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9/16/19

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MTSU Clean Energy Initiative Project Funding Request

There are five (5) sections of the request to complete before submitting. See <http://www.mtsu.edu/sga/cleanenergy.shtml> for funding guidelines. Save completed form and email to cee@mtsu.edu or mail to MTSU Box 57.

1. General Information	
Name of Person Submitting Request Karen Petersen, Dean of Liberal Arts	
Department/Office College of Liberal Arts, Todd 231 MTSU Box # 97	Phone # (Office)2534 Phone # (Cell) 615-579-6605
E-mail karen.petersen@mtsu.edu	Submittal Date 9/16/19

2. Project Categories (Select One)			
Select the category that best describes the project.			
X	Energy Conservation/Efficiency	x	Sustainable Design
	Alternative Fuels		Other
	Renewable Energy		

3. Project Information
<p>a. Please provide a brief descriptive title for the project.</p> <p>b. The project cost estimate is the expected cost of the project to be considered by the committee for approval, which may differ from the total project cost in the case of matching funding opportunities. Any funding request is a 'not-to-exceed' amount. Any proposed expenditure above the requested amount will require a resubmission.</p> <p>c. List the source of project cost estimates.</p> <p>d. Provide a brief explanation in response to question regarding previous funding.</p>
3a. Project Title Secure Covered Bike Shelter for Peck Hall

3b. Project Cost Estimate

The total cost for 1 shelter is \$8900 and the cost of installation is \$2600 for a total cost of \$11,500. This is from a direct quote from DuoGuard.

3c. Source of Estimate:

This estimate comes directly from DuoGuard. This quote was recent as of July 2019.

3d. If previous funding from this source was awarded, explain how this request differs? N/A

4. Project Description

(Completed in as much detail as possible.)

- a. The scope of the work to be accomplished is a detailed description of project activities.
- b. The benefit statement describes the advantages of the project as relates to the selected project category.
- c. The location of the project includes the name of the building, department, and/or specific location of where the project will be conducted on campus.
- d. List any departments you anticipate to be involved. Were any departments consulted in preparation of this request? Who? A listing may be attached to this form when submitted.
- e. Provide specific information on anticipated student involvement or benefit.
- f. Provide information for anticipated future operating and/or maintenance requirements occurring as a result of the proposed project.
- g. Provide any additional comments or information that may be pertinent to approval of the project funding request.

4a. Scope: Work to be accomplished

Campus transportation has already installed concrete pads on the north, east, and west sides of Peck Hall in effort to eliminate all portable racks that exist on the interior 1st floor breezeway of Peck Hall. One new shelter has been shipped to be installed on the north concrete pad. This shelter will be installed on the west pad. Installation of shelters will be done by Campus Facility Services.

4b. Scope: Benefit Statement

In a recent survey administered to students, 61% of students stated that not having enough secure bicycle parking on campus is a reason that they don't ride their bikes on campus. In addition, 83% stated that the weather is also a reason for not riding their bikes on campus. With the addition of covered bike racks to Peck Hall, students will have racks that provide protection from the rain while also providing bicycle parking that is proven to be secure.

In addition, the existing bike racks force users onto sidewalks and accessible ramps in order to gain access to Peck Hall. Many students lock their bikes onto ADA ramp rails due to the location of the existing mobile racks. Shelters would be located in such a way as to minimize the need for cyclists to interact with pedestrians as well to encourage students to not lock their bikes to the ADA ramps.

Lastly, almost every student on campus will take at least one class in Peck Hall, and many students take multiple classes in the building. Thousands of students use the building every day each semester. A substantial number of faculty and staff are housed in the building as well. The heavy use of existing bike racks indicates a need for better storage and replacement of the existing storage which will no longer be available due to current ongoing renovations.

4. Project Description (continued)**4c. Location of Project (Building, etc.)**

The covered rack will go on the west side of Peck Hall where there is already a concrete pad in place. This is the side closest to the KUC.

4d. Participants and Roles

Facilities services would oversee construction and purchase equipment. Campus Planning will be involved in designating the areas for the bike racks as well as aesthetic compliance. Campus Grounds (Ron Malone) will oversee the funding and installation of the designated concrete pads.

4e. Student participation and/or student benefit

As noted above, thousands of students use Peck Hall daily. Providing an aesthetically pleasing and functional bicycle storage option for students will encourage cycling as a mode of transport to and on campus and be attractive to the potential students and families who tour campus and walk through Peck Hall.

In the aforementioned survey administered to students, 83% of students listed not having enough bike lanes as a reason for not riding their bicycle on campus. In addition 95% of students stated that having more separation from vehicular traffic is important to them in considering to ride their bike on campus as well as 93% of students stating that having secure bicycle parking is important to them in considering to ride their bike on campus. Bicycle racks, lanes, and amenities are all a part of creating a built environment that supports students in riding their bike on campus, which is part of MTSU's bicycle master plan.

4f. Future Operating and/or Maintenance Requirements

Campus recreation maintains the bike shelters.

4g. Additional Comments or Information Pertinent to the Proposed Project

Increasing and improving our cycling infrastructure will reduce vehicle traffic to and on campus, saving fuel and reducing the potential for accidents. Placement of the pavilions also encourages cyclists to use the roadways rather than sidewalks, improving the pedestrian experience on campus.

5. Project Performance Information

Provide information if applicable.

- a. Provide information on estimated annual energy savings stated in units such as kW, kWh, Btu, gallons, etc.
- b. Provide information on estimated annual energy cost savings in monetary terms.
- c. Provide information on any annual operating or other cost savings in monetary terms. Be specific.
- d. Provide information about any matching or supplementary funding opportunities that are available. Identify all sources and explain.

5a. Estimated Annual Energy Savings (Estimated in kW, kWh, Btu, etc.)

Energy savings can be calculated through reduction of greenhouse gases through the reduced consumption of gas when students have an option to ride a bike instead of driving a vehicle. This is especially important for cars at low or idle speeds, which increases the emission of greenhouse gases. This could reduce CO₂ emissions by 30,700 lbs of CO₂ annually. By supplying a built environment for bicycle commuters, we are greatly increasing the opportunity for people to ride their bikes instead of driving on campus.

5b. Annual Energy COST Savings (\$)

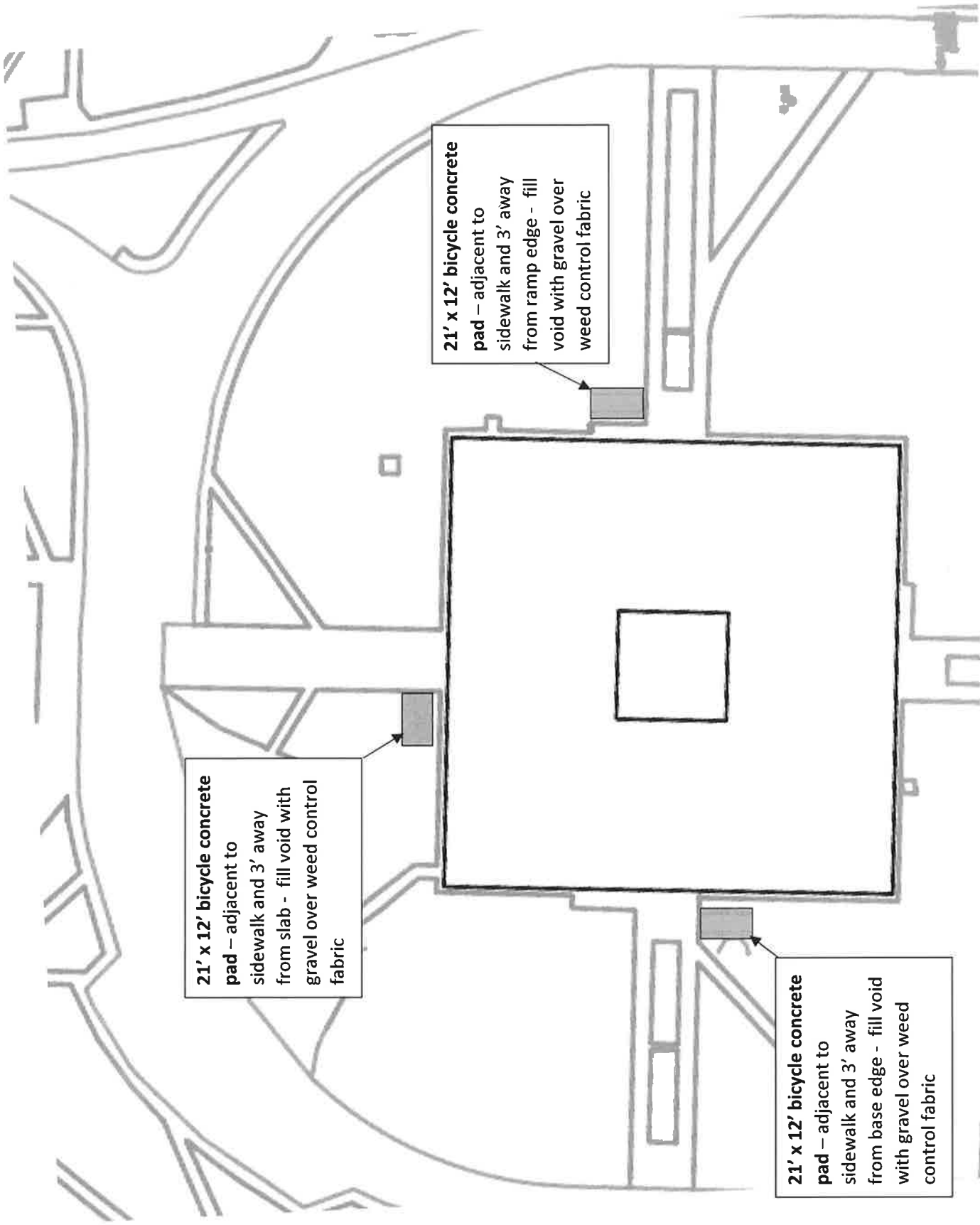
The League of American Bicyclists data shows that at U.S. Universities, on average, 6% of the school population commutes via bike. In addition, the average annual mileage of a student commuter is 387 miles. With the addition of 24 spaces for bicycle parking, it can be estimated 13,932 miles will be used by students commuting by bikes instead of cars. This is a savings of 594 gallons of gas, or close to \$1514 in fuel savings. Other savings include less wear and tear on road infrastructure as well as the added benefit of increased health. Lastly, by increasing the number of students on bikes, MTSU will ultimately save on having to find more space for the creation of parking spots on campus.

5c. Annual Operating or Other Cost Savings. Specify. (\$)

There is no additional annual operation cost with this structure. Ultimately, through this long-range master plan, the university will save money by not having to create as many parking spaces as well as by reducing vehicular impact on roads and automobile infrastructure.

5d. Matching or Supplementary Funding (Identify and Explain)

Supplementary funding comes from Campus Recreation in supporting the long range vision of making MTSU more bike friendly. In addition, Campus Transportation will be investing over \$6,000 of their money for the purchase and installation of concrete pads for the shelters. Campus Recreation provides funding for student mechanic wages, space for housing a bike shop, and all tools and parts necessary for upkeep and maintenance of student bikes.



21' x 12' bicycle concrete pad – adjacent to sidewalk and 3' away from ramp edge - fill void with gravel over weed control fabric

21' x 12' bicycle concrete pad – adjacent to sidewalk and 3' away from slab - fill void with gravel over weed control fabric

21' x 12' bicycle concrete pad – adjacent to sidewalk and 3' away from base edge - fill void with gravel over weed control fabric



Bikes locked to rail on ADA ramp outside Peck Hall



Bike impeding ADA access at Peck Hall



Another bike locked to rail on ADA ramp outside Peck Hall



Covered rack across street from Peck Hall at capacity