



ENGINEERING POLICY BALLOT

Effective:

Level 2

Level two revisions require the approval of the **Assistant Chief Engineer** and the **Federal Highway Administration** only. The **Senior Management Team** is encouraged to review the content and provide comment to the appropriate director. For all other parties, these revisions are posted for information only.

ENGINEERING POLICY BALLOT

Effective: April 1, 2023

Issue 1: Update to Engineering Professional Services

Approval: Level 2 – Assistant Chief Engineer

Sponsor: Jeffery Cremer – DE

Summary: Revisions to EPG 134 include better emphasize how conflicts of interest are identified, better defines the solicitation and selection process, rating/scoring of consultants, and brings the entire process up to current practices.

Fiscal Impact: There is no anticipated fiscal impact associated with this revision.

Publication: EPG 134 Engineering Professional Services

Issue 2: Design-Build EPG Changes and Clarifications

Approval: Level 2 – Assistant Chief Engineer

Sponsor: David J Simmons – DE

Summary: This policy revision updates the Design-Build guidance and processes for invoice reviews, risk to identify auditing, and other minor revisions.

Fiscal Impact: There is no anticipated fiscal impact associated with this revision.

Publication: EPG 139 Design Build

134.1 Introduction

In order to deliver projects, there may be occasions when additional engineering professional services and expertise are needed for a variety of reasons. EPG 134 Engineering Professional Services is a guide for soliciting, selecting and managing consultant contracts. Professional services are defined under the federal law, The Brooks Act, 40 USC 1102. Most consulting services used by MoDOT are included in the federal description of professional services, therefore MoDOT must follow the federal guidelines outlined in the Brooks Act for soliciting and selecting a consultant. All documentation related to the professional services procurement must be stored in eProjects under the “DE Consultant Document” content type.

134.1.1 Federal Law

The Brooks Act, [40 USC 1101 – 1104](#), [23 CFR 172.3](#) (Public Law 92-582, 1972) [and regulation found in 23CFR172.5](#) requires agencies to “promote open competition by advertising, ranking, selecting and negotiating contracts based on demonstrated competence and qualifications for the type of engineering and design services being procured, and at a fair and reasonable price.” [This requirement applies to all Federal-aid Highway Program projects where engineering or design-related services are procured to develop a construction projectfederally-funded projects.](#) This is commonly referred to as Qualifications Based Selection or QBS, meaning a firm is chosen based on qualifications and not price.

134.1.2 State Law

Commonly referred to as the “Mini-Brooks Act”, the State of Missouri, in [sections 8.285 thru 8.291 RsMO](#), requires Qualification Based Selection (QBS) for all architectural, engineering and land surveying professional services and reflects the language contained in the federal legislation. [This requirement applies to ALL projects in Missouri regardless if it contains federal funds or not.](#) However, federal laws supersede state laws if federal funds are used on a project.

134.1.3 Consultant Qualification

~~A~~[Effective January 1, 2013, all](#) [prime consultants](#) must be prequalified to perform engineering services on any project. To become prequalified, consultant firms must submit the following:

1. Statement of Qualifications (SOQ)
2. Registered to conduct business in the State of Missouri (Certificate of Good Standing) and hold a Certificate of Authority with the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors and Professional Landscape Architects. (Note: A Certificate of Authority is not required for sole proprietorships or partnerships. It is only required if the firm is incorporated or registered as a limited liability company. For sole proprietorships and/or partnerships, individual professional license certificates must be submitted in lieu of the Certificate of Authority. In addition, the Certificate of Authority is not required for firms that do work outside the jurisdiction of the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors and Professional Landscape Architects.)
3. Current E-Verify MOU and E-Verify Affidavit
 - E-Verify MOU – one-time submittal
 - E-Verify Affidavit - yearly

4. Current Annual Financial Prequalification with MoDOT

- Step-by-step [instruction for becoming prequalified](#) and a [list of pre-qualified consultant firms](#) can be found on [MoDOT's Consultant Services webpage](#).
- This annual financial prequalification is valid for one year.

5. MoDOT Bridge Consultants Only (Not required for LPA Consultants): All bridge plans for MoDOT projects must be signed and sealed by a professional engineer from a prequalified firm for bridge design (with the firm's logo shown in the title block of the bridge plans). For consultants who wish to become prequalified to perform bridge design, the consultant must submit a Bridge Experience Profile and a Personal Bridge Experience Record. These forms can be found on [MoDOT's Consultant Resources webpage](#) and must be updated every 3 years. In addition, the consultant must have a QA/QC plan on file with MoDOT which must be updated every 3 years. The prime consultant is not required to be prequalified for bridge design unless the scope of work performed by their firm includes bridge design. For more information, please contact MoDOT's Bridge Division.

The prequalification process complies with AASHTO guidelines published in the [Uniform Audit & Accounting Guide, 2012 Edition](#). This prequalification process ensures projects are in compliance with state and federal regulations.

The prequalification is only required for prime consultants. Subconsultants are strongly encouraged to become prequalified in order to reduce repetitive paperwork for future projects. For more information on subconsultant requirements see [EPG 134.3.5 Subconsultants](#).

For prequalification requirements for LPA consultants, see [EPG 136.4.1.5 Consultant Qualification](#).

Non-Profit and Governmental Indirect Cost Rate Requirements

In order to claim indirect costs for grant reimbursement, each such sub-recipient is required to annually submit a signed cost allocation plan for review and acceptance by MoDOT. The rate must be audited by an independent certified public accountant (CPA) firm with experience in preparing cost allocation plans for non-profit or governmental organizations in accordance with [2 Code of Federal Regulations \(CFR\) 200](#).

Compliance with 2 CFR 200 requires MoDOT to review the following documents:

1. Cost allocation plan
2. Organization chart
3. Employee time sheet sample showing allocation of direct and indirect labor hours
4. Audited schedules of indirect costs and fringe benefits
5. Audited, reviewed or compiled financial statements
6. Certification of indirect costs
7. Listing of grants/contracts with MoDOT

134.1.4 Conflict of Interest

A conflict of interest occurs when a consultant has a financial or personal interest in a ~~federally funded~~ project. ~~To avoid a potential conflict of interest, see 23 CFR 1.33 for the federal law governing Conflict of Interest.~~

MoDOT evaluates the following on a case-by-case basis

1. Whether or not a conflict of interest exists
 2. Whether or not the conflict of interest can be avoided or neutralized
 3. The appropriate steps to avoid or neutralize conflict of interest in evaluating the above, MoDOT uses the following in making such determinations.
- Section 105.452 RSMo 2000 and Section 105.454 RSMo. 2005 are general conflict of interest statutes applicable to all state officials and employees including MHTC members and MoDOT employees. These statutes prohibit actual conflicts of interest including, but not limited to:
 - favorably acting or refraining from acting on any matter or using decision making authority to obtain financial gain (§105.452(1), (4) and (5) RSMo. 2000);
 - disclosing and/or using confidential information obtained in his/her official capacity in any matter with the intent to result in financial gain (§105.452(2) and (3) RSMo. 2000);
 - performing any service for an agency in which he/she is an officer or employee or has supervisory authority for payment in excess of \$500 per transaction or [1500] \$5000 per year without competitive bidding (§105.454(1), (3) RSMo. 2005); and
 - selling or leasing any property to an agency in which he/she is an officer or employee or has supervisory authority over for payment in excess of \$500 per transaction or [1500] \$5000 per year without competitive bidding (§105.454(2), (3) RSMo. 2005). However, this provision does not apply to property that is condemned by the agency from its officer or employee (§105.466.3 RSMo. 2005).

The Federal Highway Administration (FHWA) addresses Conflicts of Interest in relation to federally funded highway projects in general at 23 CFR §1.33. MoDOT adopts these rules for use on all federally funded contracts.

134.1.5 Suspension/Debarment

All consultants receiving individual awards and all subrecipients/subconsultants must certify that the organization and its principles are not suspended or debarred. MoDOT's Professional Services Coordinator will check SAM.gov / Exclusions to identify any consultants who have become suspended or debarred and will remove said consultant from the pre-qualified consultant list. Any consultant who becomes suspended or debarred shall not perform work on any MoDOT or LPA project. Each MoDOT Project Manager should check the Non-procurement List. The Excluded Parties List Systems is also

~~available at that website. Copies of the list may be obtained by purchasing a yearly subscription from the Superintendent of the Documents, US Government Printing Office, Washington, DC 20402 or by calling the Government Printing Office inquiry and Order Desk at (202)783-3238. The user will be required to record their name and organization for purposes of the Computer Matching and Privacy Act of 1988.~~

134.1.6 Frequently Asked Questions

A list of FAQs regarding consultant issues can be found on [FHWA's website](#).

134.1.7 Workforce Diversity

Diversity includes all the characteristics and experiences that define each individual. Diversity includes a wide range of individual characteristics such as age, religion, gender, race, ethnicity, disability and sexual orientation. Diversity can also include such things as communication style, work style, economic status and geographic origin. MoDOT supports and encourages diversity within the transportation industry. MoDOT's desire is for the diversity of its consultants and contractors to reflect the diversity of the citizens of Missouri.

MoDOT's engineering consultant solicitations require the consultant to describe their company's approach to promoting and developing a diverse workforce. This category within the solicitation is a pass/fail category. An example of promoting and developing diversity is being involved with local secondary and higher education facilities to educate individuals in the field of engineering. Developing a cooperative/training program targeting the wide range of individual characteristics as listed above would be another example how firms are embracing workforce diversity. Continual efforts of encouraging a wide range of diverse individuals to the field of engineering will in turn develop a more diverse workforce.

Workforce diversity within the consulting firm as a whole can sometimes vary drastically from the diversity within the project team producing the work. Assembling diverse project teams is a way to support workforce diversity. Engineering consulting firms will be required to report on the **project team's** diversity in the workforce diversity verification section of the template invoice, [Fig. 134.5.1.1, Blank Consultant Invoice](#). See [EPG 134.5.1.1](#) for workforce diversity reporting requirements.

Workforce diversity differs from Disadvantaged Business Enterprise (DBE). DBE focuses on firms owned and operated by socially and economically disadvantaged individuals. For more information on DBE, visit [MoDOT's External Civil Rights webpage](#).

134.2 Solicitation and Selection Process

When MoDOT needs consultant services, specific processes for soliciting and selecting a consultant must be followed. MoDOT must use the Qualifications Based Selection (QBS) for the procurement of engineering and design related services. This is mandated by both the federal and state law. See [EPG 134.1.1 Federal Law](#) and [EPG 134.1.2 State Law](#) for the applicable laws. If MoDOT does not follow the solicitation and selection process, federal funds could be jeopardized.

134.2.1 Professional Services Committee (PSC)

The PSC ensures MoDOT follows state and federal laws for the use of professional services. The committee is composed of the Transportation Planning Director, State Design Engineer (chair) and the

State Bridge Engineer. The committee may incorporate additional Division Directors/Engineers for contracts involving areas under their responsibility.

MoDOT is committed to getting the “best value for every dollar spent”. This is accomplished in the consultant selection by using the QBS process and selecting the most qualified consultant not the lowest bidder. The PSC ensures MoDOT follows the QBS process for all MoDOT consultant procurements with the exception of the Design-Build projects where the Design Build Project Director is responsible for ensuring QBS is followed.

PSC approval is required at the following stages:

1. The PSC approves the district or division engineer’s request to solicit consultants to provide professional services for MoDOT. The PSC also approves the dollar amount of PE/CE budgeted for this professional services contract.
2. For standard contracts and supplemental agreements, the PSC approves the negotiated number of ~~taskman~~ hours and the “not to exceed” amount of the contract concurrent with the execution of the contract. The ~~PSC and~~ division liaisons review and provide ~~review and~~ comments prior to the PSC ~~prior to~~ approval.
3. For on-call contracts, the PSC approves district and division consultant selections for master agreements.

134.2.2 Consultant Solicitation and Selection Process - Standard Solicitation Method

Outlined below is the step-by-step process for Standard Consultant Solicitation and Selection Method. The standard solicitation method is used for ~~the majority of most~~ MoDOT Consultant projects. This method gives all consultants equal consideration during the solicitation process. [Fig. 134.2.2 Processing Standard Consultant Contracts Checklist](#) has been developed to help project managers through the paperwork process of hiring a consultant using the standard method.

134.2.2.1 Solicitation and Selection Step 1 – PE Funding

After the need to procure a consultant has been identified, the MoDOT Project Manager (PM) or Contract Administrator (CA) must first ensure that Preliminary Engineering (PE) funds are identified in [the approved STIP](#) or STIP amendment for this project and if applicable, the TIP or appropriate MoDOT Budget. The PM/CA should work with their District Planning Manager if there is a need to revise the STIP and/or TIP to adjust the funding levels to match the project costs.

134.2.2.2 Solicitation and Selection Step 2 – PM/CA to Submit Solicitation & Request Letter to PSC

The PM/CA will work with the core team members to develop a more detailed scope of services for the consultant contract. The PM/CA will also need to identify the following items prior to sending a request to solicit for a consultant services to the PSC:

- 1. Construction Project Information** – Project Description
- 2. Construction Project Information** – Fiscal Year for Construction Project Award
- 3. Construction Project Information** – Estimated project construction amount

- 4. Scope of Services** – Detailed description of anticipated consultant services.
- 5. Project Funding** – Total consultant contract costs (not to exceed amount).
- 6. Project Funding** – Total consultant contract costs broken down by fiscal year.
- 7. Project Funding** – Anticipated budget to be used for consultant services.
- 8. Project Funding** – State or federal funds for PE. All projects must be evaluated to determine if it will have federal assistance. Work with your Design Liaison Engineer to make this determination.
- 9. Project Funding** – Amount of PE dollars in the STIP
- 10. Project Funding** – Cost Share/Cost Participation Information or federal earmark (if applicable)
- 11. DBE Requirements** – Once the scope of work is defined, the MoDOT PM/CA must obtain a DBE Goal by sending the appropriate project information to MoDOT External Civil Rights (ECR) for review at DBEConsultGoal@modot.mo.gov. The DBE goal shall be included in the PSC solicitation request letter and the solicitation itself. All consultant contracts that utilize federal funds must be reviewed by ECR, regardless of the dollar amount of the contract.
- 12.** Will consultant selection process include interviews or presentation – can be determined by the PSC
- 13. Period of Service** – for the consultant contract.
- 14. Selection Process** – for procurement of consultant (ex: Standard Solicitation, Modified Solicitation etc.). See [Consultant Presentations and Interviews](#), below, to determine if they are needed.
- 15. Selection/Procurement Schedule** – Anticipated schedule for procurement.
- 16. Anticipated Incentive/Disincentive Provisions** – for the consultant contract (if applicable) See [EPG 134.5.6 Incentive and Disincentive Program](#).
- 17.** The PM/CA should ~~include or delete the signature line, as needed, for~~ identify any additional division director(s) (e.g., Bridge, State Highway Safety and Traffic, Right of Way, Environmental, Construction, etc.) who may need to review and sign the PSC letter.

All of the items listed above must be included in the [Solicitation and Request Letter](#) prepared by the PM/CA and sent to the Design Liaison and all needed divisions for review. Once all the reviews have been completed & all comments addressed ~~the Design Liaison has reviewed and signed the request~~, the letter is sent to the PSC via the email group CODEPSCReview with the names of all signers needed. The solicitation must not contain any information concerning ~~taskman~~-hours, labor rates or cost information. If a maximum known dollar value is available to fund the professional services contract, the dollar value may be noted in the solicitation to avoid submission of letters by consultants unable to provide the services for the expenditure MoDOT has determined as reasonable for the projects. Cost information can only be considered **after** a consultant has been selected and a contract is being negotiated. The solicitation should contain ALL of the rating categories that will be used to rate the consultant. MoDOT must follow [RsMO 8.289](#) when evaluating the consultant but additional criteria can be added as long as it is published in the solicitation. ~~Effective July 1, 2016,~~ PM/CAs must indicate on the Solicitation and Request Letter if consultant services are being requested for planning studies for more

than ~~Asset Management Taking Care of the System (TCOS)~~ improvements. More than ~~Asset Management TCOS~~ planning studies must meet the following criteria:

1. District has demonstrated that its asset management goals can be met over the next ten years, and
2. District has the financial ability to fund, or has written commitment from another entity to fund the construction of a significant portion, or more, of any improvement resulting from the study within ten years of the initiation of the study, and
3. The region has prioritized the study along with roadway and bridge improvements and is willing to fund the study with STIP right of way and construction funds or funding from others, or
4. The cost of the study is funded by another entity, with minimal MoDOT funding involvement for oversight and guidance.

The cost of more-than-TCOS planning studies will result in an adjustment to the district's STIP right of way and construction funds, except for studies funded by other entities.

134.2.2.3 Solicitation and Selection Step 3 – Central Office Review of Solicitation Request

After ~~all district / division reviews are complete and comments addressed the~~ the PSC receives the Solicitation and Request Letter is sent to the PSC. The PSC members ~~, it will be distributed to the appropriate MoDOT Divisions and Central Office staff for review. If any comments need addressed, Central Office staff will forward revision requests to the District. will review the request & sign for approval with the PSC chair making the final approval signature. When all parties involved agree on the content of the consultant solicitation/request for qualifications (RFQ), the PSC Chair approves the request and~~ Central Office will then post the solicitation/RFQ to the MoDOT's Consultant Services Webpage. An electronic notification of the RFQ is sent to Design Consultant Distribution List alerting interested parties of the opportunity.

Consultant solicitations will be posted to MoDOT's webpage twice a month, according to the RFQ Calendar.

134.2.2.4 Solicitation and Selection Step 4 – Consultant Response to the Solicitation/RFQ

Interested firms who wish to respond to the RFQ can submit a letter of interest. ~~Beginning January 1, 2013, only firms listed on the Approved Consultant Prequalification List will be considered eligible for MoDOT projects.~~ Cost information shall not be provided from the consultant at this time in the solicitation process. Cost can only be considered **after** a consultant is selected and the contract is being negotiated.

134.2.2.5 Solicitation and Selection Step 5 – Selection of Consultant

After the RFQ submittal deadline, MoDOT will evaluate the letters of interest or SOQ. The PM/CA verifies all firms are prequalified. MoDOT's Approved Consultant Prequalification List contains the prequalification information on the firms. According to state law RsMO 8.291, MoDOT must list a minimum of three highly qualified firms and then select the firm best qualified to perform the work, based on the rating criteria outlined in the RFQ. See Consultant Presentations and Interviews below for more information on presentations and interviews. When fewer than three responses are received it is suggested the RFQ be re-advertised at least once. However, if the PM/CA suspects the readvertisement

would not likely produce additional respondents, they should reach out to firms who received the solicitation but did not respond to attempt to gain information as to why the firm(s) did not respond; and if they would be likely to respond if the advertisement were extended or not. A written summary of the phone conversations should be kept in the project file & presented to the PSC for approval to move forward with less than 3 or to readvertise. ~~it is suggested the RFQ be re-advertised at least once.~~ If fewer than three responses are received again ~~or if the decision is made by the PSC not to readvertise,~~ then ~~the PM/CA and District Design Liaison~~ MoDOT must ~~determine if this is a suitable number of responses based on the nature and size of the project.~~ Consider whether there was some aspect of the RFQ that was overly restrictive or otherwise had an adverse impact on the completion of the project. If the decision is made to proceed without readvertisement, then the district should document the RFQ requirements were not restrictive, it was adequately publicized, and ~~that~~ the one or two firms who responded are qualified to capable of performing the tasks outlined for the project. The selection team MoDOT will then rate all firms based on the criteria outlined in the RFQ. Past performance evaluations may be considered as part of the firm's evaluation. **Price quotations shall not be requested or used for consideration prior to selecting a firm.** Price can only be determined AFTER the consultant is selected.

The Selection Team. The district and/or division forms a team to review the consultant responses and select a firm to provide the necessary services. In most cases, the team shall include at least three members, one of whom is from the Central Office (usually a Design, Construction or Structural Liaison Engineer). If a major component of the project is a specialty area supported only by Central Office staff, that division should be asked to participate as well. If the project is a project designated for federal involvement for any element related to Design or Construction Inspection, the Federal Highway Administration (FHWA) shall be offered the opportunity to participate as an observer team member. Should another entity (KDOT, IDOT, MPO, city, county, etc.) be funding part of the cost of the work that entity shall be offered the opportunity to participate as a member of the selection team.

Rating/Scoring the Consultants. Consultants MUST be rated based on the rating criteria that was published in the advertised solicitation. Adding or deleting any rating criteria after the solicitation expires is not allowed. If PM/CA wishes to have the option to shortlist respondents, the short-listing procedures and the weighted rating criteria used to short-list respondents must be included in the solicitation.

In order to short-list when presentations and interviews are not being conducted, a minimum of 10 respondents must be received, and the PM/CA shall have the ability to short-list down to a minimum of 3 qualified respondents. The rating criteria used to short-list shall include but is not limited to: The firms Pre-Qualification is current, Workforce Diversity, the firms listed experience as related to the advertised work, & the firms project team's accessibility & availability. Shortlist scoring & a written summary of the shortlist selection shall be included in the eProject file, along with the eventual final scoring & selection of the most qualified firm.

If it ~~s-was~~ determined and noted in the solicitation request ~~letter~~ that the PM/CA will conduct interviews or presentations with the consultants, see [Consultant Presentations and Interviews](#) below for more information on how to rate and score the consultants. If interviews and/or presentations will not take place, the selection team can begin rating the consultants. The [Consultant Rating Form, Fig. 134.2.2.5.1](#), shall be used to rate and select the most qualified firm. ~~The consultants MUST be rated based on the~~

~~rating criteria that was published in the solicitation, adding or deleting criteria after the solicitation expires is not allowed.~~

Each member of the selection team will individually develop a numeric score to rate each firm using the categories listed in Fig. 134.2.2.5.1. The team will, as a group, compare these scores and discuss how they were determined. The team must reach consensus on the consultant to select. The team will create a rating summary as outlined in [Fig. 134.2.2.5.2](#) clearly indicating which firm has been recommended for selection and documenting the selection process. The documentation must include written text on how the scores were determined. This documentation will be kept in the eProject file. Once the recommended selected firm is determined, send the Selection Approval letter ([Fig. 134.2.2.5.3](#)) for approval to the District Engineer/Division Engineer. With approval from the District Engineer/Division Engineer, the team can notify the selected firm ~~or any other parties~~. After contacting the firm, a copy of all documentation must be sent to ~~the~~ Central Office via the email group CODEPSCReview including the signed Approval letter (Fig. 134.2.2.5.3) of the selected firm. The final, approved selected firm will be posted on [MoDOT's Consultant Services webpage](#).

Consultant Presentations and Interviews

~~The majority of~~ Most projects do not require interviews or presentations. The PM/CA will verify all respondents are current with their pre-qualification status and will verify the respondents workforce diversity statement as a pass/fail. ~~and t~~ The selection team may then select the most qualified firm by scoring the ~~respondentseconsultants~~ and choosing the top ranked firm. Specific conditions that allow the selection to take place without interviews or presentations are as follows:

- The scope and cost of the contract is considered to be minor or routine in nature.
- The district or division is very familiar with the qualifications and capabilities of all the short-listed firms from previous services or presentations and believes presentations or interviews will not increase knowledge of the short-listed firms.
- The need for an accelerated selection process due to the critical nature of the contract.

If interviews and/or presentations are required, the PM/CA will verify all respondents are current with their pre-qualification status, and will verify the respondents workforce diversity statement as a pass/fail. ~~The~~ selection team will ~~thenfirst~~ rate all the consultants based on the rating criteria published in the solicitation using [Fig. 134.2.2.5.1](#) and as outlined above under Rating/Scoring the Consultants. Then the selection team will select the top 3-5 highest scoring firms and place them on a short list for further evaluation during presentations and/or interviews. If the PM/CA wants to interview less than 3 firms, approval must be granted by the PSC. Once the recommended selected firms are determined, send [District/Division Approval of Short List \(Fig. 134.2.2.5.4\)](#) for approval to the District Engineer/Division Engineer. With approval from the District Engineer/Division Engineer, the team can notify the selected firms ~~or any other parties~~. After contacting the firms, a copy of all documentation must be sent to the Central Office via the email group CODEPSCReview including the District/Division Approval of Short List (Fig. 134.2.2.5.4) of the selected firms. The final, approved selected firms will be posted on MoDOT's Consultant Services webpage. See Consultant Presentations and Consultant Interviews, immediately below.

Consultant Presentations. Before the presentations, the selection team must determine the scoring criteria ([Fig. 134.2.2.5.5](#)) to be used. These criteria can include many variables, but each element must be assigned a point value and expectations for assigning the maximum points should be developed. The PSC Chair is invited to attend the presentations. See the [sample letter, Fig. 134.2.2.5.6](#), inviting the consultant to present.

After each consultant presentation, the selection team moves to a private location to discuss the presentation. Each member of the selection team will individually develop a numeric score to rate each firm based on the pre-determined criteria and scoring process. Although use of the example is not required, the criteria and scoring process must be determined prior to the actual presentation. The selection team will, as a group, compare these scores and discuss how they were determined; the selection team must reach consensus on the selected consultant.

The selection team will create a rating summary [rating summary \(Fig. 134.2.2.5.2\)](#) for all the short-listed firms, clearly indicating which firm is recommended for final selection and documenting the selection process in [the eProject files](#). The rating summary is only one tool used in the selection. Although selection of the highest scoring firm is not required, if it is not selected the reasons must be documented. This documentation will be kept in the eProject file. The final approved selected firm will be posted at [MoDOT's Consultant Services webpage](#).

Consultant Interviews. For a feasibility study, environmental assessment, environmental impact statement, major ~~river~~ bridge design, ~~or~~ major investment study, ~~or~~ at the PSC direction, the selection team should conduct interviews with the short-listed firms. This requires considerable preparatory work; however, the selection team can limit the number of consultant staff and specify particular individuals as well as the opening topics. (See [Fig. 134.2.2.5.7 sample letter to interview](#)). Before the interviews, the selection team must determine the interview questions along with a description of the correct type of answer. Depending on the complexity of the questions, 15 to 18 questions will fill the time allotted. Additionally, the scoring criteria must be pre-determined. These criteria can include many variables, but each element must be assigned a point value and expectations for allocating the maximum points should be developed. The PSC Chair is invited to attend the interviews. A sample format for an interview (with time guidelines) follows:

During the interview, each selection team member individually scores the consultant as each question is answered. After each interview, the selection team discusses the consultant responses and averages the scores from the entire team. After the final interview, the team will, as a group, compare these scores and discuss how the firms rank; the selection team must reach consensus on the consultant to select. The selection team will create a rating summary clearly indicating which firm is recommended for selection and documenting the selection process. The rating summary is only one tool used in the selection. Although selection of the highest scoring firm is not required, if it is not selected the reasons must be documented. This documentation will be kept in the eProject file. The team must receive approval from the District or Division Engineer before notifying the selected consultant or any other parties. The final, approved selected firm will be posted on [MoDOT's Consultant Services webpage](#).

134.2.3 Consultant Solicitation and Selection Process – Modified Solicitation Method

There may be occasions when the standard QBS solicitation process is not appropriate. Each occasion will be evaluated on a project by project basis. Projects with an accelerated schedule, work affecting

public safety or highly specialized knowledge that would result in few consultants responding to the RFQ are candidates for the Modified Solicitation Method. Examples of specialized work are; hazardous waste services, wetland mitigation, urgent bridge projects and historic preservation services. The PM/CA will work with their Design Liaison Engineer to determine if a PSC Modified Solicitation Approval is appropriate and if so, will complete and submit the [Solicitation and Request Letter \(Fig. 134.2.2.2\)](#) to PSC via the email group CODEPSCReview for PSC review and approval.

The Modified Solicitation Method may be appropriate for projects with any of the following conditions:

1. The critical nature of the work requires an accelerated selection process. The term “critical nature” refers to tasks required as a result of unanticipated events, legal actions or compliance with directives from regulatory agencies. However, the PSC Chair will consider these requests on a case by case basis.
2. The scope of services requires highly specialized knowledge and expertise that limits the number of qualified firms. Examples are underwater bridge inspection, designs to address environmental mitigation, and cultural resource investigations.
3. The work qualifies for the small purchase category. This category includes those contracts with a cost less than \$25,000 and required services outside the work categories for an On-Call MOU contract.

134.2.4 Consultant Solicitation and Selection Process – Standard Solicitation Method for On-Call Cost Plus Fixed Fee Contracts

Every three years MoDOT requests interested firms to respond to a Master Agreement RFQ, which lists specific work categories in a specific district or Central Office Division. The selected consultant is approved to only provide professional services under a Memorandum of Understanding (MOU) for the district/division in their selected work category. Each respective district/division evaluates the letters of interest from responding consultants, completes the consultant selection process, following [RsMO 8.291](#), and requests PSC approval of the selected consultants. Once the PSC approves the selections, the Design Division drafts and executes a Master Agreement with each approved consultant and also maintains a list of consultants approved to provide services under the Master Agreement per district and/or division. The current on-call consultant list is available at [MoDOT's Consultant Prequalification Requirements](#). The following lists the specific work categories approved for the 2020-2023 Master Agreements:

District Work Categories

1. Construction Materials Testing & Inspection
2. Roadway Design
3. Surveying

Division Work Categories

1. Bridge Deck Surveys
2. Bridge Design
3. Disadvantaged Business Enterprise (DBE)

4. Environmental - Cultural Resources
5. Environmental - Endangered Species
6. Environmental - NEPA
7. Environmental - Noise Studies
8. General Services - Architectural/Interior Design
9. General Services - Civil/Structural
10. General Services - Mechanical/Electrical
11. Geotechnical Engineering Services
12. LiDAR & Photogrammetry
13. Pavement Friction Testing
14. Value Engineering

Statewide District Use Categories

1. Right of Way Acquisition & Relocation Services
2. SUE
3. Traffic Engineering
4. Traffic – Electrical Engineering
5. Traffic – ITS Management & Design
6. Traffic – Safety Data Analysis
7. Traffic – Structures
8. Utility Accommodation & Coordination

Deletions or additions to the on-call consultant list require the PSC Chair's approval. Approval to use a consultant other than on the district's or division's approved list may be granted upon written request to the PSC. [MoDOT's Consultant Prequalification Requirements webpage](#) contains the lists of approved on-call consultants.

Information on the financial prequalification process for consultants can be found on MoDOT's Consultant Prequalification Requirements webpage. Consulting firms must be financially prequalified for selection to the On-Call Consultant list and must maintain their prequalification throughout the three-year term of the Master Agreement. To execute an MOU with a consultant, the selected consultant must be pre-qualified and have current E-Verify on file.

To ensure on-call contracts are used as intended, the PSC has established several guidelines:

1. All district MOUs must be approved by the Design Liaison Engineer prior to selection of an on-call consultant to ensure all other resources have been considered.

2. The Master Agreement may be executed for a maximum period of three years, although the master agreement may include provisions for a one-year extension at the end of the three-year period.

3. No single MOU will exceed a total cost of \$200,000. Neither the district, nor Central Office, may, in any instance, execute multiple MOUs for a single job for services that exceeds a total of \$200,000 in aggregate. MOUs within the \$200,000 limit do not need prior PSC approval for execution and can be executed by the respective District Engineer or division engineer (up to \$100,000) or a member of the Executive Committee (over \$100,000). If an MOU is near the \$200,000 limit, the Project Manager/Contract Administrator (PM/CA) shall contact their Design Liaison Engineer to determine if the project will follow the guidance of [EPG 134.2 Solicitation and Selection Process](#).

Master Agreement Execution Process

Outlined below is the process of executing the Master Agreement for On-Call Contracts.

1. The RFQ is posted to the web and electronic notification is sent to interested parties listed on the Design Consultant distribution list.

2. The district/division rates and develops a list of selected consultants.

3. The PSC chair approves the selection of consultants for specific work categories in each district/division.

4. Only Approved Pre-Qualified Consultants are eligible for Master Agreement. The pre-qualification process also includes a review of the firm's overhead rates.

5. Since the amount of future services to be performed under the agreement is unknown, the allowable profit based upon direct labor cost is limited to 12 percent.

6. The Design Division develops a "Master Agreement" to be executed by the approved consultant(s). This agreement outlines the basic conditions of the contractual relationship and specifies the work category(ies). The Master Agreement is the foundation for a Memorandum of Understanding (MOU) that the district or division later executes with a consultant to address the need for a specific scope of services in a specific work category. When the agreement is created and saved in eAgreements, the system will auto-assign a new file name. This auto-assigned file name must be used as the agreement number, in the header, within the agreement itself.

7. Design Division drafts the Master Agreement in eAgreements and executes the Master Agreements [electronically through DocuSign](#).

The district or division then follows the procedures below for executing individual MOUs to obtain services as the need arises.

MoDOT MOU Execution Process

[Fig. 134.2.4 Processing On-Call/MOU Consultant Contracts Checklist](#) has been created to guide project managers through the process of hiring an on-call consultant through close-out of the MOU.

Outlined below is the process of executing an MOU for On-Call Contracts.

1. As of Jan 15, 2014, all MOUs will be federally funded, therefore, the Project Manager/Contract Administrator (PM/CA) must choose the federal MOU contract from the [eAgreements SharePoint site](#), unless approved by the PSC to use a state funded MOU contract (state funded MOU contracts may be used if the funding source is the District/Division budget).

2. All District MOU's must be reviewed and approved by the assigned Design Liaison Engineer prior to selection of an on-call consultant to ensure all other resources have been considered.

3. PM/CA to choose the MOU contract from the eAgreements SharePoint site.

The federal MOU contract must be used for all MOU's unless approved by the PSC to use a state funded MOU contract (state funded MOU contracts may be used if the funding source is the District/Division budget). When the agreement is created and saved in eAgreements, the system will auto-assign a new file name. This auto-assigned file name must be used as the agreement number, in the header, within the agreement itself.

4. Development of Scope of Services and DBE Requirements – Once the scope of work is defined, the MoDOT PM/CA must obtain a DBE Goal by sending the appropriate project information (including scope, county, estimated construction cost, and potential subcontracting opportunities) to MoDOT External Civil Rights (ECR) for review at DBEConsultGoal@modot.mo.gov. Once the DBE goal has been established by ECR, it shall be included in the MOU. All consultant contracts that utilize federal funds must be reviewed by ECR, regardless of the dollar amount of the contract. If the prime consultant or any sub-consultants are DBE firms, the DBE section must be filled out. If the prime or subs are not DBE firms, the DBE section can be left blank.

5. The PM/CA will review the on-call consultant list and choose a consultant based on the scope of services that has been developed and DBE goal established. The on-call consultant list is found on the [MoDOT Website – Consultant Services – Consultant Prequalification Requirements](#).

Note: Only firms that are prequalified with MoDOT financially can be chosen from the on-call consultant list. Firms must update their information yearly in order to stay current on their prequalification. MoDOT's consultant prequalification list can be found on the [MoDOT Website – Consultant Services – Consultant Prequalification Requirements](#).

6. Consultant agreements are to be sent to the assigned Design Liaison Engineer for "Review by Staff" in eAgreements.

7. DBE Concurrence must be obtained from External Civil Rights prior to sending a federally funded MOU to the consultant for execution. The PM/CA will send External Civil Rights (email group **DBEConcurrence**) as a "Reviewer", along with the assigned Liaison Engineer, when processing the agreement for "Review by Staff" in eAgreements. ECR will respond to the email notification if any additional DBE information is needed - including, but not limited to, specific DBE details, such as name of DBE firm, DBE Goal, dollar amount of DBE participation, Exhibits such as Scope of Services, Fee Estimate, etc.

8. After receiving the DBE Concurrence from External Civil Rights, the PM/CA will send the MOU to the consultant for execution. Agreements may be executed by wet signatures or [electronic signatures in DocuSign](#). Electronic signatures are encouraged to expedite the execution process.

9. The respective District Engineer, division engineer or Executive Committee member will execute the MOU as described in MHTC Policy "Delegation of Authority for Approval and Execution of Documents".

10. If using electronic signatures, copies of the fully executed agreement will be distributed to the recipients entered into DocuSign (see below for the Central Office Divisions that must receive a copy of the fully executed agreement).

If using wet signatures, the PM/CA is responsible for uploading a copy of the fully executed MOU in [eAgreements](#), sending the consultant a copy of the fully executed agreement, and sending a link to the fully executed agreement to the appropriate Central Office Divisions. (See Item 9, below, for the Central Office Divisions that must receive a copy of the fully executed agreement.)

11. The PM/CA must email an electronic link to the fully executed agreement to the following Central Office Divisions:

- Financial Services Division (email group **Obligate** with message "**Obligate - please obligate funds for the fully executed agreement**" and provide any specific funding details here, as applicable).
- Design Division (email group **CODEPSCReview** with message "**CODEPSCReview - fully executed agreement for your records**").

Note: If federal funds are used, the PM/CA must wait for email notifications from the following Central Office Divisions before issuing NTP to the consultant:

- Financial Services indicating the obligation of funds is complete.
- External Civil Rights (ECR) indicating concurrence in DBE participation.

12. The PM/CA will send the [NTP letter \(Fig 134.4.2\)](#) to the consultant AFTER:

- Receiving DBE concurrence from External Civil Rights
- Execution of the contract
- Obligation of federal funds by Financial Services.

134.3 Consultant Contract Negotiation

Tasks, hours and price are negotiated after a consultant is selected and notified. During this process, price can be considered. Firms must be listed on the Approved Annual Financial Pre-Qualification List in order to provide professional services to MoDOT. **Additional scope beyond what was advertised in the RFQ cannot be negotiated into the contract.**

The selected firm will use the provisional overhead rate that was accepted by MoDOT during the firm's prequalification process with MoDOT. If the firm elects to voluntarily reduce their overhead rate, the following language must be incorporated into the contract:

"The Company has voluntarily reduced its overhead rate to ____%. This rate will be used on all billings. Upon completion of these services outlined under this Agreement the final payment for these items will be based on accounting records of the Consultant incurred during the period of the Agreement. MoDOT

reserves the right to require the actual audited overhead rates be used if those rates are less than the voluntarily reduced rate noted previously.”

134.3.1 Engineering Services Contract (ESC)

Contract negotiation should follow the schedule provided in the solicitation. Consult Chief Council’s Office CCO early in the negotiation phase for any proposed changes in the boilerplate agreement language. Modifications to the standard agreement language may be considered only where no other compromise can be reached to successfully negotiate the agreement, and **must be approved “as to form” by CCO**. If the PM/CA works with their Regional Counsel to approve the revisions to the boilerplate agreement, that Regional Counsel will need to approve the partially executed contract “as to form”. In general, no changes are allowed to the ESC.

The standard engineering services contracts (ESCs) can be found in the [eAgreements SharePoint site](#). ESCs must follow the eAgreements process for drafting, reviewing and executing, as defined in [EPG 153 Agreements and Contracts](#) and the [eAgreements Training Manual](#). In addition, the appropriate approvals must be obtained through the Professional Services Committee (PSC) process. When the agreement is created and saved in eAgreements, the system will auto-assign a new file name. This auto-assigned file name must be used as the agreement number, in the header, within the agreement itself.

The MoDOT unit responsible for the contract, either the district or the division, provides the consultant with an electronic PDF copy of the tentative contract. The tentative scope of services (including [Specifications of Electronic Design Data for Consultants and MoDOT](#)) may be provided in a non-PDF electronic format. The PM/CA is responsible for completing the Consultant Contracts. Contract language must be approved by CCO input prior to execution of the contract.

After reviewing the tentative contract and scope of services, the consultant prepares a proposal containing a detailed estimate of cost that includes ~~taskman~~-hours, basic pay rates, pre-qualification accepted overhead rates, direct costs and fixed fee. Each of these items is reviewed by MoDOT to ensure it is reasonable with respect to the type of work involved and anticipated size of the contract. PM/CAs are responsible for the quality and content of professional services agreements. [Fig. 134.3.1, District Checklist for Reviewing Consultant Contracts](#) is a tool provided for PM/CAs to utilize while reviewing contracts.

Prior to receiving & negotiating the Scope and Fee from the selected firm, the PM/CA shall develop an Independent Cost Estimate (ICE) in compliance with 23 code of Federal Regulations (CFR) Part 172.7(a)(1)(v)(B) to serve as the basis for the negotiation of the contract.

After the PM/CA and consultant agree to the terms of the agreement, the PM/CA converts the Word document to a pdf file in eAgreements. The pdf file should include the Scope of Services and Exhibits.

134.3.1.1 Liability Insurance

The MoDOT Standard Consultant Contract language includes provisions for the amount of liability insurance that the consultant must provide to cover claims that may result from errors, omissions, or negligent acts of the consultant. Insurance Certificate of Liability must meet [Missouri’s Sovereign Immunity Limits](#). In rare instances, the PM/CA may request an Acceptance of MHTC Liability to reduce the insurance requirements on the consultants. This process must obtain PSC approval and follow the

procedures outlined in the Acceptance of MHTC Liability, available through the CCO, depending on the nature and complexity of the services.

A copy of the certificate of liability insurance for the prime consultant is to be requested by the PM/CA and kept in the project files with the executed contract. It is the responsibility of the consultant to meet the insurance requirements of the contract. Receipt of the consultant's certificate of insurance liability does not imply approval of the amounts.

134.3.1.2 Payment Bond

State statute requires that in the event that any subconsultants are used to supply at least twenty five thousand dollars (\$25,000) worth of materials and/or labor not within the scope of environmental assessment services or licensed professional services as defined by [Chapter 327, RSMo](#), the consultant shall require any such subconsultants to provide laborers and materialmen with adequate bond security.

The payment bond value shall equal the amount of the total subcontracted non-engineering services and applicable direct costs. If there is uncertainty about whether an item of work is considered as non-engineering or as an applicable direct cost, it should be included in the amount covered by the payment bond. Fully document all decisions regarding contracted services not included in the payment bond amount and retain in the project file until the contract has been closed and audited for final payments. A copy of the payment bond is to be requested by the project manager and kept in the district project files with the executed contract.

For more information on the payment bond language, refer to [DE01 Consultant Services Master Agreement \(All Fees\)](#).

134.3.2 Fixed Fee Review

The fixed fee is the profit to the consultant. It is based on the scope, complexity of the project, contract duration, risk to the consultant, amount of sub consultant management, and professional nature of the services as well as the size and type of contract. Fixed fees are calculated based upon direct salary cost. Direct salary cost includes direct labor, overhead on direct labor, plus general and administrative overhead. It does not include travel expenses, printing, miscellaneous expenses or sub consultant costs. The Facilities Capital Cost of Money Rate (FCCM) shall not be included in the fixed fee calculation. The percentage of the fixed fee to the direct salary cost must not exceed the maximum allowable profit curve shown in [Fig. 134.3.2 MoDOT Allowable Profit Curve](#). For standard solicitation contracts, the maximum allowable profit is capped at 15 percent, even if calculated to be higher. For consultant contracts that potentially include multiple future phases, the fixed fee will be based on the estimated total direct salary cost for the current phase plus all future phases. For MOU contracts, the maximum allowable profit is 12 percent as agreed to in the Consultant Services Master Agreement, DE01. The maximum subconsultant fixed fee for MOUs is also capped at 12 percent.

Fixed fees shall not be calculated on direct expenses. Sub consultants are a direct expense to the prime consultant. Therefore, sub consultant expenses are not included in the fixed fee calculations for the prime consultant. It should be noted the "fixed fee" is a fixed dollar amount and will be paid in full at the conclusion of the contract, even if the consultant does not use all the hours in the contract. Therefore, care should be taken to not overestimate man-hours.

134.3.3 ~~Taskwork~~ Hours Review

In order to establish a measure of “Fair & Reasonable” a pre-negotiation estimate is required by federal regulations in [49 CFR 18.36](#). The MoDOT PM/CA shall develop an estimate based on the ~~Taskwork~~-hours that MoDOT would require to perform the same service. The consultant ~~Taskwork~~-hour estimate is reviewed and compared to the MoDOT estimate. The consultant’s fee proposal submittal must include detailed hours and cost breakdowns by sub-task and by job title. For any subtask on the scope, it should be known how many different people, how many hours per person, any direct expenses, etc. for the prime and any subs. Negotiations should occur to assure that ~~taskwork~~-hours in the contract are comparable to the MoDOT estimated hours and those from similar projects. PMs should confer with the appropriate Central Office liaison ~~engineer~~ for concurrence with the review.

134.3.4 Basis of Payment

The majority of Design Consultant Engineering Services Contracts are actual cost contracts. This means that all costs submitted for payment must be based on actual wages, overhead. Federal regulations ([FAR Part 16.102](#)) prohibit the use of cost plus a percentage of cost or percentage of construction costs as a method of compensation. The following methods may be used as the basis of payment in a contract:

- Actual Cost Plus Fixed Fee (majority of contracts)
- Specific rates of pay (for emergency situations only)
- Lump Sum (prior approval required).

Each Subcontractor or subconsultant must be identified in the contract. Subcontractor expenses should also be calculated based upon actual costs. Prompt payment of subconsultants is required per [FAR Subpart 32.9](#).

Per [EPG 134.3.5.1](#), if the consultant is using a subconsultant with a cost exceeding \$25,000, then the subconsultant shall include a detailed estimate of cost and a detailed overhead rate schedule (cost plus fixed fee breakdown).

Per [EPG 134.3.5.2](#), if the consultant is using a subconsultant with a cost that DOES NOT exceed \$25,000 then a letter quote from the subconsultant can be submitted with the engineering service contract.

Retainage is not allowed as a routine part of the contract i.e. blanket retainage is prohibited. Payment may be withheld on any particular work item that has not been completed in accordance with the contract. This can include work incidental to the work item, and required documentation directly related to the work.

Direct costs must be estimated using current Privately Owned Vehicle (POV) mileage reimbursement rates and per diem rates for Missouri. These rates can be found on the following web pages.

Mileage, subsistence and lodging must follow federal travel regulation guidelines.

- [Current POV Mileage Reimbursable Rates](#)
- [Current Per Diem Rates for Missouri](#)

134.3.5 Subconsultants

The use of subconsultants is allowed provided that each firm is identified in the engineering services contract. DBE firms should be listed under Disadvantaged Business Enterprise (DBE) Requirements, and other subconsultants should be listed in Subconsultants. The use of 2nd and 3rd Tier subconsultants is not allowed, that is, only the prime consultant can have subconsultants, the subconsultants cannot have subconsultants. Subconsultants do not have to be prequalified but it is strongly encouraged especially if the subconsultants routinely performs work >\$25,000.

134.3.5.1 Subconsultant Cost Exceeding \$25,000

If the consultant is using a subconsultant with a cost exceeding \$25,000, then the subconsultant shall include a detailed estimate of cost and a detailed overhead rate schedule (cost plus fixed fee breakdown). [Fig. 134.3.6.1.1](#) lists common unallowable costs. If the subconsultant is prequalified, the overhead rate listed must be the current overhead rate accepted by MoDOT through the annual financial prequalification process. In this case, a detailed overhead rate schedule would not be required.

If the subconsultant is not pre-qualified with MoDOT then the firm shall also include their [Consultant Certification of Indirect Cost Form](#). Each subconsultant in this category must show its overhead in the required format. [Fig. 134.3.6.1.2](#) provides an example Overhead Schedule. The detailed overhead rate schedule should be reviewed for possible unallowable costs per [FAR Pt. 31](#), [Fig. 134.3.6.1.1](#) lists common unallowable costs. The prime consultant is responsible for ensuring that all subconsultants comply with state and federal regulations, such as E-Verify, and are registered to do business in Missouri.

134.3.5.2 Subconsultant Cost NOT Exceeding \$25,000

If the consultant is using a subconsultant with a cost that DOES NOT exceed \$25,000 then a letter quote from the subconsultant can be submitted with the engineering service contract. The letter should quote the subconsultant's cost shown in Exhibit III of the consultant contract. It is preferred however, that the subconsultants have cost plus fixed fee break down. If the subconsultant is not pre-qualified with MoDOT, the firm shall also include their [Consultant Certification of Indirect Cost Form](#). The prime consultant is responsible for ensuring that all subconsultants comply with state and federal regulations, such as E-Verify, and are registered to do business in Missouri.

134.3.6 Ceasing Negotiation

If the district/division cannot negotiate a reasonable price with the consultant selected, they can formally cease negotiations with a formal written letter and begin negotiations with the next most qualified firm. After the district/division has ceased negotiations with the selected firm and have started negotiations with the next most qualified firm, they cannot go back to the first firm and start another round of negotiations; this is looked upon as price shopping and is unallowable. See the [FHWA Consultant Services webpage](#) for more information. If a contract cannot be negotiated with the second consultant, MoDOT may choose to negotiate with the third most qualified consultant. At any time, all proposals may be rejected and MoDOT can re-advertise the project with a revised scope.

134.3.7 Negotiation Documentation

All ~~written~~ correspondence with the consultant during the course of the negotiations shall be documented and is included ~~in and in made part of~~ the eproject file for the consultant contract, including all email correspondence. Document in writing all verbal communication and personal visits with the

consultant regarding the contract negotiations and ~~also~~ include in the eproject file. These records shall be maintained for a period of three years after the final invoice is submitted. If any litigation, claim, negotiation, audit or other action involving the records is started before the expiration of the three-year period, the records are retained until completion of the action and resolution of all issues arising from it or until the end of the three-year period, whichever is later.

134.3.8 Contract Assurances

Prior to executing a contract with a consultant, MoDOT will assure the following:

1. The consultant has been apprised of all applicable technical work requirements and administrative controls, including those of the FHWA and any other agencies that may have jurisdictions over the project.
2. After selection, the firm was provided all pertinent information relative to the desired engineering services or other professional services requested. The tentative contract set out the scope of the services in sufficient detail to provide the consultant with a definite knowledge of the services and results expected. The consultant was instructed to submit a proposal that indicated clearly identifiable, sufficiently detailed, and easily auditable charges for the work and/or units of work. These proposed charges (rates and man-hours) were reviewed for acceptability before negotiations proceeded.
3. Contracts include a requirement for a three-year retention of records after the final payment is made under the contract. On actual cost contracts, the consultant was informed that records must be open for inspection by authorized government personnel.

134.4 Contract Approval, Execution and Distribution

Once the district and the division agree to the man-hours, salary rates, overhead rates, direct costs, and fixed fee, the information is submitted to the PSC for review and approval, via the email group CODEPSCReview. See [Fig. 134.4.1](#). The submittal letter to the PSC documents that the above procedures have been followed and the requirements of Brooks Act, [23 CFR 172](#) and [RSMO Section 8](#) have been satisfied. When approved by the PSC, the standard contract language, the scope of services and the consultant's cost proposal are made part of a formal agreement for execution.

Consultant agreements are to be sent to the assigned Liaison Engineers for "Review by Staff" in eAgreements.

DBE Concurrence must be obtained from External Civil Rights prior to sending a federally funded agreement to the consultant for execution. The PM/CA will include External Civil Rights (email group **DBEConcurrence**) as a "Reviewer", along with the assigned Liaison Engineers, when processing the agreement for "Review by Staff" in eAgreements. External Civil Rights will respond to the email notification if any additional DBE information is needed - including, but not limited to, specific DBE details, such as name of DBE firm, DBE Goal, dollar amount of DBE participation, Exhibits such as Scope of Services, Fee Estimate, etc.

After receiving the DBE Concurrence from External Civil Rights, the contract may be executed. MHTC authorization to execute the contract may be obtained in one of following ways:

1. Projects in the Statewide Transportation Improvement Program (STIP)

The Commission's approval of the STIP includes delegation of authority to execute professional services contracts for projects contained in the STIP. The execution of agreements is done either by electronic or wet signature. Instructions are included in the eAgreements Training Manual and summarized below.

2. Projects Not Included in the STIP

To obtain authorization to execute contracts for projects that are not included in the approved STIP and have a contract ceiling exceeding \$25,000, the contracts must be presented to the MHTC at a regularly scheduled monthly meeting. The appropriate division places these contracts on the Commission agenda for the next meeting. The District Engineer or division engineer should be prepared to discuss this item at the Commission meeting in case questions arise. After obtaining authorization to execute the contract from the Commission, the contract administrator then proceeds with the execution process.

Execution and Distribution of the Professional Services Contract

The Professional Services Contract shall be executed [electronically in DocuSign](#):

- Electronic Signatures – Signing agreements electronically in DocuSign will expedite the execution process. The PM/CA must add all recipients in the DocuSign site that need to sign and/or receive an electronic copy (see below) of the fully executed agreement.

The PM/CA must send an electronic copy of the fully executed agreement to various Central Office Divisions. For electronically executed agreements, this is done by cc:/ in DocuSign. The following are the Central Office Divisions that must be notified:

- Financial Services Division (email group **Obligate** with message **“Obligate - please obligate funds for the fully executed agreement and please advise when we can give a NTP”** and provide any specific funding details here, as applicable).
- Design Division (email group **CODEPSCReview** with message **“CODEPSCReview - fully executed agreement for your records”**).

Note: If federal funds are used, the PM/CA must wait for email notifications from the following Central Office Divisions before issuing Notice to Proceed the consultant:

- Financial Services indicating the obligation of funds is complete
- External Civil Rights (ECR) indicating concurrence in DBE participation.

If federal funds were used to finance the contract, Financial Services submits a copy of the executed contract to the FHWA Finance Section for approval. Federal funds will not be paid for charges to the contract prior to FHWA approval. Any supplemental agreements are also submitted to the FHWA after execution.

Notice to Proceed Letter

The PM/CA is responsible for sending a [Notice to Proceed \(NTP\) Letter \(Fig. 134.4.2\)](#) to the consultant. The NTP cannot be sent prior to:

- Receiving DBE concurrence from External Civil Rights.

- Execution of the contract.

134.5 Consultant Contract Administration

A MoDOT employee will be assigned as the PM/CA for each contract, including contracts in which the services are for project management of a construction project or for contract administration. MoDOT's PM/CA is responsible for administering the contract and overseeing the consultant's progress towards the provision of services required by the contract. Some of these responsibilities are:

1. Scheduling and attending progress meetings with the consultant and being involved in decisions leading to change orders or supplemental agreements.
2. Being familiar with the qualifications and responsibilities of the consultant's staff.
3. Assuring that costs billed are consistent with the acceptability and performance of the consultant's work.
4. Monitoring the consultant's operations, as necessary, and adequately documenting contract performance (prior to final settlement of the contract) for later use.
5. Conducting interim technical and audit evaluations as deemed necessary during the performance of the consultant contract.
6. Completing performance evaluations in the Design Consultant Database at major milestones and at the completion of the contract. An evaluation is to be completed at least annually.
7. Notifying the Design Division, Financial Services and AI when a project is complete and finalized. The PM/CA should make arrangements with the Resident Engineer to be notified when construction is complete.

134.5.1 Invoicing

The consultant files a monthly invoice and progress report to the PM/CA. The [invoice template found in Fig. 134.5.1.1](#) must be used for all consultant contracts. Prime consultant invoices **must** use Fig.

134.5.1.1. Sub-consultants who have a contract with the prime that is greater than \$25,000 must either use Fig. 134.5.1.1 or provide all the information that is listed in this figure to be considered acceptable. Each invoice must be submitted with the necessary supporting documentation and must be numbered in sequential order and label the final invoice as FINAL. The invoice shall be based on the total incurred cost during the invoice period. Invoices should identify each task in the scope of work, as well as the employees and hours spent on each task during the billing period. Direct costs must also be shown by task. The [MoDOT Consultant Invoice Checklist \(Fig 134.5.1.2\)](#) can be used as tools to ensure all proper documentation is in place for each invoice in order for the invoice to be accepted and paid. [Fig. 134.5.1.5](#) is available as an example of a filled-out invoice.

The PM/CA should make every effort to see that the consultant is paid in a timely manner, the goal being 30 days. Missouri law states that the consultant is entitled to interest if the invoice is not paid in 45 days. The 45-day period starts when all questions about the invoice have been addressed and agreed to by both parties.

The PM/CA uploads a copy of the invoice to Financial Services' [Contractual Payments Library](#) following the [step-by-step instructions](#), which includes the PM/CA indicating the invoice as having been reviewed, thus approving it for payment. [Fig. 134.2.2](#) and [Fig. 134.2.4](#) are checklists to help PM/CAs with the paperwork process for Standard and On-call contracts, including invoicing.

The following metadata fields are required:

- Name (J#, invoice#, Consultant abbrev.)
- Job No. (include the J)
- Financial No. (if known)
- Agreement No. (eAgreements)
- Payee/Vendor
- Invoice Date
- Invoice Number
- Invoice Amount
- Final Invoice (if applicable)
- District/Division/Office
- Reviewed and Approved (checkbox)
- Reviewed and Approved By
- Activity Code
- Link to eAgreements (first invoice only)
- Payment Status (default to New Entry)
- Comment (if necessary).

The following are the most frequently used activity codes:

If the contract encompasses more than one job number, or if there are separate invoices, each invoice will need to be uploaded separately and the partnering jobs listed in the comment section of the metadata. When the last invoice is submitted for payment, the final invoice checkbox should be checked. This notifies Financial Services that the contract is complete. (See [EPG 134.5.3 Consultant Contract Close-Out](#)).

If the consultant project/agreement has more than 4 jobs associated with it, the PM/CA will continue to submit the Consultant invoices to Financial services electronically by utilizing the Contractual Payments system. email to Financial Services at ~~Contractual.Payments@modot.mo.gov~~.

Design-Build (contractor) invoices and non-contractual invoices will continue to be submitted electronically by email to Financial Services at **Contractual.Payments@modot.mo.gov**. However the design-build consultant invoices should be submitted using the Contractual Payments Library.

If errors are found on the consultant invoice, the PM/CA should contact the consultant and request a corrected invoice. The PM/CA should never change an invoice. The invoice should be sent back to the consultant for corrects and **they must re-date the invoice** and re-submit to MoDOT. If the consultant makes an error and requests more reimbursement than allowed by the contract, the PM/CA may submit the invoice and authorize payment of an amount less than the invoice requests. The reasons for paying an amount different than the invoice requests must be clearly documented in the cover letter.

If the period of service in the contract has lapsed, a letter to extend the period of service signed by both MoDOT and the consultant must be completed prior to paying any invoices. For hourly-rate contracts the period of service is defined in the MOU not the Master Agreement.

Consultant invoices for projects administered by the [Bridge Division](#) should be submitted electronically by the consultant directly to **BRInvoiceAdmin@modot.mo.gov** and the Structural Liaison Engineer assigned to the project should be copied on the email.

Electronic payments to a consultant may be set up by submitting an "Electronic Funds Transfer" form. Information is available at [MissouriBUYS](#).

134.5.1.1 Workforce Diversity Verification

The workforce diversity verification section of the template invoice ([Fig. 134.5.1.1, Blank Consultant Invoice](#)) must be filled out. The verification summary should contain the **project team's** diversity, not the company wide diversity. For reporting purposes, females and minorities are the only diversity categories that must be reported in the verification summary. The following groups are considered to be minorities: Black, Hispanic, Asian, American Indian, Native Hawaiian or Pacific Islander. The report is based on the hours worked by minorities and women during each invoicing period.

134.5.2 Supplemental Agreements

Supplemental agreements are used to add/delete work within the scope of services that was advertised in the RFQ. Supplemental agreements cannot be used to increase the scope of work outside the solicitation/RFQ or to increase overhead or fixed fee. For example, a no cost supplemental agreement can be executed to extend the period of service as outlined in the original consultant contract.

Each supplemental agreement must include new subconsultants, and modifications to the scope of services, new cost estimates and schedule or period of service adjustments as applicable.

Costs associated with these modifications to the scope of services may be covered by the unit costs included in the original contract or by a newly negotiated cost in the supplemental agreement. Direct costs and overhead costs for the services contained in the supplemental agreement should reflect the costs that will be in effect during the performance of the service.

Once it is determined that the scope of services needs modification, the PM/CA follows the same negotiation process for the supplemental agreement that is followed for new contracts through submission to the PSC, via the email group CODEPSCReview. Any modifications to the scope of services, whether it results in a change in cost or not, must be included in an approved supplemental agreement. If a DBE goal was established in the original contract it will continue to apply. The agreement must be executed prior to the consultant receiving authorization to proceed with the modified scope of services. Supplemental Agreements for extension of time, with no additional cost, are not required to be submitted through the PSC. The district or division director has the delegation of authority to sign the Supplemental Agreement if the total contract is below \$100,000. If the combined original contract cost and the supplemental agreement cost are above \$100,000, then a member of the Executive Committees must sign the supplemental agreement. The executed copy of the Supplemental Agreement must be submitted through CODEPSCReview.

When a supplemental agreement is necessary, additional funds to cover the added costs in the contract must be identified from the appropriate budget category and be approved as a necessary expenditure.

Supplemental agreements shall be sent to the assigned Liaison Engineers for “Review by Staff” in eAgreements.

DBE Concurrence must be obtained from External Civil Rights prior to sending a federally funded agreement to the consultant for execution. The PM/CA will include External Civil Rights (email group **DBEConcurrence**) as a “Reviewer”, along with the assigned Liaison Engineers, when processing the agreement for “Review by Staff” in eAgreements. External Civil Rights will respond to the email notification if any additional DBE information is needed - including, but not limited to, specific DBE details, such as name of DBE firm, DBE Goal, dollar amount of DBE participation, Exhibits such as Scope of Services, Fee Estimate, etc.

After receiving the DBE Concurrence from External Civil Rights, the contract may be executed. The contract information is submitted to the PSC via the email group CODEPSCReview using [PSC Approval to Execute Supplemental Agreement, Fig. 134.5.2](#). After PSC approval, the PM/CA will execute the supplemental agreement. The supplemental agreement is executed [electronically in DocuSign](#):

- Electronic Signatures – Signing agreements electronically in DocuSign will expedite the execution process. The PM/CA must add all recipients in the DocuSign site that need to sign and/or receive an electronic copy (see below) of the fully executed supplemental agreement.

The PM/CA must send an electronic copy of the fully executed supplemental agreement to various Central Office Divisions. For electronically executed agreements, this is done by cc:/ in DocuSign. The following are the Central Office Divisions that must be notified:

- Financial Services Division (email group **Obligate** with message “**Obligate - please obligate funds for the fully executed agreement**” and provide any specific funding details here, as applicable).
- Design Division (email group **CODEPSCReview** with message “**CODEPSCReview - fully executed agreement for your records**”).

Note: If federal funds are used, the PM/CA must wait for email notifications from the following Central Office Divisions before issuing Notice to Proceed to the consultant:

- Financial Services indicating the obligation of funds is complete
- External Civil Rights (ECR) indicating concurrence in DBE participation

If federal funds were used to finance the contract, Financial Services submits a copy of the executed contract to the FHWA Finance Section for approval. Federal funds will not be paid for charges to the contract prior to FHWA approval. Any supplemental agreements are also submitted to the FHWA after execution.

Notice to Proceed Letter

The PM/CA is responsible for sending a [Notice to Proceed \(NTP\) Letter \(Fig. 134.4.2\)](#) to the consultant. The NTP cannot be sent prior to:

- Receiving DBE concurrence from External Civil Rights.
- Execution of the contract
- Obligation of federal funds by Financial Services.

134.5.3 Consultant Contract Close-Out

To close out a consultant contract the PM/CA must notify Design, External Civil Rights and Financial Services that the last invoice is the FINAL invoice and no further payments will be processed. The PM/CA must change the Agreement Status to “Completed” in [eAgreements](#) to initiate the retention schedule of the document and to accurately track open/closed contracts. See [EPG 134.5.1 Invoicing](#) for information on invoicing and the appropriate email addresses to send the FINAL invoices.

Final Audit. MoDOT conducts a final audit to determine total allowable contract costs, unless the contract is on a firm, fixed-price basis. Allowable cost principles are identified based on the experience of MoDOT personnel in administering past contracts and in accordance with applicable requirements of [48 CFR Part 31](#), Federal Acquisition Regulation (FAR), and [23 CFR 172, Administration of Engineering and Design Related Service Contracts](#).

The PM/CA is responsible for notifying Design when the contract is substantially complete. The final audit may be conducted any time after the project is let; the consultant contract need not be completed for the final audit to be conducted.

Should MoDOT agree prior to contract execution that it is necessary for a consultant to purchase special equipment, materials, or property to accomplish the required services, MoDOT will establish a before and after value and will receive an appropriate credit for any residual values. This credit is passed on to FHWA.

134.5.4 Consultant Performance Appraisals

The MoDOT PM/CA must perform an [Online Evaluation](#) of the consultant's performance under any engineering services contract with MoDOT at each project milestone and at a minimum, on an annual basis during the term of the consultant's services provided by the contract. Input for the evaluation should be requested from other divisions that may have project experience with the company, such as the Environmental section, or Construction Division. MoDOT's PM/CA also completes a final comprehensive evaluation of the consultant's performance within 30 days after contract completion. The evaluation is included in the project file. MoDOT personnel complete another evaluation of the consultant's performance within 30 days of completion of the construction phase of the project. The evaluation must contain written comments on how the evaluation was determined. All evaluation comments must be factual and not based upon personal opinion, i.e. all comments must be able to be backed up by actual facts.

Upon completing any evaluation, furnish a copy to the consultant prior to meeting with the district or division project manager to discuss the evaluation. These evaluations are included in MoDOT's Design Consultant Database and are used during consideration of the consultant for future work assignments. The PM/CA is defined as the project manager, or other person who is responsible for reviewing and approving the consultant's invoices.

134.5.5 Restitution for Errors and Omissions

At times, errors or omissions in the project design or in the information provided for the project may become evident during a project's bidding or construction phases. When this occurs, the causes surrounding the errors or omissions are investigated to determine a final resolution, which may require financial restitution. A face-to-face meeting between the DE and the consultant will take place to discuss the situation.

The procedure for investigating errors or omissions is:

1. Contractor/RE initializes a change order with the reason code – CD ([Consultant Design Error](#)). The RE and PM from Construction and Design review the change order and develop recommendation for action and assessment of both direct and indirect costs.
2. The District Construction and Material Engineer and the District Engineer review and provide comments.
3. The District Engineer reviews and makes final district recommendations. Form is forwarded to the Construction Division.
4. The Construction Division Liaison Engineer, the Design Division Liaison Engineer and CCO jointly make the final decision regarding pursuit of reimbursement. The district is informed of the decision.
5. If the decision is to pursue recovery of costs, then CCO drafts a "Letter of Notice" for the District Engineer's signature.
6. The District Engineer sends the Letter of Notice to the [Financial Services](#)~~Controller's~~ Division – Accounts Receivable Section (~~FSCF~~ A/R) requesting an invoice be created. A copy is to be sent to the Design Division.

7. Upon receipt of DE's Letter of Notice to the design consultant, ~~Financial Services~~~~Controller's~~ Division will create an invoice ~~for the amount of~~for the claim and submit it directly to the design consultant with the Letter of Notice. The revenue source code of 1814-05 "Design Consultant Claims" will be used to track reimbursement by design consultants.

8. If the consultant does not respond by the "respond by date" in the Letter of Notice, then the Design Liaison Engineer presents the background information to senior management, who ~~make a decision~~~~decides whether or not~~whether to begin legal proceedings to pursue reimbursement of costs. If legal proceedings are pursued, ~~the~~ Design Liaison Engineer notifies ~~the Financial Services~~~~Controller's~~ Division – Accounts Receivable.

Should formal dispute resolution as detailed in [EPG 134.6 Dispute Resolution](#) be initiated during the above procedure, the following steps will ensure MoDOT receives payment:

1. The PM/CA, with the help of CCO, prepares and provides the ~~FS Director~~~~controller~~ with a letter from the State Design Engineer to the consultant indicating the Dispute Resolution Committee's (DRC) decision and the dollar amount of restitution.

2. The ~~FS Director~~~~controller~~ prepares an invoice ~~for the amount of~~for the restitution payment and sends it to the consultant with the letter from the State Design Engineer. A copy of the letter and invoice is provided to the Design Division and the district. These documents indicate the payment is made to Department of Revenue – Credit State Road Fund and mailed to:

Missouri Department of Transportation

~~Financial Services~~~~Controller's Office~~

P.O. Box 270

Jefferson City, Mo. 65102

The ~~FS Director~~~~controller~~ will track the invoice to ensure payment is received from the consultant in a timely manner.

134.5.6 Incentive and Disincentive Program

MoDOT has instituted an incentive and disincentive program with the consulting industry to assure that consultants:

1. Deliver the most cost-efficient design that provides the right solution to the identified need (i.e., Practical Design)
2. Deliver quality plans
3. Deliver the roadway and bridge design plans on time as required in the contract
4. Prepare construction cost estimates that are within an acceptable range of the contract award amount.

The incentive and/or disincentives vary according to the listed category. This program will not be used on every MoDOT roadway and bridge design contract. The incentive and disincentives will be used in

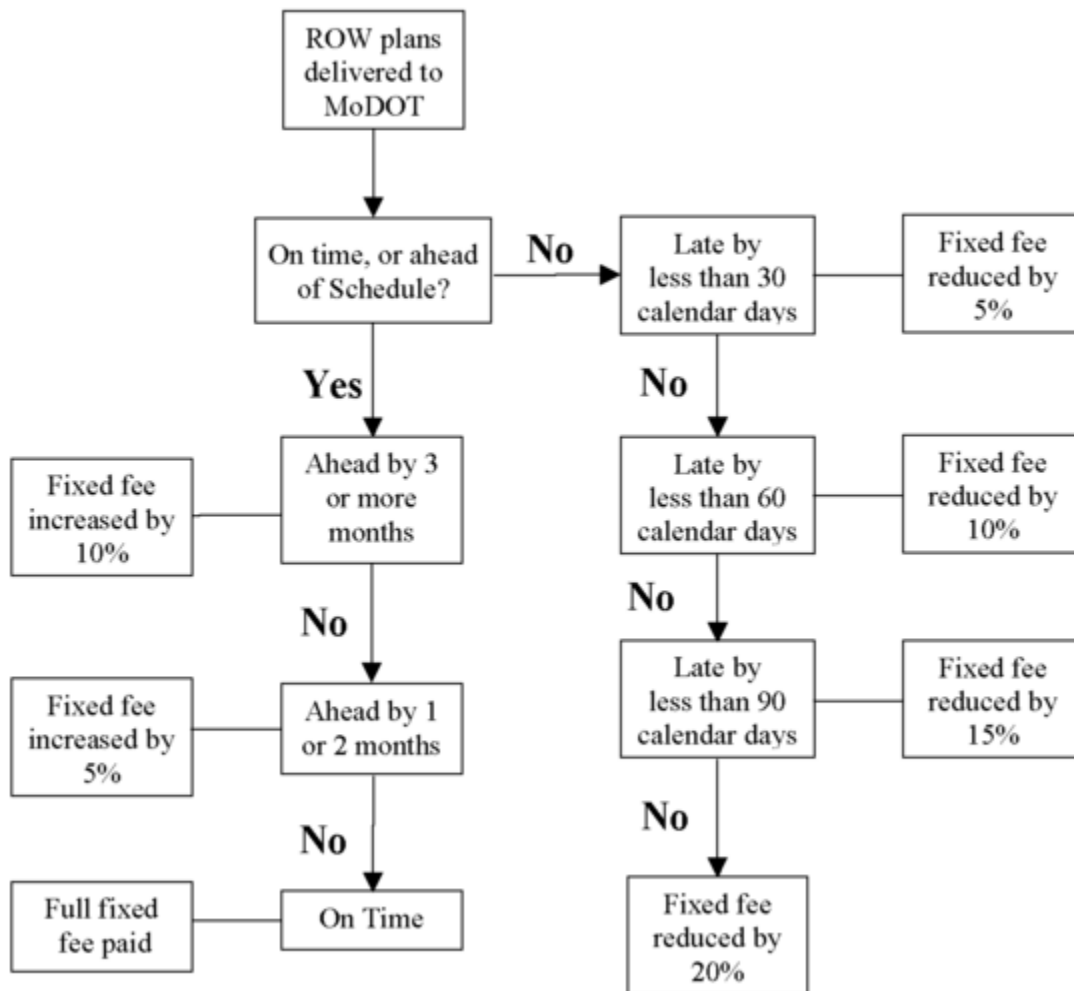
whole or in part on major projects that are critical to MoDOT accountability with the public. Fifty percent of the fixed fee is the maximum disincentive that can be incurred. When the district requests approval from the PSC chair to solicit consultant services, the approval will specify whether the contract will or will not include the incentive/disincentive program. Project specific incentives and disincentives will be noted in the contract agreement.

Cost-effective Design (Practical Design) and Quality Plans. The consultant's performance on delivering the most cost-efficient design that provides the right solution for the identified need will become a part of the consultant performance evaluation. Quality of Plans will be based on the score for overall performance.

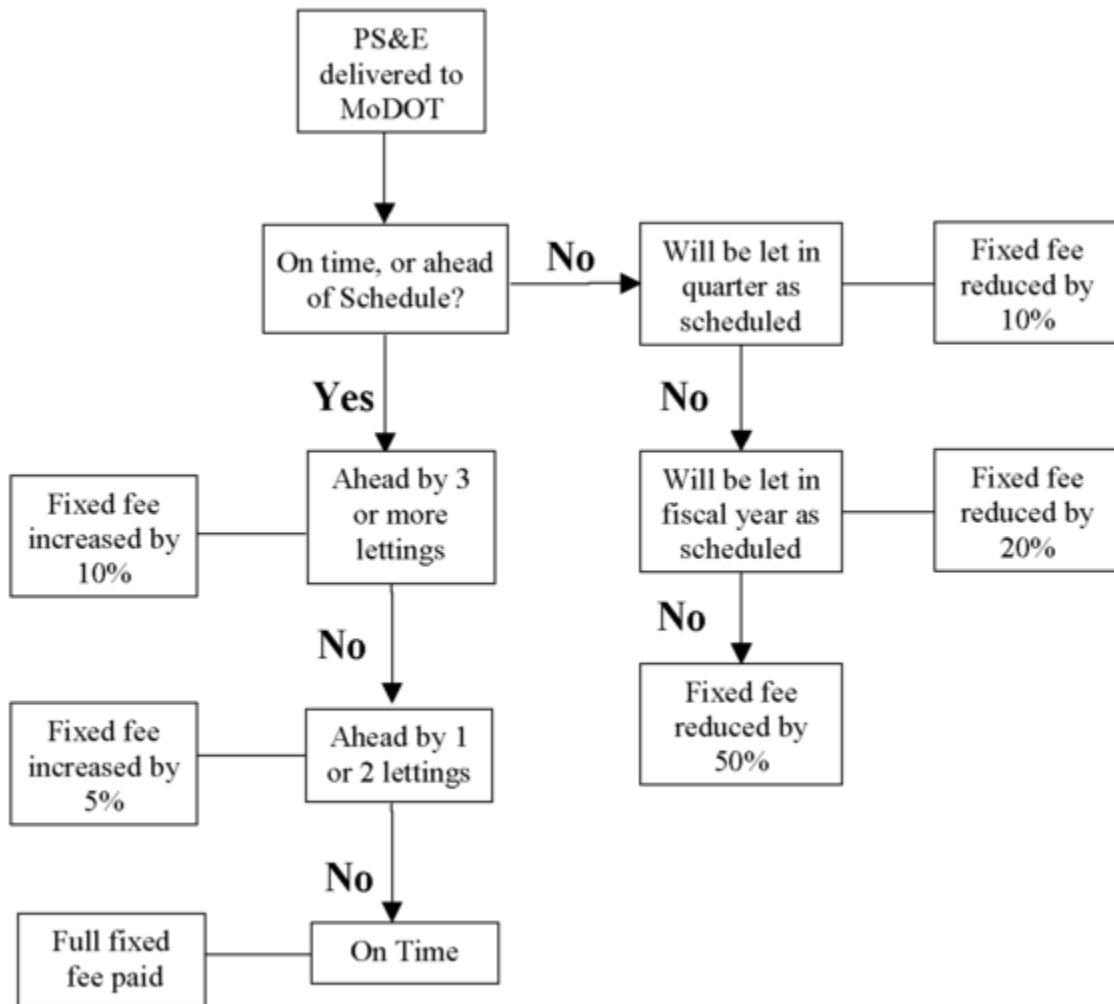
Evaluation scores must be considered on all future contract selections. Consultants who perform poorly or who do not deliver cost-effective designs will not be considered for future contracts until they demonstrate to MoDOT that significant changes have been made within their company to address the concerns. The PSC will monitor this performance and MoDOT staff will be kept informed on the status of any firms that are not being allowed to compete for projects.

Deliver Roadway and Bridge Design Plans on Time.

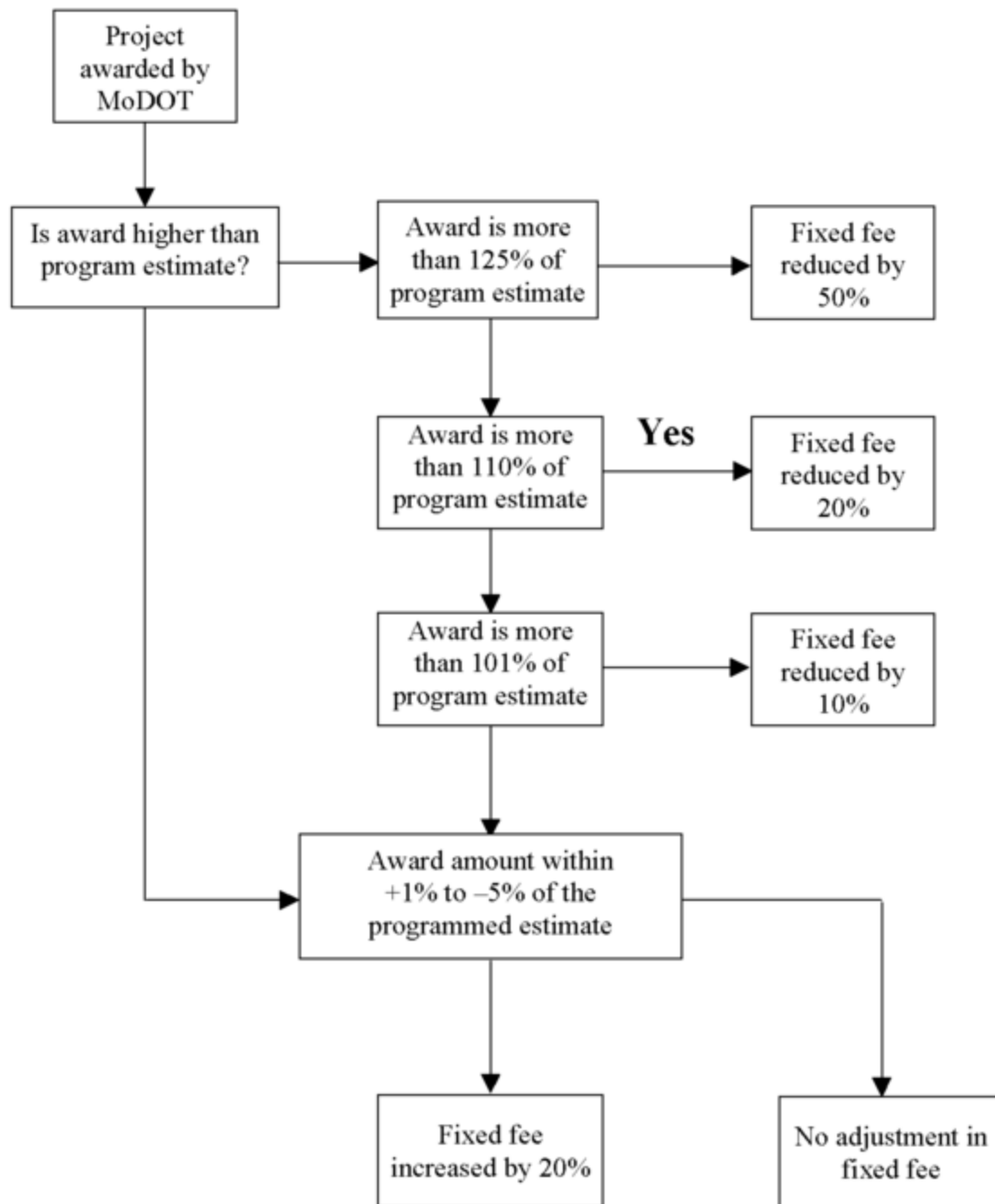
Right of Way Plans. The project manager should use the flowchart below to determine whether the incentives or disincentive are applicable based on the scheduled delivery date contained in the current contract or supplemental agreement. If changes are made by MoDOT that impact scheduling, the letting date may be re-negotiated .



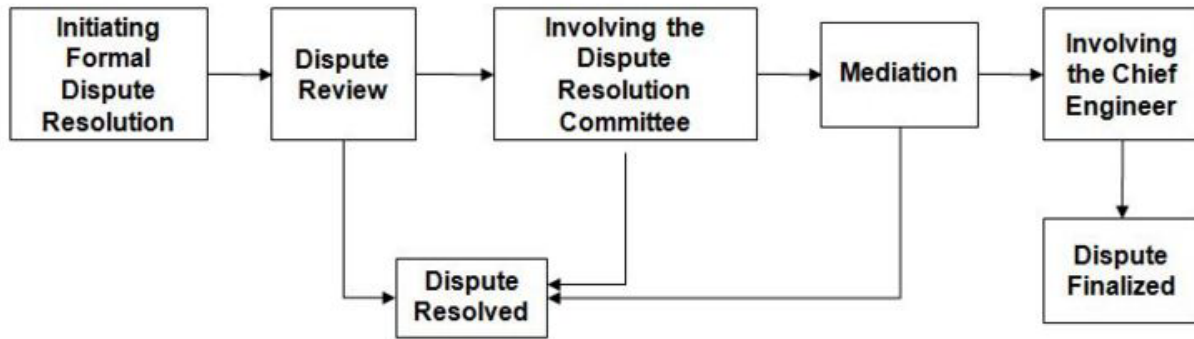
Final Plans, Surveys, and Estimates. The project manager should use the flowchart below to determine whether the incentive or disincentive is applicable based on the scheduled delivery date contained in the current contract or supplemental agreement. If changes are made by MoDOT that impact scheduling, the letting date will be re-negotiated.



Accurate Cost Estimates are critical for MoDOT to be able to deliver the program promised to the public. Program estimates are published in the STIP and each district programs sufficient projects each year to spend every dollar allocated. Poor estimating causes MoDOT numerous problems at letting. Once the project budget has been set it is then the design consultant's responsibility to design a good project that satisfies the purpose and need within that budget. The project manager should use the flowchart below to determine whether the consultant qualifies for an incentive or disincentive based on their project estimates.



134.6 Dispute Resolution



Once a consultant is selected to work for MoDOT, circumstances may arise that lead to a dispute between MoDOT's PM/CA and the consultant. In most cases, a complete understanding and recognition of each party's concerns will result in successful resolution of the disagreement. However, when that is not the case, this [dispute resolution procedure](#) is used.

The relationship between the consultant and MoDOT is a professional contractual relationship. All parties to the contract should understand the dispute resolution process. The PM/CA and the consultant should make every attempt to fully understand the dispute and express honest statements of fact prior to initiating formal dispute resolution. In this context, the PM/CA is defined as the person who authorizes MoDOT's payment of the consultant invoices.

Before initiating formal dispute resolution, the following activities should occur:

1. The district engineer, or division engineer (hereinafter indicated by "DE") prepares a letter to the consultant outlining the contested issues.
2. The disputing parties (project manager level for both MoDOT and consultant) participate in a face-to-face meeting.
3. The consulting firm conveys the firm's recommendations for resolving the dispute.
4. MoDOT's representative discusses the consultant's proposed resolution and responds in a letter, either accepting the proposal or offering a rebuttal.
5. MoDOT and the consultant attempt to negotiate a settlement.

If the PM/CA and the consultant reach an agreement that provides the consultant with payment greater, or less than the contract maximum, the PM/CA needs to initiate a supplemental agreement and follow normal procedures to get the supplemental agreement executed, including approval by the PSC. If no settlement is forthcoming, formal dispute resolution is initiated.

134.6.1 Initiating Formal Dispute Resolution

When attempts between the PM/CA and the consultant have failed to resolve the disagreement, the consultant should enumerate the firm's concerns in a letter to the DE, thereby initiating formal dispute resolution. A Dispute Resolution File should be started by the PM/CA.

Disagreements may arise over the scope of services, fees, hours, the consultant evaluation, errors and omissions, or other issues. Initiation of the resolution process will in no way be reflected on negatively in the consultant's performance evaluation. The consultant's letter to the DE should specifically outline the disagreement and the consultant's view of the issues. This detailed letter must include:

1. A clear description of the items that are being disputed
2. What the consultant desires to resolve the dispute
3. Background—the sequence of events that led to the dispute
4. Documentation to support the request
5. All correspondence between the parties relating to the items in dispute (including e-mail)
6. A listing of previous attempts to resolve the issue (including e-mail)
7. A copy of the contract and any supplemental agreements

Upon receiving the consultant's letter and documentation, the DE will have the PM/CA prepare a similar letter, also addressed to the DE, outlining the administrator's view of the disagreement with particular attention to the information in the consultant's letter. MoDOT may also initiate formal dispute resolution by the PM/CA sending a letter, under the DE's signature, to the consultant contact listed in the contract. The consultant should be directed to respond to the department's letter. As a courtesy, the PM/CA should notify the consultant project manager before writing this letter.

134.6.2 Dispute Review by District or Division Engineer

The PM/CA transmits the letter documenting the issues of the dispute, with the consultant's letter attached, to MoDOT's DE for review. In addition, the DE also notifies the Assistant Chief Engineer and the State Design Engineer that formal dispute resolution has been initiated. With this notice, the State Design Engineer begins tracking the dispute resolution process. Whenever the two parties in the dispute reach a resolution, the State Design Engineer should be notified of the following:

1. Where in the process resolution was reached
2. The date resolution was reached
3. What resolution was reached

The DE evaluates the information in the letters, discussing it with the PM/CA and the consultant project manager as necessary.

134.6.3 Meeting of the Two Parties

The DE arranges a meeting with the consultant principal. If an agreement is reached after discussion between the DE and the consultant principal, the DE provides a letter to the firm indicating the terms of the agreement. However, if agreement is still not reached, the dispute may be taken to the Dispute Resolution Committee.

134.6.4 Dispute Resolution Committee

The Dispute Resolution Committee (DRC) is comprised of the Assistant Chief Engineer (acting as chair), Director of External Civil Rights, and Chief Financial Officer. In preparation for the DRC's meeting, the DE will share written details of the formal dispute resolution's outcome to this point with the State Design Engineer who then facilitates the DRC procedures. The committee will review this information together with other background information, including the original letters from the PM/CA and the consultant project manager outlining the dispute. When the committee meets, all representatives of the disputing parties are given the opportunity to attend. The DRC discusses the issues with the disputing parties and tries to reach a resolution satisfactory to both parties. If a resolution cannot be reached, an offer of mediation is made to the two parties. Should both parties agree to use mediation to settle the claim, they will share the cost of mediation equally.

If an agreement is reached, the DRC sends the consultant a letter outlining the resolution of the dispute.

134.6.5 Mediation

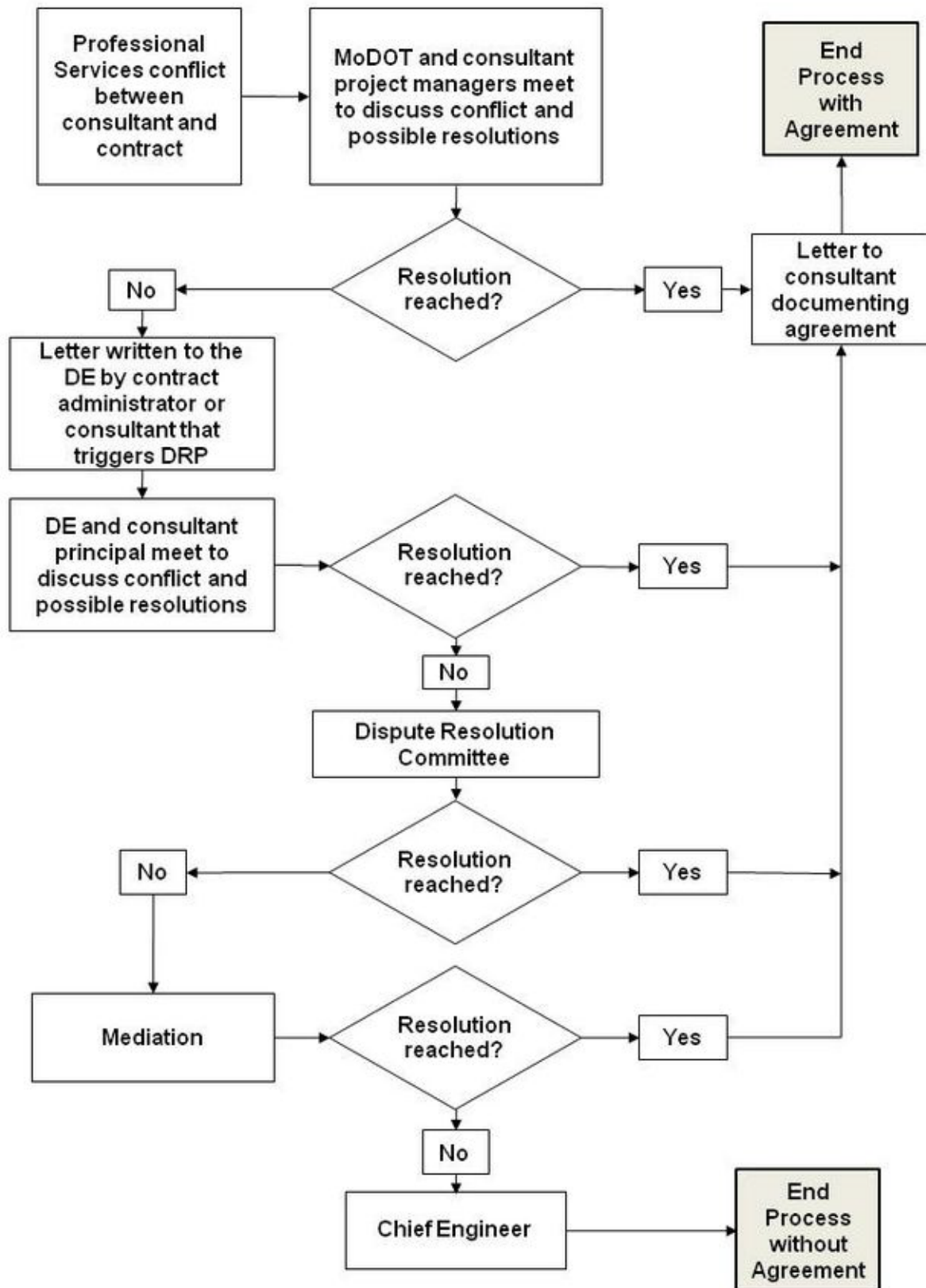
A mediator is an outside party who facilitates a discussion between the disputing parties and enables them to explore options to reach agreement. Responsibility for dispute resolution is solely that of MoDOT and the consultant. The mediator has knowledge of the process and the general terms of the dispute but is not intimately knowledgeable of all project details.

After the consultant has accepted MoDOT's offer for mediation, the State Design Engineer is responsible for making arrangements for a mediator. This includes selecting an approved mediator from a list (developed jointly by ACEC and MoDOT) and arranging the time and place of the meeting. Participants at the meeting are limited to the DE, the DRC's chair, the consultant principal, and the mediator. Others, including the PM/CA and the consultant project manager, are not active participants in this meeting but may provide information if the mediator so requests. Legal representation is optional. The disputing parties are responsible for their own costs associated with the mediation but will share all expenses associated with the mediator equally.

Should the mediation result in the dispute's resolution, the DRC sends the consultant a letter explaining the resolution of the dispute. However, should the mediation not result in resolution of the dispute, the issue is forwarded to MoDOT's Chief Engineer for final action.

134.6.6 Final Decision by the DRC

When mediation fails, the State Design Engineer will notify the DRC and MoDOT's Chief Engineer and provide any additional information gathered during the mediation process. The Chief Engineer will review the information provided and if desired, meet with the members of the DRC to discuss the results of the dispute resolution process up to that point. Upon decision by the Chief Engineer, the State Design Engineer provides a letter to the DE and the consultant principal informing them of the decision. When the consultant receives the letter from the State Design Engineer outlining the decision of the Chief Engineer, the firm may respond; however, formal dispute resolution will have been completed and MoDOT will not entertain further appeals from the consultant.



Dispute Resolution Process (DRP)

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Articles in "134 Engineering Professional Services"

This category contains only the following page.

E

- [Engineering Professional Services Guidelines](#)

139.7 FHWA involvement on Design-Build Projects

Since the design-build process can be complex and involve time critical reviews and approvals, the

[MoDOT/FHWA Design-Build Program Agreement](#)

[MoDOT/FHWA Design-Build Program Agreement](#) outlines the Missouri Division of FHWA's involvement on design-build projects. The purpose of the Design-Build Program Agreement is to ensure that MoDOT and FHWA have an understanding of the level of involvement, approval actions, roles, responsibilities and processes that FHWA will provide on Design-Build projects. The agreement addresses the design-build procurement process, the [NEPA process](#) as it relates to design-build, the [Access Justification Report \(AJR\)](#) process and other approval requirements during contract execution.

Required FHWA Approval Actions:

- Final Approval of RFP Document
- Request for Authorization (Certification of RFP)
- Addendums of RFP
- NEPA Re-Evaluations
- New or modified Access Justification Reports (AJR)
- Concurrence of Award

Document Review Procedures

FHWA designated Transportation Engineer (TE) will have primary responsibility for ensuring a Design-Build project is executed in accordance with federal laws while implementing FHWA's PoDI Process and required project involvement. Other reviews may be required in accordance with the PODI process. The TE will serve as MoDOT's main point of contact for Design-Build projects. FHWA will review procurement documents developed for each project, for conformance with federal requirements. Feedback resulting from ~~these~~ reviews will be provided to MoDOT within timeframes included in the [MoDOT/FHWA Design-Build Program Agreement](#). The project team shall also coordinate with Central Office staff, including the Design-Build Coordinator, regarding procurement document reviews. Internal reviews should occur prior to FHWA reviews, but can be performed concurrently if needed. It is important to allow for adequate review time when developing the project procurement schedule. The project team may use the [Review Comment Response Sheet \(RCRS\) Form \(Form 139.8.1\)](#) to collect and respond to comments.

139.9 Contract Execution

139.9.1 Project Management

Once a design-build contractor has been selected and a contract has been executed, there are several procedures that the project team can implement to help ensure success on the project. Effective processes will vary depending on the design-build contractor involved, the size of the project team and the size and complexity of the project. However, it is important to continue to live the design-build values throughout the contract, focusing on “what the contract says” and always evaluating “want vs. need.”

After the contractor has been selected, the project management team should meet on a weekly basis and discuss the progress of partnering with the contractor. Ideally, the project team and the contractor team will be co-located and will have scheduled weekly meetings. Co-location of MoDOT staff with contractor and consultant staff allows for easier collaboration and problem solving throughout the project and aids in partnering. The weekly project management team meetings should be focused on managing delivery of the project, addressing any ~~issues~~issues, and maintaining the goals of the project.

A partnering charter and process between MoDOT and the contractor is essential to a successful project.

[Example partnering documents, including the partnering charter, partnering surveys and partnering report from The New I-64 Project are available.](#)

[Example partnering documents, including the partnering charter, partnering surveys and partnering report from The New I-64 Project are available.](#) The charter establishes the general ground rules and processes which will be used as the two teams work together to deliver the project. However, the MoDOT project team must remember that the contractor must comply with the terms of the contract documents above all else. A common mistake on previous projects has been the failure to distinguish between contract compliance and being a “good partner.” While on all projects there are times that it is appropriate to be flexible with a resolution to a specific problem, with design-build it is critical that the contractor complies with the terms of the contract documents.

It is often useful to have regular task force meetings where the MoDOT, the designer and the contractor discuss the progress being made, and resolve issues or disagreement as they occur. Specific disciplines that may benefit from task forces meetings include roadway, drainage, structures, maintenance of traffic, quality and utilities. MoDOT would then use internal management meetings with the project team to discuss any outstanding issues or conflicts identified in the task force meetings. Based upon the contract, responses are prepared and provided to the contractor team to resolve the issues in a timely fashion.

Since each design-build project and each design-build contractor are different, project teams are encouraged to try to be flexible in the approach to the various processes. However, experience has shown that for items such as change orders, potential disputes, and responses to the contractor, the more defined the internal processes are the smoother the project will proceed.

139.9.2 Contract Invoicing and Payment

~~Progress payments will be based on an estimate of physical percent complete of the work, not on measured quantities (except where specifically stated in the contract). Progress payment amounts~~

~~are calculated by multiplying the percent complete for each construction activity by the cost associated with that activity. Monthly invoices are reviewed based on the contractor provided Work Breakdown Structure and Baseline Schedule or Recovery Schedule, as defined in the contract documents. After the invoice has been reviewed and approved by the project team, it must be submitted electronically to Financial Services at Contractual.Payments@modot.mo.gov. The invoice submittal should include the following:~~

- ~~• Project Name~~
- ~~• Project Number~~
- ~~• Copy of the approved contractor invoice~~
- ~~• Invoice number~~
- ~~• Payment amount~~
- ~~• Total payment amount to date.~~

Design-Build contracts typically include lump sum pay items for which payments are made to the Design-Build Team based on the percentage completion of activities defined within the Work Breakdown Structure. Progress payments will be based on an estimate of physical percent complete of the work, not on measured quantities (except where specifically stated in the contract). Progress payment amounts are calculated by multiplying the percent complete for each work breakdown activity by the cost associated with that activity.

Monthly invoices are reviewed based on the contractor provided Work Breakdown Structure and Baseline Schedule or Recovery Schedule, as defined in the contract documents. The Design-Build Team will submit an invoice and progress report at regular intervals which are used to determine progress payments based on the percentage of work completed for each work breakdown activity. Payment must be supported by documentary evidence that work items allowed have actually been done. Evidence may be in the form of quality reports, daily inspection reports, scale tickets, diary entries, material receipts, audits, etc. The requested invoice shall be signed by the Project Director, Deputy Project Director or designated staff.

If errors are found on the Contractor invoice, the Project Director, Deputy Project Director or designated staff should contact the Contractor and request a corrected invoice. The invoice should be sent back to the Contractor for corrections, and **they must re-date the invoice** and re-submit to MoDOT. If the Contractor makes an error and requests more reimbursement than allowed by the contract, the Project Director, Deputy Project Director or designated staff may submit the invoice and authorize payment of an amount less than the invoice requests. The reasons for paying an amount different than the invoice requests must be clearly documented.

After the invoice has been reviewed and approved by the project team, it must be submitted electronically to Financial Services at Contractual.Payments@modot.mo.gov. The invoice submittal should include the following:

- Project Name
- Project Number
- Copy of the approved contractor invoice
- Invoice number

- Payment amount
- Total payment amount to date.

Each invoice must be submitted with the necessary supporting documentation and must be numbered in sequential order and label the final invoice as FINAL. The invoice shall be based on the total incurred cost during the invoice period.

The Project Director, Deputy Project Director or designated staff should make every effort to see that the contractor is paid in a timely manner, the goal being 30 days. Missouri law states that the contractor is entitled to interest if the invoice is not paid in 45 days. The 45-day period starts when all questions about the invoice have been addressed and agreed to by both parties.

Design-build owner consultant invoices should be submitted using the Contractual Payments Library.

139.9.3 Quality Oversight (Owner Acceptance)

MoDOT's Oversight approach includes all activities performed by MoDOT to evaluate the degree of compliance with Contract requirements. Design acceptance activities by MoDOT include reviews of plans, specifications, and other documents prepared by the Design-Builder. Construction Acceptance activities include Acceptance sampling, testing, and inspection of the work by MoDOT. MoDOT will use an audit approach for assessing the contractor's performance. This will entail checking on a sampling basis whether the Work is complying with the requirements of the contract documents.

At the completion of the project, MoDOT is required by [23 CFR Part 637](#) to provide a materials certification for

A [sample Quality Oversight Plan](#) is available.

the project. The certification will conform in substance to Appendix A of 23 CFR Part 637 Subpart B. The certification will be prepared and submitted at the project level by persons intimately familiar with the project. The basis for the materials certification will be upon implementation of a quality assurance program meeting the criteria of 23 CFR Part 637.

Quality assurance as defined in 23 CFR 637.203 Definitions is "All those planned and systematic actions necessary to provide confidence that a product or service will satisfy given requirements for quality." MoDOT has developed a Quality Assurance Program unique to Design-Build Projects. Quality Assurance includes the Contractor's activities, both "Quality Control" and "Quality Assurance", as defined in the Contractor's approved Quality Manual and MoDOT's Quality Oversight responsibilities.

MoDOT is responsible for assembling qualified staff to administer Design-Build Projects and use existing Department Quality Management resources (for example, MoDOT's Central Laboratory) for specialized testing not performed on Project sites.

MoDOT performs verification sampling and testing on Design-Build Projects. MoDOT's established System Based Independent Assurance Program is utilized on Design-Build Projects.

An [FHWA Technical Brief](#) regarding construction quality assurance for design-build highway projects]] is available.

139.9.3.1 Quality Management Systems

The Contractor shall provide Quality Management on the Project to ensure the Work and Materials meet or exceed all contract requirements. The Contractor shall develop, implement, and maintain Quality Control (QC) and Quality Assurance (QA) for the Work. The Contractor's Quality Manager (QM) shall be responsible for the implementation ~~if of~~ the Quality Management Plan (QMP) and shall oversee all QC and QA Activities during all phases of the Project including all sub-contracted work. The QM will designate a QC and QA lead that will be assigned to the Project full time during construction and may assign a separate QC/QA representative during the design phase. The Quality Manager shall report directly to the Contractor's executive management team only and shall have no responsibilities in the production of Work.

139.9.3.1.1 Quality Management Plan (QMP)

The Contractor shall develop, implement, and maintain a Quality Management Plan (QMP) that will ensure the Work meets or exceeds all contract requirements, and provides a record of acceptance of the Work and Material. The QMP shall address all QC and QA inspection and test requirements of the construction work. The QMP shall be continuously improved throughout the delivery of the entire Project. Any QMP modifications require the Approval of MoDOT's Project Director. All modifications shall be tracked in an indexed table containing QMP version numbers, revision dates and corresponding section(s) changed with each revision.

MoDOT and FHWA's Approval of the Quality Management Plan is required prior to issuing NTP2. The Approved QMP shall be considered a Book 3 Contract Document and must be approved by MoDOT before any construction takes place.

The Contractor shall establish a Document Control Procedure. This procedure will describe the project file structure for all documents required in the QMP, including a file naming system and folder structure. The document storage shall be stored in the project management system selected by MoDOT that allows quick access to all documents. The Contractor and its required staff will be granted access to the system to upload all Project documents, including correspondence, administrative, design, construction, quality, and inspection documentation.

The Contractor shall ensure that all laboratories performing testing participate in and achieve a score of three or greater in the AASHTO Accreditation Program (AAP) and/or ASTM Cement and Concrete Reference Laboratory (CCRL) proficiency sample programs for the tests being performed by that laboratory. Equipment within laboratories shall be made accessible for Independent Assurance Testing, and Project oversight performed by MoDOT and FHWA.

At a minimum, the Quality Management Plan shall include the following:

- General organizational structure of the Contractor's production and QC/QA staff.

- Name, qualifications, and job duties of the QM and all QC/QA inspectors (include everyone that will perform material testing on project).
- A procedure describing QC and QA Inspections.
- A procedure describing QC and QA Testing.
- A procedure describing Material Receiving.
- An Inspection and Test Plan (ITP).
- A Document Control Procedure for electronically recording and tracking of all correspondence, Request for Information (RFI's), Field Design Changes (FDC's), and all Quality Control and Quality Assurance Activities including inspection reports, checking and testing activities within Oracle Aconex.
- A procedure for tracking Non-Conforming and Deficient work, and Corrective Action Requests.
- A procedure to resolve discrepancies between QC and QA test results.
- A list of work items that will be sub-contracted and the QC/QA personnel who will be responsible for inspection and testing of the sub-contracted work.
- A list of QC Hold Points and a procedure for addressing any issues found during the QC Hold Point inspections.
- A list of QA Hold Points and a procedure for addressing any issues found during the QA Hold Point inspections including notification, correction, and establishing a new hold point.
- The frequency of review of the quality management system by the Contractor's top management and the procedure for making revisions to the QMP.
- References to specific applicable QC/QA Plans such as asphaltic concrete pavement or Portland cement concrete pavement.
- Forms to be used by the QC and QA staff.
- Format for the Weekly Schedule and Work Plans.
- Format for monthly production and testing meetings including submittal requirements.
- A procedure for project closeout, including a Quality Documentation Audit that verifies all project documentation is accurate and complete.
- A Document Control Procedure for electronically recording and tracking As-Built Final Documents.
- A defined QC/QA procedure for review of all plans during the design stage.
- A defined method of responding and implementing internal and external RFI's, Non-Conformance Reports (NCR's), Corrective Action Requests (CAR's), and FDC's during construction.

Inspection and Testing Plan (ITP)

At a minimum, the standard ITP shall be the basis to the Project specific ITP. Any modifications shall be highlighted and Approved by MoDOT. The QC and QA inspections shall be performed for all on-site Work per the project ITP.

Completed daily inspection checklists, hold point checklists, inspection reports, and associated test reports shall be saved electronically for all Work performed by the prime and Subcontractors before payment.

Quality Control and Quality Assurance

QC staff shall remain independent of QA staff. QA staff shall have no responsibilities in the production of work and the role is to verify the performance of the QC inspection and testing. QA and QC inspection and testing may not be substituted for each other or performed by the same person. QA staff will report directly to the QM.

All QC/QA personnel who perform sampling and/or testing are certified by the MoDOT Technician Certification Program or a certification program that has been approved by MoDOT for the sampling and testing they perform.

Any QC/QA personnel determined in sole discretion of MoDOT's Project Director to be incompetent, derelict in their duties, or dishonest, shall at a minimum, be removed from the project. Further investigation will follow with a stop work notification to be issued until the Contractor submits a corrective action report that meets the approval of MoDOT.

Material Receiving

The QMP shall include a procedure for performing material receiving inspections. The procedure shall address inspections for all Material delivered to the site (excluding testable material such as concrete, asphalt, aggregate, etc.) for general condition of the material at the time it is delivered. The material receiving procedure shall record markings and accompanying documentation indicating the material is MoDOT accepted material (MoDOT-OK Stamp, PAL tags, material certifications, etc.).

All required material documentation must be present at the time of delivery. Material receiving reports shall be completed and saved electronically before payment is made following the delivery.

139.9.3.2 Quality Verification and Oversight

MoDOT's quality verification will use an audit approach for assessing the Contractor's performance including but not limited to, Production, Quality Control, and Quality Assurance. This will entail checking on a random sampling basis to determine if the Work is in compliance with the Contract Documents requirements. In addition, MoDOT will complete owner verification acceptance testing at frequencies agreed upon by MoDOT and FHWA.

Auditing will entail the collection and documentation of objective evidence to confirm whether specified requirements have been met. Best practice approach to auditing is holding an Internal Risk Assessment Meeting (IRAM) at regular intervals to identify the high-risk areas of audit focus. Risk based analysis should be focused on severity, detectability, and probability. The results of auditing will be documented on standardized audit report forms and may be provided to the Contractor. Nonconforming Work will be tracked and communicated to the Contractor. The timing, frequency, and depth of auditing will be at MoDOT's discretion.

The MoDOT Design-Build Team should use priority planning to develop audits of the Work. The Project Team should target higher risk items of work for auditing. Activities that are considered high risk are based on severity, detectability, and probability.

Best practice is that the MoDOT team should hold weekly Internal Risk Assessment Meetings (IRAM) to plan out audit activities for the upcoming Work.

The Contractor shall provide safe access to the Work, its organization, and all Subcontractor and Supplier organizations to allow MoDOT and FHWA to carry out quality verification Activities. This will include the allowing of samples for the purposes of testing, the provision of information and records, and interviews with personnel from the Contractor's organization and all Subcontractor and Supplier organizations.

The Contractor shall not use the results of MoDOT's quality verification Activities as a substitute for its own quality Activities. The Contractor shall provide to MoDOT continuous access to all quality management records.

The Contractor shall provide a daily means of communicating the production schedule to MoDOT, in order to allow for MoDOT to efficiently deploy quality verification personnel.

Representatives of agencies of the federal, state, and local government shall have the right to inspect the Work to the same extent provided above for MoDOT. Independent Assurance Sampling (IAS) will be in addition to MoDOT's quality verification.

Corrective Action Requests (CAR)

MoDOT will issue to the Contractor Corrective Action Requests (CAR) in areas where Nonconforming Work is found to be recurring. CARs shall be considered severe and may be documented as an Order Record. The Contractor shall be responsible to submit to MoDOT for Approval remedies to eliminate the recurring Nonconforming Work (corrective action). Following MoDOT Approval of the proposed corrective action, the Contractor shall advise MoDOT when the corrective action has been implemented so MoDOT may confirm the implementation, should MoDOT so choose.

139.9.4 Keeping a Conformed Contract

Once the contract has been executed it is important to keep a Conformed Contract, documenting all changes through the course of the contract.

When a Change Order or Equal or Better Change Proposal is executed, tracked changes should be used to

[Sample Conformed Contract tracking sheet](#)

document the change(s) in the Conformed Contract. Changes to the Conformed Contract should be tracked, documenting each contract element changed and the date of the change. A [sample Conformed Contract tracking sheet is available](#).

139.9.5 Record Retention

Record retention should be in accordance with EPG Section 137 where appropriate.

139.10 Other Design-Build Procedures

139.10.1 Project Reporting

Typically, design-build Project Directors are asked to attend the monthly Major Projects Meeting. The Major Projects Meeting is an opportunity to update executive leadership on the project and discuss any potential project issues or concerns. If a specific topic is confidential, a separate meeting should be set up with executive leadership. Examples of items that can be discussed are:

- Project progress
- Schedule
- Budget/Finances
- Risk Allocation
- Procurement, right of way or legal needs
- Quality
- Safety
- DBE
- Project look ahead

139.10.2 Design-Build Project Funding

139.10.2.1 Program Budget and Project Coding

Establishing an accurate program budget is critical to a successful design-build project. At a minimum, the following costs should be considered when setting the project budget:

- Owner Consultants (working for MoDOT, outside the design-build contract)
- Project administration
- Utility relocations

- Stipends
- Right of Way
- Environmental mitigation
- Internal staff
- Design-Build contract (contractor design, administration and quality oversight should be considered as well as construction costs. By breaking out the design, administration and quality costs, the dollar value of actual construction can be estimated. For the sake of the program budget, this cost does not need to be broken out, but it is helpful to include when running scenarios of what may be proposed.)
- Funding from Other Sources (FFOS) should be included on the SIMS form. In the event that FFOS is added into the design-build contract via change order, the project team shall provide the change order information to [Transportation Planning](#) and [Financial Services](#).

All project costs are included in the [STIP](#). The district submits the information to transportation planning including the total cost and an itemized breakdown of each cost included. Typically, project costs are broken down as follows:

- Construction costs include the design-build contract, non-contractual costs, MoDOT funded utility relocations, stipend payments, and contingency,
- Stipend payments and contingency are placed in the “Other” category,
- ROW is MoDOT funded right of way acquisition (including easements),
- Consultants outside of the design-build contract should be in the DBC budget or the district’s STIP construction budget,
- The PE phase should only be used for internal staff costs,
- In some cases there may be preliminary engineering and/ or consultants set up prior to the project being selected for design-build, resulting in multiple project numbers included with the P phase. In this case, the district should provide a preliminary budget spreadsheet for the Financial Services Projects and Accounts Receivable Sections. Based on prior costs and how they fit in the project budget, Financial Services assesses what project numbers are needed and communicates back to the district.

A [matrix for coding design-build projects](#) is available

139.10.2.2 Project Financial Plan

Major projects are large, complex projects designed to address major highway needs and requiring the investment of significant financial resources. The preparation of the annual financial plan ensures that the necessary financial resources are identified, available, and managed throughout the life of the project.

An annual financial plan is a comprehensive document that reflects the project's scope, schedule, cost estimate, and funding structure to provide reasonable assurance that there will be sufficient

funding available to implement and complete the entire project, or a fundable phase of the project, as planned.

Annual financial plans for major projects and other projects as defined in 23 U.S.C. 106(h) and 106(i) consist of an Initial Financial Plan and Annual Updates. Initial Financial Plans provide the major project's baseline information. Through the submission of Annual Updates, the Initial Financial Plan is updated with current project status to provide a comparison of baseline information to actual performance and to provide updated forecasts of future project performance. Annual Updates track the progress of the project over time by highlighting significant deviations from the Initial Financial Plan and subsequent Annual Updates and explaining the mitigating actions or response strategies taken to address the deviations. Each Annual Update, therefore, provides a comprehensive view of the project's background and status without requiring the reader to refer to previous submissions.

The project Financial Plan (FP) shall be developed in conformance with FHWA guidance. For the purposes of determining whether a project's estimated cost exceeds the cost thresholds, FHWA will use the total cost estimate within the project scope set forth in NEPA decision document approving the project. The total cost of the project is the value of all resources necessary to perform the planning, engineering, and construction activities regardless of funding source or administering agency. The following are guidelines for when ~~a~~ FP is required:

- Projects with program costs under \$100 million do not require ~~a~~ FP.
- Projects with program costs over \$100 million but less than \$500 million require ~~a~~ FP. No FHWA approval of the FP is required unless identified in the PoDI Process. ~~but FHWA review of the FP is required.~~ Approval of the project FP will be provided by the Chief Financial Officer, or the CFO's representative.
- Projects with program costs over \$500 million require FHWA review and approval of the FP.