



State of Missouri

Office of Administration

***Division of Facilities Management,
Design and Construction***

DESIGNER'S INFORMATION PACKET

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INTRODUCTION

FORWARD

Congratulations on being selected to work on a State of Missouri Capital Improvement (CI) project. As with many large public owners; we have several Statutes, Regulations, Executive Orders, Codes, Policies, and Standard Procedures we must ask you to follow. To simplify your task, we have tried to put the majority of those requirements in this one (1) Document. This information packet is to be used by the Design Consultant to:

- 1 Prepare a fee proposal for project work requested by the State of Missouri, Division of Facilities Management, Design and Construction (FMDC).
- 2 Provide the Designer information regarding the Division's policies, procedures, and requirements for the administration of both A/E Services Agreements and Construction Services Contracts.
- 3 Provide samples of forms, templates, and documents.
- 4 Make you aware of what is required for an acceptable design submittal and your construction services requirements.

USE OF THE INCLUDED CD ROM

The documents included on this CD are Adobe documents (.pdf), AutoCAD drawings (.dwg), MS Excel documents (.xlsx), MS Word documents (.docx), and MS Word templates (.dotx). All the files may be opened from the included CD.

2.1 COLOR CODING

- A. The documents in **red** are MS Word templates. These templates are setup into forms that you may fill in and print. You may move between the form fill fields by using the tab key or by clicking on the field with your mouse (you will know what field you are in, if the field darkens). These templates are read only. In order to print or save your form, you must save as a new document.
- B. The documents in **green** are MS Excel and Word documents. These are FMDC's Specifications for Division 1, the Professional Seals page, and the Table of Contents page from Division 0. These documents are editable and are setup to work like ARCOM MasterSpec documents. These documents are read only. In order to print or save, you must save as a new document.
- C. The documents in **orange** are AutoCAD drawing documents. These documents are editable. In order to print or save your drawing, you must **save as** a new drawing. These files can only be opened if you have AutoCAD.
- D. The documents in **blue** are Adobe documents. These documents are read/print only.

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INDEX TO DESIGN MANUAL ELECTRONIC FILES

The CD included as part of the Designer's Information Packet is used to provide electronic access to files and formats used during the Design process. This information is intended to assist the A/E in doing business with FMDC. The following files are provided:

Electronic Forms – The forms provided are Word templates and Excel spreadsheets.

- **Contract Change/Contract Change FMDC Internal Checklist (CC) & CC Log**
- **CC Detailed Breakdown-GEN**
- **CC Detailed Breakdown-SUB**
- **Designer's Supplemental Instructions (DSI) & DSI Log**
- **Professional Services Proposal**
- **Professional Services Statement**
- **Request for Information (RFI) & RFI Log**
- **Request for Proposal (RFP) & RFP Log**

Computer Aided Design Guidelines and Drawing Submittals – Project designs for the Division must comply with the requirement included in these **Computer Aided Design (CAD) Guidelines and Drawing Submittals** including the suggested sheet layout and page numbering.

- **Cover Sheet .dwg files**
 - **AutoCAD Version 2002 Cover**
 - **AutoCAD Version 2004 Cover**
- **Sheet Layout .dwg files**
 - **AutoCAD Version 2002 Sheet**
 - **AutoCAD Version 2004 Sheet**
- **Deliverables Checklists**
 - **Schematic Deliverables List**
 - **Design Development Deliverables List**
 - **Construction Documents Deliverables List**
 - **Coordination Plan Deliverables List**
 - **Bid Documents Deliverables List**
 - **Record Drawing Documents Deliverables List**

A/E Performance Evaluation Forms

- **End of Design or Study Evaluation**
- **End of Construction Evaluation**
- **Agency Evaluation**
- **Project Rating Summary**

DNR Land Disturbance Permit

- **014100 – MO State General Operating Permit No. MOR100038**
- **014110 – Storm Water Pollution Prevention Plan (SWPPP) – Project Specific**
- **312500 – Erosion and Sedimentation Controls**
- **329000 – Planting & Landscaping**

Division 1 (Editable) Specifications

- **000115 – List of Drawings**
- **011000 – Summary of Work**
- **012100 – Allowances**
- **012200 – Unit Prices**
- **012300 – Alternates**
- **012600 – Contract Modification Procedures**
 - **Attachment – Contract Change**
 - **Attachment – CC Detailed Breakdown-GEN**
 - **Attachment – CC Detailed Breakdown-SUB**
 - **Attachment – CC Detailed Breakdown-SAMPLES**
 - **Attachment – Designer's Supplemental Instructions**

- **Attachment – Request for Information**
- **Attachment – Request for Proposal**
- **013100 – Coordination**
- **013200 – Schedules – Bar Chart OR 013200 Schedules – CPM**
- **013300 – Submittals**
- **013513 – Site Security and Health Facilities (Generic)**
- **013513.10 – Site Security and Health Facilities (OA)**
- **013513.13 – Site Security and Health Facilities (DOC)**
- **013513.16 – Site Security and Health Facilities (DESE)**
- **013513.19 – Site Security and Health Facilities (DMH)**
- **013513.22 – Site Security and Health Facilities (DYS)**
- **015000 – Construction Facilities and Temporary Controls**
- **017400 – Cleaning**

Roof Design Manual – Information in this manual provides requirements that must be met in designing any new roof or roof replacement.

- **073113 – Asphalt Shingles**
- **074143 – Hybrid Modified Bitumen Roof System – Metal-Wood-Concrete**
- **074143 – Hybrid Modified Bitumen Roof System – Composite Roof Panels**
- **075423 – EPDM Membrane**
- **076113 – Structural Trapezoidal Standing Seam**
- **076119 – Flat, Standing Seam**
- **075400 – Thermoplastic Membrane Roofing**
- **Product Substitution Request**
- **Roofing System Description**

Miscellaneous Attachments:

- **State Seal**
- **Addenda Format (example in .pdf format) and (editable Word format)**
- **Format for Construction Specifications**
- **Division 0 MasterFormat 2004 (includes editable Seals Page and Table of Contents)**
- **Cost Estimate Detail (example)**
- **Cost Estimate Summary (example)**
- **Project Completion Schedule (example)**
- **ASHRAE 90 Forms**
- **Final Payment for Design Consultant Report**
- **Agreement between Owner and Consultant for Special Services**
- **Terms and Conditions of Special Services Agreement Between Owner and Consultant**
- **Agreement for Design Services Between Owner and Architect or Engineer**
- **Terms and Conditions of Design Services Agreement Between Owner and Consultant**

1.0 INSTRUCTIONS TO ARCHITECTURAL/ENGINEERING FIRMS FOR PRE-PROPOSAL MEETING

1.1 GENERAL

- 1.1.1 FMDC's Project Manager will conduct a Pre-Proposal Meeting that will include the Agency CI Coordinator, Agency Site Coordinator, and the Consultant's Project Manager.
- 1.1.2 The A/E Firm shall submit a proposal within two (2) weeks following the Pre-Proposal Meeting.
- 1.1.3 The A/E shall complete the **Professional Services Proposal** form and return it to the Contract Specialist, Contracts Unit, FMDC with a copy addressed directly to the Project Manager.
- 1.1.4 All information entered on the Proposal form shall be typewritten or lettered neatly.
- 1.1.5 If the Consultant believes there is inadequate funding to complete all work described in the proposed Scope of Work, a letter should be submitted stating the estimated amount of work that can be accomplished. The Professional Services Proposal should be based upon the work that can, in the Consultant's opinion, be accomplished.
- 1.1.6 The A/E shall attach to the Proposal evidence of current professional liability insurance coverage as required in the Request for Proposal (RFP) letter.

1.2 BASIC SERVICES

- 1.2.1 The A/E shall enter the **detailed** Scope of Work that was agreed upon at the Pre-Proposal Meeting. General statements such as "Consultant will provide Architectural and Engineering services in accordance with Article I of the standard State of Missouri Professional Services Agreement" **will not** be acceptable.
- 1.2.2 The A/E shall use his own judgment, considering the complexity and extent of the job, available information, etc., in determining the professional fees. Basic Services shall include CAD Deliverables as described in the **CAD Guidelines and Drawing Submittals**. In the event of the need for special preliminary studies or other work beyond Basic Services, the A/E should identify the associated fee as a separate component of the Basic Services fee.
- 1.2.3 A/Es may submit a proposal based upon an hourly rate, a multiple of direct expense, a flat or fixed fee, or a percentage of the construction contracts awarded. If fees are based upon an hourly rate or a multiple of direct expense, a "Not-to-Exceed" amount must be specified.
- 1.2.4 The A/E should consider the payment schedule to be used regarding Basic Services as shown in the standard State of Missouri Professional Services Contract. The generally accepted schedule pays up to 15% of the total fee for Schematic Design, 35% for Design Development, and 75% for completed Construction Documents. The remaining 25% of the fee for the Construction Administration is apportioned equally at 25%, 50%, 75%, and 100% of completed construction. If the Consultant proposes an alternative payment schedule, he should define same by attachment to the Proposal form.
- 1.2.5 For fees based on other than "Percentage of Construction Cost" (Page 2 of Professional Services Proposal), the A/E shall provide a detailed breakdown of Basic Design Services, Special Services, and Direct Cost items, which will be required to complete all Basic Services. All Additional Services identified while preparing the Proposal shall be included as part of Basic Services. Design Services costs of the A/E and sub-consultants shall be identified by phase including hours by discipline and hourly rates. Clearly identify profit and overhead rates applied to direct hourly rates. Other Basic Services such as

topographic surveys, soils testing, or furnishings should be itemized separately. Direct Cost items as identified in Article IX, Reimbursable Expenses of the Standard A/E Contract form shall be itemized. Unless otherwise agreed to in writing, do not include reproduction and delivery costs for Bid Documents or review copies for the Owner and Agency.

- 1.2.6 All A/E pay requests shall be submitted on the FMDC form, **Professional Services Statement**.

1.3 ADDITIONAL SERVICES

- 1.3.1 The intent of this contract is to include as many Additional Service type expenses in Basic Services as possible including the cost of visits to the site as described in Article 1.5 of the Agreement form. Provide an all-inclusive lump sum proposal rate for additional unplanned Owner-requested site visits during construction. If there are other services that may be required, but cannot be quantified at the beginning of the project, the A/E must specify the fee basis to be used for those Additional Services in the event such are deemed necessary. During the Design Phase, the Project Manager approves Additional Services. During the Construction Phase, the Construction Administrator approves Additional Services. All Additional Services will be issued as a **Contract Change** (for design).

1.4 REIMBURSABLE EXPENSES

- 1.4.1 The intent of this contract is to include as many reimbursable type expenses in Basic Services as possible. The A/E shall use his own judgment in determining what items, if any, he feels should be included. Unless otherwise stated in the Agreement, the Owner will reproduce and distribute review sets for the Owner and Agency and all Bid Documents and Addenda. If no other reimbursable expense items are to be included, enter "NONE." Only those additional items listed under this section will be reimbursed. If expenses for travel, photography, etc. are anticipated, it is preferred that the Basic Services fee reflect these costs. Reimbursable expenses will be added, if needed, using the **Contract Change** form (for Design).

1.5 PROJECT COMPLETION SCHEDULE

- 1.5.1 Purpose – The development and use of a Design Schedule is a tool to communicate the direction and status of a project to Design Team members and other interested parties. It is also valuable to highlight challenges in the Design Phase and pinpoint potential areas of delay. By defining the areas and timeframes for which Design Team members are responsible, use of the schedule will make all team members accountable to the others for their areas of responsibility.

A. Policy:

1. A Design Schedule will be developed for each project managed by FMDC based upon the **Detailed Sample Schedule** provided here-in and utilizing P6 software.
2. The Design Schedule will be maintained and monitored by the Project Manager with assistance and input from the Design Consultant and Agency Representative.
3. When circumstances require a change in the Design Schedule, the schedule change will be documented and communicated to all members of the Design Team (Design Consultant, Agency Representative, and Program Manager). **The Contract Change form (for design) shall be used for this purpose.**

4. The ability to maintain and meet the agreed upon and approved design schedule will be a factor in the performance evaluation of the Design Consultant and Project Manager.

1.5.2 The preliminary project schedule – Design and Construction Phases – shall be reviewed at the Pre-Proposal Meeting. All parties shall agree to or revise (if necessary) the project schedule. Any changes to this schedule must be approved by the Client Agency and FMDC.

1.5.3 An example of a **Schedule** is included on the CD.

2.0 A/E PERFORMANCE EVALUATION PROCEDURE

2.1 POLICY

2.1.1 To ensure the Designers selected are performing quality work, that future selections are based on past performance and that the public's tax dollars are prudently spent, FMDC has implemented an A/E Performance Evaluation process based on pre-established criteria.

2.1.2 Definitions

- A. A/E: An abbreviation for the term Architectural/Engineering Firm. For its use in this document, it can be interchanged with the term Consulting Firm or Design Firm.

2.2 PROCESS

2.2.1 The Project Manager delivers and reviews the A/E Performance Evaluation forms at the Pre-Design Meeting.

2.2.2 The A/E Firm will be rated by the following individuals at the various stages of the project:

- A. 1st Rating: At the **End of Design or Study** for design/study only contracts or at the Intent to Award of the construction contract – **Project Manager**
- B, 2nd Rating: At the **End of Construction** with the A/E final payment – **Construction Administrator**
- C. 3rd Rating: At the end of the project the **Agency Evaluation** – **Agency Representative**

2.2.3 1st Rating

- A. The Project Manager completes the first recorded A/E Evaluation at the end of the Design/Study Phase of the project for design only projects or at the Intent to Award point for projects proceeding to construction. The results obtained from this evaluation are included in the overall performance rating for the A/E. Questions pertain to the A/E's performance in completing their Professional Services Proposal, on-going communication abilities, document preparation, quality of specifications and documents submitted. The Rater is required to give a letter grade to each question on the evaluation sheet. The response ratings are to be: A (Outstanding), B (Above Average), C (Average), D (Weak), or F (Unacceptable). **Comments are required for ratings of an "A", "D", or "F"**. After the rating has been completed, the rating is given to the responsible Senior Office Support Assistant.
- B. The Senior Office Support Assistant documents the date the form was transmitted to the Project Manager. The Project Manager is given five (5)

working days to return the rating to the Senior Office Support Assistant. Upon receipt, the Senior Office Support Assistant transfers the rating to the Project Rating Summary for Design Phase. The completed Design Phase Rating form is sent to the Project File after the rating information has been recorded. A copy of the rating is provided to the Agency Representative, the Design Firm, and to the Project File with the original being sent to the A/E's hard file. The Project Manager meets with the Design Firm to discuss the ratings given. This meeting is the Project Manager's opportunity to formally document shortcomings and also cover areas the Firm is excelling.

2.2.4 2nd Rating

- A. The Construction Administrator completes the second recorded A/E Evaluation at the A/E's final payment. The results obtained from this evaluation are included in the overall performance rating of the A/E. This rating is averaged with the 1st and 3rd formal ratings to result in the Firm's overall project rating. Questions included on the 2nd Rating address the quality of the Construction Documents and the promptness/quality of services provided during the Construction Phase. A letter grade is required to be given in response to questions on the form. The response ratings are to be: A (Outstanding), B (Above Average), C (Average), D (Weak), or F (Unacceptable). **Comments are required for ratings of "A", "D", or "F".**
- B. The Construction Administrator attaches the completed rating form to the **Final Payment for Design Consultant Report** with a copy transmitted to the Senior Office Support Assistant. The ratings, upon receipt, are transferred to the Project Rating Summary.
- C. The completed Construction Phase Rating forms are sent to the Project File after the rating information has been recorded. The information is logged into the A/E Ratings Database and a copy of the Summary Progress Report is provided to the A/E, the Project Manager, the Construction Administrator, and the Agency Representative. An additional copy is placed in the Project File with the original sent to the A/E's hard file.
- D. The Construction Administrator is required to review the A/E performance to date with the A/E at the Project Substantial Completion.

2.2.5 3rd Rating

- A. The third recorded A/E Evaluation is completed by the User Agency at the end of the Construction Phase of the project. The results obtained from this evaluation are included in the overall performance rating of the A/E with the Ratings given by the Project Manager and Construction Administrator. Questions included on the 3rd Rating are meant to assess the quality of the construction, the expectations of the Agency, and the overall success of the project. A letter grade is required for all questions. The response ratings are to be: A (Outstanding), B (Above Average), C (Average), D (Weak), or F (Unacceptable). **Comments are requested for ratings of "A", "D", or "F".**
- B. The Agency is requested to return their rating within five (5) working days to the Senior Office Support Assistant. The completed ratings are transferred and averaged with the other ratings on the **Project Rating Summary**.
- C. The completed **Agency Evaluation** form is sent to the Project File after the rating information has been recorded. The rating information is recorded in the A/E Ratings database and a copy of the Summary Progress Report is provided to the A/E, the Project Manager, the Construction Administrator, and the Agency

Representative. An additional copy is placed in the Project File with the original sent to the A/E's hard file.

2.2.6 Summary

- A. Upon receipt of the three (3) completed recorded ratings, the Senior Office Support Assistant transfers the ratings to the project's **Project Rating Summary**. The Summary form contains the rating by the Project Manager, the Construction Administrator, and the User Agency, which results in the Firm's overall performance rating for the project.
- B. The A/E Ratings database contains each project's rating and the Firm's average ratings for all projects to form an overall performance evaluation for the Firm. Each individual project rating is included in the overall performance rating for a period of six (6) years.

2.3 A/E APPEAL PROCESS

- 2.3.1 The intent of the A/E Evaluation process is to point out areas where the A/E may excel or lack in performance. FMDC's goal is to encourage excellence in design performance and inform a Firm in a timely manner if a problem exists. Should an A/E take exception to the State's evaluation score, the Firm may appeal to the Director.

3.0 GENERAL POLICY/PROCEDURES FOR PROJECT MANAGEMENT

3.1 PROJECT NUMBERS

- 3.1.1 The Project Number consists of a seven-digit number, i.e. A9901-01. The Project Number and Title used on our Request for Proposal letter will become your A/E Agreement Number. **Please reference that Number and Title on all related correspondence and documents.**
- 3.1.2 Project Numbers shall appear on all correspondence and documents such as Professional Services Statements, Construction Contract, Contact Change documents, etc.

3.2 MEETING MINUTES

- 3.2.1 The A/E Firm must generate minutes for all meetings (except the Pre-Proposal Meeting) concerning the project and distribute copies to all participants as well as the Project Manager, if not a participant, **within three (3) days** after each meeting, for a satisfactory grade. Unless specific exceptions are taken in writing to the minutes as distributed, the document will serve as a consensus agreement concerning the discussions held and decisions made.

3.3 CORRESPONDENCE

- 3.3.1 A copy of **all** correspondence relating to the project must be sent to FMDC's Representative as directed.

3.4 CHANGES IN SCOPE OF WORK

- 3.4.1 There shall be no change in the Scope of Work on a project without written approval of FMDC. Under no circumstances, may any Agency increase the Scope of the program or change the intent of the Legislative program without the approval of the Director.

3.5 SUBMITTAL OF PLANS TO CITY AND COUNTY GOVERNMENTS FOR REVIEW, CONSTRUCTION PERMITS, INSPECTIONS, AND RELATED MATTERS

3.5.1 Permits

Since the Owner is the State of Missouri, municipal or political subdivision ordinances, zoning ordinances, construction codes, and other like rules and regulations are not applicable to construction on the State's property, and the Contractor will not be required to submit Plans and Specifications to any municipal or political subdivision authority, obtain construction permits or any other licenses or permits from, or submit to inspections by any municipality or political subdivision relating to the construction of this project. All permits or licenses required by municipality or political subdivision for operation on property not belonging to the Owner shall be obtained by and paid for by the Contractor. Each Contractor shall comply with all applicable laws, ordinances, rules, and regulations as it is not the intent of the Owner to arbitrarily dismiss the authorities identified above.

3.5.2 Despite the fact that legally the State is immune on its property from Local government codes and regulations, we can and should submit plans during the Design Phase and after project completion to Local governments for their information. This will allow them to be familiar with the buildings for fire protection purposes, etc. If the Local governments offer review comments on our plans, we will consider their suggestions and incorporate the same when we agree. If they have valid comments, we and our Consultant should recognize this and take steps to correct any deficiencies in the design. When submitting plans to Local government agencies, the letters of transmittal must clearly indicate that the submittal is for "informational purposes only". The Local government may choose to review and offer comments or may choose to ignore the matter. The plans shall not be submitted for review and approval, nor shall any "filing fee" or other permit, inspection, or review fee be paid. No request for "approval" or "permit", etc. shall be solicited.

3.5.3 On work off of State property, we must submit our designs for review and obtain approvals. Connections to sewer and water lines, driveway entrances, and gas service connections are examples of off-site work that may occur on some of the State's projects and may require Local government, Department of Transportation, or other approvals. The design of off-site work must be coordinated with such Agencies. Standard fees charged for applications, reviews, etc. will be paid by the State – usually through the Design Consultant, who will be reimbursed. The cost of any construction permits or inspections will be borne by the Construction Contractor in the contract price, as presently indicated by Article 1 of the General Conditions.

3.5.4 The State is subject to State and Federal regulations and design work must be handled accordingly.

3.5.5 Any new project where one (1) or more acres of land will be disturbed now requires a Missouri Department of Natural Resources (DNR) Land Disturbance Permit. Rather than going through the permit process for each of our projects, we now have a General State Operating Permit issued to FMDC. It also covers the Federal Discharge Permit. There are still monitoring reports, contract requirements, and guidelines that are essential for the use of this permit. If your project will require a Permit, please be sure to use the **DNR Land Disturbance Permit** on the included CD.

3.5.6 Spoil or Borrow on Projects with Federal Funds

All Federally funded projects which involve off-site borrow and/or off-site spoil deposit sites will require written certification that the site(s) are in compliance with the National Environmental Policy Act and all related applicable Federal and State laws and regulations.

It is the Owner's preference that the projects be designed to only use borrow or spoil on the Federal/State site. If it appears there may be a need to use off-site property for borrow or spoil, the Designer must locate a certified site or assist in obtaining rights to use private property and obtain the Federal certificates on behalf of the Owner prior to bidding the work. As a last alternative, the Construction Contract may require the

Contractor to locate and obtain certifications for an off-site borrow or spoil area. If so, the contract shall include a clause allowing a “no cost time extension” for the purpose of obtaining the certifications. See the [Supplementary General Conditions, Section 007300 in Division 0](#).

4.0 DESIGN POLICIES/PROCEDURES

4.1 PRE-DESIGN MEETING

4.1.1 The Project Manager will determine if a Pre-Design Meeting will be held. After the A/E Agreement has been signed, the Project Manager may schedule a time and place to meet with the A/E, Agency, and the Facility.

4.2 REVIEW SUBMITTAL DOCUMENTS

4.2.1 Unless otherwise stated in the Agreement, the Owner will reproduce and distribute review sets for the Owner and Agency as well as all Bid Documents and Addenda.

4.2.2 The documents submitted at the end of the Construction Documents Phase will be known as Final Review copies. After incorporating any necessary items following Final Review, the A/E shall submit documents ready for bidding to the Owner’s Project Manager for approval signatures. **All Bid Documents submitted for signature must be sealed by a Registered Architect and/or Professional Engineer from the State of Missouri, as appropriate.** The A/E is further required by contract provision to assist the Owner in obtaining bids. This is to include contacting qualified Contractors as necessary to create interest.

4.3 BASIC REQUIREMENTS OF DESIGN PHASE SUBMITTALS

4.3.1 Design submittals shall comply with the [Terms and Conditions of Design Services Agreement Between Owner and Consultant](#). Roofs shall follow the FMDC [Roof Design Manual](#). **Specification format must be consistent throughout the Specifications and follow the [Format for Construction Specifications \(Missouri Standard Specification Format\)](#), Section, and Part.**

The Review Submittals for Project Design shall include the following:

4.3.2 Schematic Design Phase
(May be combined with the Design Development Phase)

A. As required in the [Schematic Design Deliverables List](#).

4.3.3 Design Development Phase

A. As required in the [Design Development Deliverables List](#).

4.3.4 Construction Document/Final Review Phase

A. As required in the [Construction Document Deliverables List](#).

B. As required in the [Coordination Plan Deliverables List](#).

4.3.5 Bid Documents

A. As required in the [Bid Documents Deliverables List](#).

4.4 SPECIFICATION OF PRODUCTS ON STATE CONSTRUCTION WORK

- 4.4.1 Specifications placed on the market by this Office shall call out more than one (1) manufacturer's product, preferably as many as possible that meet the needs of the job. Generally, unless it is clearly shown that only a single (sole source) product will suit the needs of the job, at least three (3) manufacturers should be named. Of course, in instances where a great number of manufacturers' products are suitable; for example in the case of bronze valves, it is not required that manufacturers' name be listed. In the event a Designer believes a single product is the only one (1) suitable, the Project Manager must present the case to the Director, through the appropriate Section Leader, for a decision before the Specification is so written.
- 4.4.2 Although we, as a government Agency, may restrict approved products to a single item when fully justified as the only suitable product for a particular application, we cannot allow overly restrictive specifications based upon personal product preferences or desires to use "only the very best." If a Sole Source item is deemed necessary, the Owner's Policy is to be followed. A predetermined cost allowance for approved Sole Source items must be included in the Contract Bid Documents.
- 4.4.3 The three (3) manufacturers' products named should include the specific model numbers, styles, and other information necessary to clearly identify the acceptable product. Listing of only a manufacturer's name is **not** acceptable.
- 4.4.4 The products listed must be of equivalent quality, service life, and efficiency to compare "apples to apples".

4.5 ACCOMMODATION OF WEATHER-RELATED CONSTRUCTION DELAYS

- 4.5.1 During the design of a project, when the allowable number of days for construction is determined by the Designer, consideration shall be given to the effects of poor weather including: (1) the seasons during which the work will be performed, (2) the work activities and their sensitivity to weather conditions, and (3) the probable number of unsuitable weather days to be encountered. This information shall be assimilated to develop an overall completion time stated in working days and shall include "bad weather" days. In cases where the project is subject to weather conditions and "bad weather" days are included, **Division 1, Section 012100 Allowances** shall specify the number of the "bad weather" days included in the project completion period. Thus, the Contractor will have a specified number of working days to complete the project from the Notice to Proceed and a specified number of "bad weather" days will be included within that construction period. When the Contractor loses a day of work due to bad weather, that loss will be charged against the "bad weather" day allowance. Only when more days are lost than are allowed will a time extension for bad weather be necessary. On the other hand, if the specified number of "bad weather" days is not encountered, the Contractor will not be expected to "give them back." A "bad weather" day is defined in Section 012100 Allowances as a day when weather related conditions preclude performance of critical work activities for 50% or more of the Contractor's scheduled workday declared unavailable for work. The Contractor's progress schedule shall clearly indicate the bad weather day allowance as "activity" or "activities".
- 4.5.2 Determination of the number of "bad weather" days to be included shall be the responsibility of the Designer. Obviously, the determination involves estimating and the application of judgment and will not be perfectly accurate. However, by including an allowance for days lost to inclement weather on jobs so affected, the Contract Completion Date should be much more realistic, facilitating planning and scheduling needs of all involved.

4.6 USE OF STATE SEAL

- 4.6.1 The use of The Great Seal of the State of Missouri on Plans, Specifications, and other documents may be contrary to Missouri law. Use of the Seal is to be limited to the Secretary of State for authenticating official acts of the Governor. Accordingly, the

documents issued from FMDC should not contain the Seal. As the alternative, a portion of the Seal may be used. For example, the center section may be used without the border and words **The Great Seal of the State of Missouri**.

- 4.6.2 It is permissible to use the State Seal on physical features of State buildings, i.e. dedication plaques, doorknobs, etc. Private entities may not use the Seal for commercial purposes; however, use on State-owned or leased facilities is not prohibited. The use on a building plaque, doorknob, or similar physical feature of a building does not convey authentication of a document executed by the Governor, as would the use on a document such as Plans or Specifications.

4.7 PAYMENT OF UTILITY COST DURING PROJECT CONSTRUCTION

- 4.7.1 In an effort to provide an incentive to Contractors to conserve energy during the construction of new facilities, it shall be our general policy that the cost for power, heat, light, etc. be the responsibility of the Contractor until the project is substantially complete and accepted by the State.
- 4.7.2 Due to the location and circumstances involved at many of the construction sites at existing State facilities, this policy must be applied with caution; in fact, most of our projects will probably not lend themselves to such a stipulation in the Specifications. Renovation projects or new building on an existing campus where provisions for metering and pricing utility charges to a Contractor are not available are typical exceptions necessary to the general policy. However, new buildings at sites without present State-owned utility systems and other such projects where a new service will have to be established with a utility company are prime candidates for application of this policy.
- 4.7.3 In summary, the Designer shall clearly identify who is responsible for payment of utilities during construction in the appropriate paragraph in **Section 015000 Construction Facilities and Temporary Controls**.

5.0 COST ESTIMATING POLICIES/PROCEDURES

5.1 COST ESTIMATE POLICIES

- 5.1.1 The Designer shall provide a design that completes the Scope of Work included in the Designer's contract. The Designer's Base Bid estimate shall not exceed approximately 90% of the total Allowable for Construction (AFC) amount with flexibility depending upon the complexity of the project. A maximum of four (4) Alternates may be used to bring the project up to the total AFC amount or not more than 110% of the AFC. If the Designer desires to include Alternates that exceed the AFC, they may do so with the understanding that fees will not be paid on such design work unless the bids received allow acceptance of the Alternates within the AFC amount. These percentage figures are subject to variance, depending upon the size of the project. The actual percentages may have to be reduced to result in closer adherence to the total allowable construction amount, especially on larger projects where 10% under or 5% over may represent very large sums of money. If Alternates are used as part of the final design documents, the Designer shall prepare cost estimates for each Alternate in the same formats required for the Base Bid estimates.
- 5.1.2 The Designer shall include the Construction Cost Estimate in **Section 011000 Summary of Work**.

5.2 COST ESTIMATE SUBMITTALS

- 5.2.1 The Designer shall submit construction cost estimates to the Project Manager at the end of Schematic Design, Design Development, and Construction Documents as well as just prior to placing the project on the market for bids. Cost estimates must confirm that the project design meets the program, construction budget, and related requirements as

defined in the Terms and Conditions of the Agreement for Design Services Between the Owner and A/E.

- 5.2.2 The Designer may be required to provide additional copies of estimates for the client Agency to select Alternates, if any.

5.3 FINAL COST ESTIMATES PRIOR TO BIDDING

- 5.3.1 The Final Statement of **Estimated Construction Cost** shall be detailed by CSI Specification Section showing the estimated cost per section broken down by unit quantities to include unit costs for labor, material, and equipment.
- 5.3.2 The **Cost Estimate Summary** to be included in the Bid Documents, Section 011000 shall be broken down by CSI Division/Section with a short description of the work items and subtotals for each Division. Quantities will not be included in the cost estimate shown in the Bid Documents.
- 5.3.3 If Unit Prices are included in the proposal form, the estimate is to identify the Unit Price cost. (See 6.2 below for further clarification.)

6.0 BIDDING POLICIES/PROCEDURES

6.1 GENERAL

- 6.1.1 FMDC's Contracts Unit is responsible for bid package reproduction, solicitation of bids, bid opening, contract preparation, and contract award. The Consultant may be required to evaluate the bids as a part of the Basic Services under the Construction Document Phase.

6.2 UNIT PRICES

6.2.1 Policy

- A. If an unknown condition exists that could result in increased project costs, and such conditions cannot be substantiated during design, then the Designer shall include "Unit Prices" in the Bidding Documents.
- B. When Unit Prices are used, the Designer shall provide an estimate of the quantity that might reasonably be expected to exist. The estimated quantity shall be listed in the **Unit Price Schedule** of Section 012200.
- C. Section 012200 directs the Contractor to include this estimated quantity in their Base Bid. The Designer must then also include this estimated quantity in their final cost estimate.
- D. The Construction Contract Amount will be adjusted by Contract Change, for more or less unit quantities, at the Unit Prices listed in the Contract.
- E. Unit Price Procedure:
1. Estimate number of units and cost of appropriate items.
 2. Include in the Base Bid the proper number of units. Section 012200, **Unit Prices**, and the appropriate Specification Section, defines said Units. In Section 012200, Unit Prices, indicate the estimated number of units contained in the Base Bid. This is to include the unit of measurement and quantity to be included in the Base Bid.

3. Unit Prices shall then be taken for adjustment to the contract price based upon actual units encountered. A Contract Change will be issued for the increased or decreased number of units.
- F. In Section 012200, clearly define what is to be included in the requested Unit Price item.
- G. Unit Prices are **not** to be taken strictly **to add** to the work. Therefore, items such as paving of additional areas or purchase of windows will not be handled as Unit Prices. These are known conditions and will be either placed in the bid package or deleted at the Owner's discretion.

6.3 BID ALTERNATES

- 6.3.1 Upon approval of the Owner's Representative, the Consultant may include no more than four (4) additive Alternates in the Project. The **Alternates**, when bid, **must** be accepted in numerical order as listed in **Section 012300** unless acceptance of Alternates does not affect the decision of the lowest responsive and responsible bidder.
- 6.3.2 When the Consultant elects to include Alternates for the purpose of determining cost, or to protect the budget established for the Base Bid(s), or for any other reason, no compensation will be allowed the Consultant for Alternates not accepted.
- 6.3.3 **Alternates shall not render the Project unusable.** The Consultant, therefore, in determining his final estimate must include Base Bid and necessary Alternate costs within the AFC, unless otherwise approved by the Owner's Representative.

6.4 ADDENDA

- 6.4.1 Addenda should include design changes developed from Contractor/Supplier information, Agency request, wage rate amendments, answers to questions, and clarifications of the Scope of Work. The Designer must coordinate contents of the Addenda with the Project Manager. An example of the **Addenda Format**, which shall be followed, is provided on the CD. Minutes from the Pre-Bid Meeting will be attached to the Addendum following the Meeting for "information purposes only". All changes to the Bid Documents must be in the body of the Addendum.
- 6.4.2 Distribution of Addenda is the **responsibility** of the Division. Any Addendum that revises the Bid Form or Bid Date must be approved by the Project Manager who will coordinate with the Contract Specialist before distribution.
- 6.4.3 The Division must mail Addenda at least seven (7) calendar days before bid opening. The Division may fax the Addenda at least forty-eight (48) hours prior to bid opening; otherwise, the bid opening must be postponed by Addendum.

7.0 CONSTRUCTION POLICIES/PROCEDURES

7.1 RECORD DRAWINGS, CAD DELIVERABLES, AND WARRANTIES/OPERATING INSTRUCTIONS

- 7.1.1 The A/E Agreement requires the Consultant to submit CAD Deliverables with the initial Design Review Documents and with the final Construction Bid Drawings, all in compliance with the **CAD Deliverable Guidelines and Drawing Submittals**.
- 7.1.2 The A/E, if requested, shall provide .dwg files to the Contractor or Subcontractors for the purpose of preparing Shop Drawings at no cost.
- 7.1.3 Prior to final payment, the Consultant shall provide three (3) sets of **Record Drawing prints** and one (1) set of CAD Deliverables.

- 7.1.4 The General Conditions require the construction Contractor to provide the Consultant with a marked set of the project drawings showing all Contract Changes or other variations from the original Contract Documents. The Consultant shall not recommend approval of the Contractor's final pay request unless this requirement has been met.
- 7.1.5 Final payment to the Consultant will not be approved without the submittal of the required documents outlined in paragraphs above.
- 7.1.6 The General Conditions require the construction Contractor to provide the Consultant with three (3) copies of all warranties and operating instructions.
- 7.1.7 See **CAD Guidelines and Drawing Submittals**.

7.2 CONTRACT CHANGES (CONSTRUCTION)

7.2.1 Introduction

- A. During the Construction Phase of a project, a **Contract Change** form (for construction) may be required to modify the **Construction Contract**. A definition of terms is first presented followed by the Division's policy on Contract Changes.

7.2.2 Definition of Terms

- A. Contract Change form:

The Contract Change form (for construction) is a written legal document, prepared by the Design Professional, that modifies a Construction Contract, and affects the time and/or cost of the project. It must be signed by FMDC and the Contractor before work relating to the Contract Change commences.

- B. Owner:

The Owner is the State of Missouri.

- C. Owner's Representative:

1. **Construction Representative** is the Owner's Representative for construction administration and may be either the Project Manager or Construction Administrator.
2. **Project Manager** is the individual assigned by the FMDC Project Management Unit who is responsible for the project during the Design Phase and may act as the Construction Administrator.
3. **Construction Administrator** is the Construction Field Representative from the FMDC Project Management Unit who is responsible for the project during the Construction Phase. Some Project Managers may be responsible for the onsite representation during the Construction Phase.
4. **Designer** is the Engineer or Architect of Record who designs the project. The Designer may be an outside Consultant or FMDC personnel.
5. **Agency** is the Facility Representative or User for the project. Although they provide input regarding operations and coordination, they have no authority to authorize changes, but may request changes through the Project Manager.

7.2.3 Contract Change Policy

- A. Construction Contract Changes shall be limited to those required to complete the work as contemplated at the time the Plans and Specifications were approved by the Owner, and to those necessary to ensure proper and efficient functioning of the Facility for its intended purpose.
- B. A Contract Change is required to modify any of the original Contract Documents to satisfy a requirement for more work, less work, or different work than originally specified, or for modification of the Construction Completion Date.
- C. In accordance with Article 1 of the General Conditions, any incidental work obviously necessary to complete the project within the Scope of Work defined by the Drawings and Specifications, although not shown, shall be performed by the Contractor.
- D. A Contract Change may not expand the Scope of Work beyond the intent of the appropriation. Changes involving large additions of work may violate the intent, if not the letter of the laws requiring competitive bidding, and cast doubt on the integrity of the State's construction procurement policy. Accordingly, Contract Changes involving significant extra work are to be considered only if it is detrimental to competitively bid the work separately at a later date.
- E. Changes necessary for corrections required to ensure proper functioning of the Facility and revisions arising from unanticipated conditions encountered during construction are justifiable changes. Contract Changes that involve unusual circumstances and are considered to be in the State's best interest may be allowed.
- F. When a project is nearing completion, proposed changes must be very carefully evaluated from the standpoint of the Contractor's operations and the resultant effect upon the time of completion. Such late changes could add considerably to the cost of the work, resulting in the release of the Contractor from liquidated damages, delay in the completion of the project, and further withholding of the Contractor's final payment.
- G. If a Contractor refuses to make a proposal and/or sign a Contract Change for work that is clearly within the original Scope of Work and which must be performed to ensure the overall integrity of a project, the General Conditions may be relied upon to require the Contractor to perform the work on a time and material basis.

7.2.4 Contract Change Initiation

- A. A request for change may originate from an Owner's Representative or Contractor.
 - 1. The Owner may initiate a change to the Contract. The Construction Administrator acts as the Owner's Representative for purposes of Owner requested changes. The User Agency or Designer shall notify the Construction Administrator for all change requests. If the change is within the Project Scope and funds are available, the Construction Administrator will forward the request to the Designer for the preparation of a **Request for Proposal**.
 - 2. The Contractor may initiate a RFI to the Designer with copies to the Construction Administrator. Once the Designer determines that the appropriate response to a RFI will require a Contract Change and the Construction Administrator concurs, the Designer issues a RFP to the Contractor. The Contractor should respond to the RFP with a detailed proposal.

7.2.5 Contract Change Preparation

- A. Description of Change – The Designer completes the top portion of the **Contract Change** form (for Construction) including Description, impact on MBE/WBE/SDVE participation, and Contract Summary and forwards it to the Contractor. The Designer may use the Contractor's proposal from the RFP (if issued) to fill out the Contract Change.
1. General – Since verbal directions lead to misunderstandings and nothing verbal modifies the Contract, it is in both parties' interest to issue clear, complete, but concise Contract Changes. The Description must include the quantity and quality required where the work is to be changed. Attach any sketches or amplifying information. Do not include the reason for the change in the description.
 2. Standard Format
 - a. Begin the Description with the proposed action involved in the change (i.e., add, delete, credit, substitute, etc.)
 - b. Specify the quantity and type of items used. If more than one (1) change is involved, itemize the quantity and types.
 - c. Reference drawings or sketches used are to be attached with appropriate identification and dates.
 3. Lengthy Description of Change – If the description of work is lengthy or complicated, the Description of Change shall be summarized on the first page. A detailed Description of Work and/or Sketches shall be added as Attachments.
- B. Cost Estimate – The Designer shall prepare and send an independent cost estimate to the Construction Representative along with a copy of the Contract Change with Part I – Description of Change completed or the RFP. **Care should be exercised to ensure this estimate is not seen by the Contractor.**
- C. The Construction Representative verifies that funds are available for the proposed work and that the work is within the intent of the appropriation. If funds are not available, the Construction Representative in coordination with the Program Manager may stop the processing of the Contract Change.
- D. The Construction Representative will evaluate the suitability of the change with regard to field conditions and progress of work and notifies the Designer of any clarifications to the Description of Work.

7.2.6 Contractor's Proposal

- A. The Contractor will submit a proposal in response to a RFP. The proposal is to indicate any additional workdays required for the additional work and attach a detailed cost breakdown in accordance with the General Conditions. The Contractor shall also provide justification for any requested time extension. If no time extension is necessary, the Contractor shall clearly state this in the proposal. **NOTE:** Time extension shall not be granted for delays in delivery of materials associated with the original Contract Scope.

SPECIAL NOTE:

The entire process to prepare a Contract Change does not require an inordinate amount of time to complete. In a special case where quick handling is necessary to avoid delay

to the Contractor, the Designer and/or Construction Representative may meet with the Contractor, sketch the necessary change, develop handwritten notes or specifications, and immediately receive a handwritten price quote from the Contractor.

7.2.7 Proposal Review and Negotiations

- A. The Designer evaluates and makes a recommendation regarding the proposal for completeness, fairness of price and justified time extension. The proposal may be acceptable or unacceptable.
1. Acceptable Proposal:
 - a. The Designer shall reach concurrence with the Construction Representative.
 - b. If the proposal is acceptable, the Designer prepares the Contract Summary. If the proposal varies by more than 10% from the Designer's estimate, the Designer shall explain the difference and why approval is recommended.
 2. Unacceptable Proposal:
 - a. The Designer shall negotiate the Contract Change with the assistance of the Construction Representative as required.
 - b. Revisions – If the proposal is not acceptable and requires revisions or corrections, the Designer shall issue an updated Contract Change for the Contractor's signature. **NOTE:** To expedite this process, the Designer may fax the Contract Change to the Contractor and mail the original. Contractor may return signature by fax. **ONLY ONE FAX** of the original is permitted.

7.2.8 Contract Summary (By Designer)

- A. Contract Change Number:
1. Designer must assign the Contract Change number.
 2. It must be sequential from the last Contract Change number issued for this Project.
 3. The Contract Change number may never be reused or changed once issued.
 4. If a Contract Change is not approved after Designer recommendation, the Contract Change must complete its approval/disapproval cycle for accurate tracking of Contract Change numbers.

SPECIAL NOTE:

If at any time, after assignment of a Contract Change number, during the processing of a Contract Change, it is decided to reject the Contract Change; a "disapproved" notation in bold letters must be stamped on the face of the Contract Change. Even though disapproved, it must complete the process shown herein.

- B. Contract Price and Time: This section will be filled out by FMDC's Project Management Unit.

7.2.9 Contract Change Internal Division's Checklist

- A. The FMDC Project Manager and Construction Administrator are responsible for the completion of the **Contract Change Internal FMDC Checklist**. This form is used to verify that the necessary documentation is attached, provide a reason for the change(s), assign fund accounts, and provide proper FMDC concurrences and approvals.

7.3 A/E ERRORS AND OMISSIONS

7.3.1 Policy

- A. It is in the best interest of all parties to quickly correct Errors and Omissions (E&Os) found during the Construction Phase. The responsibility for E&Os will be determined after construction is complete, but before final payment of fees for the Construction Phase.
- B. As a standard term in our A/E Agreement, the Owner reserves the right to withhold payments to the Consultant for losses caused by the errors, omissions, or wrongful acts of the Consultant.
- C. FMDC recognizes there are no perfect designs and that we do not wish to pay fees to obtain perfection. However, we are paying for Professional Services and expect the documents to be thoroughly reviewed and coordinated to minimize extra costs to the State due to errors and omissions made by our Consultants. Therefore, rather than withholding payments for damages caused by any and all errors and omissions, FMDC will not normally consider withholding damages unless the total modifications resulting from E&Os exceed 1% of the original Contract Amount, or costs are significant. The value of actual damages to the Owner may be assessed and handled in accordance with the Terms of the Agreement.

7.4 SITE INSPECTIONS/VISITS

- 7.4.1 The Consultant shall make site inspections/visits as required by the Agreement and as necessary to make a complete and accurate design. Additional site inspections/visits may be required and/or authorized by the Construction Representative during the Construction Phase by Contract Change in accordance with compensation rates in the Agreement.
- 7.4.2 Within one (1) week of the Pre-Construction Meeting, the Consultant shall provide to the Owner an anticipated schedule of visits based on construction milestones, periodic intervals, or both.
- 7.4.3 For each site visit made, the Consultant shall submit to the Owner's Representative a written progress and observation report summarizing each visit and presenting the current status of the Project with regard to pending changes, design or construction problems, and schedule variations. The Consultant shall note in the heading of the report the reason for the visits, i.e. included in the initial schedule, at the Owner's request, or other additional site visits at no cost to the Owner.
- 7.4.4 Other additional site visits necessitated by the Consultant's error, omission, unauthorized changes, or negligence shall be accomplished without additional cost to the Owner.
- 7.4.5 The Consultant and/or sub-consultant(s) shall perform an inspection of the completed construction work and recommend Substantial Completion to the Owner. The Consultant shall provide a detailed list of contract deficiencies or non-complying work. If any of the incomplete or non-complying work is cause for denying Substantial Completion, the

Consultant shall indicate those specific items on the inspection list provided to the Contractor.

- 7.4.6 The Consultant and his sub-consultant, as applicable, shall perform an inspection of the Project prior to the expiration of the one (1) year General Guarantee period. A written inspection report must be sent to the Construction Representative and Contractor prior to the expiration of the one (1) year General Guarantee.

7.5 SHOP DRAWINGS, SAMPLES, AND SUBSTITUTIONS

- 7.5.1 The State is requiring the use of an electronic submittal system for construction submittals. The Consultant shall review and approve shop drawings, samples, substitutions, and other Contractor requests within fourteen (14) consecutive calendar days from receipt unless there is an approved Submittal Schedule to be followed.

- 7.5.2 Contractor's submittal procedures are detailed in **Section 013300 Submittals**.

- 7.5.3 Contractor **Substitution Request** procedures are described in Section 007213 General Conditions, Article 3.

7.6 CERTIFICATION OF CONTRACTOR'S PAY REQUESTS

- 7.6.1 The Consultant shall certify the Contractor's pay request on the work satisfactorily completed to date.