Guidelines for Capital Reporting
Including the FY 2017 Capital Plan
FY 2018 Capital Appropriations Request and
Higher Education Capital Fund Request
# University of Missouri
## Capital Reporting Guidelines

**Table of Contents**

- Introduction ................................................................................................................................................... 3
- Capital Plan Report Definitions .................................................................................................................... 3
- UM Capital Data ........................................................................................................................................... 6
- Capital Project Submittal Schedule ............................................................................................................... 8
- Capital Project Priority Criteria .................................................................................................................... 9
- Capital Project Program Planning Study .................................................................................................... 13
- Financial Plan Requirements for Debt Funded Projects ............................................................................. 17
- Appendix 1 – Capital Database User Guide ............................................................................................... 19
- Appendix 2 – State of Missouri STEM Definition ..................................................................................... 23
- Appendix 3 – Higher Education Capital Fund Application ........................................................................ 24
Introduction

These guidelines are for the development, justification, prioritization, and submittal for major capital new construction and renovation projects including projects in the State Capital Appropriation Request, federal requests, and other projects funded by grants, gifts, bonds and local campus funds.

All major capital projects are reviewed by campus administrative and facilities officials to ensure projects align with campus strategic and facility master plans, that sufficient programming is provided to determine the scope of improvements, and that appropriate cost estimates are performed. Campuses should also determine that sufficient operating funds will be available when the facility is occupied. The campuses are responsible to keep their physical facilities master plans current. Those plans are submitted to the Board of Curators every three years.

The campus capital project plans are submitted to the System administration annually in priority order as outlined in these guidelines. Projects are reviewed by UM Facilities Planning & Development (FPD) and comments are shared with campuses. Particular attention is paid to projects expected to be funded soon and the State Capital Appropriations Requests.

The UM System will prioritize the current year State Capital Appropriations Requests. Final prioritization of projects is made by the General Officers. The Board of Curators will approve the State Capital Appropriations Request and Higher Education Capital Fund (HECF) projects at the June Board meeting.

The overall Capital Project Report is shared with the Board as an informational item at the June Board meeting. The information in the report is used by several UM System offices, including the Treasurer and Government Relations.

Capital Plan Report Definitions

1.1. **Capital Project Priority Criteria:** Each campus will prioritize its capital projects using the Priority Criteria included in this document. Each campus may adapt and weight these factors to conform to particular campus objectives. Campuses may assign the same numerical priority to Capital Report projects when this is supported by the ranking criteria. However, State Capital Appropriation Request projects must be sequential; no two state requests may have the same numerical campus priority. The System will use the UM State Capital Appropriation Request Criteria to rank current
year state requests across campuses. Engineering Equipment should not have a priority but should have a year.

1.2. **Capital Project Report**: This report includes all projects greater than $5,000,000, and all debt financed projects are included regardless of amount. All projects are included regardless of the funding source: state and federal appropriations, grants, private gifts, public/private partnerships, campus funds, etc. The Capital Project Report is submitted by the campuses according to the schedule in these guidelines. The Capital Project Report is made to the Board of Curators annually, typically at the June meeting.

1.3. **Capital Project Submittal Schedule**: This schedule, included in these guidelines, identifies the key milestones and actions leading to the publication of the Capital Report and the review, approval, and submittal of the State Capital Appropriation Request.

1.4. **Critical Repairs**: Critical Repairs are the campus top priority facilities reinvestment needs from its backlog of repair and adaption projects. Top priority needs are those that are classified as currently critical or potentially critical within a year by a facilities condition audit.

1.5. **Debt Funded Projects**: Projects that require debt funding will be reviewed by the Treasurer. Requirements for debt funded projects are found in these guidelines.

1.6. **Engineering Equipment**: Campuses may annually request State funds for the engineering equipment through a program of grants established for University of Missouri engineering colleges to assist them in purchasing teaching and research laboratory equipment exclusive of laboratory or classroom furniture. The amount granted may not exceed the lesser of $1,200 per engineering bachelor degree awarded in the previous fiscal year, or the dollar value of new funds for equipment purchases which has been obtained from sources other than state appropriations for laboratory equipment. If the first option is chosen by the campus as the basis for the request, FPD obtains the latest Degrees Conferred Report from UM Institutional Research to calculate the request basis. If the second option is chosen by the campus as the basis for the request, supporting information should be included.

1.7. **Federal Appropriation Requests**: Federal appropriation requests will be submitted with the Capital Report and have the same schedule, supporting documentation, and approval requirements. After Board Review of the Capital Report, Federal requests are forwarded to the UM Vice President for Governmental Relations. Federal requests not included in the Capital Report or changed after Board Review will be resubmitted to both the UM Vice President for Governmental Relations and the UM Vice President for Finance and Administration after campus approvals are gained.
1.8. **Higher Education Capital Fund (HECF) or 50/50 Projects**: is a state appropriation avenue for requesting capital for projects with at least 50% of the project funding from private donations or grants. The projects are limited to new construction, rehabilitation, maintenance, renovation, or reconstruction only, and may not be for athletic facilities, parking structures, or student housing. The General Assembly appropriates moneys to the fund, the State may not issue bonds to fund the HECF, and no moneys distributed without a line item appropriation for a specific project. The school must demonstrate the 50% project cost is from private donations or grants, and no matching funds can come from the institution’s operations budget, tuition, fees, revenue or general obligation bonds or state appropriations. Application is in Appendix 2 for reference and is available online on the [FPD Design and Construction Document Page](#). Please see RSMo 173.480 for complete details for the program.

1.9. **New Construction**: New Construction includes the construction of new buildings, additions to existing buildings, and the acquisition of land and facilities. Work in this category will include all site improvements, utilities, building systems, and equipment required to create a functional facility to serve its intended use. Renovations may be included if they are part of a larger, new construction project.

1.10. **Program Planning Study**: A Program Planning Study (PPS) is recommended for all major capital construction projects and is required for projects where state or debt funding is requested in the coming fiscal year. A PPS describes and systematically justifies the need for improved or expanded facilities; evaluates alternate solutions; and prescribes a strategy to implement a recommended solution within the context of each campus strategic academic plan and Physical Development Plan. The PPS guidelines are included later in these guidelines. A PPS or equivalent planning study is recommended for all projects planned to be funded in the near term.

1.11. **Rehabilitation**: Rehabilitation is the construction work to existing facilities to adapt a facility to a new use or respond to changes in existing programs, and/or correct building deficiencies. Work in this category will substantially alter buildings, equipment, grounds or utilities. Building deficiencies include deferred maintenance, work to improve compliance with current fire and safety code standards, work necessary to bring facilities housing laboratory animals up to standards such as NIH Guidelines, AALAC standards, and USDA Regulations, and work required to make facilities and programs accessible to the physically disabled following the Americans with Disabilities Act.

1.12. **State Capital Appropriation Request**: The University makes an annual State Capital Appropriation Request. Campuses submit prioritized requests according to the
schedule in these guidelines. Individual State Capital Appropriation Requests will fall into the following categories:

1.12.1. **Capital Improvements** (Rehabilitation and New Construction) - These are all current request year construction projects. These include HEFC projects.

1.12.2. **Five Year Plan** - These are future year requests for projects up to 5 years beyond the current request year.

1.12.3. **Engineering Equipment** – This is a matching grant program established for University of Missouri engineering colleges for the purchase of teaching and research laboratory equipment.

1.13. **STEM Fields for Missouri Performance Funding (by CIP Code)** – The State of Missouri has identified STEM. A list of the codes are found in Appendix 1.

1.14. **UM Capital Planning Database**: An online system allows campuses to enter project information. The database facilitates the production of the necessary reports for review and approval of the State Capital Appropriations Request and the Capital Plan.

### UM Capital Data

Campuses will supply the UM office with project information such as cost, anticipated year of funding, project priority, and text such as project description and justification in the UM Capital Planning Database ([https://capitalplanning.umsystem.edu](https://capitalplanning.umsystem.edu)). This data will be used to complete the necessary reports for the review and approval of the State Capital Appropriation Request and the Capital Plan. Projects that are new or change substantially will require an updated cost estimate.

Please note the following.

1.15. **Project Justification**: The justification explains the project benefits. See section B.2 of the attached Capital Project Program Planning Study. The Project Justification must also explain the project’s impact on students, faculty, programs, and the institution: number affected retention, recruitment, and enrollment increase. The justification should include information on the project will affect revenue and cost, including any anticipated cost avoidance, economies, and economic payback.

1.16. **Project Description**: The description explains the physical attributes of the project. See section B.1 of the attached Capital Project Program Planning Study.

1.17. **Year**: List the fiscal year the project is anticipated to be funded [started]. If a year is not known, list it as TBD or To Be Determined. State Requests should list a specific fiscal year.

1.18. **Operating Expense Impact**: For all projects, note the dollar sum of all projected annual expenses necessary to operate the facility. This cost will include facility maintenance, custodial and utilities.

1.19. **Deferred Facilities Need Impact**: For all projects, note the dollar total of any deferred maintenance, renewal, and/or adaption eliminated by the proposed construction.
1.20. **Facilities Condition Needs Index (FCNI):** For all projects note the FCNI which is the total of Deferred M&R, Renewal and Adaption divided by the replacement cost values. The FCNI is zero for new buildings/additions unless some space is retired because of the new construction.

1.21. **Inflation:** FPD will enter the inflation rate into the UM Capital Planning Database when the guidelines are distributed in December. The inflation will be based on the ENR Construction Cost Index for the average of Kansas City and St. Louis. The inflation will be applied to all existing projects listed in the UM Capital Database.

1.22. **Sources of Funding:** Include all projected sources of funds. Available categories include: State Appropriation, Federal Request/Grant, Gifts, Debt, and Other

1.23. **State Economic Impact of State Capital Request Projects:** Capital Projects help with the health of the economy beyond the actual construction of the project. The FPD will use the most current edition of The Contribution of Office, Industrial and Retail Development and Construction to the U.S. Economy and use the multipliers from the National and State Multipliers for Output, Earnings, and Employment Multipliers: Construction. All values will be based on the total cost of the project. The most current multipliers will be distributed in April.

Examples of the calculations are:

- Impact on GDP = Total Cost * 2.2024,
- Earnings Generated = Total Cost * 0.6918,
- Jobs Supported = Total Cost / 1,000,000 * 17.4321.
### Capital Project Submittal Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Responsibility</th>
<th>Capital Report</th>
<th>State Capital Appropriation &amp; HECF Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 15</td>
<td>UM</td>
<td></td>
<td>Capital Reporting Guidelines issued.</td>
</tr>
<tr>
<td>January 30</td>
<td>Campus</td>
<td>Input preliminary information and priority ranking for all projects regardless of funding [state, federal, gift, grants, debt] into UM Capital Planning Database.</td>
<td></td>
</tr>
<tr>
<td>March 1</td>
<td>UM</td>
<td>UM comments on preliminary Capital Report to campus staff.</td>
<td></td>
</tr>
<tr>
<td>April 1</td>
<td>Campus</td>
<td>Input final project information and priority ranking into UM Capital Planning Database.</td>
<td></td>
</tr>
<tr>
<td>April</td>
<td>UM</td>
<td>UM review and comment on final Campus Capital Report and priority ranking.</td>
<td></td>
</tr>
<tr>
<td>April AMC</td>
<td>UM/Campus</td>
<td></td>
<td>General Officers conduct preliminary project review and review the system priority ranking of the current year State and Federal Requests.</td>
</tr>
<tr>
<td>May GO</td>
<td>UM/Campus</td>
<td>Campus Review of Capital Plan to make final adjustments to project rankings and cost before June Board Meeting.</td>
<td>General Officers refine system priority ranking of the current year State and Federal Requests.</td>
</tr>
<tr>
<td>June Board Meeting (backup due May 20)</td>
<td>UM</td>
<td>Informational Item on UM Capital Report.</td>
<td>Board Approval of State Capital Appropriations Request.</td>
</tr>
<tr>
<td>July 1</td>
<td>UM</td>
<td></td>
<td>Submit State Capital Improvements Request Database to CBHE and State.</td>
</tr>
<tr>
<td>September</td>
<td>UM</td>
<td></td>
<td>Prepare &amp; issue the State Capital Appropriations Request Booklet.</td>
</tr>
</tbody>
</table>
Capital Project Priority Criteria

1.24. This Capital Project Priority Criteria & Scoring Table is a tool for ranking capital projects. The tool will be used by UM System to rank projects and may be used by the campuses as well. The Capital Project Priority Criteria & Scoring Table is intended to be used to initially rank projects. The results should then be closely reviewed, and final rankings adjusted based on judgment, and knowledge of unique circumstances. The Capital Project Priority Criteria & Scoring Table is listed in the UM Capital Planning Database for all projects in the Capital Plan.

1.25. General Criteria

1.25.1. Program Plan. The degree to which a project directly supports the campus's programmatic goals and objectives as stated in the campus strategic plan. Examples may include projects that affect programs identified for enhancement, projects that affect accreditation and projects that will affect external funding for research. Other strategic plan considerations may include projects that correct space deficiencies and/or increase instructional capacity. The weighting should reflect the project’s impact on students, faculty, programs, and the institution, the effect on revenue and cost, including any anticipated cost avoidance, economies, and economic payback. Recommended weight is 30%.

Score ____ X 0.30 = ____

<table>
<thead>
<tr>
<th>0</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>No impact.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campus core academic program activities may be adversely impacted without the project. Some positive impact on campus enrollment, research, accreditation, and/or campus revenue.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuing campus current core program activities will not be possible without the project. Significant positive impact on campus enrollment, research, accreditation, and campus revenue.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1.25.2. Facilities Renewal. The degree to which a project reuses and improves existing space, improves the building and/or campus Facilities Condition Needs Index [FCNI], razes obsolete space, and/or economically eliminates leased space. Recommended weight is 20%.

Score  ____ X 0.20 =  ____

<table>
<thead>
<tr>
<th>0</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>New construction and does not eliminate obsolete or leased space.</td>
<td>New construction but eliminates obsolete or leased space.</td>
<td>New construction and renovation and FCNI &lt; .30.</td>
<td>Full renovation and FCNI &lt; .30.</td>
<td>Full Renovation and FCNI ≥ .30.</td>
<td>Full Renovation and FCNI ≥ .40.</td>
<td>Full Renovation Project and FCNI ≥ .50.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.25.3. Infrastructure and Functional Sustainability. The degree to which a project is supported by existing campus infrastructure, removes deficiencies in existing campus infrastructure, improves campus energy efficiency, and/or improves campus sustainability. Recommended weight is 10%.

Score  ____ X 0.10 =  ____

<table>
<thead>
<tr>
<th>0</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>The project will require significant additional investment to expand campus infrastructure. No impact to infrastructure deficiencies, energy efficiency, and/or sustainability.</td>
<td>The project requires minimal additional investment to expand campus infrastructure, and/or remove infrastructure deficiencies, improve energy efficiency, and/or sustainability.</td>
<td>The project requires no additional investment to expand campus infrastructure, and/or improves existing campus infrastructure, energy efficiency, and/or sustainability.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1.25.4. Strategic Space Management. The degree to which the project allows the campus to strategically and economically reallocate and/or repurpose space to advance the campus strategic plan. For example, a new construction project creates the opportunity to build space better suited for the program than can be gained through renovation and/or created less expensively than through renovation, freeing that existing space for repurposing at a lower cost. Recommended weight is 15%.

Score  ____ X 0.15 = ____

<p>| | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No impact</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>New construction creates swing space for future renovations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>New construction creates better program space and achieves cost savings by repurposing older space at a lower cost</td>
</tr>
</tbody>
</table>
1.25.5. External Funding Support. The degree to which a project includes identified and secured funding. Recommended weight is 15%.

Score \( \text{Score} \times 0.15 = \) 

<table>
<thead>
<tr>
<th>0</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>No funding secured.</td>
<td>Funding planned for ( \geq 10% ) of the project cost.</td>
<td>Funding planned for ( \geq 20% ) of the project cost.</td>
<td>Funding secured for ( \geq 20% ) of the project costs.</td>
<td>Funding secured for ( \geq 40% ) of the project cost.</td>
<td>Funding secured for ( \geq 50% ) of the project cost.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For state new construction request, more than 80% of the project cost is state funded.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.25.6. Operating Cost Support. The degree to which funding for operating costs has been identified for a project. Recommended weight is 5%.

Score \( \text{Score} \times 0.05 = \) 

<table>
<thead>
<tr>
<th>0</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>The project will require additional operating funds and the source has not been identified.</td>
<td>The project operating costs are not secured or endowed, or are lower than comparable facilities or the campus average.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1.25.7. State, Regional, and Community Impact  The degree to which a project can demonstrate:

1.25.7.1. Alignment with state priorities (STEM, education of healthcare professionals, etc.), and/or

1.25.7.2. Positive impact on state and regional job creation and economic development beyond the immediate impact of the construction spending support, and/or

1.25.7.3. Creation of partnerships between state higher educational institutions, and other public and private entities, both statewide and regional, that display support for the project.

Recommended weight is 5%.

Score  ____ X 0.05 = ____

<table>
<thead>
<tr>
<th>0</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Impact</td>
<td>The project demonstrates creation of partnerships</td>
<td>The project demonstrates economic development beyond the construction multipliers,</td>
<td>The project demonstrates economic development beyond the construction multipliers, and partnership creation</td>
<td>The project demonstrates alignment with state priorities</td>
<td>The project demonstrates alignment with state priorities, and economic development beyond the construction multipliers, and partnership creation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL SCORE ____.

Capital Project Program Planning Study

1.26. A Program Planning Study (PPS) describes and systematically justifies the need for improved or expanded facilities; evaluates alternate solutions; and prescribes a strategy to implement a recommended solution within the context of each campus strategic, academic (master) plan, and Physical Development (Master) Plan. It should clearly explain how the recommended solution would address both qualitative and quantitative deficiencies identified for a particular program.

The PPS serves four very important functions:

1.26.1. It allows objective evaluation and prioritization of capital needs.

1.26.2. It provides the foundation for project objectives, scope, and budget, as a basis for agreements between the Campus, System Administration, and external agencies.
1.26.3. It provides a guide for further planning, design, and development.
1.26.4. It provides project justification information. A PPS is required before a project may be included in the University's current capital and federal budget appropriations.

1.27. Needs Assessment

1.27.1. Academic Program and Space Allocation Plan

1.27.1.1. Provide background information on the campus strategic plan, academic plan, and Physical Development Plan as it relates to a specific academic program(s). This information, drawn from historical perspectives, recent experience, and future trends, should clearly describe the program requirements.

1.27.1.2. To simplify comparative analysis and to allow for the evaluation of current capacity and projected costs, the information provided in this section should include the following detail:

1.27.1.2.1. Summarize the current mission statement of the program and its relationship to the academic plan. Show projected growth in general credit hour enrollment of the particular program, and all teaching loads in support of other programs. Explain the assumptions that support the projections used. These may relate to anticipated demand for skills, local or national job market, age or type of population being served, etc. Projections should include 5, 10, and 15-year horizons.

1.27.1.2.2. Compile information related to current space assignments from the University's Facilities Inventory. Show current assignments by type of space and location. Compare space utilization against established campus and national utilization standards, and information from benchmark programs. Point out any qualitative issues related to existing assignments that support the need for the proposed project.

1.27.1.2.3. Determine space needs based on current and projected enrollment and staffing levels using established campus space guidelines, space assignments of comparator programs, and/or nationally recognized standards (e.g., WICHE, University of Minnesota, Colorado Commission of Higher Education, etc.).

1.27.1.2.4. Provide a narrative explaining parameters used in analyses about day vs. night use, credit hour to contact hour conversions, faculty participation in research, student office policies, etc. Include the calculations used to determine space needs.
1.27.2. Analysis: Provide a comprehensive evaluation of alternate solutions to the needs identified in the previous section. This analysis should include the short and long-range implications to both the program and the Physical Development Plan, and operational and life cycle costs.

1.28. Recommended Improvements

1.28.1. Project Description: Provide a narrative that describes the site, building size, and any special features that will help in supporting the project. Include as much of the following information as appropriate:

1.28.1.1. Describe and illustrate the selected site and explain the benefits and relationship to the campus Physical Development Plan. Point out any special site development goals that will be accomplished.

1.28.1.2. Provide a summary of the existing and proposed space programs for the total project (i.e., classroom, laboratories, offices, etc.). Show any changes in space type or assignments of existing facilities. Identify the planned efficiency ratio of the facility such as net assignable square feet to gross square feet.

1.28.1.3. Describe the type of construction anticipated and any special construction requirements of the facility.

1.28.2. Project Justification: Describe the benefits of the proposed project as it relates to improving the quality, availability, and support of the academic program(s) affected. Include as much of the following information as appropriate:

1.28.2.1. Describe the link between this program and the campus strategic, academic and physical development plans.

1.28.2.2. Justify the space request with the space analysis done in the need assessment. Show how this project meets the space need documented above. Provide a detailed summary of special facilities, the programs and activities that will occur in the space including any proposed non-university funded activities and facilities available for campus-wide use.

1.28.2.3. Outline the capacity of the facility in terms of program needs over time. Identify requirements for future expansion and describe the flexibility built into the proposed facility to accommodate future program changes.

1.28.2.4. Describe how the new or renovated facility affects other programs. Identify programs that will occupy the vacated space or programs that will be temporarily assigned to the new or renovated space until the primary program grows into the space.

1.28.2.5. Illustrate cost/benefit analysis of the project related to energy conservation, operational costs, utility costs, etc.

1.28.2.6. Describe the consequences to the academic, research or service mission of the program if the project is not accomplished according to the proposed schedule. Describe default plans, if any.
1.28.2.7. Describe the plan to use any space vacated by this project and include a summary of all costs that may result.

1.29. Project Costs and Schedule: Provide a summary of cost projections and the assumptions they are based on. Identify costs for architectural and engineering requirements by major building component (i.e., structural shell, electrical, HVAC, plumbing, etc.). Include estimated costs for consultant fees, construction contingencies, furniture, fixtures, movable equipment, landscaping, and project administration fees, as part of the total project budget. Also, identify capital costs for other projects associated with this project, including the cost to finish shelled space.

1.30. Funding Plan: Describe all anticipated sources of funds including state and federal appropriations, debt, gifts, grants, cash reserves, and/or other revenues and cost avoidances.

1.30.1. State and Federal appropriations are discussed in these Capital Plan Guidelines.

1.30.2. Debt financed projects are discussed in the section Financial Plan Requirements for Debt Funded Projects.

1.30.3. Capital gifts should be coordinated with the campus development office. It is important that realistic capital gift goals be developed early in the early stages of the project planning.

A project funding plan ‘pro forma’ statement [business plan], similar to that described in the Financial Plan Requirements for Debt Funded Projects (see section 7.0) is a useful tool in measuring the strength of the funding plan and identifying opportunities for funding projects from multiple sources. It is essential for any project funded by debt that a pro forma cash flow is developed that demonstrates the ability to cover the debt payments.

A project business plan is necessary for auxiliary funded projects, such as parking, housing, etc. However, academic projects, traditionally funded with external support [such as state appropriations], can also be analyzed with a business plan approach by considering cash flows built on the project’s impact on campus revenue [such as student credit hours], and cost, including any anticipated cost avoidance, economies, opportunity costs, and economic payback. The suggested minimum non-state funding for state appropriated new construction projects is 20%. However, a business plan can be used to identify campus/state shares for capital improvements that cannot be single source funded. These projects with strong positive effects on revenue are credited with higher priority in the Capital Project Priority Criteria.

1.31. Operating Expense: Identify the project costs associated with opening new buildings and the impact on the annual operating budget. Explain the method of arriving at these costs, show the base data and formulas used, and identify funding sources.

1.32. Deferred Facilities Need Impact: Identify all deferred maintenance, renewal, and/or adaption eliminated by the proposed construction including a listing of deficiencies, impact on building and campus FCNI, and dollar total. Describe how this was determined, for example: ISES facility audit.
University of Missouri  
Capital Reporting Guidelines  

1.33. Supporting Documents: include either within the report or as an appendix the following documents:  
1.33.1. A site plan showing project location. 
1.33.2. The Physical Development Plan showing the relationship of the proposed project to the existing fabric of the campus. 
1.33.3. The latest Accreditation Report or related correspondence. 
1.33.4. The architectural program for the proposed project. Provide space and functional relationship diagrams of new, renovated, and existing facilities as proposed.

Financial Plan Requirements for Debt Funded Projects

1.34. A financial plan will be required for projects seeking University debt financing. These financial plan requirements are applicable for both auxiliary enterprise projects and academic program projects. 
1.34.1. The financial plan shall outline all expected revenues and expenses until the debt is fully paid, which should occur before the projects expected useful life. 
1.34.1.1. Clearly defined revenue stream with detailed information on its source. 
1.34.1.2. Takes into account the effects of inflation. 
1.34.1.3. Include any programmatic initiatives. 
1.34.1.4. Appropriate expenses for type of building and type of construction. 
1.34.1.5. Debt repayment terms and interest cost should be obtained from the University Treasurer’s office.

1.35. The debt coverage ratio for these projects should be at least 1.5 consistently throughout the project. The debt coverage can be defined as: \((\text{Total Revenues} - (\text{Total Expenses} - \text{Depreciation} - \text{Interest Expense})) / \text{Annual Debt service}\). Adequate maintenance & repair reserves need to be included at 1.5% of the facility replacement cost. Questions regarding data to be provided should be forwarded to the University Treasurer’s office.

1.36. It is also preferred that campuses provide some equity for the project. If the facility is to have any private business use, this should be disclosed early in the initial planning stages so that tax counsel can review the use. Private business use can include relationships or leased space with such outside vendors as: 
1.36.1. Food service/catering. 
1.36.2. Bank facilities & ATM’s. 
1.36.3. Management companies. 
1.36.4. Certain types of research agreements.

1.37. Guidelines for bond funded projects include: 
1.37.1. Private business use should be kept to a minimum. 
1.37.2. Provide reliable spend down schedules to prevent potential IRS issues. 
1.37.3. Funds should be spent as quickly as possible, and generally within a two year period to avoid certain IRS issues. Spend down schedules should be developed in coordination with the University Treasurer’s office before the debt is issued.
If it is anticipated that the project will have a construction period longer than 2 years, other arrangements can be made to accommodate, if known ahead of time.

1.38. On an annual basis, the campuses will provide the Treasurer’s office financials for each project showing actual results versus planned results and explaining any variances.
Appendix 1 – Capital Database User Guide

1. **To Add a New**

After you sign on with your SSOID.

1. Click **Add New Project**
2. Enter **Title**
3. Select the **Type** of Project
4. Indicate if the project is a **Long Range Project**
   - [ ] Check Here if Project is Long Range
5. Enter the **Description** (up to 1,350 characters) of the project, **FCNI** and the **Deferred Facilities Needs** addressed in the project
   - Description:
   - **FCNI:**
     - ex. 1,15
   - **Deferred Facility Needs:**
     - $ ex. 9,999.99
6. Enter the **justification** (up to 1,350 characters).
   - **Justification:**
7. Enter the **Anticipated Year of Completion** and the **Program Plan Completed in Year**
   - Anticipated Year of Completion:
   - Program Plan Completed in Year:
8. Indicate if the project is **E&G** or **Non E&G**
9. Enter the amounts for **Funding**

**Funding**

- **Debt**: $ ex. 9,999.99
- **Gifts**: $ ex. 9,999.99
- **State**: $ ex. 9,999.99
- **Other**: $ ex. 9,999.99
10. If project is not Long Range, please complete the **Capital Project Priority Criteria & Scoring** Table (Information is hidden if Long Range is selected)

**Capital Project Priority Criteria & Scoring (1-10)**

<table>
<thead>
<tr>
<th>Program Plan (30%):</th>
<th>External Funding Support (15%):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilities Renewal (20%):</td>
<td>Operating Cost Support (5%):</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure &amp; Functional Sustainability (10%):</td>
<td>State, Regional, &amp; Community Impact (6%):</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategic Space Management (15%):</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. Finish project details by selecting **Add** or **Cancel**.

2. **To Edit a Project**

1. On the Manage Capital Project screen, click **Edit**
2. Make edits as needed.
3. To Add a Photo, click **Browse** to select a photo, name the photo as desired, and click **Upload**.

**Photos**

<table>
<thead>
<tr>
<th>Title:</th>
</tr>
</thead>
</table>

   Browse...

4. Click Save or Cancel.

**Prioritization of Projects**
As you enter a project, the project will be added to the bottom of the list. Priority can be changed as needed.

1. Click on the up or down arrow to adjust the project.
2. Please note that all the “Other Projects” should be listed before the Long Range.

3. Reports
There are four different reports that can be created:

A. Capital Planning Report – includes only the project not long range  
B. Long Range Report – includes only the projects that are long range  
C. Query Data Report – include all projects and all data fields.  
D. Project Details Report – include all projects and selected data fields.

To generate a report

1. Click on Reports

   - Capital Planning Report
   - Long Range Report
   - Query Data Report
   - Project Details Report

2. Select the Report you would like to generate

3. Click Export Results.
4. The results will open in Excel.
Appendix 2 – State of Missouri STEM Definition

The State of Missouri has identified STEM as a state initiative. Missouri Department of Higher Education (MDHE) has identified CIP Codes that are considered STEM Fields for Missouri Performance Funding.

STEM fields include a wide range of disciplines, and there are different ways to identify the disciplines included in STEM. For example, the National Science Foundation defines STEM fields broadly, including not only mathematics, natural sciences, engineering and computer and information sciences, but also such social/behavioral sciences as psychology, economics, sociology and political science. A similar and somewhat narrower list is published by federal Immigration and Customs Enforcement that deals with student visas. In April of 2011, the National Center for Education Statistics issued a report entitled “Postsecondary Awards in Science, Technology, Engineering and Mathematics, by State: 2001 and 2009” that used some, but not all of the fields published by ICE. Thus there is no one generally accepted list of STEM instructional programs used by the federal government or the higher education community. For this recommendation regarding performance funding, the STEM fields to be used closely mirror the ones used by the NSF and in the NCES study but adds fields of particular importance to Missouri such as agriculture, natural resources/conservation and the STEM education fields.

STEM Fields for Missouri Performance Funding (by CIP code):

01 – Agriculture, agriculture operations, and related sciences
03 – Natural resources and conservation
10 – Communication technologies/technicians and support services
11 – Computer information sciences and support services
14 – Engineering
15 – Engineering technologies and engineering-related fields
21 – Technology education/industrial arts
26 – Biological and biomedical sciences
27 – Mathematics and statistics
29 – Military technologies and applied sciences
30– Interdisciplinary Studies (STEM-related: 30.0101, 30.0601, 30.0801, 30.1001, 30.1801, 30.1901, 30.2501, 30.3201)
40 – Physical sciences
41 – Science technologies/technicians
47 – Mechanic and repair technologies/technicians
Appendix 3 – Higher Education Capital Fund Application
APPLICATION FOR MATCHING FUNDS
FROM THE
HIGHER EDUCATION CAPITAL FUND

As an authorized representative of (institution), I hereby apply for funds from the Higher Education Capital Fund in the amount of $_________________ to provide matching funds for (project name). A description of the project, including detailed information regarding institution matching funds, is attached for review and verification.

I hereby provide assurances to the Coordinating Board for Higher Education that (institution) has obtained $_________________ through private donations or grants and that no funds constituting the 50% match for this project were obtained from the institution’s operating budget, tuition, fees, the issuance of revenue bonds or general obligation bonds, or from any state appropriation as precluded by the provisions of Section 173.480.3, RSMo. I further attest that funds applied for herein will not to be used to support the construction of any athletic facilities, parking structures, or student housing at (institution) as precluded by Section 173.480.2, RSMo.

________________________________________  ___________________
Signature Date

________________________________________
Name (printed or typed)
1. General Information

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.) Institution</td>
<td>c.) Project Contact</td>
</tr>
<tr>
<td>b.) Project Name</td>
<td>d.) Contact Number</td>
</tr>
<tr>
<td>e.) Project Type</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>New Construction</em>  <em>Rehabilitation</em>  <em>Maintenance</em>  <em>Renovation</em>  <em>Reconstruction</em></td>
</tr>
</tbody>
</table>

2. Project Funding

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.) Total State Request</td>
<td>$</td>
</tr>
<tr>
<td>b.) Total Matching Funds</td>
<td>$</td>
</tr>
<tr>
<td>c.) Total Cost</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>(50% of total project cost)</td>
<td>(50% of total project cost)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date Received</th>
<th>Donor or Grantee</th>
<th>Amount</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: 1.) For donations made anonymously, "Anonymous Private Donor" may be used for the "Donor or Grantee" field; 2.) pursuant to Section 173.480.3, RSMo, no matching funds obtained by the institution as required to receive appropriations from the Higher Education Capital Fund may be from the following sources: institution operating budget, tuition, fees, the revenue bonds or general obligation bonds, or any state appropriation.
3. Project Description

a.) Work Description - Please describe the nature of the work to be completed as part of the project, including type of construction (i.e.: new construction, rehabilitation, maintenance, renovation, or reconstruction).
b.) Project Justification - Please provide a justification of the project, including information regarding how the project supports the institution's mission, the anticipated impact (if any) on the institution's operating budget and any ADA issues addressed through the project. For new square footage, please provide evidence of enrollment growth, programmatic expansion, or other justification for adding new space.