in creating the world here on campus, and outside the University, once they leave the campus.

B. Financial Information

In addition to the below questions, please submit the supplemental budget spreadsheet available on the Student Sustainability Committee website. Submission of both documents by the submission deadline is required for consideration of your project.

B.1 Have you applied for funding from SSC before? If so, for what project? A brief summary of project name and year of submission.

No, this is the first application.

B.2 If this project is implemented, will there be any ongoing funding required? What is the strategy for supporting the project in order to cover replacement, operation, or renewal costs?

If the project is funded, construction implementation would be then be funded by Facilities & Services. F&S has committed to replacing underperforming, outdated infrastructure on an as-needed basis with sustainable replacements, as part of its capital planning process. Parking lots are part of F&S' agenda to move toward sustainable design for the campus. The construction cost of replacing the target lot with the sustainable design is budgeted as part of their annual capital planning.

Operations and maintenance of the parking lot will be covered under existing and planned budgets.

Data collection and monitoring will be handed as a partnership between McGuire and Schmidt (Civil & Environmental Engineering). We have requested within this proposal a start-up fund for purchasing

measuring and monitoring equipment and some student lab analysis time. We do not anticipate requesting further funds from SSC to purchase more intensive equipment, and would likely seek this elsewhere if needed for installation at the time of construction.

To summarize, we do not anticipate requesting further funds from SSC, as construction costs and operations are included in F&S capital planning budgets.

B.3 Please note that SSC provides funding on a case by case basis annually and should not be considered as an ongoing source of funding. If needed, please also address this in the supplemental budget spreadsheet in the relevant section.

N/A

B.4 Please include any other sources of funding that have been obtained or applied for. Please attach any relevant letters of support as needed in a separate document. Please list any other sources of funding you have secured here, referencing letters of support as needed.

There are no additional sources of funding. This request is being made to initiate the design and research phase, and to provide publicity for this initiative for the campus as part of an actionable project under the iCAP commitment. The project is seen by F&S as part of its planned for changes to the campus infrastructure. F&S will be overseeing the construction of this project, using their normal procedure for facilities operations and maintenance.

Professor McGuire is interested in supporting the continued implementation of sustainable parking lots for the campus, potentially at a rate faster than F&S would replace parking lots under its normal schedule. If this appears to be an opportunity, i.e. the campus has embraced this design change, Professor McGuire may seek additional sources of funding such as through EPA or other green infrastructure funds, that would advance earlier replacement of lots at a faster pace. At this point, it is hard to determine the momentum that might be generated by this proposed project; if the desire is there to seek implementation to meet the goals of iCAP, existing capital planning and budgeting would likely need to be supplemented wherever possible. Having the proposed design, with justifiable visualization drawings, and technical details worked out (i.e. shovel ready) will help to bring in funding if needed in the future. Thank you for this question, it is good to consider this in advance.

C. Environmental, Economic, and Awareness Impacts

In addition to the below questions, please indicate specific measurable impacts as applicable on the supplemental budget spreadsheet.

C.1 Which aspects of sustainability does your project address, and how? Does the project fit within any of the iCAP goals? If so, how does the project go beyond the university status quo standards and policies. Please address all of the above items including concrete examples of the desired outcomes.

This project addresses stormwater and water-use on the campus. By interrupting the outward flow of water caused by high percentage of pavement across surface, this project would create on-site infiltration, reduction in pollutant run-off, and the potential for capture and re-use of rainwater.

The project directly address the general objectives of water and stormwater issues on the campus, by promoting best practices for rainwater capture and infiltration as stated in the iCAP Plan. As the largest user of water in the regional community, water conservation and advances in stormwater design are key to establishing a sustainable future for the University with water resources at the forefront of this agenda.

In addition to the general objectives, the project directly fits within the iCAP goal of "Stormwater ReUse: 25% of stormwater to be re-used on campus" by 2020 (iCAP 2015). This goal of capture for reuse is intended to address the objectives of water conservation and reduction of annual potable water use. Meeting these ongoing targets is anticipated to require advanced efforts to conserve water, including stormwater capture. Therefore, a key objective of the project is to investigate the opportunities for capture and storage for re-use. Currently such water can be used for non-potable water use such as irrigation which would reduce our dependency on potable water for such uses. Further regulatory action will be needed to use non-potable water indoors. Cost evaluation for treating captured water indoors and the commitment to this infrastructure is part of the ongoing University investment decision process. The parking lot will establish the critical design research needed to place the physical storage capacity in place.

In question A.2.1, I responded about the project exceeding the university's existing standards for parking lots.

Below we respond to the environmental, economic and social aspects of sustainability for this project.

C.2 How will the environmental impacts of your project be measured in the near and long term? What specific monitoring and evaluation processes will you be using to track outcomes and progress? Please be as specific as possible. Also complete the related section in the Supplemental Budget Document.

C.2.1. Environmental impacts, and social impacts

We have discussed the possibility to doing pre- and post- construction analysis of the site with Civil & Environmental Engineering so as to establish baseline data against which the project's improvements can be measured. At a minimum, we have the potential to establish metrics based on square footage take-offs, such as surface imperviousness, and to calculate rainfall loss annually by the existing design. We can also use sensors and measurement flumes to measure flow rates to establish a baseline of surface run-off rate. If desired, we can run pre-constructed water quality analysis taking regular samples. It is somewhat costly to establish a regular or automatic meter, however, we can conduct manual analysis for a fraction of the cost and establish a reliable manual analysis using regular intervals and samples, when timed correctly. These site investigations and analysis activities could take place during the the Spring design process.

We would also conduct post-construction monitoring to evaluate infiltration flow, water quality and soil moisture levels. Depending on the design direction, the focus of our analysis would be tailored to study the impact of the design. If the design captures water, then a means by which captured water can be re-used such as for irrigation can be measured and monitored, as it will demonstrate a reduction of potable water use pumped from off-site.

It will be important to consider how the project can also be thermally measured and monitored. A known advantage to the conversion to permeable pavement system is the thermal regulating properties of open graded stone and pavers, for example, which allow the movement of water and air, establishing a breathability, exchange and enhancement of thermal properties within the pavement. This has been known to lower pavement temperatures in summer, and raise them in winter, thereby lowering heat island in summer and often reducing the need for de-icers in winter. It will be important to test the radiant heat levels of the existing site conditions, and pre- and post-construction, during similar weather events and climate cycles, as well as the new pavement against baseline pavements nearby to establish any changes. Changes in the de-icing pattern may begin to establish an additional economic payback, also part of a potential metric for evaluation and reporting.

We can draw upon landscape performance research, as part of Landscape Architecture Foundation's performance series for over 100 constructed landscape projects, many of which include sustainable parking lot research. For example, McGuire completed landscape performance research for the parking lot at Morton Arboretum in Lisle, IL, outside Chicago, which showed a payback within a 10-

year period, and no overflows from a highly constructed interlocking pavement system. Research on high performing projects can support the seminar research phase.

The social impact of the project would also be important. Student impressions and experiences, as well as aesthetic, behavioral and psychological responses to the project are important to study. Surveys of what students have learned, and about how the project impacts their campus experience will be important to establishing the social, health and well-being benefits of converting pavements to sustainable practices. This research would take place later after construction, and would be coordinated though Institutional Review Board. This doesn't fall under the review for this current application, but it is worth noting as an important future anticipated benefit of the project, beyond environmental.

All of the above environmental, economic and social benefits can be supported through metrics, benchmarks, and on-site data collection and instrument surveying to demonstrate the measurable impact of the project.

C.2.2 Tracking as it affects the budget request

We plan to utilize data collection and monitoring equipment for the pilot project, to take real measurements of rainfall, infiltration rates and quantities, moisture and temperature readings, and to asses the pavement performance over this time. Some of this equipment is included as part of our request under this application. Monitoring that will test the efficacy and performance of the lot is not included as a typical operation by F&S. Instead, we would like to ensure that this monitoring takes place, led by Civil & Environmental Engineering faculty and students, so that reporting of the benefits and performance are part of our understanding of the investment choice toward this design direction.

C.3 What is the plan for publicizing the project on campus? In addition to SSC, where will information about this project be reported? Note any opportunities for cross promotion, and if there are ways for SSC to be involved, please list them here.

Key to successful implementation of sustainability initiatives is buy-in from appropriate stakeholders. Students will have the opportunity to learn these skills from on-campus extension specialists in water quality and communications. Guest lecturers will advise the students on topics such as: why it's important to engage local stakeholders; how to engage local stakeholders effectively, including plans for evaluation; and effective project promotion, including press releases and use of social media. Students will then share their learning and progress in public formats. We will further support dissemination of the research and design phase, and the implementation of the project using communications specialists through the College of Fine & Applied Arts (McGuire' home college) and through Facilities & Services. We will also engage iSEE and Illinois-Indiana Sea Grant to facilitate

broader outreach. We anticipate that public presentations will be essential during the design process, as well as inviting the community to participate at key project moments.

In this context, we anticipate three levels through which we would publicize the project for promotion, awareness, involvement and broad impact:

Public meetings, presentations and exhibits:

There are a few existing public formats for sharing this project with the larger University community include:

- 1. Sustainability Day Forums at the Illini Union
- 2. Campus Sustainability Week
- 3. Earth Day
- 4. The Department of Landscape Architecture also hosts an exhibit of the semester work at the end of the Spring semester 2017, in coordination with the department's Sasaki Day year-end awards event. Panels, boards and a physical model of the Mahomet Lot project will be on display to share the design.

Media and websites:

A wide range of web-based media targets are possible, such as:

- 1. Press releases, managed by media relations leadership within FAA and F&S
- 2. Social media platforms such as Twitter and Instagram
- 3. A website devoted to sharing information and live reporting of the project and its status and results would be amazing. We will post progress, and seek feedback through a comments and suggestions field.
- 4. A project page on the iSee website
- 5. A dedicated webpage, to be hosted by SSC
- 6. A public dashboard of site performance monitoring

The constructed project site:

Of course, the best promotion is the project itself:

- 1. Physical signage on the project site, such as a pre-construction mini-billboard showing the future design, as well as post-construction educational signage, and
- 2. The Mahomet Lot itself will be the live demonstration of sustainable parking lot to the local and regional community. Ongoing student activities and research projects would take place there in the coming years.

C.4 What are your specific, measurable outreach goals? How will these be measured? Please be as specific as possible.

Students will be required to develop specific, measurable outreach goals as part of their learning, though the exact goals remain undefined at this time. However, we anticipate that outreach will take place as described in the previous question. Potential means of measuring impacts include:

- Tracking impressions and hits from users, particularly in response to key project milestones.
- Establishing site visits for project output materials;
- Tracking seminar attendance (including increases or decreases in attendance over time);
- Providing questionnaires about the project to request feedback of the progress and learning outcomes from the project;
- Providing polls on social media that assess awareness of the project at various stages of completion; and
- All of the above should be available to the University community and to the surrounding community.

C.5 Do you have any additional comments or relevant information to aid in evaluation of this application? Please provide any additional information here.

We realize that this project may be a unique application to the Student Sustainability Committee. It is not a direct, immediately implementable project, (although we do intend for it to be constructed in 2017-2018). Instead we see this project as laying the groundwork for a spiral effect of intense, sustained implementation. The project as applied for conducts the research, design, public education and internal coordination to set the University in motion on transitioning and transforming its parking performance to meet the sustainability goals of the campus and of iCAP.

Thank you for considering our application, please contact us with any questions of the materials within.

Sincerely,

Mary Pat McGuire, RLA

Assistant Professor of Landscape Architecture

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Mary Pat McGuire Assistant Professor Department of Landscape Architecture College of Fine and Applied Arts University of Illinois - Urbana Champaign 611 Lorado Taft Drive, Champaign Illinois 61820

30 November 2017

Dear Prof. McGuire,

I write this letter in support of your proposal, "The Mahomet Lots: Designing Sustainable Parking Lots for the University of Illinois Campus". If this work is funded, Illinois-Indiana Sea Grant specialists will participate in class discussions. Our primary goal will be to advise students on how to work most effectively with stakeholder groups, including effective outreach. We will also assist with promotion of the project to groups both on the University of Illinois Campus and beyond.

This work is an exciting way to engage students in real-world issues while also improving water quality on campus. We look forward to working with you.

Sincerely,

Carolyn J. Foley Assistant Research Coordinator Interim Communication Coordinator Illinois-Indiana Sea Grant <u>cfoley@purdue.edu</u>