

## 1.0 ORIENTATION

### 1.1 INTRODUCTION

This manual is for use by design consultants providing services to the University of Missouri and describes the minimum design and submittal criteria for University projects. The manual has the following sections.

**Section I, Orientation**, describes the general business relationship between the consultant and University.

**Section II, Planning and Contract Document Development Guidelines**, lists University codes, standards, design review, drawing, and project manual requirements.

**Section III** presents **Design Guidelines** to be used in the design of University facilities.

**Section IV** presents **Outline Specifications and Details** to be incorporated in specifications and construction documents.

**Appendices** follow the sections with additional information supporting this document.

#### 1.1.1 The University of Missouri

The University of Missouri System (UM) is made up of four campuses (Columbia, Kansas City, Rolla, and St. Louis). Each campus has a separate administration. Design and construction projects are typically funded and administered by campus administration.

The University Board of Curators shall approve the hiring of Architects and Engineers Hiring consultants when the fees are more than \$500,000. The Board of Curators also approves schematic plans on projects with construction cost of more than \$5,000,000, project designs on design/build project with construction cost of more than \$5,000,000, material changes to the exterior of buildings or campuses, and final plans, if there are substantial changes from Board approved schematics.

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## 1.2 AGREEMENTS BETWEEN THE UNIVERSITY AND CONSULTANT

- 1.2.1 The University **Project Manager** [PM] is the **Owner's Representative** while completing the agreement between the University and the consultant. All instructions and approvals come to the consultant from the PM.
- 1.2.2 The University uses the University of Missouri Standard Consulting Agreement as the contract between the consultant and the University for Design Services. Review this document carefully; the University allows no exceptions to this agreement form. A copy can be found at <http://www.umsystem.edu/ums/departments/fa/management/facilities/guidelines/> . Agreements for non-design services, geotechnical services and land surveyor services are also available there. .
- 1.2.3 The consultant will provide all basic services noted in the agreement form. On major projects, the University will hire a code consultant to audit the design and assist the University in its role as the Authority Having Jurisdiction. The University may also hire other consultants as necessary.
- 1.2.4 Renovation projects normally include a review of existing conditions as a part of the basic services. The University will make all existing documentation available to the consultant.
- 1.2.5 On major projects, the University will stipulate the maximum design fee in the Request for Proposals. On other engagements, the consultant will be asked for a fee proposal.
- 1.2.6 **Fee proposals** should include the consultant's perception of the University's project scope of work and recommended scope of services. The consultant will include proposed fee and estimate of reimbursable expenses, project schedule, and University provided information.
- 1.2.7 . The PM will tell the consultant the expected fee structure [lump sum, not to exceed, or percentage of construction cost] and what exceptions may apply.
- 1.2.8 **Reimbursable and non-reimbursable expenses** are described in the agreement. The consultant should discuss any potential reimbursable expenses with the PM before the proposal is submitted. Reimbursable expenses shall be approved in advance by the PM, will be paid at cost, and must be accompanied by supporting documentation and/or receipts. For agreements paid as a percentage of construction cost, the cost to reproduce and distribute bidding documents is reimbursable, but all miscellaneous expenses like copying, long distance telephone, faxes, overnight mail, computer usage/plotting, and mileage and included in the percentage fee. Reimbursable expenses for travel have limits; the PM will give the consultant a schedule. .

- 1.2.9 The consultant's proposal shall identify **project milestones** and include two weeks for University review of submittals. The PM will provide the consultant with any University schedule requirements.
- 1.2.10 All **design review meetings** should be included in the consultant's basic services fee. Also, basic services include a prebid meeting, a pre-construction meeting, a punch-list inspection, and a final inspection.
- 1.2.11 The number of proposed **construction observation trips** should be identified by the consultant as a part of basic services during construction. The consultant shall discuss the preferred method for additional trip payment with the PM before submitting a proposal. If a per trip unit cost for additional construction trips is used, a trip refers to one person on site for one day and includes the issuance of any related meeting minutes and site visit reports.
- 1.2.12 Unless requested to provide services involving **asbestos containing materials [ACM]**, the University will provide the consultant with the specification for ACM removal. The consultant assumes no design responsibility for work related to ACM removal.
- 1.2.13 The University requires a minimum of **\$1,000,000 professional liability insurance**. The PM will tell the consultant if additional professional liability insurance is required. Additional coverage may be required on major projects and/or projects that present unusual risks. The PM may require this as a reimbursable expense. The consultant may be asked to detail their current professional liability coverage and costs in determining the additional cost to the university.
- 1.2.14 The consultant shall submit proof of the required insurance with the signed agreement. The University will not execute the agreement or approve payments without approved insurance.
- 1.2.15 The University and/or the PM will provide instructions on how to submit payment requests. The process can vary from campus to campus. The university will not process payments unless an executed agreement is on file. In general, invoices must include a detail of the work completed, summarize the total bill for services to date, and note the amount of the current request

### 1.3 DESIGN PROCESS AND APPROVAL

#### 1.3.1 Project Management

1.3.1.1 The University's Project Manager [PM] is the Owner's Representative during the design of the project. All instructions and approvals come to the consultant from the PM. Services rendered but not requested by the PM will not be compensated.

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1.3.1.2 The PM manages the total project budget and requires the consultant to manage the construction budget.

1.3.1.3 The PM will manage internal University approvals and instruct the consultant accordingly.

1.3.1.4 The consultant should insist on the timely owner provided information and approvals. The University asks the consultant to notify the PM of owner related delays before the schedule is jeopardized.

1.3.1.5 The consultant must notify the PM immediately if the consultant believes additional services are requested by the University. This also applies to abandoned work. A fee must be negotiated and the agreement adjusted immediately.

#### 1.3.2 Meetings and Shareholders

1.3.2.1 University projects normally involve many academic, student, and service groups as shareholders in a project. The PM arranges for and coordinates the consultant's contact with these groups. Meetings are scheduled by the PM's office.

1.3.2.2 Campus Facilities Management organizations provide in-house design & construction related services at each campus. The PM will arrange for and coordinate the consultant's contact with these groups.

1.3.2.3 Meeting minutes are kept by the consultant and reviewed by the PM before issue. Meeting minutes should be issued to all participants within five working days.

1.3.2.4 The University asks the consultant to respect the University's time and conduct effective, productive meetings. The consultant should review meeting agendas with the PM in advance.

#### 1.3.3 Submittals

1.3.3.1 The University asks the consultant to provide timely and complete submittals. The University will review the consultant's work for program conformance and

constructability. Incomplete and/or poor quality submittals waste University and consultant time. The PM is authorized to reject incomplete submittals.

- 1.3.3.2 The consultant is responsible for the management and performance of their subconsultants. Delay of a subconsultant's part of a submittal is considered an incomplete submittal from the consultant.
- 1.3.3.3 Delay of a project due to incomplete submittals is the responsibility of the consultant.
- 1.3.3.4 Detailed submittal requirements are described in Section II.
- 1.3.3.5 The consultant will allow two weeks of University review time between submittal of review documents and the review meeting. The University considers the milestone achieved only when the review is complete.
- 1.3.3.6 Final review documents should be ready to issue for bid. Do not include the pre-printed UM bidding documents [Advertisement for Bids, General Conditions, Information for Bidders, Bidders Statement of Qualifications, Prevailing Wage Rates] to avoid those reproduction costs.
- 1.3.3.7 The University will supply the consultant with an electronic copy of the bid form and special conditions. The PM will work with the consultant to tailor these for the project. The PM will supply the pre-printed Division 1 bidding documents when the consultant is instructed to advertise the project.

#### 1.3.4 Electronic Documents

The University requires electronic files of design drawings to interface with campus facilities management software. The consultant should coordinate the format and media with the PM. All contract documents and studies shall be furnished to the University in an electronic format, in addition to a hard copy format.

#### 1.4 BIDDING

1.4.1 The PM coordinates the **advertisement** after the final review documents are approved. The PM sets the advertisement date.

1.4.2 The PM will instruct the consultant on how the campus will distribute plans and what the consultant will do to support that effort. The PM will provide the following documents for the bidding documents:

- One copy of the advertisement for bids
- One copy of the list of plan rooms
- Information for Bidders
- General Conditions of the Contract for Construction
- Bidder's Statement of Qualifications
- Bidder's Statement of Qualifications for Asbestos Abatement (if required)
- MBE/WBE Participation Requirements
- Prevailing Wage Rates

1.4.3 The University will distribute plans and maintains the planholder list. The PM will tell the consultant if the university will use a third party reprographics firm to copy and distribute bidding documents.

1.4.4 **Addenda** are part of the contract documents and will be expeditiously distributed to all planholders and plan rooms at least 72 hours before the bid opening. The consultant plays a key role regardless how the addenda are distributed: by the consultant, by the university, or by a third party reprographics firm. The consultant shall prepare addenda for the PM to approve. Addenda will be distributed as outlined in the University of Missouri Information for Bidders, which is then incorporated in the contract for construction.

1. If addenda are mailed, it must be mailed at least seven (7) days before the bid date. If addenda must be issued six (6) days or less before the bid date, either the bid date is extended or the consultant must verify each plan holder has a copy of the addenda at least 72 hours before the bid opening. If addenda are faxed, the consultant shall verify that each plan holder has received a copy of the addendum at least 72 hours before bid opening.
2. If the bid form is revised by addenda, the revised bid form must be printed on different colored paper to distinguish the revisions.
3. In addition to issuing addenda to plan holders, copies of addenda must be placed in each set of the bidding documents that have not yet been issued to a campus distribution point.

- 1.4.5 The PM assisted by the consultant, will hold a **prebid meeting** if required by the agreement. Plan holders are invited to attend to ask questions about the drawings and specifications and to inspect the project site. The consultant will be asked to describe the project and point out important facets of the work and schedule. Simple clarifications can be made in response to questions. Other questions will be recorded and clarified by addenda. Questions requiring interpretations by the consultant will be answered by addenda.
- 1.4.6 To assure an adequate number of bids is received:
1. The consultant will review the local bidding climate prior to the preparation of bidding documents. The size and composition of projects will be considered to encourage competitive bidding. If it appears a conflict among projects will occur in the bidding market, the rescheduling of the bids will be considered if time permits and if this rescheduling can result in additional bids.
  2. The consultant will review the bidders list after the project has been on the market for seven (7) to ten (10) days to determine if there is adequate interest in the project. The consultant will contact several prospective bidders to assure an adequate number of bids will be received (minimum of three).
  3. If little interest is shown in the project, the consultant will contact potential bidders and determine the cause.
- 1.4.7 The campus construction administrator will conduct a **public bid opening**. The consultant will attend the bid opening if required by the agreement.
- 1.4.8 The Consultant performs the **Bid Evaluation** to determine if the bids are responsive and the bidders responsible. The PM reviews the M/WBE goal. The Consultant's review and analysis includes, but not limited to:
1. A thorough analysis of the "Bidder's Statement of Qualifications" to determine if the low bidder is responsible [qualified].
  2. A thorough analysis of the low bidder's breakdown of cost against the scope of work to determine if the bid is responsive.
  3. An analysis and explanation of the bid spread
  4. A comparison & analysis of the consultant's prebid construction estimate to the low bid and the average bid.
  5. An analysis and explanation of why there were variations in the bids

## 1.5 CONSTRUCTION

- 1.5.1 Once the contract is awarded, the **Owner's Representative** is no longer the PM. The construction project manager (CPM) is now the Owner's Representative. All instructions and approvals come to the consultant from the CPM. Services rendered but not requested by the CPM will not be compensated. This includes site visits.
- 1.5.2 **Communications** during construction, including letters, memos, directives, etc., flow through the CPM with the exception of shop drawings which are submitted directly to the consultant. The CPM will review communications with the consultant and the contractor at the pre-construction meeting.
- 1.5.3 The CPM will schedule the **final inspection**. The consultant, owner, and contractor must inspect the work, system by system and room by room, if appropriate, making a record of deficiencies or corrections required to fully comply with the contract documents.
- 1.5.4 The consultant must prepare a final **punch list**, by room, system, or area, and send the requested number of copies to the owner's representative, who will make them available to the contractor. The consultant must field verify completion of punch list.
- 1.5.5 The University will not make final fee payment until all outstanding items, including the **Record Drawings** in the format required by the University, have been received. .