

Facilities Management Policy and Procedure Manual

Chapter 2: Policies

- A. Division of Authority and Responsibility
 - 1. The Board of Curators
 - a. Authority
 - 1. Campus Master Plans when significant changes are proposed, but not less than every three years.
 - 2. Hiring architects/engineers, consultants and construction managers when fees are more than \$500,000.
 - 3. Schematic plans on projects with construction contract cost of more than \$5,000,000 and Project Designs for design/build projects when the construction contract cost is more than \$5,000,000.
 - 4. Final plans if there are substantial changes to Board approved schematics.
 - 5. Material changes to building exteriors or campuses.
 - 6. Approve the capital budget request.
 - 7. Naming of buildings and places.
 - 8. Bond financed projects prior to bidding for construction work if not previously approved in other action. Bond financed projects with F&A as the debt service source require board approval before the architect is hired.
 - 2. System Office
 - a. Authority: The Board of Curators has delegated to the University President the authority to administer the University's construction program, approve designs, and execute contracts not covered in 1.a above.
 - b. Responsibility
 - Design and Construction (Construction contract cost estimated >\$500,000)
 - 1. Execute contracts not delegated to the campus, including amendments to contracts.
 - 2. Participate in the selection of architects/engineers and review fee options prior to solicitation of firm qualifications.
 - 3. Review schematic designs and project drawings and specifications for conformance to University standards, campus master plans and applicable University codes.
 - 4. Assist in the solicitation of bids for construction work.
 - 5. Coordinate development of all standard contract forms and design & construction standards.

6. Establish design fee guidelines for all architect/engineer services.
 7. Advise the campuses on the presentation of projects to the Board of Curators, when required.
 8. Act as the University building code authority and providing code interpretation.
 9. Act as arbitrator in resolving architect/engineer or contractor disputes.
 10. Serve on all major building and master planning committees.
 11. Act as liaison between the Campuses and the University's Legal Counsel on matters requiring legal assistance in design and construction.
 12. Provide additional project management services for the campuses if requested by the campus.
- Capital Plans and Budget
 1. Coordinate for the preparation of the University's State Capital Appropriations Request and its presentation to the various State agencies.
 2. Recommend the annual capital budget report to Board of Curators for approval.
 3. Coordinate the development of campus capital plans for submission to System executive management and the Board of Curators.
 - General
 1. Serve as staff to the President and the Board of Curators Physical Facilities and Management Services Committee.
 2. Coordinate the development of, and maintaining, system wide facility planning and development policy and procedure.
 3. Work with State officials in Facilities related areas.
 4. Serve as liaison with external agencies on non-routine facilities related issues that may affect more than one campus.
 5. Report facility management operations data for the campuses.
3. Campus
 - a. Authority: The President, subject to periodic approval by the Board of Curators, has delegated to the Chancellors authority to:
 1. Execute Architect/Engineer Agreements on projects where the construction contract cost estimated less than \$500,000.

2. Execute all construction contracts less than \$500, 000.
 3. Perform construction work with in-house staff on projects within the limit stated in section II-C, Construction Done with In-House Staff. However, projects that would result in change in the exterior appearance of a facility require review and approval by the Board of Curators.
- b. Responsibility
- Design and Construction
 1. Develop RFQs and negotiate fees for architects/engineers services (review fee proposals with system staff when construction contract cost estimate is greater than \$500,000).
 2. Prepare and review contract documents.
 3. Manage campus projects including coordination of meetings, oversight of the project architect/engineer, review documents for compliance with campus requirements and constructability, coordinate input from system staff and campus constituents, and maintain the project budget and schedule.
 4. Open bids for Campus Projects.
 5. Manage campus construction projects, including coordination of project activities with the project architect and contractor.
 6. Maintain control and accounting for project funds.
 7. Coordinate and administer construction contract change orders.
 8. Prepare and submit project status reports to System Office.
 9. Prepare documents required for presentations and approvals and coordinate the presentation of projects to the Board of Curators.
 - Capital Plans and Budget
 1. Prepare and submit the campus capital plans and appropriations request to the System.
 - General
 1. The day-to-day facility management of plant operations.
 2. Operate capital improvements following their completion.

. Design and Construction Policies

1. General: The University of Missouri System has the following objectives in the design and construction of its facilities:
 - a. Build high quality facilities respective to functionality and appearance.
 - b. Make the best and most cost-effective use of dollars expended.
2. Building and Fire Protection Codes
 - a. Basic Building Code: All facilities shall comply with International Code Council (ICC) Codes. Codes and standards required by accreditation agencies will also be used unless the ICC requirements are more stringent. In the event that special design features and/or construction systems are not covered in the ICC codes, the applicable edition of the National Fire Protection Association (NFPA) family of standards and/or the NFPA 101 Life Safety Code shall be used.
 - b. Accessibility: All facilities shall be designed and constructed to the Americans with Disabilities Act Access Guidelines (ADAAG).
 - c. Other Codes: All facilities shall conform to the codes and standards identified in the University of Missouri's General Conditions of the Contract for Construction.
 - d. Independent Code Analysis: During the design process, an independent code consultant may be employed, with project funds, to provide a comprehensive code requirement analysis on all new major buildings and major renovations. System staff are responsible for code interpretation and shall have direct access to the independent code consultants. System staff shall have approval authority of the code consultant.
 - e. Authority Having Jurisdiction on Building Codes: The "Authority Having Jurisdiction" referred to in the building codes shall be the Associate Vice President for Management Services for the University of Missouri System.
 - f. Deviation from Adopted Codes: It is the University's general practice not to deviate from the adopted codes. If deviations are necessary, the Campus Administration, through the Project Manager, shall request them through the UM Director of Facilities Planning and Development. The UM Director of Facilities Planning & Development will review and forward to the Authority Having Jurisdiction with recommendation for rejection or approval.
 - g. Fire Suppression: All new buildings shall be designed with automatic fire suppression systems throughout. The UM Director of Facilities Planning & Development may grant exceptions to this requirement for facilities such as garages, temporary facilities, etc. As a minimum, work to existing facilities shall be designed to meet code.
 - h. Adoption of Building Code Changes: Changes to the International Building Code (issued in both the annual supplements and the revised edition issued every three years), and to the National Fire Code

(issued annually), including the National Electric Code, shall be fully adopted by the January 1 following issue by the ICC and the NFPA. Access standards under the Americans with Disabilities Act (ADA) will be implemented as required by ADA. Projects with Design Development Approval generally will not be required to incorporate subsequent code revisions. However, a project where construction does not begin twelve (12) or more months after approval of construction documents shall be revised to incorporate the code updates before bidding. Also, all projects will include changes that significantly improve the access, health, and safety of building occupants before construction documents are issued for bids.

3. Use of Professional Architects and Engineers

- a. Authority to Engage Professional Architects and Engineers: Only a designated University of Missouri representative, such as the UM Director of Facilities Planning and Development or the Campus Facilities Administrator, shall engage and coordinate the services of Professional Architects and Engineers. When executing a consulting agreement, the campus, or other client, shall identify sufficient funding to cover authorized fees.
- b. Employment and Use of Professional Architects and Engineers: All design drawings and specifications for construction, alteration, repair, expansion, addition or modification of facilities involving the practice of professional architecture or professional engineering shall be prepared by or under the direct supervision of a professional architect or professional engineer registered in the State of Missouri, in accordance with State of Missouri statutes.
- c. Projects Requiring a Registered Architect or Engineer: Projects require design by a registered architect or engineer if they involve any modifications to a building's walls, ceilings, structural system, electrical system, or mechanical system that require interpretation of fire or building codes.
- d. Projects That May Not Require a Registered Architect or Engineer: Examples of work that may not require a professional architectural or professional engineering seal but must comply with applicable University of Missouri building codes and design standards would be:
 - Painting
 - Wall covering
 - Window blinds and draperies
 - Floor coverings
 - Asbestos removal
 - Removal and/or replacement of materials containing PCB
 - Cabinetwork
 - Pre-engineered equipment and supplies (not including installation or application)

- Maintenance that replaces components to a previously designed system
 - Landscaping (not including walks, retaining walls, etc.)
- e. Professional Seal: All drawings and specifications prepared under the requirements of paragraph b above, shall bear the professional seal of the architect and/or engineer along with a certification stating:
- "I hereby certify these drawings and/or specifications have been prepared by me or under my supervision. I further certify that to the best of my knowledge these drawings and/or specifications are as required by and in compliance with University of Missouri building codes and design."
- f. Location of Seal: The seal shall be affixed to all sheets of the drawings and to the first page or cover page of specifications and published design. The certification is to appear on the first page or cover page of drawings, specifications, and published designs.
- g. Professional Liability Insurance: All firms shall carry professional liability insurance in an amount set by the UM Director of Facilities Planning & Development. An Irrevocable Letter of Credit may be accepted in lieu of professional liability insurance. Requests for use of an Irrevocable Letter of Credit should be forwarded to the UM Director of Facilities Planning and Development.

4. Architect/Engineer Selection

- a. Preference to Missouri Firms: The University of Missouri has a preference to hire Missouri firms if the expertise required for the project is available within the state. An exception to this policy can be made for Kansas firms located in the greater Kansas City area.
- b. Allocation of Work: The University of Missouri will strive to distribute design consultant work among as many qualified Missouri firms as possible.
- c. Minority and Women Business Enterprises: Minority and Women participation goals shall be established for each architect/engineer selection as appropriate for a given project. The University of Missouri will encourage M/WBE architects/engineers to submit qualification statements. Majority firms shall be encouraged to hire M/WBE subconsultants.

5. Administration of Design Projects

- a. Project Manager: A Project Manager shall be assigned by the campus to administer a design consultant agreement and shall oversee all design and construction document preparation. Refer to sections II-B, V-A, and VI-C.
- b. Management: UM staff and Project Managers will collaborate to bring about a successful project. UM architects/engineers will serve as an advisory member of the project committee for projects costing more than \$500,000.

- c. **Reviews:** University project stakeholders shall work closely with the design architects/engineers and shall review all design proposals. University design and construction staff shall complete a review of construction methods and constructability of all projects prior to bidding.
6. **Project Funding:** All University of Missouri construction projects shall have sufficient funding to cover at least the base bids, prior to advertisement for bids.
7. **Competitive Bidding:** All University of Missouri construction projects that are not completed in-house shall be subject to competitive bidding if the construction value is greater than \$10,000. Competitive bids are not required for projects estimated at less than \$10,000, if there are no savings or advantages to bidding.
8. **Award of Construction Contracts:** The University awards construction contracts to the lowest, responsible bidder submitting a responsive bid. Responsibility is the bidders' ability to satisfactorily perform the work. A responsive bid indicates there are no defects in the bid, such as failure to include all the work in the bid documents or a bid irregularity. The University, with the assistance of its Design Consultants, will thoroughly investigate both the responsibility of the low bidder and the responsiveness of the bid before an award of a construction contract.
9. **Advertisement for Bid of Construction Contract** Construction projects estimated to cost \$25,000 or more shall be advertised for bid for five (5) days in two (2) newspapers with a circulation of at least 50,000, and at least two (2) times over a 10 day period in a newspaper located in the county where the work is located, or advertised through an electric medium if this method is more advantageous in soliciting competitive bids.
10. **Bid Deposits:** Deposits and/reprographic fees are required for each set of bidding documents. The deposit and/or fee shall be set based on printing cost but not less than \$50 each, before the advertisement for bids is issued. Campuses may use 3rd party vendors to distribute bidding documents and collect deposits and/or fees. Campus may set guidelines for deposit refunds (time, suitability for use, etc.). Contractors may buy additional bidding documents without refundable deposits. Bidders may also provide a \$200.00 deposit to be retained by Facilities Planning and Development. These bidders may receive one set of Bidding Documents and this program applies only to projects with a \$50 deposit. The list of bidders with \$200 deposits on file is provided to the campuses by Facilities Planning & Development. The Campus Facilities Administrator on special projects may waive the bid deposit.
11. **Minority and Women Business Enterprise Participation on Construction:** Construction contracts estimated to cost \$100,000 or more shall be advertised with a Minority and Women Business Enterprise (M/WBE) participation goal. Contractors will be requested to meet the goal or show evidence that a Good Faith Effort was made to secure M/WBE subcontractors. The low bidder shall be required to submit a list of all minority firms contacted for bids within 24 hours of the bid.

On projects under \$25,000, at least one bid should be sought from a MBE contractor. Where three or more MBE firms capable of performing a particular project are known to exist, the bid requests should be sent to those MBE firms, followed by posting of such projects using standard operating procedures.

12. Listing Subcontractors: Contractors bidding on University projects estimated to cost \$500,000 or more will be required to list major subcontractors in their bids. Specifications for such projects will identify the type of major subcontractors likely to be required. No more than eight (8) major subcontractors may be identified based on the value of the subcontract work. Contractors may change a subcontractor proposed in the bidding documents only upon approval by the University.
13. Damage for Delay: Actual damages for delay will be specified for construction contracts. Whenever the timely completion of a construction contract is critical, liquidated damages for delay may be specified. The Campus Construction Administrator will determine the liquidated damage for delay. Liquidated damages will end when Substantial Completion is achieved, defined as the date when a facility is useable by the University.
14. Prevailing Wages: Prevailing wages shall be required to be paid on all contract construction work that benefits the University. Prevailing Wages shall also be required on all construction work done by others exceeding \$25,000, on property leased by the University. Prevailing wage rates are provided to the campuses by the UM Director of Facilities Planning & Development. Prevailing wages are not required for maintenance work. See XIV-2 for the definition of construction.
15. Bid Security: Bid Security equal to at least of 5% of the bid amount is required from all bidders. To encourage bidding on projects less than \$25,000, the Campus Facilities Administrator may waive this requirement before receipt of bids. The purpose of Bid Security is to protect the University from losing the benefit of a low bid. The Bid Security is a guarantee the low bidder will enter into a contract for the amount of their bid and provide a payment and performance bond. The Information for Bidders gives Bid Security requirements.
16. Performance Bonds and Payment Bonds: Both a Performance Bond and a Payment Bond are required for all construction contracts greater than \$25,000. See XIV-2 for the definition of construction. See VII-C-2 for further information on Bond requirements.
17. Owner's Representative: The Campus Construction Administrator will assign an Owner's Representative, or Construction Project Manager, to administer the construction contract and observe and inspect all work performed by the contractor as to conformance with drawings and specifications for the project.
18. Construction Done with In-House Staff: Construction or remodeling projects may be done with in-house staff only when the total value of the work is less than \$80,000. (Note: In 1974, an understanding was reached between the President of the University and the local unions that University staff would not involve themselves in any in-house construction work exceeding \$10,000.

Annually, this is reviewed by the UM Director of Facilities Planning and Development to reflect changes as reported in the Engineering News Record ENR construction cost index. In 2007, this number was increased to a value of \$80,000 to account for inflation.)

19. Problem File

- a. Purpose: A record of problems with consultants, contractors and suppliers will be maintained by the UM Director of Facilities Planning and Development. The record will include the names of and associated problems experienced with outside architects, engineers, consultants, contractors, sub-contractors, and material suppliers. Generic Problem File forms are in Exhibits II-1, II-2, and II-3.
- b. Entry: Firms will be entered into the problem file by the forwarding of information describing the nature and the problem in detail from the Campus Facilities Administrator to the UM Director of Facilities Planning and Development. Firms should be notified when they are placed in the Problem File and why. Firms should be encouraged to improve performance if they are interested in performing future work for the University.
- c. Duration: A firm entered into the problem file will remain in the problem file for five years. If, during that period, the University had no significant problems with that firm, or has had no dealings with that firm, at the end of five years the firm may be removed from the problem file. If, during the five year period, the firm has recognized the source of the problem(s) and has taken successful steps to correct the problem, the firm's name may be removed from the problem file prior to the expiration of the five year period.
- d. Recommended Rejection List: A recommended rejection list will be included in the problem file for contractors, subcontractors, and material suppliers who have had significant problems on University of Missouri projects. In order for firms to be included in the recommended rejection list a vote will be taken of each of the Campus Facilities Administrators and the UM Director of Facilities Planning and Development; the vote count shall be unanimous before a firm can be placed on the recommended rejection list. If a firm on the Recommended Rejection list submits a low bid, a recommendation will be made to the Contracting Officer to reject such a bid and to award the contract to the best bidder.
- e. Confidentiality: The information contained in the Problem File is performance related and should not be openly shared with the public. If staff is asked about a specific firm, this firm's status on the file can be shared, but in no case should the file be opened for public view.

20. Sustainable Design

The University of Missouri recognizes the value of sustainable capital project development in order to meet today's needs without compromising the ability of future generations to meet their own needs.

It is the policy of the University of Missouri to incorporate sustainability principles and concepts in the design of all facilities and infrastructure projects to the fullest extent possible, while being consistent with budget constraints, appropriate life cycle cost analysis and customer priorities. This policy applies to renovation and new construction regardless of funding source or amount; to projects accomplished both in-house and through A/E contracts; and to designs associated with all construction methods.

Environmental concepts that guide sustainably designed projects are:

- Sustainable Sites: Meet or exceed State of Missouri DNR best management practices for erosion and sedimentation control standards. Accommodate alternative transportation methods.
- Water Efficiency: Target water efficient landscaping, reduced water usage, and innovative stormwater management.
- Energy and Atmosphere: Encourage optimal energy performance, including appropriate levels of commissioning.
- Materials and Resources: Support construction waste management programs. Provide space for building-based recycling program. Encourage use of local and regionally-produced materials and building products made with recycled content.
- Indoor Environmental Quality: Pursue toxin-free indoor air through appropriate ventilation and use of building materials that emit low levels of volatile organic compounds (VOCs).

The University will not typically seek certification of projects through the USGBC Leadership in Energy and Environmental Design (LEED) process. However, the design of University buildings should strive to achieve an equivalent LEED-certified level while supporting goals stated above. In special cases, specific projects may seek LEED certification if campus goals and budget align.