



## STUDENT SUSTAINABILITY COMMITTEE

### Scope Change

*From time to time unforeseen challenges or opportunities can affect the planned budget, timeline, or overall goals of a project funded by the Student Sustainability Committee. Past examples of these situations include projects coming in under budget but having additional opportunities available, or inclement weather delaying the planting of agriculture projects.*

*Below please include a brief project summary and your requested changes. Attach additional documents as needed. If you have any questions, please contact the Student Sustainability Committee at [sustainability-committee@illinois.edu](mailto:sustainability-committee@illinois.edu).*

### **General Information**

**Project Name:** Bicycle Registration and RFID Tracking Program

**Total Amount Requested from SSC:** \$25,208

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### **Contact Information**

**Applicant Name:** Ryan Graves w/ Morgan White

**Unit/Department:** Facilities & Services

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## Project Information

Please provide a brief background of the project, the goals, and the desired outcomes: Hundreds, if not thousands, of students already use their bicycles on a daily basis to get to and from class. This project funds an opt-in bike tracking system for all registered campus bikes working toward two goals:

1. Collecting useful data on where cyclists are biking on campus for more accurate and timely information than the perennial bike census; and
2. Providing incentives for people who bike to campus, in the form of points toward or drawings for gift certificates for local dining options near campus.

When students and faculty of the University register their bikes, they will each receive a tag for their bike with a personal ID number. With the data collected about their individual biking habits, students and faculty will be able to track how often they bike and earn rewards through an online interface and incentive system. The interface will show the number of times biked, the rewards an individual can earn, and offer the ability to submit reports since bikers often see needed improvements before planners and engineers.

This system is being developed entirely in-house by a team of women engineers.

This proposal directly funds:

1. Supplies for creating the system
2. 2 interns to assist with logistics
3. Mounting equipment and RFID tags

Please provide a brief summary of how students will be involved in the project's changes: After the counters automatically collect the data, it will need to be analyzed. Students will have the ability to analyze the different types of counts and create reports based off this data. Students may also have the opportunity to manually collect the data from the counters periodically, if automatic transmission isn't available. There may also be opportunities for students to help with the installation of said counters in 12 different predetermined locations.

Please provide a brief summary of your requested scope change. How is your request different from your original plan?

**Why do we want a scope change?** – The students involved in the original project proposal have been very busy with their schoolwork, and they cannot see this project through.

**What change are we proposing?** – The Champaign Urbana Urbanized Area Transportation Study (CUUATS) has been awarded \$35,000 by IDOT (for the MCORE project) to purchase and install counters (to automatically count pedestrian and bike traffic) along the identified MCORE corridors, see attached documents for specific locations. We are proposing to collaborate with CUUATS to install these counters, which will support future research, projects, and policy.

**How is it different from the original plan?** – The original project, proposed by the students of the Roly Poly team, was to develop a new system from scratch to track individual bikes on

campus, where this system counts each bicyclist and pedestrian as they pass each counter. However, it is important to note that another entity is in the process of purchasing and installing a system, very similar to the one Roly Poly envisioned. Our proposal is to help the MCORE project and CUUATS in installation of this system across the University district, which would help in several ways:

1. It would save the time spent in Research and Development (R&D).
2. **Eco-Counter is an established counter producer with accompanying software for analysis, which means they should have an existing maintenance task force. Eco-Counters have several clients in the US, and they would have dealt with anomalies or malfunctions in their systems elsewhere. Therefore, it will be easy for them to handle similar issues, should they arise on our campus.**
3. SSC would be collaborating with another entity, which could be a beneficial for their rapport within the University as well as the community.
4. The funding could help MCORE and CUUATS to buy more counters, which would increase the accuracy of our tracking system, and a wider audience (students, faculty, and staff) may benefit from this.
5. The data gathered from the counters will be used in the future to support grant applications, funding opportunities, street improvements, and local policy changes.

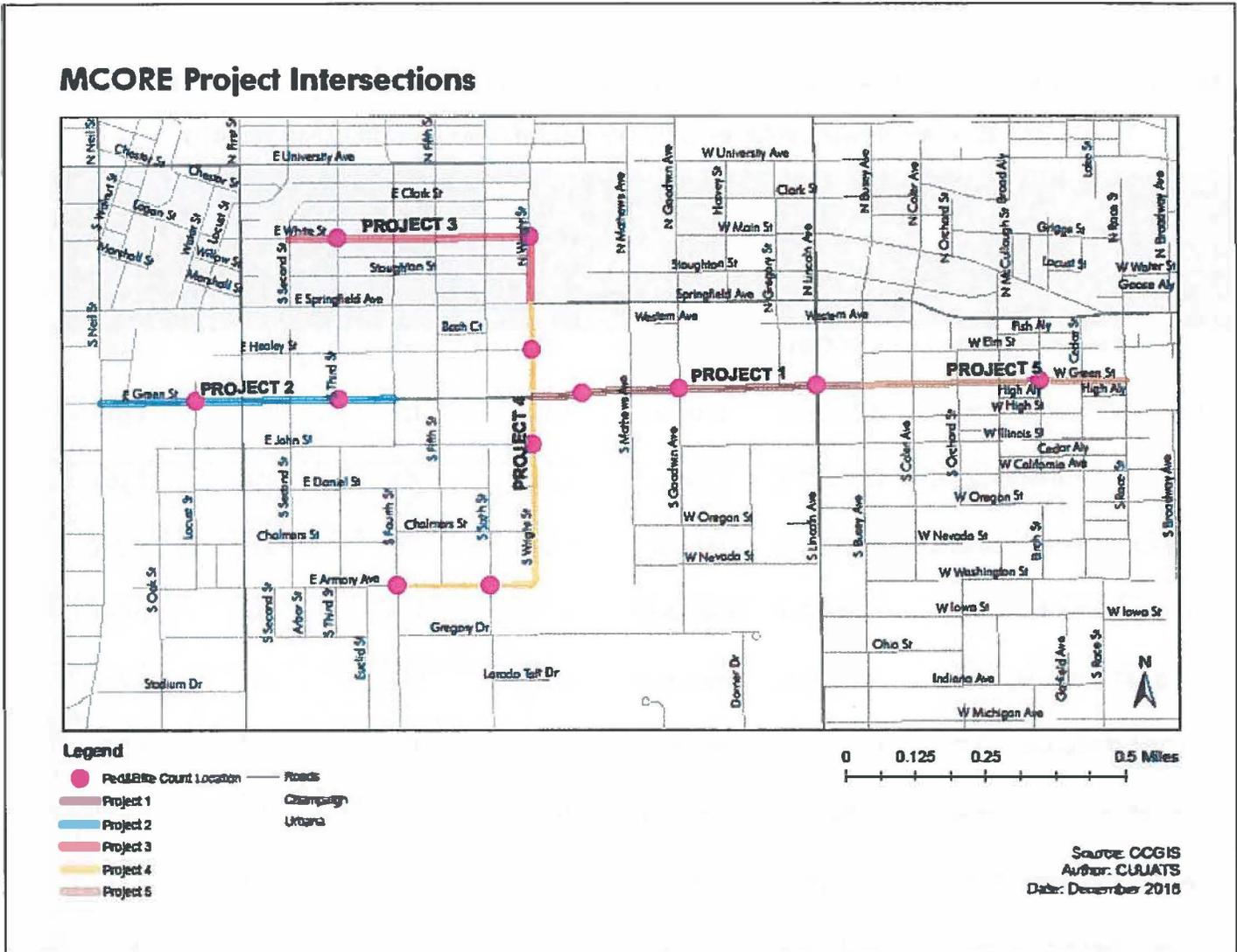
**Where will the Eco-Counters be installed?** – There are 12 predetermined locations where the counters need to be installed. Of these 12 locations, funding to purchase counters for 3 locations has been secured (on Green St near the Illini Union, at Sixth St and Armory Ave, and at Wright St and Healey Ave) with relation to where the MCORE projects have taken place. See attached documents for specific locations.

**New Timeline requested: Summer 2020**

Additional comments (Optional)

Any additional comments/relevant information for the project proposal

Figure 1: MCORE Corridors and Pedestrian and Bicyclist Data Collection Locations



Pedestrian and bicyclist data at the locations showed above was collected in April and May of 2016 on typical weekdays from 7AM to 7PM when the University of Illinois was in regular session.



Table 2: Total Road Users' Comparisons at Study Locations

Location	Total Number of Vehicles	Total Number of Pedestrians and Bicyclists	Percentage of Pedestrians and Bicyclists
Birch Street/Green Street	2,937	406	12.1
Lincoln Avenue/Green Street	18,965	1,648	8.0
Goodwin Avenue/Green Street	10,009	7,764	43.7
Illini Union Entrance/Green Street	7,415	15,868	68.2
Wright Street/White Street	2,844	2,664	48.4
Wright Street/Healey Street	3,003	8,772	74.5
Wright Street/John Street	2,020	8,298	80.4
Sixth Street/Armory Avenue	5,161	11,170	68.4
Fourth Street/Armory Avenue	7,430	9,044	54.9
Third Street/White Street	1,965	595	23.2
Third Street/Green Street	8,922	2,358	20.9
Locust Street/Green Street	9,597	1,187	11.0