Well-defined procedures are essential to any capital construction project. The University of Central Missouri (UCM) has established these Capital Project Procedures to address the need for a uniform, well-orchestrated, well-communicated capital planning process. Meeting space and other facility needs that act as catalysts for capital projects requests require detailed review, analysis, justification and connection to the University’s Master Plan and the University’s strategic planning priorities.

The purpose of these procedures is to ensure capital projects at UCM are properly reviewed by the President and Senior Administration, and that all projects are consistent with university priorities. Thus, all capital projects, including new construction and/or renovations over $200,000, regardless of source of funds, are required to follow specific steps, including approval of program concept, needs assessment and review, cost estimates, identification of funding source, and Administration approval, as well as Board of Governor’s (BOG) approval for projects of $500,000 and above, prior to proceeding to design and construction. Reviews and recommendations occur at selected stages of project development.

ACCOUNTABILITY
Accountability for UCM’s Capital Management program is vested in the Vice President for Administration and Finance, acting through the Department of Facilities Planning and Operations (FP&O). FP&O is charged with the responsibility of shepherding a project through the type of funding and contractual requirements delineated by the nature of the construction. FP&O staff is responsible for directing efforts related to construction, cost estimation, detailed work execution plans and schedules, collaborative scope-of-work development by project champion and requestor/s, schematic design, overall project development, bidding, and construction coordination and management.

APPROVAL OF PROGRAM CONCEPT
A capital project begins as a concept when a faculty, staff, chair, dean or other university stakeholder believes that current facilities are not sufficient to meet program requirements, and that new or renovated facilities would provide a solution. The kinds of concepts included in the new construction or renovation categories may vary greatly. Examples are cited below.

New Construction
New construction includes projects which involve the construction of totally
new facilities or new additions to existing facilities. Examples of projects in this category include new buildings or construction of add-on facilities like storage buildings, dining halls, temporary classrooms, child care facilities, new parking lots or roadways, etc.

**Renovation**
Generally, renovations are projects in which a given space is to be modified, which modification involves structural changes to an existing building or structure. This term would typically apply where the modification deals with interior load-bearing walls, exterior walls; floor height changes, etc., and/or would affect the supporting electrical, plumbing or HVAC systems.

While specifics are not outlined in this phase, if a project is expected to be significant ($200k or more) the concept must be vetted to the Dean, if a College, or in the case of an administrative unit, the administrative department head. If the dean or department head decides the concept has merit, it must next be presented to the Provost or appropriate division Vice President, via the completion of a UCM Capital Projects Request Form (see Attachment A). If the Provost/Vice President believes the concept to be justified and/or consistent with university priorities, she/he serves as its Project Champion, and will present the details of the Capital Project Request Form to the President’s Provost/Vice President’s Council (PPVPC) for consideration.

**NEEDS ASSESSMENT AND REVIEW**

When UCM’s Provost or a Vice President is acting as a Project Champion, she/he is responsible for presenting the capital project concept to the PPVPC for, and on approval, to move the proposed project to its next planning step - cost evaluation. The completed Capital Projects Request Form is used by the reviewing Council as a tool in evaluating capital needs under consideration in relation to other university projects. At this stage, consideration of alternatives and other possible initiatives is necessary and desirable. The proposed project also must be evaluated for consistency with university priorities. The review will include an analysis of the following:

- project needs assessment
- strategic plan fit
- campus master plan fit
- preliminary cost/benefit analysis
- financial feasibility
- impact on operational budget
- impact on cost of education
- potential impact on bond agency and debt capacity
- other sensitive and critical variables
If a project concept meets all requirements, it is approved and directed to FP&O for preliminary costs estimates and potential site evaluation if new construction is required.

**COST ESTIMATES**

Project budgets evolve over time and solidify as the design progresses through various stages of cost estimates: 1) a preliminary cost estimate in the needs assessment stage; 2) a preliminary estimate during the concept stage; 3) a more refined cost estimate after a feasibility study and 4) a firm construction estimate after design and bidding.

Cost estimates for a capital project are prepared by the VP for Administration and Finance in consultation with the originator/s and Project Champion. Cost estimates crystallize out of an effort to acquire additional information about the concept project, including general requirements, Master Plan and sizing implications, and projected costs.

The total project budget includes: construction costs, consulting expenses, project management fees, the initial complement of furniture and fixtures, expenses related to relocation of utilities and/or non-utility infrastructure, temporary costs related to relocation of services during construction, and any other major expense.

In addition to the above, each construction project cost must include an estimate of on-going operational expenses such as maintenance and other operating expenses. When applicable, construction projects must include a budget for financing costs, provided by UCM’s Controller/Treasurer.

Each project budget must include a contingency budget line regardless of the type. The contingency must be a minimum of 10%. This amount will vary depending on the nature and scope of the project and can range between 10%-25%.

**IDENTIFICATION OF FUNDING SOURCE**

Once the needs assessment and preliminary cost estimates are known, the Vice President for Administration and Finance conducts a funding analysis to confirm/identify appropriate funding sources and to determine the financial integrity of said funding sources, as well as to evaluate associated funding schedules. Analysis related to the project may include gifts, pledges, and campus reserves, financing retired with various campus funds including facilities, and various revenues and fees. If private funding is to be used, and is lagging behind projections, the PPVPC may request that the project scope be reduced or timing of the project be adjusted to stay within funding.

No matter what funding sources or project cost is involved, the PPVPC grants the authority to move to project approval **only** if the design/construction project can be supported by the budget. Accordingly, if the scope of the work changes significantly or the budget requires modification in any form, subsequent review and approval
may be required.

**PROJECT APPROVAL**

Project approval is defined as the formal approval necessary to proceed from the concept planning stage, and move forward to the next step, schematic design approval.

In the case of major projects ($500k and above), once funding is identified, the next step is to apply to the Board of Governors to hire a design-consulting firm. Permission to apply to the Board for this purpose can only be granted by the President upon recommendation from the Vice President for Administration and Finance.

A Board of Governors Briefing Paper will be submitted to the Board by the President, outlining the proposed project, and asking the Board to approve the project and authorize the President to initiate a procurement process for naming professional consultants. This request for Board approval will limit the project plan and development to the schematic phase, and it will remain so limited until a subsequent submission to the Board, to include specifics on the facility program, site, budget and funding plan, is approved by the Board.

**SCHEMATIC DESIGN**

Project plans are developed in two phases: schematic design and design development. The schematic design derived from formal program statements is to be developed in conjunction with FP&O, selected design professionals, and requisite university stakeholders who function as a Building Advisory Committee.

A schematic design is considered preliminary, and is developed through the study and feasibility analysis of various alternative layouts and systems applicable to the project. The schematic design development phase requires review of project plans along with the related cost estimates.

Approval of the schematic design by the PPVPC and formal review by the BOG is required to allow the project to proceed to the design development phase. Formal review by the BOG is not required beyond the schematic design phase, except when required by specific projects. No significant changes may be made to the program, design, budget, site or intended use of the building after approval of the schematic design, without the recommendation of the President and the PPVPC.

**DESIGN DEVELOPMENT and CONSTRUCTION**

Upon receiving approval of the schematic design, the project may advance to the design development phases under the shared guidance of the Vice President of Administration and Finance, Project Champion, PPVPC and FP&O.

**BID/AWARD**

FP&O works with the professional design consultant to make project specifications and drawings available to the public so that contractors have opportunity to submit bids for construction work based on these documents. Competitively bid contracts
must be awarded to the lowest responsible bidder, i.e., the bidder able to satisfactorily perform the work at the lowest cost.

CONSTRUCTION

In the majority of new construction projects, UCM may employ Design/Bid/Build Construction, Construction Manager at Risk, or Design/Build system of construction delivery. Any of these construction delivery processes may be selected when program requirements warrant such use. (See Attachment B for descriptions).

Regardless of which method is employed, construction of the project proceeds under the scrutiny of the FP&O. FP&O’s Capital Project Director is charged with: ensuring the project adheres to the scope of work; monitoring the project budget and schedule; serving as the primary Campus liaison with the clients, contractors, and design professionals. In addition s/he ensures the project is built according to applicable building codes and is appropriately inspected; and, issues paperwork such as the “Notice to Proceed,” change orders, equipment orders, and the “Notice of Substantial Completion.”

In addition to the above, and prior to the occupancy of a new building or renovated area, FP&O is responsible for inspecting the project for conformance with the construction documents and specifying work items that must be completed before the project is accepted by the Campus.

EQUIPMENT and FURNISHINGS

For purposes of capital projects, equipment is categorized into three groups: Group 1 is referred to as “fixed equipment” and Groups 2 and 3 are referred to as “movable equipment.” Fixed equipment is built-in or permanently affixed to a building or structure and is funded through the construction phase of the Capital budget process.

Movable equipment, including furniture and furnishings, can be thought of as equipment that would fall out if the building or structure was turned upside down. Group 2 equipment is inventoried, has an acquisition value of $5,000 or more, is free-standing, and has a useful life expectancy of one year or more. Group 3 equipment, on the other hand, is non-inventorial and has an acquisition value of less than $5,000. Groups 2 and 3 equipment are funded through the equipment phase of the project budget.

POST-OCCUPANCY REVIEW

Following occupancy of a newly constructed or renovated building, a formal evaluation may be conducted to assess the successes and failures of the processes and implementation of planning, design, construction, and the overall functionality and aesthetics of the project. The evaluation commences approximately six months following occupancy of the building, with the selection of a Review Team charged by the PVPPC.

The Review Team will typically include the Director of FP&O, Manager of Capital
Projects, Building Advisory Committee members, and a facilitator external to the programmatic, design and construction process for that project. The final summary report is distributed to the meeting participants, associated Vice Presidents, and other Campus stakeholders affected by capital processes.
Attachment A

UNIVERSITY OF CENTRAL MISSOURI – CAPITAL PROJECT REQUEST FORM

I. PROJECT NAME:
   Building Name:
   Project Request Number:
   Building Number:
   Requested by:
   Date:

II. PROJECT COST ESTIMATE:
   APPROVAL REQUIRED:
   College/Department Head:
   VP:
   Board of Governors approval is required.
   Date:

III. PROJECT PHASE:
   Planning/Feasibility ☐ Completion ☐
   Design ☐ Budget Mod. ☐
   Const. Approval ☐ Scope Change ☐

IV. PROJECT SCOPE
   Project Size: GSF ASF
   A. Base Project: (include definition of project scope, any future project phases and/or ancillary projects)

   B. Alternatives: (include approaches to base project to reduce cost, improve performance, as well as options that were considered and discarded)

V. JUSTIFICATION (describe need for and/or benefits of project)

   Impact of Deferral: (identify damage/risk to UCM if project does not occur, impact of delay, etc.)

VII. PROJECT SCHEDULE
   A. Planning:
      Start date:
      End date:
   B. Design:
      Start date:
      End date:
   C. Construction:
      Start date:
      End date:
   D. Issues (identify unusual issues such as long lead time orders or approvals, time constraints, etc.)
VIII. PROJECT FUNDING & BUDGET:

<table>
<thead>
<tr>
<th></th>
<th>Previous Approval</th>
<th>New Total Through Current Request</th>
<th>Anticipated Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Funding</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College/Unit Internal Funds</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Fund Raising</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Investment Income</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>External Debt</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Total Project Funding</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
</tbody>
</table>

**B. Expenditures**

<table>
<thead>
<tr>
<th></th>
<th>$</th>
<th>$</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Contract</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Construction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furniture, Furnishings &amp; Equip</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consultant Services (External)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management Fees (Internal)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Expenditures</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Contingency</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
</tbody>
</table>

**C. Departmental funding source:**

<table>
<thead>
<tr>
<th></th>
<th>$</th>
<th>$</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>D.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction Cost/GSF</td>
<td>$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Cost/GSF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Cost Factor</td>
<td></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>Contingency (% of Total Project Cost)</td>
<td></td>
<td>$</td>
<td></td>
</tr>
</tbody>
</table>

IX. OPERATING BUDGET IMPACT:

<table>
<thead>
<tr>
<th></th>
<th>Through Current Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Unit</td>
<td></td>
</tr>
<tr>
<td>Facilities (utilities, maintenance, custodial, etc.)</td>
<td>$</td>
</tr>
<tr>
<td>Interest &amp; Amortization (for utilities debt)</td>
<td>$</td>
</tr>
<tr>
<td>Departmental (new programs &amp; positions, I&amp;A for departmental debt)</td>
<td>$</td>
</tr>
<tr>
<td>Other (specify)</td>
<td>$</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$</td>
</tr>
</tbody>
</table>

X. SUPPLEMENTAL INFORMATION:

- Architect
- Project Manager
- Contractor

*To be completed by Treasury Operations*

| Project Financing Expense | $ | $ | $ |
ATTACHMENT B

The University MAY employ the traditional Design/Bid/Build system of construction delivery. However, other methods of delivery such Construction Manager at Risk and Design/Build are available and may be used when program requirements warrant such use. A brief description for each of these is provided below.

Design/Bid/Build

Under this traditional method, an architectural firm is hired and serves as the University’s agent. Although the firm may have numerous responsibilities, including the selection of consultants, its primary responsibility is to provide and oversee the design and construction documents for the project. As the design progresses, cost estimates are periodically prepared by the architectural firm and any external cost estimators commissioned by the architectural firm. Once the construction documents and specifications are completely finished, and other requirements of the University have been met, the project is bid and subsequently awarded to the general contractor submitting the lowest responsible bid.

Construction Manager at Risk

This system of delivery is similar to that of Design/Bid/Build with three key differences. First, a construction manager is hired to manage the construction process, including the selection of subcontractors. Second, through coordination between the architect and construction manager, the design and construction phases can be overlapped thereby expediting the delivery process. Third, the construction manager, who is responsible for quality control, scheduling and the estimate of construction costs, provides a guaranteed maximum price for the project.

Design/Build

Rather than hiring an architect, under Design/Build the University enters into a contract with a single firm with design and building capabilities or a construction entity that employs the architect as a consultant. As with the aforementioned delivery system, a guaranteed maximum price for the entire project is provided, construction management techniques to overlap design and construction phases are utilized, and the overall project delivery is expedited.