

9 Plans, Specifications & Estimate (PS&E)

9.1 Introduction

The preparation of the PS&E for local federally funded projects is the responsibility of the local public agency (LPA). The LPA can either prepare the PS&E, or if they are not adequately staffed to do so, they can hire a consultant to prepare the PS&E. In either case, if using federal funds, the LPA must ensure that Preliminary Engineering (PE) funds are obligated prior to beginning any work. The LPA shall ensure that the PS&E complies with all applicable Federal and State Laws and they must certify that each project complies by signing and submitting the LPA Certification of PS&E (Fig 136.9.5) The PS&E Submittal Checklist (Fig 136.9.1) references the Federal and State Laws that pertain to the PS&E submittal package. Most Federal Laws pertaining to the PS&E submittal package can be found in, but not limited to, 23 CFR 635 (Code of Federal Regulations).

The PS&E package must be submitted to MoDOT for review and approval. Any changes that need to be made to the PS&E package will be made by the LPA. After all changes are incorporated, MoDOT will request construction funding obligation from the Federal Highway Administration (FHWA). **After** FHWA approves the obligation of federal funds for construction, MoDOT will notify the LPA of the authority to advertise for bids. This notification by MoDOT is officially the construction authorization. **No project shall be advertised for bids until construction authorization has been issued (23CFR635.112).**

Competitive bidding will be required except where work by local forces by the LPA (EPG 136.3.12) or work by utility companies has been authorized. A minimum of 12 weeks is the typical timeframe from PS&E submittal to award of the construction contract.

9.2 Required Submittals

In order for the LPA to get Construction Authorization which allows advertisement for bids, the PS&E documents must be approved by MoDOT. There are multiple items that should be considered and documented during the preparation of the PS&E. Some of these items are applicable to all projects, while others may or may not be pertinent to a project depending upon the project characteristics. The LPA must fill out the PS&E Submittal Checklist (Fig 136.9.5) by initialing each item in the checklist and identifying a location of each document the submittal.

9.2.1 Environmental, Historical and Cultural Requirements - There are multiple clearances, certifications and a classification that must be considered and/or obtained prior to bid advertisement. EPG 136.6 provides details regarding the environmental, historical and cultural requirements that must be met in conjunction with the development of the project. The LPA should ensure all environmental mitigation commitments pertaining to the project are included in the contract provisions. Failure to meet mitigation commitments may render the project ineligible for federal reimbursement. The LPA is also responsible for communicating permit conditions and restrictions in the final design. All environmental permits applicable to the construction of the project should be included in the proposal. A copy of the Corps of Engineers 404 Permit, Farmland Conversion Impact Statement, SHPO Section 106 concurrence, and the FEMA Floodplain Development Permit should be included in the bid proposal. LPA's should work closely with the permitting agency to ensure accurate interpretation and proper transfer of permit conditions and restrictions (as appropriate) into final design.

9.2.2 Right of Way Clearance - In accordance with **23CFR635.309**, authorization to advertise for bids cannot be given until a statement is submitted indicating that all right-of-way clearances have been obtained or all necessary arrangements have been made for proper coordination with the physical construction schedule. The right-of-way clearance statement may be made separately or in conjunction with the utility status and railroad statement. Details regarding right-of-way acquisition and clearance can be found in **EPG 136.8**

9.2.3 Utility Status - In accordance with **23CFR635.309**, authorization to advertise for bids cannot be given until a statement regarding utility clearance is submitted. Prior to authorization to advertise for bids, utility work must be completed or necessary arrangements must have been made for completion of the work for proper coordination with the contract construction schedules. The utility status statement may be made separately or in conjunction with the right-of-way clearance and railroad statements. Details regarding utilities are found in **EPG 136.7**.

The LPA shall prepare a Utility Status Letter (**Fig 136.9.6**) and provide it to MoDOT with the final plans submittal. Projects must be cleared prior to bid opening and the MoDOT District Contact must receive the status letter prior to the bid opening date. Utilities “status” is defined as:

1. All utilities are physically adjusted on the projects, or
2. Utility construction work is active and has been completed to such a point that no impact would be expected to the road contractor. The status of the work is given in the utility job special provisions, or
3. Utilities are not expected to be adjusted by the notice to proceed date for the road project, but the utility work will have no impact on the progress of the road contractor’s work, or
4. Utilities must be adjusted after the contractor completes stage construction. This information must be outlined in a job special provision, or
5. Utility adjustments, plans and specifications, are included in the bid documents for the road project.

Authorization will not be granted until any necessary utility agreements are executed.

9.2.4 Railroads - In accordance with **23CFR635.309**, authorization to advertise cannot be given until a statement regarding any railroad involvement is submitted. Projects on railroad right of way or crossing railroad right of way require the railway company’s written approval of the final plans prior to construction authorization. This statement may be made separately or in conjunction with the right-of-way clearance and utility status statements. Details regarding Railroads are found in **EPG 136.7**.

Where construction of a federally funded project requires use of railroad properties or adjustments to railroad facilities, there shall be an agreement in writing between the LPA and the railroad company.

FHWA approval of railroad agreements is required for federal full oversight projects. A copy of the written agreement shall be transmitted to the **MoDOT District Contact** <<http://www.modot.org/business/manuals/LPAContacts.htm>> for FHWA review.

Authorization will not be granted until any necessary railroad agreements are executed.

9.2.5 Bridge (Structure) Submittals - The LPA is required to submit various deliverables on federally funded projects which include structures as defined in *EPG 136.7.2.2.2 General Types of Structures*. The requirement for PS&E submittal deliverables is mandatory for structures that meet the definition for highway bridges and culverts as found in *EPG 136.7.2.2.1 Highway Bridges and Culverts*. For structures that fit the definitions given in *EPG 136.7.2.2.2.2 Non-NBI Length Bridges and Culverts*, *EPG 136.7.2.2.2.3 Pedestrian Structures*, *EPG 136.7.2.2.2.4 Retaining Walls*, and *EPG 136.7.2.2.2.5 Structures on MoDOT Right of Way*, the engineer of record shall review these sections to determine the appropriate PS&E deliverables that are required and to determine the required input from MoDOT Bridge Division.

To aid in the determination of the various deliverables and the responsibilities for these deliverables, the tables in *EPG 136.7.2.2.7 Structure Submittal* shall be reviewed by the engineer of record. For structures that will be NBI length, *Fig 136.9.1* may also be used for guidance on the deliverables required.

9.2.6 Proprietary Items - The use of proprietary items on federally funded projects is discouraged. However, circumstances may exist that require specific products to meet the project need. In these instances, in order for the proprietary item to be eligible for federal funds, three separate, competing products must be identified in the contract documents and an alternative product approval process must be indicated for each proprietary item included. If certain conditions exist that cause this requirement to be unachievable a Public Interest Finding must be obtained. Any proprietary item that does not meet one of the two previously described conditions, must be noted as non-participating on the estimate. Prior to submitting the PS&E, the LPA should obtain a public interest finding for any proprietary items included in the project. The proprietary item and the date the public interest finding was issued should be noted on the PS&E Submittal Checklist that accompanies the PS&E submittal. See **EPG 136.7** for details regarding proprietary items and public interest findings.

9.2.7 Design Exceptions/Variations - A registered Professional Engineer in the State of Missouri must sign the approval for design exceptions. In addition, the LPA representative with approval authority shall sign approvals for design exceptions. Additional procedures concerning documentation requirements can be found in **EPG 136.7**.

9.2.8 Work By Local Forces - When an LPA desires to use their own forces to construct a project financed with federal funds, a request must be submitted to MoDOT for approval. See [EPG 136.3.12](#) for details on work by local forces

9.2.9 Non-Infrastructure Projects - Submittals for non-infrastructure projects will vary. See [EPG 136.5](#) for details concerning various types of non-infrastructure projects and the required submittals.

9.2.10 ADA Certification & Post Inspection Checklist - The ADA Certification ([Fig 136.9.12](#)) must be filled out and submitted as supporting documentation to the PS&E on any projects that have ADA components. The ADA Post Inspection Checklist ([Fig 136.9.4](#)) must also be submitted as supporting documentation to the PS&E.

9.3 Plans

The LPA must submit plans as a part of the PS&E submittal package. For requirements on the content of the plans see [EPG 136.7](#). Before submitting plans, the LPA should ensure that all plan sheets are signed and sealed by the engineer of record and that the title sheet is signed by the LPA.

9.4 Bid Documents

Bid documents include the Bid Proposal ([EPG 136.9.4.1](#)), Specifications ([EPG 136.9.4.2](#)) and Standard Plans ([EPG 136.9.4.3](#)).

This section includes a breakdown of required provisions and restrictions. Many are included in the boilerplate ([Fig 136.9.3](#)) and FHWA 1273 ([Fig 136.9.7](#)). Others should to be included in the specifications and job special provisions, as necessary.

9.4.1 Bid Proposal - The LPA is required to use the Federal Project Bid Proposal Boilerplate ([Fig 136.9.3](#)) or an approved modified version of the boilerplate. For approval of a modified version of the boilerplate, the LPA must submit a proposed version to their [MoDOT District Contact](#). <http://www.modot.org/business/manuals/LPAContacts.htm>

The approval of the modified version must occur prior to submitting a project for review and approval.

The bid proposal must contain The Notice to Contractors. This notice is located in the front of the bid proposal and provides prospective bidders with the bid opening date, time and location where bids will be received and opened; a brief description of the project; and the time and location of any pre-bid meetings.

The bid proposal must also contain a List of items required in order for the bids to be considered responsive: Federal regulations state that any requirements the bidder must comply with to be considered responsive should be clearly identified in the bidding documents. ([Title 23 CFR, Sections 635.112](#)).

The PS&E Submittal Checklist [Fig 136.9.1](#) includes a list of required federal provisions.

9.4.1.1 Bid Proposal – Required Provisions

9.4.1.1.1 Contract Time - Contract Time must be specified in the bid proposal and must be monitored by the LPA. Contract time is defined as the maximum time allowed in the contract for completion of all work contained in the contract documents. This time can be established in the specifications by either a specific completion date or a fixed number of calendar days or working days. The definition of calendar days and working days must be included in the bid proposal if the LPA is not using MoDOT specifications. Contract time often becomes an issue when the traveling public is inconvenienced without any apparent reason. While there may be several reasons for a project to appear dormant, frequently the cause can be traced to excessive contract time or poor contractor scheduling.

Insufficient contract time can result in higher bid prices, increased time overruns and claims, inefficiencies and safety problems. On the other hand, excess contract time can result in increased inefficiencies, unnecessary delays and inconvenience to the public.

There are several different techniques used to determine contract time. See **EPG 237.8** for more information.

The LPA should strive for the shortest practical duration of traffic interruptions during highway construction. Innovative contracting methods including incentive/disincentive (I/D), lane rental, A+B contracts or other contract provisions for early completion are available to minimize traffic inconvenience and delay. The *FHWA Technical Advisory 5080.10, Incentive/Disincentive for Early Completion*, describes this technique in detail, and is available in the appendix of FHWA **"Contract Administration Core Curriculum"**.

9.4.1.1.2 Liquidated Damages (23 CFR 635.127) - A provision for liquidated damages must be included in the bid proposal and must be administered by the LPA. The term *liquidated damages* means the daily amount set forth in the contract to be deducted from the contract price to cover additional costs incurred by the LPA because of the contractor's failure to complete the contract work within the number of calendar days or work days specified. The actual liquidated damage rate must be specified in the bid proposal. The amount of project costs that will be eligible for federal participation will be reduced by the amount of any liquidated damages assessed against the contractor. In determining the amount eligible for participation, the amount of liquidated damages will first be deducted from the amount of construction engineering claimed and then from construction costs if the amount of liquidated damages exceeds the amount of construction engineering. The liquidated

damages should be, at a minimum, the amount shown in the following table corresponding to the original contract amount to minimize the risk of losing full federal participation.

SCHEDULE OF DEDUCTIONS FOR EACH DAY OF OVERRUN IN CONTRACT TIME		
ORIGINAL CONTRACT AMOUNT (OR THE ENGINEER'S ESTIMATE OF THE TOTAL CONSTRUCTION COST)		
From	To, and including	Assessment per day
\$ 0	\$ 25,000	\$ 475
25,001	50,000	475
50,001	100,000	500
100,001	500,000	700
500,001	1,000,000	950
1,000,001	2,000,000	1,100
2,000,001	3,000,000	1,225
3,000,001	4,000,000	1,625
4,000,001	5,000,000	2,025
5,000,001	6,000,000	2,425
6,000,001	7,000,000	2,825
7,000,001	8,000,000	3,225
8,000,001	9,000,000	3,625
9,000,001	10,000,000	4,025
10,000,001	70,000,000	4,300

9.4.1.1.3 Bid Guaranty (49 CFR 18.36) - The bid proposal must include criteria requiring a bid guaranty of 5% of the bid amount. The bid guaranty can be in the form of a cashier's check, certified check or bid bond. Bid bonds must be guaranteed by a surety company authorized by the director of the department of insurance, financial institutions and professional registration to conduct surety business in the state of Missouri. More detail regarding bid guaranty can be found in [RSMO 227.100](#) at ([link to RSMo and MoDOT Spec](#)) and [Section 102.9 of Missouri Specifications for Highway Construction](#). MoDOT has included the bid bond in the Federal Project Bid Proposal Boilerplate [Fig 136.9.3](#).

9.4.1.1.4 Certifications Regarding Affirmative Action and Equal Opportunity -

The LPA shall include requirements for certification pursuant to 41 CFR Parts 60-2, 60.1, 60.1.4 and Executive Order No. 11246 regarding affirmative action and equal opportunity in the bidding documents. Missouri Standard Specifications for Highway Construction Section 102.18.1 details the compliance requirements. The Federal Project Bid Proposal Boilerplate addresses this in Section (7) CERTIFICATIONS FOR FEDERAL JOBS for the prime contractor. A certification regarding affirmative action and equal opportunity for the subcontractor (Fig 136.9.2) must be submitted for all subcontractors.

9.4.1.1.5 Suspension and Debarment Certification (23 CFR 635.112) - On all federal-aid construction contracts and all related subcontracts of \$25,000 or more, the contractor and lower tier participants must certify they are in compliance with this provision. This includes subcontractors, material suppliers and vendors.

Each participant in the contract must certify “that it is not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any federal agency and they have not been convicted or had civil judgment rendered within the past 3 years for certain types of offenses”. It is the LPA’s responsibility to assure that the contractor is not suspended or debarred from federal contracts. A publication titled, “A Listing of Parties Excluded from Federal Procurement and Non-procurement Programs” is available electronically via the internet at <http://epls.arnet.gov>

The LPA shall include the lobbying certification requirement 49 CFR Part 29 regarding suspension and debarment certification in the bidding documents. The Federal Project Bid Proposal Boilerplate, covers this requirement in Section (7) CERTIFICATIONS FOR FEDERAL JOBS.

9.4.1.1.6 Anti-collusion Provision (23 CFR 635.112) - The bidding documents shall include a non-collusion provision to the following effect: Each bidder shall file a statement executed by, or on behalf of the person, firm, association, or corporation submitting the bid certifying that such person, firm, association, or corporation has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted bid.

The required form for the statement is to be provided by the LPA to each prospective bidder.

Federal regulations allow the LPA to choose one of two methods for compliance with the anti-collusion provision. The two methods are given as follows: (1) The statement shall either be in the form of an

affidavit executed and sworn to by the bidder before a person who is authorized by the laws of the State to administer oaths or (2) in the form of an unsworn declaration executed under penalty of perjury of the laws of the United States.

9.4.1.1.7 Lobbying Certification (49 CFR part 20) -On all federally funded construction contracts and all related subcontracts of \$100,000 or more, federal funds may not be used to provide financial gain to a member of congress or a federal agency. Awarding a federal-aid contract to a constituent would be an example of financial gain. This applies to contractors as well as subcontractors. A certification by the contractor indicating they have not and will not use federal funds to make any payments for lobbying must be included in the contract proposal.

The LPA shall include the lobbying certification requirement pursuant to 49 CFR part 20 in the bidding documents. The Federal Project Bid Proposal Boilerplate covers this in Section (7) CERTIFICATIONS FOR FEDERAL JOBS.

An Anti-Collusion Affidavit meeting the criteria for the second method is incorporated into the Federal Project Bid Proposal Boilerplate Fig 136.9.3, in Section (7) CERTIFICATIONS FOR FEDERAL JOBS

9.4.1.1.8 Title VI Civil Rights Assurances (23 CFR 635.112(d)) -The following Title VI Civil Rights Assurances notification must be included in the invitation to bidders in the front of all bid proposals and in any bid advertisements and invitations for bids:

“The County/City/Organization of _____ hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, businesses owned and controlled by socially and economically disadvantaged individuals will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, religion, creed, sex, age, ancestry, or national origin in consideration for an award.”

9.4.1.1.9 Inspection by MoDOT and FHWA (MoDOT Spec 105.10) - The project Bid Proposal shall stipulate that MoDOT and FHWA may make inspections of the work at any time and that the contractor shall grant them access to all parts of the work.

9.4.1.1.10 Wage Rates (RsMO 290.263) - A statement is required in the Bid Proposal indicating that when state and federal wage rates are both required the higher of the two for each job classification should be used.

9.4.1.1.10.1 Federal Wage Rates (23 USC 113 and 29 CFR 5) - The payment of predetermined minimum wages on federal-aid contracts is derived from the Davis-Bacon Act of 1931 and is prescribed by 23 USC 113. These wage rates must be physically inserted in the Bid Proposal on all federal-aid highway construction projects exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempted and state wage rates will be used. Note: federal wage rates are applicable on all Safe Routes to School projects even if they are located on local roads or rural minor collectors.

The federal minimum wage rates are available directly from Department of Labor Home Page under www.gpo.gov/davisbacon. Click on "Browse all determination by State" then click on "Missouri". For LPA's in Missouri to be in conformance with the federal "10-day rule," LPA's are to access the "Federal Wage Rates" ten days prior to bid opening to see if updated federal wage rates have been posted. If the updated wage rates have been posted, LPA's are required to issue an addendum to insert the updated wage rates in their final contract package.

Federal wage rates are not required to be physically included in the contract advertising package provided they are referenced to an Internet web site address where they can be found or they can be posted at a referenced location that is readily accessible by all bidders. The final contract package signed by the LPA and the contractor must physically contain the federal wage rates, including updates if applicable.

9.4.1.1.10.2 State Wage Rates (8 CSR 30-3) - The LPA must request an Annual State Wage Determination for each contract from the [Industrial Commission, Missouri Department of Labor and Industrial Relations](#) (DOLIR), Box 449, Jefferson City, Missouri 65102 or by calling (573) 751-3403. The LPA will receive a password from the Missouri DOLIR which is required to access the official Annual Wage Order and incremental increases on the **Missouri**

DOLIR webpage <<http://labor.mo.gov/>>. Contracts must be awarded within one year of the issuance of the official Annual Wage Order or the LPA will be required to request a new Annual Wage Order determination. **The Annual Wage Order must be included in the proposal and must be part of the contract.**

9.4.1.1.11 E-Verify Affidavit & MOU (RsMO 285.530) - The bid proposal must state that requirements regarding the Federal Work Authorization Program and list the Federal website for E-Verify. The bid proposal must state that the E-verify affidavit and MOU must be submitted with each bid.

9.4.1.1.12 OSHA 10-Hour Training (RsMO 292.675) -The bid proposal must state that the bidders must adhere to the OSHA 10-Hour Training requirements.

9.4.1.1.13 Buy America (23 CFR 635.410) - On all federal-aid construction projects, **23 CFR 635.410** requires that steel and iron used be made in the United States. The “Buy America” provision is applicable to all steel and iron materials, except as noted below, regardless of the percentage of steel in the manufactured product. All manufacturing processes involved in steel or iron products must occur within the United States. These processes include rolling, extruding, machining, bending, grinding, drilling, coating, welding and smelting. Domestically produced steel billets or iron ingots shipped overseas for any process and returned to the United States do not conform to this requirement.

Buy America provisions do not apply to:

- Minimal use of all foreign material in which the total delivery cost to the project site is less than \$2500 or 0.1 percent of the contract amount, whichever is greater.
- Raw materials; scrap temporary steel items such as sheet piling, bridges, steel scaffolding and false work.
- Materials that remain in place at the contractor’s convenience such as sheet piling and forms.
- Pig iron manufactured outside the United States. An LPA shall not list an ineligible iron or steel product as “nonparticipating” in order to circumvent the Buy America requirements.

A waiver of the Buy America requirements by the FHWA Division Administrator is permitted for specific projects, specific products, specific geographical areas or combinations if:

- Buy America is inconsistent with the public interest, or
- There is not a sufficient supply of domestic materials of satisfactory quality. Approval for waiver of Buy America requirements must be obtained from FHWA.

Buy America should not be confused with *Buy American*.

9.4.1.1.14 Contractor Requirements

9.4.1.1.14.1 Work completed by the Prime Contractor (23 CFR 635.116) -

The bid proposal shall stipulate that the prime contractor on a project must perform, with its own staff, contract work amounting to not less than 30% of the total original contract price.

The bid proposal shall also stipulate that second-tier subcontracting will not be permitted on the project. The bid proposal must state that it will be the responsibility of the contractor to ensure that subcontractors do not subcontract any portion of the work.

9.4.1.1.14.2 Pre-qualification of Prime Contractors - Prequalification of contractors may be required as a condition of submission of a bid or award of contract only if the period between the date of issuing a request for bids and the date of opening of bids affords sufficient time to enable a bidder to obtain the required prequalification rating or approval. All prequalification criteria must be submitted to MoDOT for approval in advance of the date of issuing a request for bids. The intent of the pre-qualification of contractors is not to intentionally disqualify contractor but to qualify contractors based on a set criteria.

Depending upon the project type and the LPA's preference, one of the following scenarios will apply to a project:

- LPA shall require MoDOT Pre-Qualification
- LPA shall waive MoDOT Pre-Qualification and use no pre-qualification requirement
- LPA shall waive MoDOT Pre-Qualification and use their own pre-qualification process i.e. LPA pre-qualification

9.4.1.1.14.2.1 Required MoDOT Pre-qualification - In accordance with [Section 102.2 of the Missouri Standard Specifications for Highway Construction](#), a prime

contractor must have a fully responsive contractor questionnaire on file with the Missouri Highways and Transportation Commission (MHTC) at least seven (7) days prior to the bid opening date if this project involves roadway or bridge work. To get on the approved contractor listing prior to letting, [click here](#). A statement regarding this pre-qualification of a prime contractor must be included in the bid proposal. For projects involving a roadway or bridge construction, the MoDOT pre-qualification process is required unless the LPA has their own pre-qualification process that had been approved by MoDOT in advance of the project being advertised for bids. For LPA pre-qualification see EPG 136.9.4.1.1.14.2.3.

9.4.1.1.14.2.2 Waiving MoDOT Pre-qualification - If the LPA elects to waive MoDOT's prequalification process, the following sentence must be inserted into the bid proposal in order to allow contractors not on the listing to submit a bid for the project. "[Sec 102.2 of the Missouri Standard Specifications for Highway Construction](#) will be waived for this project." This statement may only be used on proposed improvements that do not contain roadway or bridge construction (i.e., landscaping, sidewalks, bicycle path, etc.). If this waiver is not inserted in the contract of projects referencing MoDOT Specifications and the bidder is not on MoDOT's listing, the bidder cannot be awarded the project.

9.4.1.1.14.2.3 LPA Pre-qualification - It is possible a LPA may wish to use a pre-qualification other than MoDOT's for proposed improvements. A statement regarding the pre-qualification of a prime contractor must be included in the bid advertisement. The statement should include information for how the contractor can become pre-qualified or indicate where the information can be found. The LPA pre-qualification process must be approved by MoDOT prior to the advertisement for bids for the project.

9.4.1.1.15 Disadvantaged Business Enterprise (DBE) (49 CFR Part 26) - All federal-aid projects are subject to the legislative and regulatory DBE requirements in order to ensure that DBE firms have an opportunity to participate in federally funded projects.

The Disadvantaged Business Enterprise (DBE) Contract Provisions are found in [Fig 136.9.8](#). All bidding documents must refer to [49 CFR Part 26](#). For each project, the LPA shall submit a request to the MoDOT district representative to establish a DBE goal. The bid proposal shall require that upon letting the project, the DBE submittal forms ([Fig 136.9.9](#)) must be completed and submitted with the bid proposal or delivered by the low and second low bidder within three working days after the bid opening date.

Any provision setting a DBE/MBE/WBE goal cannot be allowed unless that program meets the requirements of [49 CFR Part 26](#). Specifically, Part 26 does not permit separate goals for minorities and females without a specific authorization and waiver. Therefore, no project funded by federal money, whether administered by MoDOT or any other entity receiving federal funds, can contain an MBE or WBE goal, even if mandated by city ordinance. Any project submitted with such a goal will not be approved for federal funds.

9.4.1.1.16 On the Job Training (OJT) (23 CFR Section 230) - The intent of the OJT program, based on [23 CFR Section 230](#), is to recruit entry-level individuals and provide them with meaningful training with the intent of leading to journey-level employment. It is the policy of the program to require full use of all available training and skill-improvement opportunities to assure the increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. A request to establish an OJT goal must be submitted to the [MoDOT District Contact](#) for all projects.

When a project receives a goal, the training special provisions (TSP) shall be included in the bid proposal. The TSP may be obtained at: [\(keith leave this one as an actual link\)](#)
http://www.modot.mo.gov/business/contractor_resources/External_Civil_Rights/jobtraining.htm

For further information and guidance about the OJT program and the submittal forms, you may access [the ECR website](#) <
<http://contribute.modot.mo.gov/ecr/index.htm>> or call (573) 751-1216.

9.4.1.1.17 Acknowledgement of Addenda (23 CFR 635.112) - The bid proposal shall require the acknowledgement and the incorporation of all addenda issued for the project. Failure of the contractor to do so shall make the bid nonresponsive and not eligible for award consideration. Verification that bidders received and incorporated any/all addenda issued for the project must be evident in the submitted bidding documents.

9.4.1.1.18 Other submittals required by the LPA - Federal regulations state that any requirement the bidder must comply with to be considered responsive shall be clearly identified in the bidding documents (Title 23 CFR, Sections 635.112). Should the LPA choose to require any additional documentation as a condition of responsiveness, the requirement should be pre-approved by MoDOT and then noted in the bidding documents. Per Title 23 & 29 CFR federal-aid contracts cannot include any provisions that do not meet federal law.

9.4.1.1.19 Award Language (23 CFR 635.114(a)) - Federal-aid contracts must be awarded based on the lowest responsible and responsive bid. Responsible is determined prior to award and therefore is referred to as pre-qualified. Responsive means that a bidder has submitted all required documents as outlined in the bid proposal. See **EPG 136.10** for more information on awarding a contract. If using innovative contracting such as add alternates, the bid proposal must have award language stating how the alternates will be considered and how the job will be awarded. See **EPG 136.7.5** for more information on innovative contracting.

9.4.1.1.20 Itemized Bid Form -The bid proposal must include an itemized listing of all pay items included in the project, quantities of each individual pay item and blanks for the contractor to submit a unit price (and extension) for each pay item. **Fig 136.9.10** is an example of a completed itemized bid form.

9.4.1.1.21 Form FHWA 1273 - Required Federal Contract Provisions - (23 CFR 633) Form FHWA 1273 (**Fig 136.9.7**) is a package of federally required contract provisions that must be physically included as special provisions for all federal-aid projects. These provisions may not be incorporated by reference.

The provisions apply to all work performed on the contract including work performed by subcontract. The *Form FHWA 1273 is required to be physically incorporated into each contract and subcontract*. Failure of the LPA to incorporate the Form FHWA 1273 in the contract shall make the construction phase of the project ineligible for federal reimbursement.

9.4.1.1.22 Changed Condition Clauses - Standardized changed condition clauses are required to be included in all contracts. The Missouri Standard Specifications and the *Standard Specifications for Public Works Construction (Green Book)* contain standard changed condition clauses. If a LPA chooses to use a different standard specifications book other than MoDOT's, the federal regulations shall still apply. **(Reference cfr)**

This regulation requires the use of three different clauses:

9.4.1.1.22.1 Differing Site Conditions Clause -This clause provides for the adjustment of the contract terms if the contractor encounters:

- Subsurface or latent physical conditions that differ materially from those indicated in the contract, or
- Unknown physical conditions of an unusual nature that differ materially from those ordinarily encountered and generally recognized as inherent to the work

9.4.1.1.22.2 Suspensions of Work Ordered by the Engineer - This clause provides for the adjustment of the contract terms if the performance of all or a portion of the work is suspended or delayed by the engineer of record for the LPA, in writing, for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry). The contractor is required to submit a request for adjustment, in writing, to the engineer of record for the LPA within 7 calendar days of receipt of the notice to resume work. Recovery of profit on costs resulting from suspensions of work is not allowed.

This clause does not preclude the recognition of construction suspensions or delays resulting from the contracting agency's actions, without written notification. The LPA's may address constructive delays and suspensions, as they chose, in their standard specifications and contract administration procedures.

Suspensions must be for unreasonable periods and do not include brief, customary suspensions for reasons inherent to highway construction (i.e., material sampling and testing; approval of shop drawings, material sources, etc.; and other reasonable and customary suspensions necessary for the supervision of construction by the contracting agency). In addition, an adjustment under this clause is not allowed if the work is suspended for other reasons or if an adjustment is provided for, or excluded, under other terms or conditions of the contract.

9.4.1.1.22.3 Material Changes in the Scope of the Work - This clause provides for the adjustment of the contract terms if the engineer of record for the LPA orders, in writing, an alteration in the work or in the quantities that significantly change the character of work. The term "significant change" shall apply only to the following circumstances:

- The altered character of the work differs materially from that of the original contract, or
- A major item of work, as defined in the contract, is increased or decreased by more than 25 percent of the original contract quantity (adjustments shall apply only to that portion in excess of 125 percent of original contract quantity, or in case of a decrease, to the actual quantity performed)

This clause provides for adjustments resulting from formal change orders by the engineer of record for the LPA, in writing, to the extent that the impacted work is part of the contract. Either party may initiate an adjustment and both must be in agreement before the work is performed. As with the suspension of work provision, this clause does not preclude the recognition of construction suspensions or delays.

9.4.1.2 Bid Proposal – Restricted Provisions - In accordance with Title 23 CFR, Section 635.112, nondiscriminatory bidding procedures shall be afforded to all qualified bidders regardless of National, State or local boundaries and without regard to race, color, religion, sex, national origin, age, or handicap. If any provisions of State laws, specifications, regulations, or policies may operate in any manner contrary to Federal requirements, including Title VI of the Civil Rights Act of 1964, to prevent submission of a bid, or prohibit consideration of a bid submitted by any responsible bidder appropriately qualified in accordance with §635.110, such provisions shall not be applicable to Federal-aid projects.

Care should be taken to ensure that the Bid Proposal do not contain any of the restricted provisions listed below.

9.4.1.2.1 Retainage (RSMO 34.057) - Retainage of contractor payment is not allowed to be automatically applied to projects as a matter of course and shall not be included in the bid proposal. However, the PS&E can state that in accordance with the Missouri Prompt Pay Act (34.057 RSMo), the owner may withhold payment for any of the following reasons, or as determined by the engineer.

- liquidated damages
- unsatisfactory job progress
- defective construction work or material not remedied
- disputed work
- failure to comply with any material provision of the contract
- third party claims filed or reasonable evidence that a claim will be filed
- failure to make timely payments for labor, equipment or materials
- damage to a contractor, subcontractor or material supplier

- reasonable evidence that a subcontractor or material supplier cannot be fully compensated under its contract with the contractor for the unpaid balance of the contract sum
- citation by the enforcing authority for acts of the contractor or subcontractor which do not comply with any material provision of the contract and which result in a violation of any federal, state or local law, regulation or ordinance applicable to that project causing additional costs or damages to the owner.

9.4.1.2.2 Warranties (23 CFR 635.413) -The LPA may include warranty provisions in construction contracts in accordance with the following:

1. Warranty provisions shall be for a specific construction product or feature. Items of maintenance not eligible for federal participation shall not be covered.
2. All warranty requirements and subsequent revisions shall be submitted to MoDOT for advance approval.
3. No warranty requirement shall be approved which in the judgment of MoDOT, may place an undue obligation on the contractor for items over which the contractor has no control.

Routine warranties or guarantees provided by a manufacturer are valid. Contractors' warranties or guarantees providing for satisfactory in-service operation of mechanical and electrical equipment and related components for a period not to exceed 6 months following project acceptance are permissible.

9.4.1.2.3 Professional Licensure, Certification, Business Licensure and Work Permits -Any permitting or licensing criteria for contractors, subcontractors, and suppliers must be submitted to MoDOT for advanced approval. MoDOT must review all submissions for approval. Permitting and licensing criteria that unduly restrict or limit any firm's ability to bid on and receive award of federal-aid projects will not be approved. If modifications are made to an approved permitting and licensing criteria, the revised criteria must be resubmitted for approval prior to use.

9.4.1.2.4 Bidder Qualification Language - All qualifying or other criteria to determine the responsibility of contractors, subcontractors, and suppliers must be submitted to MoDOT for advanced approval. Therefore, the notice to bidders (i.e. the bid advertisement) should contain the pre-qualification requirements, not the bid proposal itself. The bidder qualification language can reside in the bid proposal as long as the bidders are informed PRIOR to bid opening in the notice to contractors. In short, the pre-qualification language can be in both the notice/advertisement and the bid proposal but the language is

required to be in the notice and is optional for the bid proposal. See [EPG 136.9.4.1.1.14.2](#) for pre-qualification information.

9.4.1.2.5 Project Labor Agreements (CFR reference) - A Project Labor Agreement (PLA), also called a union agreement, is a contract between labor unions, contractors and governmental agencies. Presidential Executive Order 13202 (signed February 17, 2001) was issued to limit executive branch agencies from using PLAs. Essentially, executive agencies may not require or prohibit contractors to enter into PLAs. Agencies also may not discriminate against contractors based on PLAs. In addition, despite the limits on executive agencies, contractors are not barred from freely agreeing to PLAs.

Executive Order 13202 was amended to settle concerns about existing PLAs on projects with multiple contracts. Amendments in Executive Order 13208 allow an agency to request an exemption to the use of PLAs, only if the PLA was in effect before February 17, 2001.

Requests for exemption must be written and must include the PLA, specific bid information, and the reason why the agency believes the exemption should be granted. PLAs are allowed only if the FHWA Administrator exempts a project. Requests for exemption should be referred to [MoDOT's district contact](#).

Executive Orders 13202 and 13208 are available online at the following website:

www.whitehouse.gov/news/releases/2001/02/20010221.html

www.whitehouse.gov/news/releases/2001/04/20010406-1.html

9.4.1.2.6 LPA Preferences (CFR reference) - On all federally funded construction projects, materials produced within the state or local area shall not be favored over comparable materials produced outside of the state or local area. Also, in-state material sources cannot be given preference over foreign materials or actions taken against materials of foreign origin unless permitted by federal law. State or local preference provisions are not allowed on federally funded project contracts.

9.4.1.2.7 Contract Documents Involving Proprietary Products or System (23 CFR 635.411) - Generally, on federal aid projects, the use of trade names in plans and specifications is not allowed except as outlined in [EPG 136.7.8](#). The practice of specifying proprietary products or systems is only acceptable if it can be assured that three or more companies can provide an acceptable product. See [EPG 136.7.8](#) and [EPG 136.9.2.6](#) for more information.

9.4.1.2.8 Signing Restriction (CFR reference) - The FHWA Division Administrator has determined that the PS&E provide for the erection of only those information signs and traffic control devices that conform to the

standards developed by the Secretary of Transportation or mandates of Federal law and shall not include promotional or other informational signs regarding such matters as identification of public officials, contractors, organizational affiliations, and related logos and symbols. The FHWA Division Administrator has determined that, where applicable, provisions shall be included in the PS&E that require the erection of funding source signs, for the life of the construction project, in accordance with section 154 of the Surface Transportation and Uniform Relocation Assistance Act of 1987.

9.4.1.2.9 Employ Missouri (RsMO 290.570) -A provision stating that when employment is greater than 5% then the entity must employ Missouri citizens can only be used on State Funded projects.

9.4.2 Specifications - For information on specification requirements, see **EPG 136.7.3**. The Bid Proposal **must** contain all specifications requirements and job special provisions.

9.4.2.1 Standard Specifications - The bid proposal must clearly indicate the standard specifications which are in effect. In addition, if more than one is referenced, the order of precedence must be stipulated. For more information on what Standard Specifications are acceptable on a federally funded project, see **EPG 136.7.3**.

9.4.2.2 Job Special Provisions - All Job Special Provisions (JSP's) must be included in the Bid Proposal. For more information on required JSP's see **EPG 136.7.3**.

9.4.3 Standard Plans - The bid proposal must clearly indicate that standard plans which are in effect. In addition, if more than one is referenced, the order of precedence must be stipulated. For more information on what standard plans are acceptable on a federally funded project, see **EPG 136.7.3**.

9.5 Estimate

An engineer's estimate, showing estimated quantities, unit prices and extended totals shall be submitted to MoDOT with the detailed plans prior to bid opening. The engineer's estimate should be treated as a confidential document. Any knowledge of the estimate may cause unbalanced bids or provide a contractor who has knowledge of the engineer's estimate an advantage.

