

# UNIVERSITY OF MISSOURI-COLUMBIA

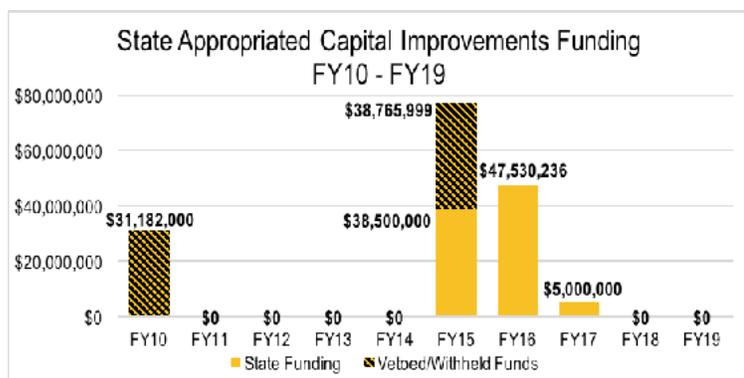
## CAMPUS BUILDINGS

Education & general (E&G) buildings	789
E&G building SQ. FT.	8,214,868
Auxiliary (AUX) buildings	150
AUX building SQ. FT.	9,075,932
Buildings leased from	55
Leased from building SQ. FT.	No less than 223,830
Buildings leased to	21
Leased to building SQ. FT.	No less than 40,654
Student housing/bed space	5,967
Percent of bed space utilization	93%
<b>Maintainable campus SQ. FT.</b>	<b>17,290,800</b>

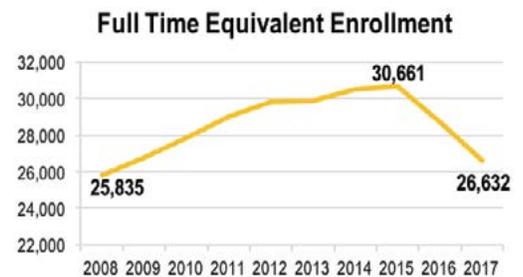
<b>Grounds</b>	
Tunnels	1,470,048 GSF
Roads paved	2,639,761 GSF
Sidewalks	7,045,084 GSF
Paved parking lots	675,122 GSF
Gravel parking lots	1,565 acres
Farm acreage	135 acres
Other Specialty Land	7 Parking garages

### Buildings Needing Demolished

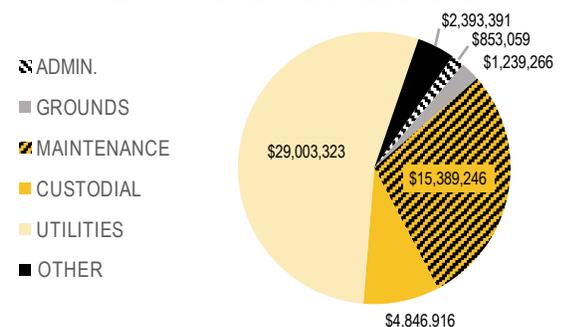
40 buildings with a FCNI > 0.40 that have been identified as needing major renovation or demolition, the goal is to reduce (demolish or divest) this identified space by 500,000 GSF over the next 10 years but no approved plan is in place at this time.



The state has appropriated nearly \$126 million in capital improvements funding to University of Missouri – Columbia over the last decade, but nearly \$70 million, or approximately 56%, has been restricted or vetoed.



### FY18 E&G FACILITIES PLANNED BUDGET



### Utility Providers

Electric	MU (self)
Natural gas	Constellation
Water	MU (self)
Phone	MU (self)
Internet	MU (self)

### Utility Distribution (Linear Ft.)

Chilled Water	124,080
Domestic Water	151,540
Steam/Hot Water	130,940
Electrical	208,030

### Community Facilities on Campus

Memorial Union/	125,795 GSF
A.P. Green Chapel	
University Club	15,000 GSF
Missouri Theater/	
Jesse Auditorium	96,452 GSF

### Physical Asset Reinvestment (M&R) for E&G Purposes

Total deferred maintenance for E&G Buildings	\$404,266,898
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### Central Plant/Power Plant

Year Built	1923
Electricity Producing	Yes
Nominal Chilled Water Tonnage	33,500
Nominal Boiler Capacity (lb./hr.)	1,095,000

### Other

Public Drinking Water System	4 Mil GPD
Compressed Air System	500 ACFM
Renewables	40%
On Campus Wind Turbine	1 Turbine
On Campus Solar Panels	4 Systems

Campus Physical Address:

230 Jesse Hall,  
Columbia, MO, 65211

Year institution was founded:

1839

Date last campus master plan was completed:

2017

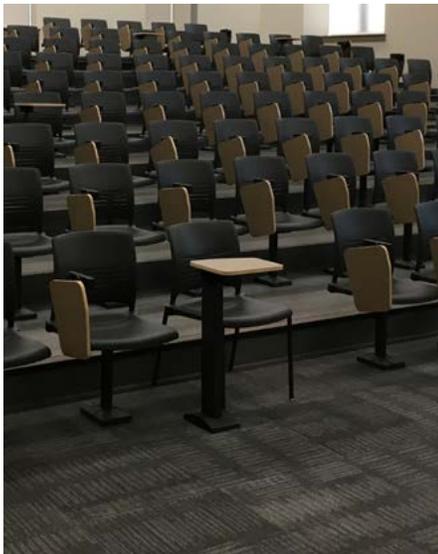
Date last deferred maintenance audit was completed:

2017

Total campus size:

17,988 acres





# University of Missouri-Columbia

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*We are stewards and builders of a priceless state resource, a unique physical infrastructure and scholarly environment in which our tightly interlocked missions of teaching, research, service and economic development work together on behalf of all citizens.* ”

The University of Missouri-Columbia (MU) is a selective institution that offers a broad range of undergraduate, graduate, doctoral, and professional degrees. Approximately 31,000 students attend MU. About three-quarters are undergraduates, 20% are graduate students, and 4% are enrolled in professional programs.

## Capital Improvement & Facilities History

The University of Missouri-Columbia has been appropriated more than \$160 million in capital improvement funds over the past 10 years, but \$70 million has been restricted or vetoed. MU was one of the many higher education institutions expecting federal stimulus funds in 2010, but construction of the Ellis Fischel Cancer Center had to be postponed when that \$31 million was restricted.

Due to significant revenue declines, Governor Nixon's administration restricted nearly all capital improvement projects funded by federal stimulus funds. In fiscal year 2015, MU received the first of higher education's portion of Board of Public Building bonds to reconstruct Lafferre Hall, but various other projects were vetoed or restricted during the same year. MU received additional Board of Public Buildings the following year to complete Stewart Hall renovations. The only funding the university has received since then is \$5 million for the expansion of the Thompson Center for Autism and Neurodevelopmental Disorders.

## Facility Challenges

The MU campus consists of 789 Education & General Buildings and 185 Auxiliary Buildings with over 19.5 million gross square feet. The campus is diverse with the historic Francis Quadrangle, more modern buildings on the Carnahan Quadrangle, a medical center, high tech laboratories, and agriculture plots, and a significant portion of the campus is designated as a Botanical Garden. The campus operates a highly efficient combined cooling, heating, and power system with a reliable utility service greater than 99.995% and 37% of the energy used is from biomass, wind, or solar. The campus's long-standing energy conservation and efficiency programs have yielded a 21% reduction in energy use per square foot in education and general space yielding an annual cost avoidance of over \$9.4 million with cumulative cost avoidance of \$85 million since the formal inception of the program in 1990.

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However, over 40% of the E&G buildings on the main campus have not had a major renovation in over 50 years and another 28% of the buildings have not had a major renovation in over 25 years. Approximately 50% of the total gross square feet of E&G buildings on campus has a rating of below average or worse. Currently, the campus has over \$780 million in facilities needs including over \$404 million in deferred maintenance. A significant portion of the deferred maintenance is building systems (i.e. mechanical, electrical, plumbing, etc.) as well as interior finishes (i.e. painting, floor systems, ceiling systems, etc.).



# Capital Priorities

The Board of Curators and the University of Missouri-Columbia have identified the following as the university's top priority for the future. The total state request for this project is about \$50 million.

## 1. Translational Precision Medicine Complex (TPMC)

Translational medicine brings researchers and clinicians together in

**Project Cost: \$220,800,000**  
**Local Match: \$120,800,000**  
**Federal Fund: \$50,000,000**  
**State Request: \$50,000,000**

a multidisciplinary, collaborative setting supported by advanced technology and data analysis tools. The National Institute of Health has identified translational medicine research as a major focus for grant funding.

The TPMC will integrate multidisciplinary laboratory space with advanced analytical instrumentation,

computational processing, and pilot scale manufacturing under one roof. This provides the synergistic platform needed for integration of biomedical, electrical, biomolecular, mechanical, and industrial engineering with both veterinary and human medicine.



The space utilization study completed in 2017 indicated MU has a current research space deficit of 4%, according to the study's square footage calculations. A significant portion of the existing research space needs renovations to support today's research demands. Thirty percent of the current research space at MU is located in buildings with a facilities condition needs index of 0.40 or higher (poor condition). Poor space results in low productivity and increased cost for that space. The potential for additional research funding and faculty recruitment and retention increases with a cutting edge facility such as the TPMC, thus increasing MU's standing in the Association of American Universities (AAU). MU's success in this realm will place Missouri at the forefront of precision medicine due to the number of engineers and clinicians uniquely equipped with skills to succeed in this new frontier of health care. Research discoveries have the potential to lead to new companies and high-paying job creation for the state. The consequences of inaction on this facility include a potential decline in AAU status and the inability to achieve the strategic mission.

The University of Missouri initiated exploration of project delivery through use of a public/private partnership. In conjunction with that effort, planning activities progress both for the building and research collaborations.

Click [here](#) for campus map.

Click [here](#) for Google view.

Click [here](#) for virtual tour.