**EPG 136 Local Public Agency (LPA) Policy**

[](http://epg.modot.org/files/0/0c/136_2010.jpg)

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# **EPG 136.1 General**

**From Engineering Policy Guide**

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**From Engineering Policy Guide**

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The Local Public Agency Policy, produced by the Missouri Department of Transportation (MoDOT) is intended to be used as a guide for cities and counties that sponsor projects utilizing federal transportation funds provided under the current transportation bill, the [Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)](http://www.fhwa.dot.gov/safetealu/index.htm). A summary of typical federal aid procedures and a flow chart illustrating the procedures are available.

This policy addresses five local programs that are funded under the current transportation act:

**1.** [Highway Bridge Program (HBP)](http://epg.modot.org/index.php?title=136.1_General#136.1.6.1_Highway_Bridge_Program)

Off-System Bridge Replacement and Rehabilitation Program (BRO)

On-System Bridge Replacement and Rehabilitation Program (BRM)

**2.** [Surface Transportation Program (STP) - Urban](http://epg.modot.org/index.php?title=136.1_General#136.1.6.2_STP-Urban)

STP Urban Attributable:

STP Urban Non-Attributable:

**3.** [Surface Transportation Program (STP) - Enhancement](http://epg.modot.org/index.php?title=136.1_General#136.1.6.3_STP-Enhancement)

**4.** [Congestion Mitigation and Air Quality (CMAQ)](http://epg.modot.org/index.php?title=136.1_General#136.1.6.4_Congestion_Mitigation_and_Air_Quality_.28CMAQ.29)

**5.** [Safe Routes to School (SRTS)](http://epg.modot.org/index.php?title=136.1_General#136.1.6.5_Safe_Routes_to_School_.28SRTS.29)

[Title 23](http://www.fhwa.dot.gov/legsregs/directives/cfr23toc.htm), as amended by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) requires MoDOT to administer all funds apportioned and allocated to the state under this Transportation bill. SAFETEA-LU directs that certain percentages of funding categories within the state’s apportionment must be sub-allocated towards the Off-System Bridge Replacement and Rehabilitation Program (BRO), the STP-Urban Attributable Program, the STP-Enhancement Program, the Congestion Mitigation and Air Quality Program and Safe Routes To School.

For projects administered by local officials, the state will furnish information concerning the necessary federal requirements and will act as coordinator. The necessary design, acquisition, environmental, historical and archaeological clearances and approvals, construction and maintenance of improvements will be the responsibility of the local agency. A [MoDOT district representative](http://www.modot.mo.gov/) will be the primary contact, furnish the necessary guidelines and coordinate the necessary reviews and approvals. MoDOT personnel will advise and assist the local agency in meeting the requirements of the program. Additional information regarding federal requirements is available through the MoDOT district representative.

Projects are performed under the terms of an agreement with MoDOT (refer to [EPG 136.5 Agreements](http://epg.modot.org/index.php?title=136.5_Agreements)). Work on any part of the project cannot proceed until the local agency has been notified by MoDOT and federal funding has been approved (obligated) by the [Federal Highway Administration (FHWA)](http://www.fhwa.dot.gov/).

The federal-aid transportation program operates on a reimbursement basis as work progresses. It is a federal reimbursement program in which the local agency is reimbursed minus its matching percentage after MoDOT receives proper proof of payment by the local agency to the contractor for work performed.

Federal law requires that each project be administered as a traditional federally funded highway project as described in this policy. **No work is to be initiated on any part of the project until federal funding has been approved (obligated) by FHWA and the local agency has been notified by MoDOT to proceed.** If funds are approved, they will be distributed through the local agency sponsoring the project. If a project is not completed, the local agency sponsoring the project will be required to repay to MoDOT, the sum of federal funds reimbursed to date. The local agency will be responsible for cost overruns.

Items eligible for federal participation include preliminary engineering, surveys, public hearings, environmental and historical documentation, right of way, advertising costs, construction, construction engineering, beautification, traffic control devices, and those portions of utility relocation costs for which the local agency is responsible. Incidental costs will not be eligible for federal reimbursement. No work is to be initiated on any part of the project until federal funding has been approved (obligated) by FHWA and the local agency has been notified by MoDOT to proceed.

Regardless of whether federal funds are available at the time of acquisition, local agencies are strongly encouraged to comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, (Uniform Act) of the Code of Federal Regulations when acquiring realty rights (right of way), easement access, or other real property. When a local agency project uses federal funds on any portion of the project, all realty rights must be acquired in accordance with the Uniform Act. If the realty rights were acquired more than 5 years prior to the first request for federal funds, the local agency shall submit a statement certifying that no new realty rights are needed and the dates the existing realty rights were acquired. If the realty rights were acquired less than 5 years prior to the first request for federal funds, the acquisition must have occurred within the parameters of the Uniform Act in order for any portion of the project to received federal funds.

**136.1.1 Funds Management Policy**

**On-System Bridge Replacement and Rehabilitation Program (BRM)**

On-System Bridge Replacement and Rehabilitation Program (BRM) fund balances in excess of three years of annual allocations for Transportation Management Areas (TMAs) will lapse on September 30, 2009, and on September 30th of each year thereafter. Transportation improvements within the TMA will use the lapsed funds.

**Surface Transportation Program (STP) Urban – Attributable**

Surface Transportation Program (STP) Urban – Attributable fund balances in excess of three years of annual allocations for Transportation Management Areas (TMAs) will lapse on September 30, 2009, and on September 30th of each year thereafter. Transportation improvements within the TMA will use the lapsed funds.

**Surface Transportation Program (STP) Urban – Non-Attributable**

Surface Transportation Program (STP) Urban – Non-Attributable fund balances in excess of six years of annual allocations for cities with an urban cluster population between 5,000 and 200,000 will lapse on September 30, 2009, and on September 30th of each year thereafter. Transportation improvements throughout the state will use the lapsed funds.

**136.1.2 Reasonable Progress Policy**

This policy ensures the State of Missouri is getting the maximum benefit of its federal transportation funds. The policy has two objectives: (1) ensure that federal funds will be programmed for a project within one year of the funds being allocated by MoDOT; (2) ensure that once a project is programmed, it will be constructed.

TMAs with a Reasonable Progress Policy in place will be exempt from MoDOT’s Reasonable Progress Policy. However, the TMAs federal fiscal year ending balance will not be allowed to exceed a total of three years of allocation for that TMA. Any funds over the three-year allocation will be reprogrammed in the TMA area at the discretion of MoDOT and the TMA.

**136.1.2.1 Procedures**

The time frames shown represent maximum expected times for implementation approvals and concurrences; schedules will vary depending on project type. Actual progress towards implementation will be measured against the schedule submitted by the entity.

|  |  |  |  |
| --- | --- | --- | --- |
| **Project Development/Implementation Schedule** | | | |
| **Phase** | | **Maximum Cumulative Time Frame** | **Funds Obligated?** |
| 1 | Allocation of Funds | 0 months | No |
| 2 | Project Programming1 | 3 months | No |
| 3 | Engineering Services Contract Approval | 6 months | Yes |
| 4 | Preliminary and Right of Way Plans Submittal (if applicable) | 12 months | Yes |
| 5 | Plans, Specifications & Estimate (PS & E) Submittal | 18 months | No |
| 6 | Plans, Specifications & Estimate (PS & E) Approval | 20 months | Yes |
| 7 | Construction Contract Award | 23 months | Modified |
| 8 | Final Certification/Project Closeout2 | Variable | Modified  (as needed) |
| 1 The completion of the Project Programming phase is defined by submitting the approved project’s programming data form to MoDOT and the project receiving a federal project number from MoDOT. | | | |
| 2 The time lapse between construction contract award and project closeout will depend on project type. Final certifications as discussed in [EPG 136.9 Final Design](http://epg.modot.org/index.php?title=136.9_Final_Design) must be submitted to the appropriate MoDOT district representative 60 days after final inspection. | | | |

**136.1.2.2 Verification of Reasonable Progress**

For all federal-aid funds, “reasonable progress” shall have been made if a project has been programmed within one year of funding allocation. Verifiable steps toward achieving reasonable progress shall include submittal of all required documents to the appropriate MoDOT district office, entering into an Engineering Services Contract (if retaining outside engineering services) and initiation of the development of preliminary plans.

The development of right of way, utility, and railroad plans, if required, should be concurrent with preliminary plan development. The authorization to proceed with right of way negotiations should begin once MoDOT approves right of way plans. The award of the construction contract should occur no later than one year after the plans, specifications and estimate approval.

**136.1.2.3 Policy Enforcement**

If the allocated federal funds are not programmed for a specific project within one year, MoDOT will request information from the MPO or entity as to the planned use of the allocated funds. The MPO or entity will be required to provide a written explanation within 30 days of the notification as to the status of funds and a time line for their use. If adequate information is not received, MoDOT will pull the allocated funds from the entity and redistribute at the department’s discretion.

If a project falls six months behind schedule at any point in its development, without a written explanation provided by the entity and approved by MoDOT, the entity and/or MPO will be contacted by MoDOT requesting information as to the cause of the delays. A letter will notify the entity of the schedule lapse and the possible implications of further delays. The entity and/or MPO will be required to reply in writing within 30 days of the letter date as to the project status and provide a revised timeline for the project. The entity will be allowed to reschedule a project one time after MoDOT has programmed a project. Any shifts in subsequent phases of a project caused by that rescheduling (if identified at the time of the rescheduling) will not be considered a separate change.

If a project falls one year behind the Project Development/Implementation Schedule at any phase, MoDOT will notify the entity and/or MPO of the schedule lapse by letter. The notification will serve as a final notice, giving the entity an opportunity to respond to the situation before MoDOT takes action. Information about the project will be submitted to MoDOT within 30 days of the letter date. The information will include:

1. Project status,

2. Current phase of project implementation, and

3. Funds obligated and spent on the project.

Actions taken by MoDOT may include removal of the project, which, per federal requirements, would require the entity to repay any federal funds spent on the project. The MPO and MoDOT will make the ultimate decision regarding the disposition of each project.

It is not the responsibility of MoDOT to keep the entity informed as to the status of the project. The entity will keep MoDOT informed as to any delays and/or unforeseen conditions that may hinder the project’s progress. Failure to provide the required documentation will cause the project to be withdrawn and the funds redistributed at the discretion of MoDOT or the MPO. Federal regulations require the entity to repay any federal funds spent on a cancelled project. The project sponsor would be required to repay these funds prior to the programming of any future projects. In addition, project sponsors failing to fulfill the obligations as stated in the contract agreement or showing reasonable progress for any project will not be allowed to request future project funds for a minimum period of one year, and then only with the approval of MoDOT.

**136.1.3 Federally Funded Bridge Projects**

The design philosophy for federally funded bridge projects is to promote the use of good engineering judgment based on project specific site conditions. Although there is an expectation that applicable national codes and design guidelines will generally be followed this does not mean it is necessary to rigidly follow the “design standard” philosophy (for example, one size fits all) in order for a project to be eligible. MoDOT’s programs are designed to allow the local agency and their engineer the flexibility to build a safe and economical project that meets the needs and desires of the local agency and general public to maximize limited funding and resources.

In keeping with this program philosophy, the engineer of record will be considered responsible for determining the appropriate design parameters chosen for the project based on the specific site conditions, local agency needs and guidance provided in [EPG 136.8 Preliminary Design](http://epg.modot.org/index.php?title=136.8_Preliminary_Design). This will provide the engineer and local agency with the greatest flexibility in investigating possible design alternatives in order to optimize the available funds for these bridge projects and to build what is needed at the project site. Documentation of all design decisions made for the project is expected to be kept by the local agency and made available for viewing by MoDOT district personnel or FHWA upon request.

To promote an efficient delivery of local bridge projects, MoDOT will concentrate oversight efforts pertaining to the bridge structure for these projects to the PS&E submittals stage. All deliverables at the PS&E stage are expected to be complete and in a “ready to let” status since a professional engineer registered to practice engineering in the state of Missouri is required to sign and seal the documents. With this in mind, MoDOT does not typically act as a “checker” of the details for these submittals as the accuracy and completeness are assumed to be the responsibility of the professional engineer. Also, it typically will not be MoDOT’s practice to independently evaluate or verify the appropriateness of the proposed design parameters chosen for these projects by the engineer of record. MoDOT’s role is to perform a broad quality assurance overview to make sure all “deliverables” are received as described in [EPG 136 Local Public Agency (LPA) Policy](http://epg.modot.org/index.php?title=Category:136_Local_Public_Agency_%28LPA%29_Policy) and as necessary to add the bridge to the National Bridge Inventory database.

In addition to the requirements and expectations discussed above and elsewhere in this policy, the engineer of record will be responsible for verifying that the intent of the MoDOT’s federal bridge programs has been met for bridge rehabilitation and replacement projects. By signing and sealing the PS&E submittals, the engineer of record will be representing to MoDOT that the four criteria given below have been met.

MoDOT’s intent for the federal bridge programs for rehabilitation and replacement projects:

**1.** Proposed project is safer than the existing site conditions and all safety issues have been adequately addressed or mitigated.

**2.** Proposed bridge project will remove or will not create any deficiencies of the National Bridge Inventory items based on the Federal Highway Administration’s “Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation’s Bridges”. It has been noted that the engineer of record is expected to determine the design parameters based on site conditions and local agency needs. If this results in a deficient item, the engineer is required to provide documentation to justify the proposed parameter and, if applicable, MoDOT will forward to FHWA for their approval. This information should be submitted in the early stages of the project so that any necessary approval is attained to avoid the potential of delays or any unnecessary engineering work. Refer to [EPG 136.8 Preliminary Design](http://epg.modot.org/index.php?title=136.8_Preliminary_Design) for details and descriptions regarding the deficient items. However, removal of all deficiencies may not be applicable for STP projects. For STP projects, the engineer of record should verify based on the latest federal legislation.

**3.** The longevity or “bridge life” of a bridge project can reasonably be expected to last a minimum of 25 years before development of any significant deficiencies.

**4.** The project will be in compliance with all applicable federal, state, and local laws and regulations.

**136.1.4 Inventory**

MoDOT is required to submit an annual inventory of all bridges and all federal-aid highway systems in the state to FHWA. Failure to complete the requirements of inventory and inspection by a local agency will jeopardize their eligibility to participate in the funding programs within this policy.

**136.1.4.1 Bridge Inventory and Inspection**

FHWA requires all bridges on public roads to be inventoried and inspected in accordance with the National Bridge Inspection Standards. The FHWA holds MoDOT responsible for collecting the inventory data. The local agency's inventory and inspections shall be in accordance with the MoDOT's current publication, [EPG 753 Bridge Inspection Rating](http://epg.modot.org/index.php?title=Category:753_Bridge_Inspection_Rating).

**136.1.4.2 Roadway Inventory**

MoDOT will request the necessary information from the local agency for all federal-aid routes under their jurisdiction. Information requested includes mileage by surface type, surface width, number of lanes and traffic volume category. The information should include the submission of a system map (two copies) along with comments on the system from an area wide planning agency. If the local agency population is more than 50,000, the local agency is required to submit three copies.

**136.1.5 Utilities**

The local agency should, in the programming phase, identify existing utility locations and determine if any adjustments will be required with the proposed improvement. This determination can be made by visually examining the existing utility facilities within the limits or by calling Dig Rite (800 DIG-RITE) or directly calling the utility company to have the utilities located. This step is necessary to determine what impact utility relocations might have on local funding. Should the type of relocation qualify for federal participation, the local agency may include these estimated costs in the [Programming Data Form](http://epg.modot.org/files/5/5c/136.3.1.1_Programming_Data_Form_%28Fig._3-1-1R%29.doc) (Fig. 3-1-1R) or on the [Transportation Enhancement Application](http://www.modot.mo.gov/business/manuals/documents/Final%20Enhancement%20Guide.pdf).

**136.1.6 Administration of Funding**

**136.1.6.1 Highway Bridge Program**

The Highway Bridge Program (HBP) has been authorized for public bridges beginning with Fiscal Year 1979. Funds are normally apportioned on or about October 1, each year. Funds are available for three years after the close of the fiscal year for which they were authorized. Unused funds may be withdrawn by MoDOT to make other arrangements for their expenditure. This is necessary in order to prevent loss of the funds through statutory lapse.

Federal funds are available to finance up to 80% of the eligible project cost, but may be increased with the use of credit earned from replacing an eligible bridge that is not on the federal-aid system. It will be necessary for the local agency to provide the necessary matching funds. The fair market value of donated right of way (after March 1987) may be credited to the local agency's matching share with the amount not to exceed the local agency's share. For further details regarding donated right of way, refer to [EPG 236.18 Local Public Agency Land Acquisition](http://epg.modot.org/index.php?title=236.18_Local_Public_Agency_Land_Acquisition) or contact the MoDOT district representative. Refer to [EPG 136.1.7 Local Match Guidelines](http://epg.modot.org/index.php?title=136.1_General#136.1.7_Local_Match_Guidelines) for additional information.

If a local agency replaces or rehabilitates an eligible bridge that is not on the federal aid system with their own funds, they may receive a credit that can be applied to the non-federal share on other federal aid bridge projects. Details are included in [EPG 136.2 Bridge Soft Match Credit Program](http://epg.modot.org/index.php?title=136.2_Bridge_Soft_Match_Credit_Program).

The HBP Program is intended for bridge rehabilitation and replacement and a minimum amount of approach roadway construction will be allowed.

The funds will be administered according to the following policies:

**1.** The current transportation bill requires that at least 15% of the state's total bridge appropriation be allocated for use on off-system bridges (BRO). The Missouri Highway and Transportation Commission approves the amount of bridge funds allocated to this program. Off-system bridges are bridges that are on roads that are functionally classified as a local road or street and rural minor collectors.

**2.** Off-System funds allocated to the counties will be based on the ratio of the replacement cost of the square footage of deficient bridge deck in the county to the replacement cost of the square footage of deficient bridge deck in all counties of the state.

**3.** Bridge funds for off-system projects may be programmed by counties for future projects. If the county does not have a sufficient balance of off-system bridge funds, they may borrow up to three years of future allocations for preliminary engineering or one year of future allocation for construction costs.

**4.** The Missouri Highway and Transportation Commission approves the amount of bridge funds allocated to the Kansas City, Springfield and St. Louis TMAs and other cities with an urban cluster population of greater than 5,000 for use on on-system bridges (BRM). On-system bridges are bridges that are on roads that are functionally classified as urban collectors, rural major collectors, and arterials. Bridge funds for cities with an urban cluster population between 5,000 and 200,000 are distributed on a selection process which is conducted annually. The amount of money programmed will be the maximum amount the city will receive. Any costs over the programmed amount will be funded with the city's allocated STP funds or with local funds.

There are two types of projects that can be evaluated to see if exceptions to these guidelines should be made. Projects will be evaluated on an individual basis to see if any exceptions are warranted.

**1. Emergency Project** When a bridge has fallen down or washed out and is essential for travel in the area, MoDOT will consider allowing the county to exceed its amount of available funds by more than the guidelines.

**2. County Receives Small Allocation** Some counties do not receive enough allocation to reasonably finance a bridge project. Some allowance will be made for these counties to exceed the guidelines so they can participate in the program.

**136.1.6.2 STP-Urban**

The STP-Urban Program has been authorized for all cities with a population of over 5,000 beginning with Fiscal Year 1974. Legislation authorizes the expenditure of federal funds for highway related construction and improvements on on-system routes and bridges that are on or off the federal aid system within the approved urban and urbanized boundaries. In MPOs designated as Transportation Management Areas (TMAs), the funds may be used for projects anywhere within the metropolitan planning area. The term "urbanized area" means an area so designated by the Bureau of Census having an urban cluster population of 50,000 or more with boundaries to be fixed by responsible state and local officials in cooperation with each other and subject to approval of the Federal Highway Administration (FHWA). Such boundaries shall as a minimum encompass the entire corporate limits of the urban area.

Funds are normally apportioned on or about October 1 each year. Funds are available for three years after the close of the fiscal year for which they were authorized. Unused funds may be withdrawn by MoDOT to make other arrangements for their expenditure. This is necessary in order to prevent loss of the funds through statutory lapse.

Funds are usually authorized by Congress for several years under a single transportation bill, but are apportioned annually for a single year to the state. Cities outside the three TMAs will be permitted to utilize funds they expect to receive for the number of years for which funds are authorized in the current transportation bill, provided statewide balances permit.

In Kansas City, Springfield and St. Louis, the distribution of funds will be determined by the TMA through coordination with the local agencies within the TMA boundary.

Federal funds are available to finance up to 80% of eligible project costs. It will be necessary for the local agency to provide the necessary matching funds. Federal funds from other federal agencies cannot be used to match STP-Urban funds, except as defined [EPG 136.1.8 Other Federal Funding Used as Match](http://epg.modot.org/index.php?title=136.1_General#136.1.8_Other_Federal_Funding_Used_as_Match).

The funds will be administered according to the following policies:

**1.** The current transportation bill specifically designates federal funds for use within the Kansas City, Springfield and St. Louis Metropolitan Areas. These funds are referred to as "attributable funds" and are allocated by MoDOT to the respective TMAs.

**2.** A share of the STP-Urban funds is allocated to cities with an urban cluster population between 5,000 and 200,000. These funds are referred to as "non-attributable funds". The Missouri Highway and Transportation Commission approves the amount of STP-Urban funds allocated to this program. These funds will be available to the various recipients on a first-ready, first-served basis with the amount available to any city being up to the total amount estimated to receive during the current Transportation bill, provided statewide balances permit.

**136.1.6.3 STP-Enhancement**

The STP-Enhancement Program offers states different options to enhance their transportation system. The current transportation bill allows all levels of government the opportunity to plan and develop intermodal transportation systems (various forms of transportation that are integrated and interconnected) tailored to their specific needs. Federal requirements concerning STP Enhancements are quite extensive. For information on the selection and programming of a Transportation Enhancement project please see [A Guide to Transportation Enhancements](http://www.modot.mo.gov/business/manuals/documents/Final%20Enhancement%20Guide.pdf). The current transportation bill requires that at least 10% of the Surface Transportation Program funds must be allocated towards transportation enhancement activities.

Transportation enhancement activities can be stand-alone projects or can be implemented as part of an on-going transportation project. In either case, the project must relate to the intermodal transportation system in terms of function, proximity, or impact. For example, an independent bike path is a functional component of the intermodal transportation system. Removal of outdoor advertising within an individual’s view of a highway is justified in light of its proximity. Retrofitting an existing highway by creating a wetland to filter runoff from the highway would qualify based on the impact of the highway in terms of water pollution.

Enhancement projects must be projects that are over and above what is considered routine construction or maintenance. Transportation enhancement funds may be used in the following categories:

**1.** Pedestrian and bicycle facilities.

**2.** Pedestrian and bicycle safety and education activities.

**3.** Acquisition of scenic easements and scenic or historic sites including historic battlefields.

**4.** Scenic or historic highway programs including the provision of tourist and welcome center facilities.

**5.** Landscaping and other scenic beautification.

**6.** Historic preservation.

**7.** Rehabilitation and operation of historic transportation buildings, structures, or facilities including historic railroad facilities and canals.

**8.** Preservation of abandoned railroad corridors including the conversion and use thereof for pedestrian or bicycle trails.

**9.** Control and removal of outdoor advertising.

**10.** Archaeological planning and research.

**11.** Mitigation of water pollution due to highway runoff or reduce vehicle-caused wildlife mortality while maintaining habitat connectivity.

**12.** Establishment of transportation museums.

Up to 80% of a transportation enhancement project can be financed with federal STP funds. The local agency is required to match the project with at least 20%. Refer to [EPG 136.1.8 Local Match Guidelines](http://epg.modot.org/index.php?title=136.1_General#136.1.8_Local_Match_Guidelines) for local match guidelines for enhancement projects.

**136.1.6.4 Congestion Mitigation and Air Quality (CMAQ)**

The CMAQ Program was created by the Intermodal Surface Transportation Equity Act of 1991 (ISTEA) to assist cities in attaining federal air quality guidelines. Legislation authorizes the expenditure of CMAQ funds on projects that have a documented emissions reduction associated with them and are available for use only in non-attainment and maintenance areas, or as determined by federal law for ozone and particulate matter pollution in the state of Missouri. Typical activities include revisions and installation of traffic signals, developing transportation management systems, public transportation facilities, and activities to encourage car pooling and van pooling.

**136.1.6.5 Safe Routes to School (SRTS)**

The federal-aid Safe Routes to School Program (SRTS) was created by SAFETEA-LU. These funds are available for infrastructure and non-infrastructure projects that benefit elementary and middle school children in grades K-8. Typical infrastructure project activities include but are not limited to construction or replacement of sidewalks and cross walks or traffic flow modifications. Non-infrastructure projects may be educational activities to teach community members the rules and regulations of biking or walking in or with traffic as well as local law enforcement monitoring around the school. More detailed program requirements and project activities are available at MoDOT's [Safe Routes to School Program (SRTS)](http://www.modot.mo.gov/Safety/SafeRoutestoSchool.htm) website.

**136.1.7 Summary of Typical Federal Aid Procedures**

**136.1.7.1 Conceptual Design**

**1.** The local agency selects project. If the project involves a bridge, the bridge must meet the criteria discussed in [EPG 136.3 Project Selection and Programming](http://epg.modot.org/index.php?title=136.3_Project_Selection_and_Programming). If local agency is in a [MPO](http://www.modot.mo.gov/plansandprojects/long-range_plan/ListofMissouriMPOs.htm), the local agency must also ensure the project is on the current TIP.

**2.** If the local agency does not have the professional staff to perform the design and environmental work, the local agency selects a consultant and negotiates a contract. Refer to [EPG 136.6 Consultant Contracts](http://epg.modot.org/index.php?title=136.6_Consultant_Contracts).

**3.** The local agency submits to MoDOT programming information on the selected project to include the Programming Data form and project location map.

**4.** MoDOT will review the consultant contract and verify the eligibility of the project.

**5.** MoDOT will notify the local agency that the project is eligible and if an environmental document is required.

**6.** The MoDOT district office will coordinate with the local agency the completion of a local agency/MHTC agreement.

**7.** MoDOT requests federal funding for project. Upon approval by FHWA, MoDOT authorizes the local agency to begin preliminary engineering.

**8.** The local agency prepares the environmental document as directed in Step 5, above, and discussed in detail in [EPG 136.4 Environmental and Cultural Requirements](http://epg.modot.org/index.php?title=136.4_Environmental_and_Cultural_Requirements). The local agency is responsible for compliance with all applicable federal and state environmental laws and regulations; EPG 136.4 Environmental and Cultural Requirements contains guidance to aid the local agency in achieving such compliance.

**No work is to be initiated on any part of the project until federal funding has been approved (obligated) by FHWA and the local agency has been notified by MoDOT to proceed.**

**136.1.7.2 Preliminary and Final Design**

**9.** The local agency prepares preliminary plans for MoDOT district review. The local agency prepares right of way plans for certification and review by MoDOT. Local agency requests right of way purchasing authorization prior to acquisition. Purchases made prior to authorization approval by FHWA will not be eligible for federal participation. Submittal of preliminary bridge plans, hydraulic studies, etc. to MoDOT's [Bridge division](http://wwwi/intranet/br/default.htm) is not necessary. However, if the engineer or local agency has specific questions regarding bridge project eligibility that they would like MoDOT to address at the preliminary stage then MoDOT's Bridge division is receptive to this information. Specific questions should be provided by the engineer or local agency in writing on their cover letter with the submitted package to the MoDOT district office.

**10.** The local agency coordinates with local utilities to relocate as required. If federal funds are to be used to complete utility adjustments, local agency should submit utility agreement to MoDOT.

**11.** The local agency acquires necessary right of way for project and requests right of way clearance through MoDOT in accordance with [EPG 236.18 Local Public Agency Land Acquisition](http://epg.modot.org/index.php?title=236.18_Local_Public_Agency_Land_Acquisition).

**12.** Local agency submits plans, specifications, and estimates (PS&E) to MoDOT for review. Submittals must include all commitments identified in environmental documents. Once PS&E documents have been reviewed and modifications completed, MoDOT will request obligation of funds from FHWA.

**No work is to be initiated on any part of the project until federal funding has been approved (obligated) by FHWA and the local agency has been notified by MoDOT to proceed.**

**136.1.7.3 Contract Letting and Construction**

**13.** Once FHWA approves the obligation of construction funds, MoDOT will notify the local agency to advertise for bids. If all work is to be done by local forces, skip to item 19, below. Also, please refer to [EPG 136.3 Project Selection and Programming](http://epg.modot.org/index.php?title=136.3_Project_Selection_and_Programming) and [EPG 136.9 Final Design](http://epg.modot.org/index.php?title=136.9_Final_Design) for more details on work performed by local forces.

**14.** The local agency must advertise for bid a minimum of 21 days prior to letting.

**15.** The local agency opens the bids, recommends award of contract. At this time the successful bidder has three days to fill out information on DBE sub-contractors and return it to the local agency. The local agency must disqualify the bidder if DBE information is not returned within three business days.

**16.** Local agency submits bid tabs, anti-collusion statement, and DBE information to MoDOT for concurrence. MoDOT will notify the local agency of their concurrence in the award of the bid and that the contract may be executed.

**17.** The local agency will execute contract with the successful bidder, issue notice to proceed to the contractor, and must submit a copy of the executed contract to MoDOT. MoDOT will review the executed contract with the required documents and notify the local agency that they may issue a notice to proceed.

**18.** Construction begins. The local agency submits progress reports, conducts wage rate interviews, assures that construction will be inspected for compliance with specifications, and ensures EEO compliance.

**19.** If construction changes are needed, the local agency determines level of the change order and submits as needed to MoDOT. After the final change order, additional funding may be requested to cover changes orders if funds are available.

**20.** The local agency maintains necessary documentation of quantities placed in support of quantities paid.

**21.** Once construction is complete, the local agency notifies MoDOT's district representative to coordinate the final inspection. The local agency submits final inspection report.

**22.** The local agency submits all applicable final documentation to MoDOT including a final invoice for all project costs involving preliminary engineering, construction engineering services, right of way, utility adjustments and construction costs.

**23.** MoDOT audits the project as necessary and requests final payment from FHWA.

**24.** The local agency is responsible for implementing all commitments and monitoring identified in environmental documents.

**136.1.8 Other Federal Funding Used as Match**

Federal funds provided by other federal agencies may be used to match federally funded transportation projects as allowed by each federal agency’s funding requirements.

Listed below is a table showing what other federal funds may be used to satisfy the federal-aid highway matching requirements.

|  |  |  |  |
| --- | --- | --- | --- |
| **Federal-to-Federal Matching Opportunities** | | | |
| **Source of Federal Funding** | | **Eligible Categories of Highway Projects** | |
| Federal Land Management Agencies, including but not limited to: | | Federal highway projects funded under the following program categories: | |
| \* | U.S. Forest Service | \* | Interstate Maintenance |
| \* | Bureau of Indian Affairs | \* | National Highway System |
| \* | Bureau of Reclamation | \* | Surface Transportation Program |
| \* | Bureau of Land Management | \* | Congestion Mitigation and Air Quality Program |
| \* | National Park Service | \* | Recreational Trails Program |
| \* | Numerous military agencies | \* | Scenic Byways Programs (providing access to Federal or Indian Lands) |
| (authorized at 23 U.S.C. 120(k)) | |  | |
| Federal Lands Highway Program (authorized at 23 U.S.C. 120(1)) | | Federal highway projects funded under the programs shown above and that serve or provide access to federal or Indian lands, except Scenic Byways | |
| Federal programs with special legislative authorization to match other federal funds, including funds provided under: | | Any Federal-aid highway project | |
| \* | State and Local Assistance Act |  | |
| \* | HUD Community Development Block Grants |  | |
| \* | Public Works Employment Act of 1976 |  | |
| \* | Delaware and Lehigh Navigation Canal National Heritage Corridor Act of 1988 |  | |

Federal Emergency Management Agency (FEMA) funds are not eligible to be used as match on federally funded transportation projects including the HBP Program. Corps of Engineers funds are eligible for match on federally funded transportation projects.

The local agency must confirm with all the federal funding agencies that the funding provided may be used as match for federally funded transportation projects before the funding will be accepted by MoDOT.

**136.1.9 Local Match Guidelines**

Federally participating projects require local agencies to match costs of the project, generally at the pro rata share established for the program. Local agencies can use a variety of funding methods for local match, including cash, donations and soft match. Eligible donations may be applied only to the project on which the donation was made. Donations cannot be used to revise matching shares on unrelated projects. At no time may the federal share of costs exceed the total project costs actually incurred. For right of way or other real property to be eligible as match, it must be or have been acquired within the requirements set forth in the parameters of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, (Uniform Act) of the Code of Federal Regulations, regardless of the date of acquisition. Guidelines for determining local match amounts are as follows:

**1.** As described in [EPG 136.2 Bridge Soft Match Credit Program](http://epg.modot.org/index.php?title=136.2_Bridge_Soft_Match_Credit_Program), credit can be received for locally funded bridge replacement or rehabilitation projects. This credit, referred to as soft match credit, may be applied to the local agency’s share of costs on Off-System Bridge Replacement and Rehabilitation Program (BRO) projects. This soft match credit **cannot** be used as part of the local match for STP Enhancement, STP-Urban, CMAQ or other federal projects.

**2.** The fair market value of donated funds, materials or services (i.e., labor) donated from private third parties to the local agency are eligible for credit against match. Third parties may include an individual, company, association, etc., but do not include a federal, state or local government agency. Donations are applied at the pro rata share percent established for the project. Donations must be made after the project is programmed and no later than concurrence in award. In addition, all donated services and materials must meet the eligibility requirements of the project. Donations must be documented and records maintained to show how the values placed on materials and services were derived. Volunteer services must be supported by time sheets, time cards or other records. The value of volunteer time should be consistent with the [guidelines published by the nonprofit organization Independent Sector](http://www.independentsector.org/programs/research/volunteer_time.html).

**3.** The fair market value of local government funds, materials, or services performed by local government employees, may be applied to a project. The local government must maintain documentation that is adequate to support the costs being claimed. This documentation should include, but not be limited to vendor invoices, time sheets, time cards or other records.

**4.** Services may include the costs of preliminary engineering prior to FHWA’s environmental (NEPA) approval. Such a credit may be allowed provided that appropriate documentation to support such expenditures is available for review. The local agency must follow all applicable federal guidelines for the selection of a consultant. Only the value of expenses determined to be reasonable will be allowed to be used toward local match.

Right of way property may be donated by a private third party or state or local government agency. Donations from a state or local government agency can only be accepted after June 9, 1998. Donated property is applied at the same pro rata share percent established for the project. The donation must be appraised to determine the fair market value. Donated property must be incorporated into the project and cannot influence the environmental assessment.

Credit for donations of funds, materials, services or real property must be approved by MoDOT and FHWA in order to secure funding. Donations made to the project as match must be applied no later than concurrence in award. Once credits toward local match have been established and approved, they cannot be changed. Credits toward local match must be approved prior to the execution of the work, except as noted in item 4, above.

**136.1.10 Flow Charts**

|  |  |
| --- | --- |
| **Easily Printable Versions of Flowcharts** | |
| [Fig. 136.1.10, Project Flowchart for Local Federal-Aid Projects](http://epg.modot.org/files/0/0f/Fig._136.1.10_Project_Flowchart_for_Local_Federal-Aid_Projects.pdf) | [Fig. 136.1.10.5 Final Plans Specifications & Estimate Process](http://epg.modot.org/files/6/60/136.1.10.5_Plans_Specifications_and_Estimate_Process_Chart.pdf) |
| [Fig. 136.1.10.1 LPA Planning Process Chart](http://epg.modot.org/files/7/7a/136.1.10.1_LPA_Planning_Process_Chart.pdf) | [Fig. 136.1.10.6 Letting Plans & Contract Proposal Process](http://epg.modot.org/files/a/ad/136.1.10.6_Letting_Plans_and_Contract_Proposal_Process_Chart.pdf) |
| [Fig. 136.1.10.2 MoDOT Programming Process Chart](http://epg.modot.org/files/9/92/136.1.10.2_MoDOT_Programming_Process_Chart.pdf) | [Fig. 136.1.10.7 Construction Process](http://epg.modot.org/files/f/f1/136.1.10.7_Construction_Bidding_and_Contract_Process_Chart.pdf) |
| [Fig. 136.1.10.3 Right of Way Process](http://epg.modot.org/files/7/71/136.1.10.3_Right_of_Way_Process_Chart.pdf) | [Fig. 136.1.10.8 LPA MoDOT Agreement Process Chart](http://epg.modot.org/files/3/3a/136.1.10.8_LPA_MoDOT_Agreement_Process_Chart.pdf) |
| [Fig. 136.1.10.4 Preliminary Plans Process](http://epg.modot.org/files/f/f3/136.1.10.4_Preliminary_Plan_Process_Chart.pdf) | [Fig. 136.1.10.9 Engineering Services Contract Process Chart](http://epg.modot.org/files/7/7b/136.1.10.9_Engineering_Services_Contract_Process_Chart.pdf) |

The flow charts are available at EPG 136.1.10, http://epg.modot.org/index.php?title=136.1\_General#136.1.10\_Flow\_Charts.

# **EPG 136.2 Bridge Soft Match Credit Program**

**From Engineering Policy Guide**

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[](http://epg.modot.org/index.php?title=Image:136.2.jpg)

Federal regulations originating in Section 123(e) of the 1987 Surface Transportation and Uniform Relocation Assistance Act (STURAA) provides that agencies (state, county, or city) may receive soft match credit for the cost of a locally funded bridge replacement or rehabilitation that would count toward the local match on federally funded bridge replacement projects. It is not the intent of the program to give credit for all bridge work that is done by the local agency, but only for the eligible replacement and rehabilitation work which is performed according to the appropriate guidelines.

The bridge being replaced or rehabilitated for which the agency desires credit must meet the contractual requirements of the local agency and the MoDOT intent of [the Highway Brige Program](http://epg.modot.org/index.php?title=136.1_General#136.1.6.1_Highway_Bridge_Program) (HBP) as defined under Federally Funded Bridge Projects in [EPG 136.1 General](http://epg.modot.org/index.php?title=136.1_General).

One of the objectives of the Bridge Soft Match Credit Program is to provide an alternate process for local agencies to remove deficient bridges from the Bridge Inventory. A number of requirements that would apply to projects receiving HBP funding are waived in the Soft Match Credit Program. These exceptions are highlighted in bold print in this article.

**The federal contract requirements may be waived, but all state and local contract requirements shall still be met.** Projects may be constructed by qualified local agency forces, competitive bid, or negotiated bid. (Refer to [EPG 136.9 Final Design](http://epg.modot.org/index.php?title=136.9_Final_Design) for information regarding work by local forces.)

The design drawings shall be prepared under the direction of a registered professional engineer and be signed and sealed by that engineer. By signing and sealing the drawings, the engineer of record will be representing that the MoDOT intent of the HBP has been met in accordance with the criteria set forth in [EPG 136.1 General](http://epg.modot.org/index.php?title=136.1_General). A registered professional engineer shall direct the construction inspection.

**136.2.1 Project Eligibility**

To be eligible for credit, the bridge that is being submitted must meet all of the requirements listed below.

1. The bridge must have been on MoDOT’s list of structures that were eligible for federal bridge funds for the year that the bridge was built.

2. The bridge must be on a route with a functional classification of rural local, urban local or rural minor collector.

Projects involving the removal of an existing eligible bridge that is replaced with something other than a new bridge may be eligible for credit. An example of an eligible project meeting this criteria would be the replacement of a bridge over an abandoned railroad with roadway fill. An example of a project that would not be considered eligible would be the replacement of an eligible bridge with a low water crossing. If scenarios other than these two are proposed by a local agency, the District should consult with Bridge Division in the Central Office for assistance in determining eligibility.

Projects involving the replacement of an existing eligible bridge with a bridge that is less than twenty feet in length are typically eligible for credit. Under this scenario, some of the deliverables required in a normal credit submittal may be waived. The District should consult with [Bridge Division](http://wwwi/intranet/br/default.htm) in the Central Office to determine what deliverables are needed and to confirm eligibility.

**136.2.2 Eligible Costs for Soft Match Credit**

An agency may receive credit for no more than 80% of the eligible costs. The items that are eligible for receiving credit include preliminary engineering services, surveys, environmental and cultural documentation, subsurface investigations, right of way services, bridge construction, minimal road construction, construction engineering for inspection, and those portions of utility relocation costs for which the county is obligated.

The following federal funds from other federal agencies may be used on credit projects but only up to a maximum of 20% of the eligible costs.

1. Community Development Block Grant Funds if authorized by the Department of Housing and Urban Development

2. Local Public Works Funds authorized by the Economic Development Administration.

Any federal funds above this 20% will reduce the costs eligible for credit.

Only a minimal amount of approach roadway work may be counted. Eligible limits may include reasonable approach roadway necessary to connect to the existing road and to return the new grade to normal ground. This corresponds to the eligible limits of HBP projects authorized to date.

**136.2.3 Final Design**

On projects for which credit is desired, the engineer of record shall have the responsibility for the selection of the specific design parameters along with verifying that the MoDOT intent of the HBP is being met as described and given in [EPG 136.1 General](http://epg.modot.org/index.php?title=136.1_General) and [EPG 136.8 Preliminary Design](http://epg.modot.org/index.php?title=136.8_Preliminary_Design).

The engineer of record is also responsible for providing certification that the following requirements have either been met or are not applicable to the project.

1. Applicable federal clearances and permits have been obtained as outlined in [EPG 136.4.5 Guidance for Compliance with Federal and State Environmental Laws and Regulations](http://epg.modot.org/index.php?title=136.4_Environmental_and_Cultural_Requirements#136.4.5_Guidance_for_Compliance_with_Federal_and_State_Environmental_Laws_and_Regulations).

2. Applicable state clearances and permits have been obtained as outlined in [EPG 136.4.5 Guidance for Compliance with Federal and State Environmental Laws and Regulations](http://epg.modot.org/index.php?title=136.4_Environmental_and_Cultural_Requirements#136.4.5_Guidance_for_Compliance_with_Federal_and_State_Environmental_Laws_and_Regulations).

3. Coordination was done with local utilities when the project involved the disturbance or relocation of utilities.

4. Coordination was done with railroads when the project involved structures over railroads.

5. Coordination was done with local levee and drainage districts when the project involved the disturbance of drainage or flood control structures under the control of these local districts.

6. New bridge cannot be scour critical.

The specifications and job special provisions for the project shall also be determined by the engineer based on specific site conditions and guidance given in [EPG 136.9 Final Design](http://epg.modot.org/index.php?title=136.9_Final_Design).

A preconstruction itemized engineer's cost estimate is required to be retained by the engineer with the project file. This estimate will be based either on the local forces constructing the project or on a contractor constructing the project.

**136.2.4 Construction Letting**

**The Federal Aid contract requirements of** [**EPG 136.10 Construction Authorization and Letting**](http://epg.modot.org/index.php?title=136.10_Construction_Authorization_and_Letting) **are not required.** When the local agency elects to build the project by contractor, then the State and Local requirements for competitive bidding shall be used.

**136.2.5 Construction**

**The federal requirements for construction in** [**EPG 136.11 Local Public Agency Construction**](http://epg.modot.org/index.php?title=136.11_Local_Public_Agency_Construction) **may be waived.** The construction inspection, testing and sampling shall be done under the direction of a registered professional engineer.

**136.2.6 Request for Credit Submittal**

Requests for Bridge Soft Match Credit on a bridge project are submitted after the bridge has been built and opened to traffic. Submittal at the [PS&E](http://epg.modot.mo.gov/index.php?title=237.9_Submission_of_Plans_and_Supporting_Documents#237.9.6_Electronic_Plans_PS.26E_Submittal_Guidelines) stage of the project is not necessary. However, if the engineer of record or the local agency has specific eligibility questions regarding the project that they would like MoDOT to address before construction, then we are receptive to receiving the PS&E submittal. Specific questions should be provided by the engineer of record or the local agency on their cover letter with the submitted package.

The local public agency should send the Bridge Soft Match Credit submittal package to the local district office of MoDOT. This submittal package shall include a cover letter that provides the information and certifications listed below as well as the project deliverables listed below. After this package is reviewed by the district office, it will be submitted along with the additional required information provided by the district office to Bridge Division at the Central Office. The MoDOT files for Bridge Soft Match Credit projects, at a minimum will be required to have the documentation as outlined in the checklist provided in [Figure 136.2.1](http://epg.modot.org/files/0/01/136.2.1_Nonstate_Bridge_Soft_Match_Credit_Program.doc). The district can utilize this checklist as a means to verify that all required information has been obtained prior to submittal of the Bridge Soft Match Credit package to Bridge Division. A copy of this checklist should be included with the submittal package to Bridge Division.

**136.2.6.1 Information/Certifications on LPA Cover Letter**

1. The cover letter should indicate the beginning date and the completion date for the construction on the credit project.

2. The local agency shall certify that the project is non-controversial. For the purpose of the Bridge Soft Match Credit program, “non-controversial” will be defined as meaning that the project does not have a history of litigation, disputes, negative media reports or any other controversy.

3. The local agency shall certify that the project has been built in accordance with the standards applicable to [the HBP](http://epg.modot.org/index.php?title=136.1_General#136.1.6.1_Highway_Bridge_Program), except as noted in EPG 136.2, and that the project was constructed substantially in conformity with the plans and specifications.

4. The local agency or the engineer of record shall provide certification that the costs claimed for the project, provided as a deliverable in the next section, are the actual costs incurred for the project.

**136.2.6.2 Deliverables Provided by LPA**

1. As built plans and specifications (size 11 in. x 17 in.), signed and sealed by the engineer of record and approved by the local agency. Refer to [EPG 136.9 Final Design](http://epg.modot.org/index.php?title=136.9_Final_Design) for specific requirements.

2. Structural Inventory and Appraisal sheet (SI&A), completed for the project bridge and signed and sealed by the engineer of record. Refer to [EPG 136.9 Final Design](http://epg.modot.org/index.php?title=136.9_Final_Design) for specific requirements.

3. Load rating calculations including a load rating summary sheet, signed and sealed by the engineer of record. Refer to [EPG 136.9 Final Design](http://epg.modot.org/index.php?title=136.9_Final_Design) for specific requirements.

4. The local agency shall provide documentation of the eligible final costs for the credit project. When the quantities documented for costs do not match the list of quantities as compared to the engineer’s pre-construction itemized cost estimate, the local agency shall submit justification for the changes in the planned quantities. If the existing structure is currently eligible for rehabilitation only and the local agency elects to replace the structure, the amount of eligible federal funding will be limited to that which will not exceed the rehabilitation cost estimate unless appropriate justification is provided by the local agency that a new structure represents the best value. If the rehabilitation cost is at least 68% of the replacement costs, then it can generally be assumed that the new replacement structure will provide a better value than the rehabilitation of the existing structure.

5. Certification from the engineer of record that the applicable requirements as discussed in [EPG 136.2.3](http://epg.modot.org/index.php?title=136.2_Bridge_Soft_Match_Credit_Program#136.2.3_Final_Design) have been met. The engineer of record can satisfy this requirement by submitting a letter listing the applicable requirements from this section and indicating that the appropriate clearances and permits were obtained.

6. Photographs of the as built bridge including, at a minimum, a view of the bridge along the roadway and a profile view of the bridge from the stream. Photographs of the bridge during construction are also encouraged, but are not required as part of the credit submittal.

**136.2.6.3 Information Provided by the District**

The district office will be responsible for providing the additional information needed to complete a Bridge Soft Match Credit submittal. The additional items required are shown below and are completed after the district has been notified by the local agency that construction has been completed on the project.

1. A final “walk-through” inspection of the bridge has to be completed by someone in the district that has been Team Leader certified for nonstate bridge inspections as designated in [EPG 753.3 Inspection and Reporting Aids (Section 3)](http://epg.modot.mo.gov/files/2/2d/Bridgesection_3.pdf). This inspection has to include the items as listed below.

a. Assignment of appraisal and condition ratings consistent with the normal inspection practice for nonstate bridges.

b. Verification that the bridge is in "good" condition.

c. Verification that the bridge was constructed in general conformance with the bridge plans, which basically includes verification of the bridge location, bridge type, bridge width, bridge length and the number of members.

2. The inspector must submit a letter or some other appropriate form of documentation to the District person overseeing the credit project indicating that the inspection has been completed and the date that the inspection was completed. This letter should also indicate that the structure was found to be in “good” condition and that the structure was built in general conformance with the plans. A copy of the inspection report should be provided with the letter along with any photographs that were taken.

3. Once all of the information has been received from the local agency and from the bridge inspector, the District should submit the Bridge Soft Match Credit package along with the documentation provided by the inspector to Bridge Division at the Central Office. This submittal package should include a cover letter recommending that credit be approved for this bridge project.

**136.2.7 Use of Soft Match Credit**

The eligible costs may apply as credit toward the 20% local match required on federal-aid bridge projects. This credit provision does not increase an agency's allocation of [HBP](http://epg.modot.org/index.php?title=136.1_General#136.1.6.1_Highway_Bridge_Program) funds, but will permit usage of funds already allocated to an agency at a rate up to 100%.

Any BRO project submitted for programming by a local agency will be set up using soft match credit, if available. As a result, the local agency's preliminary engineering costs will be eligible for more than 80% federal reimbursement. As the project moves to construction authorization, credit will continue to be applied, as long as it is available. Local agencies will not be allowed to have a negative soft match credit balance.

If a local agency does not want to use its soft match credit on a project, it will need to submit a letter to the MoDOT district office indicating this.

Soft match credit can be applied to the construction phase of a bridge project at the time of construction authorization, even if soft match credit was not used for the design phase.

The federal reimbursable share of design costs cannot be increased by applying additional soft match credit after the preliminary engineering authorization date.

A local agency may elect to transfer its soft match credit earned under the Bridge Soft Match Credit Program to another local agency. The following guidelines must be followed to transfer credit

1. A written request must be submitted to the MoDOT district office. The request shall be on the local agency's letterhead and state the dollar amount that is being transferred and the local agency that will be receiving the transferred funds. This letter must be signed by all of the county commissioners or the appropriate city officials. The MoDOT district office will forward this request to [Resource Management](http://wwwi/intranet/rm/) at the Central Office for review and approval.

2. The request must be approved by Resource Management at the Central Office prior to using the soft match credit on a bridge project.

A local agency may elect to transfer its soft match credit earned under the Bridge Soft Match Credit Program to another local agency for BRO funds. The following guidelines should be followed to transfer credit for funds:

1. Both local agencies must submit written requests to the local MoDOT district office on their local agency's letterhead and state the dollar amount of BRO funds and soft match credit to be transferred by each local agency. This letter must be signed by all of the county commissioners or the appropriate city officials. The MoDOT district office will forward this request to Resource Management at the Central Office for review and approval.

2. The request must be approved by Resource Management at the Central Office prior to using the soft match credit and BRO funds on a bridge project.

3. No transfer can result in a local agency having a negative balance of BRO funds.

# **EPG 136.3 Project Selection and Programming**

**From Engineering Policy Guide**

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# The latest forms and checklist are available at the top of EPG 136.3, <http://epg.modot.org/index.php?title=136.3_Project_Selection_and_Programming>

**136.3.1 Prohibiting the Use of Data as Evidence**

The Federal-Aid Highway Act of 1987 provides that reports, surveys, schedules and lists or data compiled for the purpose of developing highway safety improvements shall not be admitted into evidence in federal or state courts.

Projects that are being contemplated on MoDOT right of way must be reviewed and approved by the appropriate MoDOT district prior to project selection and programming

**136.3.2 Highway Bridge Program (HBP) Project Selection**

Project selection is the prerogative of the local agency. MoDOT personnel will be available to advise and assist in project estimating and selection, if desired. Local agencies that are part of a local planning agency are required to submit their project selection to the MPO for review and approval. The following listing includes the type of eligible bridge projects that may be selected by the local agency:

**1.** Replacement or full rehabilitation of eligible structures from MoDOT's eligible.

**2.** Seismic retrofitting of deficient as well as non-deficient bridges is eligible for funding. The design of seismic improvements or retrofits shall follow applicable AASHTO and current [FHWA](http://www.fhwa.dot.gov/) publication guidelines. The reasonable costs of associated structural repairs, which are considered necessary or economically prudent for properly accomplishing the seismic retrofit are also considered to be participating bridge list.

**3.** Projects involving the application of paint overcoat systems, or the complete blast cleaning and repainting of the structural steel are considered to be eligible. The reasonable costs of structural repairs considered necessary or economically prudent to properly accomplish the repainting or overcoat project are considered to be participating.

**4.** Installation of scour countermeasures to protect an existing bridge is eligible for funding.

**5.** Preventative maintenance activities may be eligible for funding if the local agency has in place a systematic process such as a Bridge Management System which demonstrates the cost effectiveness of extending the service life of their bridges. This systematic process must previously have been reviewed and approved by FHWA. Preventative maintenance activities include those that preserve bridge components and extend the useful service life of the bridge. These activities would typically be performed on a bridge in good condition in order to keep it in good condition. Increasing the capacity of a structure is not considered a preventative maintenance activity. Although not all inclusive, below are the two basic types of preventative maintenance and examples of acceptable activities:

a. Systematic Servicing Bridges on a Scheduled Basis: Generally includes cleaning decks; beam seats, beam caps and salt splash zones; cleaning drainage systems; cleaning expansion joints; cleaning and lubricating expansion bearing assemblies; sealing concrete decks or substructure elements.

b. As Needed Preventative Maintenance: Generally includes resealing expansion joints; spot painting of steel members; minor structural repairs, removing debris from channel; replace wearing surface; extending or enlarging deck drains.

**6.** Projects involving the application of calcium magnesium acetate, sodium acetate/formate, or other environmentally acceptable, minimally corrosive anti-icing and de-icing compositions to a bridge are considered to be eligible for structures on MoDOT’s eligible bridge list.

The bridge to be replaced or rehabilitated must be on MoDOT's eligible list for funding. The MoDOT eligible list is compiled from the most recent submittal of Missouri’s National Bridge Inventory data to FHWA. MoDOT's eligible list will indicate whether the bridge is considered eligible for replacement (full funding) or only rehabilitation (partial funding), based on the existing inventory and inspection data. Ifthe existing structure is currently eligible for rehabilitation only and the local agency elects to replace the structure, the amount of eligible federal funding will be limited to that which will not exceed the rehabilitation cost estimate unless appropriate justification is provided by the local agency that a new structure represents the best value.  If the rehabilitation cost is at least 68% of the replacement costs, then it can generally be assumed that the new replacement structure will provide a better value than the rehabilitation of the existing structure.The proposed rehabilitation work should eliminate the items that caused the bridge to be identified as deficient unless the proposed deficient item may remain based on MoDOT’s approval. Refer to [EPG 136.1 General](http://epg.modot.org/index.php?title=136.1_General) and [EPG 136.8 Preliminary Design](http://epg.modot.org/index.php?title=136.8_Preliminary_Design) for process and requirements. Ratings for bridges within the local agency will be furnished by the state indicating whether the bridge is eligible for replacement or rehabilitation.

Under certain conditions, it may be possible to eliminate a deficient bridge and to provide the desired service by constructing roadway instead of a new bridge. Such projects will generally be eligible. A definite determination can be obtained if the local agency submits a schematic sketch showing the factors involved.

The local agency may also use their allocation of HBP funds to replace existing low water crossings at locations that are not included on the bridge inventory. The low water crossing must be replaced with a new bridge meeting the guidelines and requirements provided in [EPG 136.1 General](http://epg.modot.org/index.php?title=136.1_General), [EPG 136.8 Preliminary Design](http://epg.modot.org/index.php?title=136.8_Preliminary_Design) and [EPG 136.9 Final Design](http://epg.modot.org/index.php?title=136.9_Final_Design). Section 123(d) of the 1987 Surface Transportation and Uniform Relocation Assistance Act (STURAA) allows for the use of HBP funds to construct a new bridge to replace low water crossings that are not classified as bridges and are therefore not eligible to be added to the National Bridge inventory. The interpretation is that the replacement structure should not only meet the traditional definition of a bridge (20 ft. length, etc.) but should also improve the overtopping frequency of the facility, thus improving safety.

For bridge rehabilitation and replacement projects, the bridge site will not be eligible for selection to use HBP funding if the structure was replaced or had a major rehabilitation within 10 years of the planned new construction date. The FHWA 10-year rule applies regardless of the source of funds (local, state, federal, etc.) that were used to replace or reconstruct the bridge.

**136.3.3 Highway Bridge Program (HBP) BRO Force Account**

If the local agency is considering constructing the entire project with local forces, please reference this section for the requirements. Please refer to [EPG 136.9 Final Design](http://epg.modot.org/index.php?title=136.9_Final_Design) when local forces will construct only a portion of the project.

23 CFR 635.205(a): It may be found cost effective for a State transportation department or county to undertake a federally financed highway construction project by force account when a situation exists in which the rights or responsibilities of the community at large are so affected as to require some special course of action, including situations where there is a lack of bids or the bids received are unreasonable.

In order to meet the intent and spirit of 23 CFR 635.205(a), the following criteria are to supplement the existing guidance in [Local Public Agency (LPA) Policy](http://epg.modot.org/index.php?title=Category:136_Local_Public_Agency_%28LPA%29_Policy). The premise of these criteria is that the remote location and/or small project size for some county bridge replacement projects would likely result in no bids or bids with large mobilization costs and significantly higher than average unit construction costs if the project were to be competitively bid, thereby placing an undue financial burden on the community at large. The intent is to allow counties to use federal-aid funds on appropriate small bridge replacement projects that are at a remote location, while ensuring that larger and/or urban-area type county federal-aid bridge replacement projects continue to be competitively bid.

▪ A project is competitively bid but there is lack of bids or the bids received are considered unreasonable. (See chart, below)

▪ The difference between the engineer’s estimate for competitive bidding contracting and the force account estimate must be 20% or greater.

▪ The proposed new bridge shall be a maximum of two (2) lanes with a total length not to exceed 80 ft.

▪ Any work not done by force account must be competitively bid according to current LPA procedures. Any work that will be competitively bid must be identified at the construction authorization.

▪ The LPA shall submit to MoDOT a line item billing statement before reimbursement will be processed.

▪ The LPA shall have demonstrated experience and ability in constructing the proposed type and length of bridge in recent years with its own forces.

▪ The LPA shall not staff-up to take on new federal-aid work. They shall be adequately staffed and suitably equipped to undertake and satisfactorily complete the proposed work.

▪ As a means of periodically verifying the LPA estimates for competitive bidding, the LPAs that use the BRO Force Account option shall take at least one similar bridge to letting for every 3rd qualifying BRO Force Account bridge or every two years, whichever comes first. If the low bid comes in at less than 20% above the estimate for Force Account, the LPA would not have the option of using Force Account and would be expected to award the contract. If the low bid is 20% or more above the Force Account estimate the LPA could reject the bid and go with the Force Account option. LPAs could also use appropriate bidding information for similar bridges from adjacent counties that was not more than 6 months old to meet this periodic competitive bidding verification requirement.

▪ Final Acceptance of Force Account project shall be in accordance with [EPG 136.9 Final Design](http://epg.modot.org/index.php?title=136.9_Final_Design).

The LPA shall request approval from MoDOT for the use of force account along with a description of the project and the work to be performed, the estimated costs1 (Contract and Force Account Estimates), estimated federal funds to be provided, and the reason(s) that force account for such project is considered cost effective. Once MoDOT Central Office approves the LPA request, the request shall be submitted to FHWA for federal approval. MoDOT and the LPA are required to retain project records and allow access to records for quality check and audit purposes in accordance with 49 CFR 18.42. Upon completion of each project, a review will be performed by MoDOT to compare final cost with engineer’s estimate.

▪ Estimated cost shall include:

(1) Staff time (hours) per different phases of the work and based on individual employees or classifications of employees.

(2) Wage rate per employee or class including any payroll additives (FICA, benefits, etc)

(3) Equipment type, usage (hours), and costs (cost or rental rate per hour or per miles).

(4) Materials and supplies to be incorporated in the project and their costs including sources and suppliers.

(5) Line item engineer’s cost estimate of work, had it been contracted by competitive bidding.

|  |  |
| --- | --- |
| **Unreasonable Bids** | |
| **Number of Bids** | **Low Bid exceeds Engineer’s Estimate** |
| 3 to 5 | >30% |
| 2 | >25% |
| 1 | >20% |

**136.3.4 Highway Bridge Program Programming**

Once a bridge has been selected for programming, the local agency should contact the MoDOT Representative to initiate project programming by completing a [Fig. 136.3.1.1 Programming Data Form](http://epg.modot.org/files/5/5c/136.3.1.1_Programming_Data_Form_%28Fig._3-1-1R%29.doc). Local agencies that are in the St. Louis MPO may submit their TIP application in place of the Programming Data Form. This form, with a letter signed by the local agency's officials requesting the project to be programmed, will initiate a series of checks by MoDOT to review eligibility. The programming data form requires an estimate of costs for which federal participation is desired. The estimated cost of the project should include a breakdown into categories of preliminary engineering, right of way, utility adjustments, roadway, bridges or inspection. Average daily traffic for both the current year and design year must be included. The number and width of existing and proposed traffic lanes must be indicated along with present and proposed parking conditions. A scope of engineering services (if available) and for projects involving more than 2 lanes, a traffic flow diagram should be submitted along with the Programming Data Form. Local agencies that are in a MPO must include the TIP Number.

To be eligible for federal funding, proposed design improvements listed on the Programming Data form must be in accordance with the guidelines and requirements of [EPG 136.1 General](http://epg.modot.org/index.php?title=136.1_General) and [EPG 136.8 Preliminary Design](http://epg.modot.org/index.php?title=136.8_Preliminary_Design).

After the project has been reviewed for eligibility, the local agency will be notified when they can begin preliminary engineering. MoDOT will also provide the local agency with a project number.

The local agency should determine at this stage who will, if needed, perform the various functions of work in developing the project. The consultant contract should be initiated at this time. The MoDOT representative will also initiate the program agreement between the local agency and the Missouri Highway and Transportation Commission at this stage.

If the project appears to have no significant environmental impact, a programming data form will be used to evaluate the environmental determination for the project. If the project does not qualify for a categorical exclusion additional environmental documentation will be required (refer to [EPG 136.4 Environmental and Cultural Requirements](http://epg.modot.org/index.php?title=136.4_Environmental_and_Cultural_Requirements)).

If any work is to be performed by a consultant, it will also be necessary to obtain approval of the contract between the local agency and the consultant before work is eligible for federal reimbursement (refer to [EPG 136.6 Consultant Contracts](http://epg.modot.org/index.php?title=136.6_Consultant_Contracts)). Any work performed before the federal authorization date will not be eligible for reimbursement. MoDOT will notify the local agency when preliminary engineering authorization has been approved. If the local agency will be performing their own preliminary engineering and would like to receive federal reimbursement, they must submit a cost estimate to MoDOT for review and approval.

All local agencies have prioritized their respective programmed projects, and their priorities have been placed into the [Statewide Transportation Improvement Program (STIP)](http://epg.modot.org/index.php?title=121.3_The_Statewide_Transportation_Improvement_Program_%28STIP%29). If a local agency elects to alter their priorities, they must submit a letter to MoDOT stating their revised priorities and the letter must be signed by all county commissioners or city officials. This is to protect changes in political climate from altering the priorities of the local agency, and to provide for an efficient program. For those local agencies within the jurisdiction of an MPO, the agency must notify the MPO of any change in project priorities or schedules.

**136.3.5 STP-Urban Project Selection**

For projects involving roadway improvements to be eligible for selection under the STP-Urban program, the route must be functionally classified as an urban collector, rural major collector, arterial or expressway. Bridges meeting the eligibility requirements discussed below are not restricted to these routes and may be located on any public road. However, if the bridge is located on a route not on the federal-aid system, federal funding for roadway improvements will be limited to the attainable touchdown point as discussed for [HBP](http://epg.modot.org/index.php?title=136.1_General#136.1.6.1_Highway_Bridge_Program) funding.

Projects for improvements that utilize STP-Urban Funds are to be selected by the appropriate local agency officials with the concurrence of MoDOT. Local agencies that are part of a local planning agency are required to submit their project selection to the MPO. STP-Urban funding should be programmed for projects that will benefit the area within the urban cluster boundary.

Prior to submitting the projects to MoDOT for programming, the local agency should submit a location sketch of the proposed project and ensure that the route has the proper functional classification. For cities that are part of a MPO, the project must be on the TIP.

Types of projects may include new construction, reconstruction and upgrading. Projects classified as maintenance are not permitted. Resurfacing of existing streets is generally permissible, both to restore a smooth riding surface or to increase the load carrying capabilities of the street. The design of pavement rehabilitation projects shall provide a performance period of at least five years. Patching, minor pavement repairs, undersealing, etc., are permitted only as a necessary part of restoration for resurfacing. Funds may be used to change from mercury vapor luminaries to high pressure sodium vapor luminaries as an energy conserving measure.

The following listing indicates the categories of bridge improvement projects considered eligible to be selected for STP-Urban funding:

**1.** Replacement, rehabilitation addressing all bridge deficiencies, or partial rehabilitation for deficient bridges from MoDOT's eligible list for HBP funding.

**2.** Seismic Retrofitting as described in the HBP portion of this section. Painting structures as described in the HBP portion of this section.

**3.** Complete upgrading of traffic safety railing features for a bridge as determined appropriate by the engineer of record and local agency based on the guidelines provided in [EPG 136.8 Preliminary Design](http://epg.modot.org/index.php?title=136.8_Preliminary_Design). Project must address safety of both bridge railing and related approach roadway guardrail features.

**4.** Projects to correct identified operational and/or condition problems with any existing bridge are generally eligible.

**5.** Replacement of existing cross-roadway drainage features not on the bridge inventory with an appropriate replacement structure or bridge (available for routes on the federal-aid system).

**6.** New bridge construction required for construction of new approved corridors of federal-aid system routes.

**7.** Widening of any bridge to accommodate the widening and upgrading of routes on the federal aid system.

STP-Urban funds may be used for the construction of preferential bus lanes, turnouts and loading facilities for buses and fringe and corridor transportation parking facilities. The construction of parking facilities to replace on-street parking is eligible in areas where the improvement of the street would not be possible without removing on-street parking and where insufficient off-street parking exists. Funds may be used to acquire vans for vanpool demonstration projects. However, this is permitted on a loan basis only and the funds must be repaid through user revenues.

The construction of bicycle trails and pedestrian walkways on the highway right of way is eligible for federal participation, either as an integral part of a construction project or as an independent project. For further information, refer to [EPG 641 Bicycle Facilities](http://epg.modot.org/index.php?title=Category:641_Bicycle_Facilities) and [EPG 642 Pedestrian Facilities](http://epg.modot.org/index.php?title=Category:642_Pedestrian_Facilities).

**136.3.6 STP-Urban Project Programming**

Prior to charging any survey, design or other work against any federal-aid project, the project must first be programmed and approved. Programming of all projects will be initiated by the local agency by submitting the location (with sketch), [Fig. 136.3.1.1 Programming Data Form](http://epg.modot.org/files/5/5c/136.3.1.1_Programming_Data_Form_%28Fig._3-1-1R%29.doc), and a scope of engineering services (if available) to MoDOT. For projects involving more than 2 lanes, a traffic flow diagram should be submitted along with the Programming Data Form. Local agencies that are in the St. Louis MPO may submit their TIP application in place of the Programming Data Form.

The programming data form requires an estimate of costs for which federal participation is desired. The estimated cost of the project should include a breakdown into categories of preliminary engineering, right of way, utility adjustments, roadway, bridges or inspection. Average daily traffic for both the current year and design year must be included. The number and width of existing and proposed traffic lanes must be indicated along with present and proposed parking conditions.

Warrants for traffic signals, if applicable, shall be checked by the local agency at the time program information is submitted. Signal installation should not be programmed if current traffic conditions do not warrant as required by the [Manual on Uniform Traffic Control Devices (MUTCD)](http://mutcd.fhwa.dot.gov/pdfs/2003r1/pdf-index.htm).

MoDOT will obtain the necessary input from both the Regional Planning Commission and the State Clearinghouse under the Missouri State and Local Review Process. For any project located within the urbanized limits of one of the metropolitan planning organizations (St. Louis, Kansas City, Columbia, Jefferson City, Joplin, St. Joseph or Springfield), the local agency shall ensure that the project is included in the Transportation Improvement Program (TIP).

When the programming data form or TIP applications are submitted to MoDOT, it will be evaluated for a categorical exclusion. If the project does not qualify for a categorical exclusion, a CE-2 form will be required (refer to [EPG 136.4 Environmental and Cultural Requirements](http://epg.modot.org/index.php?title=136.4_Environmental_and_Cultural_Requirements)).

After the project has been reviewed for eligibility, the local agency will be notified when they can begin preliminary engineering. MoDOT will also provide the local agency with a project number.

If any work is to be performed by a consultant, it will also be necessary to obtain approval of the contract between the local agency and the consultant before work is eligible for federal reimbursement. **Any work performed before the federal authorization date will not be eligible for reimbursement.** MoDOT will notify the local agency when preliminary engineering authorization has been approved. If the local agency will be performing their own preliminary engineering and would like to receive federal reimbursement, they must submit a cost estimate to MoDOT for review and approval.

Preliminary engineering authorization will enable the local agency to receive reimbursement for charges incurred for preliminary engineering and miscellaneous right of way charges, such as title search and preliminary right of way estimates necessary to determine a proper location and design. Work performed by a consulting engineer requires prior approval of the consultant contract by MoDOT (refer to [EPG 136.6 Consultant Contracts](http://epg.modot.org/index.php?title=136.6_Consultant_Contracts)). Approvals for right of way acquisition must be acquired separately. Right of way acquisition should be in accordance with [EPG 236.18 Local Public Agency Land Acquisition](http://epg.modot.org/index.php?title=236.18_Local_Public_Agency_Land_Acquisition).

**136.3.7 STP Transportation Enhancement Program**

For information on the selection and programming of a Transportation Enhancement project please refer to [MoDOT's Transportation Enhancements website](http://www.modot.mo.gov/business/manuals/localpublicagency.htm#LPAManual#LPAManual).

Renovation work utilizing STP Transportation Enhancement funds for bridges on a public road that will be open to vehicular traffic upon project completion are expected to follow the submittal processes for bridge rehabilitations.

**136.3.8 Congestion Mitigation and Air Quality (CMAQ) Project Selection**

Projects eligible for selection using CMAQ funds must indicate that the project will have a demonstrated effect on reducing emissions.

Projects for improvements that utilize CMAQ Funds are to be selected by the appropriate local agency officials and submitted to the MPO for selection and to be added to the TIP.

**136.3.9 CMAQ Project Programming**

**136.3.9.1 Roadway Type Projects**

Prior to charging any survey, design or other work against any federal-aid project, the project must first be programmed and approved. Programming of all projects will be initiated by the local agency by submitting the location (with sketch), [Fig. 136.3.1.1 Programming Data Form](http://epg.modot.org/files/5/5c/136.3.1.1_Programming_Data_Form_%28Fig._3-1-1R%29.doc), and a scope of engineering services (if available) to MoDOT. For projects involving more than 2 lanes, a traffic flow diagram should be submitted along with the Programming Data Form. Local agencies that are in the St. Louis MPO may submit their TIP application in place of the Programming Data Form.

The programming data form requires an estimate of costs for which federal participation is desired. The estimated cost of the project should include a breakdown into categories of preliminary engineering, right of way, utility adjustments, roadway, bridges or inspection. Average daily traffic for both the current year and design year must be included. The number and width of existing and proposed traffic lanes must be indicated along with present and proposed parking conditions.

Warrants for traffic signals, if applicable, shall be checked by the local agency at the time program information is submitted. Signal installation should not be programmed if current traffic conditions do not warrant as required by the [Manual on Uniform Traffic Control Devices (MUTCD)](http://mutcd.fhwa.dot.gov/pdfs/2003r1/pdf-index.htm).

MoDOT will obtain the necessary input from the State Clearinghouse under the Missouri State and Local Review Process. The local agency shall ensure that the project is included in the Transportation Improvement Program.

A programming data form will be used at the time of programming to determine if any further environmental documentation will be required. If the project does not qualify for a categorical exclusion additional environmental documentation will be required (refer to [EPG 136.4 Environmental and Cultural Requirements](http://epg.modot.org/index.php?title=136.4_Environmental_and_Cultural_Requirements)).

After the project has been reviewed for eligibility, the local agency will be notified when they can begin preliminary engineering. MoDOT will also provide the local agency with a project number.

If any work is to be performed by a consultant, it will also be necessary to obtain approval of the contract between the local agency and the consultant before work is eligible for federal reimbursement. Any work performed before the federal authorization date will not be eligible for reimbursement. MoDOT will notify the local agency when preliminary engineering authorization has been approved. If the local agency will be performing their own preliminary engineering and would like to receive federal reimbursement, they must submit a cost estimate to MoDOT for review and approval.

Preliminary engineering authorization will enable the local agency to receive reimbursement for charges incurred for preliminary engineering and miscellaneous right of way charges, such as title search and preliminary right of way estimates necessary to determine a proper location and design. Work performed by a consulting engineer requires prior approval of the consultant contract by MoDOT (refer to [EPG 136.6 Consultant Contracts](http://epg.modot.org/index.php?title=136.6_Consultant_Contracts)). Approvals for right of way acquisition must be acquired separately. Right of way acquisition should be in accordance with the [EPG 236.18 Local Public Agency Land Acquisition](http://epg.modot.org/index.php?title=236.18_Local_Public_Agency_Land_Acquisition).

**136.3.9.2 Non-Roadway Type Projects**

Prior to the purchase of any item or the charging any work against any federal-aid project, the project must first be programmed and approved. Programming of all projects will be initiated by the local agency by submitting a copy of the TIP application to MoDOT.

MoDOT will obtain the necessary input from the State Clearinghouse under the Missouri State and Local Review Process. The local agency shall ensure that the project is included in the Transportation Improvement Program.

MoDOT will notify the local agency when project authorization has been obtained. Any work performed before the federal authorization date will not be eligible for reimbursement. If any work is to be performed by a consultant, it will also be necessary to obtain approval of the contract between the local agency and consultant before this work is eligible.

**136.3.10** [**Safe Routes to School**](http://www.modot.mo.gov/Safety/SafeRoutestoSchool.htm)

For information on the selection of an SRTS project, please see [*Administrative Guidelines for Safe Routes to School*](http://www.modot.mo.gov/Safety/documents/2008SRTSAdministrativeGuidelines.pdf) or contact the SRTS Coordinator at (573) 751-7643.

# **EPG 136.4 Environmental and Cultural Requirements**

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| **Additional Information** | |
| [Categorical Exclusion Determination](http://epg.modot.mo.gov/forms/DE-Env&Cultural/Categorial%20Exclusion%20Form.dot) | [Fig. 136.4.1.1 Instructions for Preparing Categorical Exclusion Determination](http://epg.modot.org/files/2/28/136.4.1.1_instructions.doc) |
| [Farmland Conversion Impact Rating](http://epg.modot.org/files/f/f5/127.11_Form_AD_1006.DOC) | [Fig. 136.4.3 Floodplain Development Permit/Application](http://epg.modot.org/files/b/b8/136.4.3_Floodplain_Development.pdf) |
| [Fig. 136.4.4 Engineering "No-Rise" Certification](http://epg.modot.org/files/2/2f/136.4.4_Engineering_No_Rise.pdf) | [Nationwide 404 Permit for Minor Road Crossings (NWP 14 Linear Transportation Projects)](http://www.usace.army.mil/CECW/Documents/cecwo/reg/nwp/nwp2007_gen_conditions_def.pdf) |
| [Fig. 136.4.6 Local Public Agency Section 4(f)](http://epg.modot.org/files/a/a5/LPA_Section_4%28f%29_worksheet.doc) | [State Historic Preservation Office's Section 106 Project Information Form](http://www.dnr.mo.gov/forms/780-1027-f.pdf) |
| [General Outline of Section 106 Procedures](http://epg.modot.org/index.php?title=Category:135_The_Section_106_Process) | [Instructions for Completing the SHPO Section 106 Survey Memo](http://www.dnr.mo.gov/forms/780-1718_inst.pdf) |
| [Fig. 136.4.10 Memorandum of Agreement for Migration of Adverse Effects](http://epg.modot.org/files/8/8b/136.4.10_Migration_of_Adverse_Effects_%28Fig._4-10%29.doc) | [Guidelines for Obtaining Environmental Clearance for Project Specific Locations](http://epg.modot.org/index.php?title=127.27_Guidelines_for_Obtaining_Environmental_Clearance_for_Project_Specific_Locations) |
| [Section 106 Survey Form](http://www.dnr.mo.gov/forms/780-1718.pdf) | |

The latest figures and other EPG 136.4 information is available at the top of

<http://epg.modot.org/index.php?title=136.4_Environmental_and_Cultural_Requirements>

There are several steps that must be taken for all projects to receive proper environmental and cultural clearance. Items that may need to be addressed include historical buildings, archaeological sites, historic bridges, conversion of farmland, endangered species, wetlands, crossing of Corps of Engineers controlled waterways and parklands and historical sites. Described within this article are procedures to address each of these topics.

The [Federal Highway Administration (FHWA)](http://www.fhwa.dot.gov/) must approve the Categorical Exclusion, Environmental Assessment or Environmental Impact Statement prior to 35% plan completion. (Note that the [Section 106 (cultural resources)](http://epg.modot.org/index.php?title=The_Section_106_Process) clearance must also be approved before right of way acquisition can begin).

**136.4.1 National Environmental Policy Act (NEPA) Classification**

The basic NEPA classifications are:

▪ Categorical Exclusion (CE)—typically sufficient for projects that do not individually or cumulatively have a significant environmental effect.

▪ Environmental Assessment (EA)—required for projects in which the environmental impact is not clearly established. Projects such as a two-lane relocation or adding lanes to an existing highway corridor generally require an EA.

▪ Environmental Impact Statement (EIS)—required for projects that may have significant adverse impacts or that are controversial. Projects such as a new controlled-access freeway, a highway project of four or more lanes on a new location, or new construction or extension of a separate roadway for buses or high occupancy vehicles not located within an existing highway facility typically require an EIS.

The environmental classification is based on the scope of the project and depends on the expected magnitude of the impacts from that project. The local agency initiates the NEPA classification process by preparing and submitting to the MoDOT district office the [Fig. 136.3.1.1 Programming Data Form](http://epg.modot.org/files/5/5c/136.3.1.1_Programming_Data_Form_%28Fig._3-1-1R%29.doc) that is required for all federal-aid projects. After reviewing the information provided, the district will notify the local agency of the project’s NEPA classification.

**136.4.1.1 Categorical Exclusion (CE)**

Certain categories of projects that will not individually or cumulatively have significant social, economic, or environmental impacts are excluded from the need to prepare a formal NEPA document (EIS or EA). The majority of projects in Missouri are classified as CEs and are processed in three ways—as a programmatic CE, a letter CE, and a CE2.

The MoDOT district contact will notify the local agency of the project’s NEPA classification and will also indicate other environmental permits and clearances the local agency must obtain.

For projects that are generally anticipated to have low environmental impacts but do not meet the criteria for use of the programmatic CE, MoDOT may advise the local agency that the project requires a letter CE. In this case, the agency prepares a letter to MoDOT presenting a summary of anticipated impacts and requesting concurrence in a CE designation for a particular project. MoDOT staff review the information provided and submit it to FHWA for their approval. MoDOT will notify the project sponsor of the CE approval.

For projects where the CE classification is likely but not certain, MoDOT will advise the local agency to complete a [CE2 form](http://epg.modot.mo.gov/forms/DE-Env&Cultural/Categorial%20Exclusion%20Form.dot) describing the proposed action, any impacts that will result from the action, and any mitigation measures that will be used to compensate for expected impacts. The information needed will include such items as federal project number, route, county, project termini and length, project description, current and future annual average daily traffic (AADT), right of way needs and displacements and a location map. [Instructions for preparing a CE2 form](http://www.modot.mo.gov/business/manuals/documents/FIG4-1-A.-2009-usethisone.doc) are available. For FHWA to classify the CE2 as a CE instead of an EA or EIS, the CE2 document must clearly demonstrate that the project will not have significant impacts and is, therefore, in a category excluded from the requirement to prepare an EIS or EA. MoDOT will notify the project sponsor of the CE approval, request for more information, or FHWA’s decision that an EA or EIS needs to be prepared.

**136.4.1.2 Environmental Assessment (EA)**

An EA is prepared when there is uncertainty about the significance of the impacts from a project. FHWA generally expects an EA for two-lane relocation projects and often for add-a-lane projects on new right of way; other types of projects may also require an EA. To avoid delays in project development, the local agency, or its consultant, should initiate preparation of the EA sufficiently early to ensure that NEPA compliance can be achieved before 35% design completion. An EA describes a project’'s purpose and need, identifies the alternates that are being considered, and discusses the expected impacts. It should discuss all topics required by FHWA regulations and guidance but should discuss in detail only those areas where there is potential for a significant impact. The EA should be concise and should not contain long descriptions or include detailed information that may have been gathered or analyses that may have been conducted for the proposed action. [FHWA Technical Advisory T6640.8A “Guidance for Preparing and Processing Environmental and Section 4(f) Documents”](http://environment.fhwa.dot.gov/projdev/impTA6640.asp) provides additional direction on the information contained in an EA and the format. The project sponsor should contact the MoDOT district contact if a significant impact is identified at any time during the preparation of an EA. FHWA will determine whether an EIS needs to be prepared.

The project sponsor should begin consultation (through either an early coordination process or a scoping process) with interested regulatory agencies and others, at the earliest appropriate time, to advise them of the scope of the project. This consultation will help determine those the proposed action having potential for social, economic, or environmental impact and identify other environmental review and consultation requirements that will be performed currently with the EA. Agencies with jurisdiction by law, such as the U.S. Army Corps of Engineers (COE) or the U.S. Fish and Wildlife Service (FWS), must be invited to become cooperating agencies. The local agency will provide the MoDOT district with draft letters requesting the COE and other agencies to be cooperating agencies and FHWA will send the letters. The project sponsor will also work with the FHWA to initiate consultation with federally recognized American Indian tribes determined to have an interest in the project area. Such consultation is conducted by FHWA on a government-to-government basis (FHWA determines which tribes and sends the letters); the consultation informs the tribes of the project, asks whether they have any specific concerns, and inquires whether they want to continue to consult on the project. The project sponsor or its consultant will prepare a draft letter for FHWA’s use but will not contact the tribes. The EA must summarize the results of both agency consultation and public involvement. The local sponsor, or its consultant, will prepare a preliminary EA (pEA) that encompasses the following:

▪ Finalize the location study with all alternates considered, including those discarded, depicted graphically.

▪ Indicate the preferred alternate.

▪ Evaluate all proposed reasonable alternates equally; the EA must include more than a single build alternative as well as the no build alternate. Reasonable alternates addressed in the EA are those that may be constructed in the event that the preferred alternate is not selected.

▪ Identify all previously reported archaeological and historic sites located within the study corridor and all alternates being considered. FHWA will determine whether the location and current condition of previously reported resources require verification. Complete a Phase I archaeological survey for the preferred alternate. Identify all areas for which landowner access was denied or the survey was not conducted at the preliminary EA stage. Determine which sites identified in the project area require Phase II archaeological testing or evaluation. If the Missouri Department of Natural Resources (DNR) determines any sites require further testing, Phase II archaeological testing must also be completed unless coordination with FHWA and the district determine such testing may be postponed to a later time.

▪ Identify all buildings and bridges 50 years old or older within all alternates being considered and provide an initial assessment of the resources’ potential eligibility to the National Register of Historic Places (NRHP). Submit all buildings, bridges, and culverts impacted by the preferred alignment, including those less than 50 years of age, to DNR’s State Historic Preservation Office (DNR-SHPO) for concurrence in a determination of eligibility to the NRHP.

▪ If the proposed project will adversely impact any NRHP-eligible sites or historical structures, the pEA must include either a draft Memorandum of Agreement (MOA) or draft Programmatic Agreement (PA) identifying uncompleted or mitigation activities to be completed prior to project construction.

▪ Indicate impacts to parklands, wildlife refuges, or other publicly owned recreational use areas that may qualify for [Section 4(f) protection](http://www.modot.mo.gov/business/manuals/documents/FIG4-6R-2009usethisone.doc), along with a statement as to the status of agency coordination on those impacts. The EA must include a Draft Section 4(f) Evaluation for impacts to these public lands, if applicable, or if the preferred alternate will cause adverse effects to certain kinds of cultural resources that require preservation in place, such as cultural resources that are NRHP-eligible for reasons other than the data associated with them (e.g., the location/setting is important, associated with significant historic events or people; distinctive characteristics of a type, period, or method of construction; involves human burial). Although prehistoric archaeological sites containing human remains will require Section 4(f) consideration, typically prehistoric sites not containing human remains will not require Section 4(f) consideration. A single Draft Section 4(f) Evaluation is prepared for all Section 4(f) resources, including both public lands and historic sites, potentially impacted by the project. This evaluation includes a consideration of all measures to minimize harm to the Section 4(f) resources.

▪ Identify any Section 6(f) resources the project will affect. Any Section 6(f)(3) Conversion Documentation required cannot be completed until the NEPA process is concluded because the Section 6(f) document must include copies of the approved FONSI signature page and/or signed Section 4(f) evaluation. However, elements of the Section 6(f) document may be assembled during preparation of the NEPA document.

▪ Conduct a preliminary wetland and stream evaluation to identify potential jurisdictional wetland areas and streams. Estimate the areas of wetlands in the project area for all alternatives using conventional mapping sources and windshield survey and document expected impacts.

▪ Determine the presence or absence of threatened or endangered plant and/or animal species within the project limits.

▪ Determine farmland impacts using either [Farmland Conversion Impact Rating, Form AD-1006](http://epg.modot.org/files/f/f5/127.11_Form_AD_1006.DOC) for site projects or [Form SCS-CPA-106](http://epg.modot.org/files/4/48/127.11_Form_SCS_CPA_106.DOC) for corridor projects.

▪ If applicable, perform a noise analysis that identifies noise sensitive receptors based on the Noise Abatement Criteria. Determine whether receptors meet the criteria for the installation of a noise wall. If the project sponsor does not have a noise policy, it is suggested that they use MoDOT’s FHWA-approved noise policy. The location of any necessary noise walls is proposed (this may change subject to subsequent detailed design and public involvement with the affected residents).

▪ Determine the number of displacements, the effect on pedestrian and bicycle traffic, the secondary and cumulative impacts and other social and economic impacts of the project.

▪ Conduct a records search to determine the presence of possible hazardous waste sites.

▪ Demonstrate that the proposed project is in compliance with the Clean Air Act.

The pEA is provided to MoDOT for distribution to FHWA and any formal cooperating agencies (identified as such on the pEA cover sheet) for their review and comment. The document is not to be distributed to anyone outside of these entities. When the project sponsor or its consultant has addressed the review comments on the pEA, the EA is ready for FHWA’s final review and approval, after which it is made available to the public as an FHWA document.

The EA must be made available for public inspection at the local agency’s office and at the appropriate FHWA field offices as described in the next two paragraphs of this section. Although it is not a federal requirement that the document be circulated for comment, the project sponsor is encouraged to provide the EA to those federal, state, and local agencies likely to be affected by the action (those with regulatory or other responsibilities relating to the action). As a minimum, the local agency must send notice of availability of the EA, briefly describing the project and its impacts, to the affected units of federal, state, and local government and to Missouri Federal Assistance Clearinghouse, the state intergovernmental review contact established under Executive Order 12372.

MoDOT’s normal practice is to hold a location public hearing for all EAs. Although FHWA regulations do not require public hearings for EAs, the FHWA encourages them on most EAs. For specific EAs depending on the situation, the FHWA division office may require a public hearing after signing the EA and before signing the FONSI. Detailed information on public hearings is located in [EPG 136.7 Right of Way and Public Hearings](http://epg.modot.org/index.php?title=136.7_Right_of_Way_and_Public_Hearings). When a public hearing is held as a part of the application for federal funds, the EA must be available at the public hearing and at the local agency’s office and at the appropriate FHWA field offices for a minimum of 15 days in advance of the public hearing. The notice of the public hearing in local newspapers must announce the availability of the EA and where it may be obtained to review. The notice will include a statement advising that comments should be submitted in writing to the local agency within 30 days of the availability of the EA unless FHWA determines that a different period is warranted.

When a public hearing is not held, the project sponsor must place in the local newspapers a notice, similar to a public hearing notice and at a similar stage of project development, advising the public of the EA’s availability at the local agency’s office and at the appropriate FHWA field offices and where to obtain information concerning the project. The notice must invite comments from all interested parties. It will include a statement advising that comments should be submitted in writing to the local agency within 30 days of the publication of the notice unless FHWA determines that a different period is warranted.

**136.4.1.2.1 Findings of No Significant Impact (FONSI)**

Once the 30-day public comment period has ended and all comments from the public and other agencies have been collected, the project sponsor or its consultant prepares a letter to FHWA. The letter should summarize any public and/or agency coordination that occurred after the EA was signed. The letter must satisfactorily address all substantive comments on the EA provided during the 30-day comment period, including those from other agencies, the general public, and as a result of the public hearing. To ensure this, the project sponsor will provide the MoDOT district contact with a copy of the public hearing transcript and/or any other comments received for transmission to the FHWA along with the letter. The letter must describe any changes to the EA-designated preferred alternate and document any additional impact analyses performed for the final, selected alternate.

The letter must also document compliance with all applicable environmental laws and Executive Orders or provide reasonable assurance that their requirements can be met and briefly present why the action does not have a significant impact. If the proposed project will adversely impact any NRHP-eligible sites or historical structures, either an MOA or a PA executed by the DNR-SHPO, FHWA, Advisory Council on Historic Preservation (ACHP), and the project sponsor must accompany the letter. The MOA or PA will identify uncompleted or mitigation activities to be completed prior to project construction. If the project will impact prehistoric sites known or likely to contain human remains, the MOA or PA will also be provided to appropriate American Indian tribes with cultural interest in the region for review, comment, and signature if they desire. Accompanying documentation must also include the Final Section 4(f) Evaluation, when required, for any impacted historic structures and for parklands, wildlife refuges, or other public lands affected.

When the letter is completed and the listed items are included, the documentation is provided to MoDOT along with a FONSI signature page for distribution to FHWA (and to cooperating agencies for their review and comment if the selected alternate differs from the EA-designated preferred alternate).

If the FONSI is for a new controlled access freeway, a highway project of four or more lanes on a new location, or other action described in 23 CFR §771.115a, the letter to FHWA and accompanying documentation described above must also be made available for public review, including affected units of government, for a minimum of 30 days before FHWA issues a FONSI for the project. A notice similar to that for a public hearing must announce the availability of the documentation. If at any point in the EA process, FHWA determines that the action is likely to have a significant impact, the local agency will be required to prepare an EIS.

FHWA will review the letter, accompanying documentation, and any public hearing comments and other comments received regarding the EA. If FHWA determines after reviewing the documentation that there are no significant impacts associated with the project, the FONSI will be signed and a copy of the signed FONSI will be returned to the local agency.

After FHWA issues a FONSI, the project sponsor is encouraged to provide the FONSI to those federal, state, and local agencies likely to be affected by the action (those with regulatory or other responsibilities relating to the action). As a minimum, the local agency must send a notice of availability of the FONSI to the affected units of federal, state, and local government and the FONSI shall be available from the local agency and FHWA upon request by the public. Notice of availability is also sent to Missouri Federal Assistance Clearinghouse, the state intergovernmental review contact established under Executive Order 12372.

**136.4.1.2.2 Timeframes**

The project schedule should allow about two years for obtaining a FONSI.

**136.4.1.3 Environmental Impact Statement (EIS)**

**136.4.1.3.1 Draft Environmental Impact Statement**

An EIS is prepared for projects that have clearly identified and significant social, economic, or environmental impacts. FHWA indicates that an EIS is required for four-lane relocations as well as for major bridges or projects that are controversial. To avoid delays in project development, the local agency, or its consultant, should initiate preparation of the EIS sufficiently early to ensure that NEPA compliance can be achieved before 35% design completion.

An EIS describes a project’s purpose and need, identifies the alternates being considered, and discusses expected impacts in detail. To the extent possible, it also indicates compliance with other regulations. The EIS includes procedures to minimize harm and details mitigation measures and all other environmental commitments. [FHWA Technical Advisory T6640.8A “Guidance for Preparing and Processing Environmental and Section 4(f) Documents”](http://environment.fhwa.dot.gov/projdev/impTA6640.asp) provides additional direction on the information contained in an EIS and the format.

When FHWA determines that an EIS is required, the local agency will prepare and FHWA will issue a Notice of Intent for publication in the *Federal Register*. Local agencies are encouraged to announce the intent to prepare an EIS by appropriate means at the local level.

After publication of the Notice of Intent, the local agency will begin a scoping process to aid in identifying the range of alternatives and impacts and the significant issues to be addressed in the EIS. Scoping is normally achieved through public and agency involvement procedures. If a scoping meeting is to be held, it will be announced in the FHWA’s Notice of Intent and by appropriate means at the local level. Agencies with jurisdiction by law must be requested to become cooperating agencies. Section 6002 (Efficient Environmental Reviews for Project Decision Making) of the Safe, Accountable, Flexible, and Efficient Transportation Equity Act of 2003 (SAFETEA-LU) updates the environmental review process by adding a new category of “participating agencies” for federal, state, and local agencies and tribal nations that have an interest in the project. The local agency will provide the MoDOT district with draft letters requesting the COE and other agencies to be cooperating and/or participating agencies as appropriate and FHWA will send the letters.

The project sponsor will also work with the FHWA to initiate consultation with federally recognized American Indian tribes determined to have an interest in the project area. Such consultation is conducted by FHWA on a government-to-government basis (FHWA determines which tribes and sends the letters); the consultation informs the tribes of the project, asks whether they have any specific concerns, and inquires whether they want to continue to consult on the project. The project sponsor or its consultant will prepare a draft letter for FHWA’s use but will not contact the tribes.

Section 6002 stipulates that both participating agencies and the public will be given the opportunity to comment on the purpose and need and range of alternatives for a project. Previously only cooperating agencies were offered such an opportunity. Section 6002 also mandates establishing a coordination plan for agency and public participation and comment. Further information on the SAFETEA-LU environmental review process can be found in FHWA’s [SAFETEA-LU ENVIRONMENTAL REVIEW PROCESS FINAL GUIDANCE, Publication L 109-59, November 15, 2006](http://www.fhwa.dot.gov/hep/section6002/).

The project sponsor or its consultant will prepare a preliminary Draft EIS (pDEIS) that evaluates all reasonable alternatives to the action and discusses the reasons why other alternatives that may have been considered were eliminated from detailed study. The pDEIS also summarizes the studies, reviews, consultation, and coordination required by environmental laws or Executive Orders to the extent appropriate at this stage in the environmental process. A pDEIS requires completing the following work:

▪ Finalize the location study; all alternates considered, including those discarded, must be depicted graphically in the document.

▪ Indicate a preferred alternate if one stands out.

▪ Evaluate all proposed reasonable alternates equally. Reasonable alternates addressed in the EIS are those that may be constructed in the event that the preferred alternate is not selected. (Provisions of SAFETEA-LU allow FHWA to decide whether the preferred alternative may be developed to a higher level of design detail to facilitate either the development of mitigation measures or compliance with other environmental laws. See FHWA’s 2006 SAFETEA-LU FINAL GUIDANCE, as cited previously, for details.)

▪ Identify all previously reported archaeological and historic sites located within the study corridor and all alternates being considered. FHWA will determine whether the location and current condition of previously reported resources require verification.

▪ Identify all buildings and bridges 50 years old or older within all alternates being considered and provide an initial assessment of the resources’ potential eligibility to the National Register of Historic Places (NRHP).

▪ Indicate impacts to parklands, wildlife refuges, or other publicly owned recreational use areas that may qualify for Section 4(f) protection, along with a statement as to the status of agency coordination on those impacts. The DEIS must include a Draft Section 4(f) Evaluation for impacts to these public lands, if applicable, or if the preferred alternate will cause adverse effects to certain kinds of cultural resources that require preservation in place, such as cultural resources that are NRHP-eligible for reasons other than the data associated with them (e.g., the location/setting is important, associated with significant historic events or people; distinctive characteristics of a type, period, or method of construction; involves human burial). Although prehistoric archaeological sites containing human remains will require Section 4(f) consideration, typically prehistoric sites not containing human remains will not require Section 4(f) consideration. A single Draft Section 4(f) Evaluation is prepared for all Section 4(f) resources, including both public lands and historic sites, potentially impacted by the project. This evaluation includes a consideration of all measures to minimize harm to the Section 4(f) resources.

▪ Note the presence of any potential Section 6(f) resources. If Section 6(f)(3) Conversion Documentation is required, it cannot be completed until the NEPA process is concluded because the Section 6(f) document must include copies of the approved ROD signature page and/or signed Section 4(f) evaluation. However, elements of the Section 6(f) document may be assembled during preparation of the NEPA document.

▪ Conduct a preliminary wetland and stream evaluation to identify potential jurisdictional wetland areas and streams and possible impacts to them.

▪ Determine the presence or absence of threatened or endangered plant and/or animal species within the project limits.

▪ Determine farmland impacts using either Form AD-1006 for site projects or Form SCS-CPA-106 for corridor projects.

▪ If applicable, perform a noise analysis that identifies noise sensitive receptors based on the Noise Abatement Criteria. Determine whether receptors meet the criteria for the installation of a noise wall. If the project sponsor does not have a noise policy, it is suggested that they use MoDOT’s FHWA-approved noise policy.

▪ Determine the number of displacements, the effect on pedestrian and bicycle traffic, the secondary and cumulative impacts, and other social and economic impacts of the project.

▪ Conduct a records search to determine the presence of possible hazardous waste sites.

▪ Demonstrate that the proposed project is in compliance with the Clean Air Act.

The pDEIS is provided to MoDOT for distribution to FHWA and formal cooperating agencies (identified as such on the pDEIS cover sheet) and may be offered to participating agencies for their review and comment. The document is not to be distributed to anyone outside of these entities. When the project sponsor or its consultant has addressed the review comments on the pDEIS, the DEIS is ready for FHWA’s final review. The FHWA, when satisfied that the DEIS complies with NEPA requirements, will approve the DEIS for circulation by signing and dating the cover sheet.

The project sponsor is responsible for printing the DEIS in sufficient quantity to accommodate circulation to those entities listed in the document as well as requests for copies that can reasonably be expected from agencies, organizations, and individuals. Normally, copies will be furnished free of charge. However, with FHWA concurrence, the party requesting the DEIS may be charged a fee that is not more than the actual cost of reproducing the copy or may be directed to the nearest location where the statement may be reviewed.

Once FHWA signs the DEIS, public and agency comments must be requested. The local agency, on behalf of FHWA, circulates the approved DEIS to federal and state agencies, local entities, elected officials, and others as appropriate for their review and comment. Upon circulation of the approved DEIS to the Environmental Protection Agency (EPA), the EPA publishes a Notice of Availability (NOA) in the Federal Register. Copies of the approved DEIS are also provided for public viewing and copying in the local agency’s office and other public repositories such as libraries and city or county offices. The DEIS must be made available to the public and transmitted to agencies for comment no later than the time the document is filed with the Environmental Protection Agency. The DEIS shall be transmitted to:

1. Public officials, interest groups and members of the public known to have an interest in the proposed action or the DEIS;

2. Federal, state and local government agencies expected to have jurisdiction or responsibility over, or interest or expertise in, the action. Copies are provided directly to appropriate state and local agencies and to Missouri Federal Assistance Clearinghouse, the state intergovernmental review contact established under Executive Order 12372; and

3. States and federal land management entities that may be significantly affected by the proposed action or any of the alternatives. These copies shall be accompanied by a request that such state or entity advise the FHWA in writing of any disagreement with the evaluation of impacts in the statement. FHWA will furnish the comments received to the local agency along with a written assessment of any disagreements for incorporation into the final EIS.

The *Federal Register* NOA initiates a period of no less than 45 days for the return of comments on the DEIS. The notice and the DEIS transmittal letter must identify to whom comments may be sent.

A location public hearing is generally held for all projects requiring an EIS. Detailed information on public hearings is located in [EPG 136.7 Right of Way and Public Hearings](http://epg.modot.org/index.php?title=136.7_Right_of_Way_and_Public_Hearings). The DEIS shall be available at the public hearing and for a minimum of 15 days in advance of the hearing. The availability of the DEIS shall be mentioned and public comments requested in any public hearing notice and at any public hearing presentation. If a public hearing on an action proposed for FHWA funding is not held, a notice shall be placed in newspaper similar to a public hearing notice advising where the DEIS is available for review, how copies may be obtained, and where the comments will be sent.

**136.4.1.3.2 Final Environmental Impact Statement**

After circulation of a DEIS, when the 45-day comment period has ended and all comments from the public and other agencies have been collected, a preliminary Final EIS (pFEIS) is prepared. The FEIS identifies the preferred alternative and evaluates all reasonable alternatives considered. It should also discuss substantive comments received on the DEIS and responses thereto, summarize public involvement, and describe the mitigation measures that are to be incorporated into the proposed action. Mitigation measures presented as commitments in the FEIS must be implemented with the project. The following items of work are completed as part of the pFEIS:

▪ All substantive comments gathered on the DEIS during the 45-day comment period, including those from other agencies, the general public, and as a result of the public hearing, must be satisfactorily addressed. To ensure this, the project sponsor will provide the MoDOT district contact with a copy of the public hearing transcript and/or any other comments received for transmission to the FHWA along with the pFEIS.

▪ A preferred alternate must be declared.

▪ A Phase I archaeological survey must be completed for the preferred alternate(s) and all areas for which landowner access was denied or the survey was not conducted should be identified. A determination should be made of which sites identified in the project area require Phase II archaeological testing or evaluation. If the Missouri Department of Natural Resources (DNR) determines any sites require further testing, Phase II archaeological testing must also be completed unless coordination with FHWA and the district determine such testing may be postponed to a later time.

▪ All buildings, bridges, and culverts impacted by the preferred alignment that were not previously reviewed by the DNR’s State Historic Preservation Office (DNR-SHPO), including those less than 50 years of age, must be submitted to DNR for concurrence in a determination of eligibility to the NRHP.

▪ If the proposed project will adversely impact any NRHP-eligible sites or historical structures, the pFEIS must include either a Memorandum of Agreement (MOA) or a Programmatic Agreement (PA) executed by the DNR-SHPO, FHWA, the project sponsor, and the Advisory Council on Historic Preservation (ACHP) (all PAs; MOAs if it chooses to participate). The MOA or PA will identify uncompleted or mitigation activities to be completed prior to project construction. If the project will impact prehistoric sites known or likely to contain human remains, the MOA or PA will also be provided to appropriate American Indian tribes with cultural interest in the region for review, comment, and signature if they desire.

▪ A Final Section 4(f) Evaluation, when required, must be included in the pFEIS for any impacted historic structures and for parklands, wildlife refuges, or other public lands affected.

▪ Identify any Section 6(f) resources the project will affect. Elements of the Section 6(f)(3) Conversion Documentation may be assembled during preparation of the NEPA document, even though the Section 6(f) document cannot be completed until the NEPA decision document has been issued.

▪ A preliminary jurisdictional wetland and stream delineation is conducted in the project area for the preferred alternative and expected impacts are documented.

▪ Identify any consultation with the U.S. Fish and Wildlife Service required to address threatened or endangered plant and/or animal species within the project limits and any mitigation resulting from the consultation.

▪ The location of any necessary noise walls is proposed (this may change subject to subsequent detailed design and public involvement with the affected residents).

The FEIS will also document compliance, to the extent possible, with all applicable environmental laws and Executive Orders or provide reasonable assurance that their requirements can be met. Every reasonable effort shall be made to resolve interagency disagreements on actions before processing the FEIS. If significant issues remain unresolved, the FEIS must identify those issues and the consultations and other efforts made to resolve them. When the listed items are completed and included in a preliminary FEIS, the pFEIS is provided to MoDOT for distribution to FHWA and formal cooperating agencies (identified as such on the pFEIS cover sheet) and may be offered to participating agencies for their review and comment. The document is not to be distributed to anyone outside of these entities. When the project sponsor or its consultant has addressed the review comments on the pFEIS, the FEIS is ready for FHWA’s final review and approval. The FEIS will be reviewed for legal sufficiency prior to FHWA approval.

FHWA will indicate approval of the FEIS for an action by signing and dating the cover page. Approval of the FEIS does not commit the FHWA to approve any future request to fund the preferred alternative.

The project sponsor should print a sufficient quantity of the FEIS to accommodate circulation to the appropriate entities as well as requests for copies that can reasonably be expected from agencies, organizations, and individuals. Normally, copies will be furnished free of charge. However, with FHWA concurrence, the party requesting the FEIS may be charged a fee that is not more than the actual cost of reproducing the copy or may be directed to the nearest location where the statement may be reviewed.

When sufficient copies of the approved FEIS are transmitted to FHWA, FHWA circulates the document to the EPA along with an NOA to be published in the *Federal Register*. Publication of the NOA initiates a 30-day comment period on the FEIS. The local agency circulates the approved FEIS for review and comment to any persons, organizations, or agencies that made substantive comments on the DEIS or requested a copy, no later than the time the document is filed with EPA. In the case of lengthy documents, the agency may provide alternative circulation processes. The local agency shall also publish a notice of availability in local newspapers and make the FEIS available through the mechanism established pursuant to DOT Order 4600.13 which implements Executive Order 12372. When the FEIS is filed with EPA, it must be available for public review at the local agency’s offices and at appropriate FHWA offices. A copy will also be made available for public review at institutions such as local government offices, libraries, and schools, as appropriate.

**136.4.2 Record of Decision (ROD)**

Substantive comments received on the FEIS are addressed in a Record of Decision (ROD) prepared by the local agency. The ROD also discusses the alternates that were considered for the project, identifies the selected alternate, and discusses why this alternate was selected. The ROD discusses commitments made in the document, including the measures that have been adopted to minimize harm, such as mitigation plans, and details any monitoring and enforcement program, if applicable. After comments are satisfactorily addressed, the ROD is presented to FHWA for approval. Once the ROD is signed by FHWA, the local agency can approve the location of the project and begin detailed design.

**Timeframes**

The timeframe for completing the EIS process varies. The timeline for completing consultant-prepared EISs is a negotiated item within the scope of work. A good rule of thumb is to allow at least 3 years to get to an approved ROD.

**136.4.3 Re-evaluations**

If an acceptable FEIS is not submitted to the Federal Highway Administration (FHWA) within 3 years from the date of the DEIS circulation, the local agency shall prepare a written reevaluation of the DEIS in cooperation with FHWA. This reevaluation is used to determine whether a supplement to the DEIS or a new DEIS is needed.

A written reevaluation of the FEIS may be required before further approvals are granted if major steps to advance the action (e.g., authority to undertake final design, authority to acquire a significant portion of the right-of-way, or approval of the plans, specifications, and estimates) have not occurred within three years after the approval of the FEIS, final EIS supplement, or the last major FHWA approval or grant.

Factors such as noteworthy changes in the scope and/or location of the project, whether the project is active or inactive, and changes in environmental laws or regulations can also require a NEPA document reevaluation. Once completed and approved, a NEPA document has a limited shelf life, even when portions of the project are under construction or have already been constructed, as is often the case for lengthy corridor projects. After approval of the ROD, FONSI or CE designation and prior to requesting any major approvals or grants, the local agency shall consult with MoDOT to establish whether the approved environmental document or CE designation remains valid for the requested FHWA action. These consultations will be documented when determined necessary by FHWA.

Whenever the project scope or location changes, the local agency will submit to MoDOT a [Programming Data Form](http://epg.modot.org/files/5/5c/136.3.1.1_Programming_Data_Form_%28Fig._3-1-1R%29.doc) that describes and shows the changes. Based on that information, the project will be reexamined to determine whether the proposed changes require a reevaluation. When a reevaluation is needed, the project sponsor prepares the reevaluation documentation. In most cases, the reevaluation is submitted to the FHWA for review and approval. Documentation for reevaluations is based on the original NEPA document type. If the original NEPA document was an EA or EIS, the project sponsor prepares a letter documenting the reevaluation and submits it to MoDOT for FHWA’s review and approval. Some projects with original NEPA classifications as CEs may also require reevaluations in the form of a letter. FHWA does not routinely require reevaluations in the form of supplemental EAs or EISs. More [detailed discussion of NEPA reevaluations](http://edocket.access.gpo.gov/cfr_2002/aprqtr/pdf/23cfr771.129.pdf) can be found on FHWA’s web site.

**136.4.4 Supplemental Environmental Impact Statements**

A DEIS, FEIS or supplemental EIS may be supplemented at any time. An EIS shall be supplemented whenever FHWA determines that:

**1.** Changes to the proposed action would result in significant environmental impacts that were not evaluated in the EIS; or

**2.** New information or circumstances relevant to environmental concerns and bearing on the proposed action or its impacts would result in significant environmental impacts not evaluated in the EIS.

Where FHWA is uncertain of the significance of the new impacts, the local agency will develop appropriate environmental studies or, if FHWA deems appropriate, an EA to assess the impacts of the changes, new information, or new circumstances. If based upon the studies, FHWA determines that a supplemental EIS is not necessary, FHWA shall so indicate in the project file.

A supplement is to be developed using the same process and format (i.e., draft EIS and final EIS as an original EIS except that scoping is not required.

In some cases a supplemental EIS may be required to address issues of limited scope, such as the extent of proposed mitigation or the evaluation of location of design variations for a limited portion of the overall project. Where this is the case, the preparation of a supplemental EIS shall not necessarily:

**1.** Prevent the granting of new approvals;

**2.** Require the withdrawal of previous approvals; or

**3.** Require the suspension of project activities; for any activity not directly affected by the supplement. If the changes in question are of such magnitude to require a reassessment of the entire action, or more than a limited portion of the overall action, FHWA shall suspend any activities that would have an adverse environmental impact or limit the choice of reasonable alternatives, until the supplemental EIS is completed.

More [detailed discussion of supplemental NEPA documents](http://edocket.access.gpo.gov/cfr_2002/aprqtr/pdf/23cfr771.130.pdf) can be found on FHWA’s web site.

**136.4.5 Guidance for Compliance with Federal and State Environmental Laws and Regulations**

The following resource-specific discussions are intended to aid the project sponsor in achieving compliance with federal and state environmental laws and regulations. Ultimately the local agency is responsible for compliance with all applicable laws and regulations, regardless of the information, or lack thereof, contained herein. The local agency must ensure that all commitments identified in environmental documents are included in plans and job specifications as appropriate. The local agency is also responsible for implementing all commitments and monitoring identified in environmental documents.

**136.4.5.1 Community Impact Assessment (Social/Economic/Environmental Justice)**

[Title VI of the Civil Rights Act of 1964 and Executive Order 12898 on Environmental Justice](http://www.fhwa.dot.gov/environment/ejustice/facts/index.htm) apply to federal activities. Compliance with the FHWA’s NEPA process will accomplish appropriate implementation of Title VI and EO 12898. This process includes fully identifying social, economic and environmental effects; considering alternatives; coordinating with agencies; involving the public; and utilizing a systematic interdisciplinary approach. Addressing the issues coupled with full implementation of 23 USC 109(h) (e.g., community cohesion, availability of public facilities and services, adverse employment effects, etc.) will prevent the potential for discrimination or disproportionately high and adverse impacts. Community impact assessment is key to this preventive approach. Compliance with Executive Order 13166 on Limited English Proficiency should also be considered.

Additional information concerning [environmental justice](http://www.fhwa.dot.gov/environment/ej2.htm) and [community impact assesment](http://www.fhwa.dot.gov/environment/cia.htm) is available.

The local agency will provide a brief description of impacts, if any, to minorities, low-income populations, and the community in general. Most projects will be small and will have minimal to no impacts. If there are any commercial or residential displacements, the following text must be included in the NEPA documentation:

The project sponsor will conduct the acquisition and relocation of affected residential and commercial properties in accordance with the relocation procedures established in the Uniform Relocation Assistance and Real Property Acquisition Policies Act (referred to as the Uniform Act) of 1970, as amended. The Uniform Act and Missouri state laws require that just compensation be paid to the owner(s) of private property taken for public use. The Uniform Act is carried out without discrimination and in compliance with Title VI (the Civil Rights Act of 1964), the President’s Executive Order on Environmental Justice, and the Americans with Disabilities Act.

The local agency must provide relocation services to all impacted households without discrimination under guidance of the Uniform Act.

**136.4.5.2 Farmland Protection Policy Act**

The Farmland Protection Policy Act requires that agencies identify and take into account the adverse effects of federal projects on farmland. The act requires that all federally funded projects be assessed for the potential conversion of farmland to non-farming purposes. Local agencies shall assess the impact of their projects in cooperation with the local Natural Resources Conservation Service (NRCS) office.

This assessment is not necessary if no additional right of way is needed. If the additional right of way the project requires is located within city limits and the affected land is entirely developed for uses other than agriculture (e.g., within city limits), the local agency may document this in their files and no further action is needed. If it is outside of established city limits, the project sponsor must complete a [Form AD-1006 Farmland Conversion Impact Rating](http://epg.modot.org/files/f/f5/127.11_Form_AD_1006.DOC) (or [Form SCS-CPA-106](http://epg.modot.org/files/4/48/127.11_Form_SCS_CPA_106.DOC) for corridor type projects) and forward it along with the preliminary layouts to the NRCS for agency review.

Forms can also be obtained from the NRCS and may be reproduced. The local agency shall fill out Parts I and III, showing the acreage of new right-of-way and borrow areas, and submit three copies to NRCS. The submittal shall request that NRCS fill out Parts II, IV, and V. If desired, NRCS assistance in filling out Part VI can also be requested. The sponsor’s submittal shall also ask NRCS to advise whether any land considered to be farmland is subject to any state or local government policy or programs to protect farmland.

When NCRS returns the form, the local agency shall complete it. If the total rating exceeds 160 points, the Farmland Protection Policy Act mandates further consideration of protection. Using the bottom portion of Form AD-1006 labeled “Reason for Selection,” the sponsor will document why this site has been selected over the other alternative sites and submit one copy of the form along with the preliminary layout. This completes the processing. Under present directives, the local agency will have satisfied the requirements by considering the impact of converting any farmland to non-agricultural use and submitting the completed form. If the project is classified as other than a categorical exclusion, the completed form shall be included in the EIS or EA.

**136.4.5.3 100-Year Floodplain and Regulatory Floodway**

Executive Order 11988, Floodplain Management, and subsequent federal floodplain management guidelines mandate an evaluation of floodplain impacts. When available, flood hazard boundary maps (National Flood Insurance Program) and flood insurance studies for the project area are used to determine the limits of the base (100-year) floodplain and the extent of encroachment.

The Federal Emergency Management Agency (FEMA) and Federal Highway Administration (FHWA) guidelines 23 CFR 650 have identified the base (100-year) flood as the flood having a one-percent probability of being equaled or exceeded in any given year. The base floodplain is the area of 100-year flood hazard within a county or community. The regulatory floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 100-year flood discharge can be conveyed without increasing the base flood elevation more than a specified amount. FEMA has mandated that projects can cause no rise in the regulatory floodway and a one-foot cumulative rise for all projects in the base (100-year) floodplain. In the case of projects proposed within regulatory floodways, a “no-rise” certificate, if applicable, should be obtained prior to issuance of a Floodplain Development Permit.

The project sponsor must complete and submit to the MoDOT district office an application that includes information regarding community participation in the National Flood Insurance Program (NFIP) and whether the project is located in a Special Flood Hazard Area (SFHA). If the community or county has not been mapped, the sponsor communicates this to MoDOT. If the community has been mapped, then the sponsor should identify whether the project is located in the 100-year floodplain and/or regulatory floodway. The district will identify the project sponsor’s need to obtain a [Fig. 136.4.3 Floodplain Development Permit/Application](http://epg.modot.org/files/b/b8/136.4.3_Floodplain_Development.pdf) or [Fig. 136.4.4 Engineering "No-Rise" Certification](http://epg.modot.org/files/2/2f/136.4.4_Engineering_No_Rise.pdf) from the local floodplain administrator.

Local agencies that participate in the National Flood Insurance Program (NFIP) have the responsibility to ensure that floodplain developments meet the regulations established by the NFIP as identified in Title 44, Code of Federal Regulations, Parts 59 through 78. (Parts 59 and 60 contain the most applicable information for a typical project). These [regulations are available](http://www.access.gpo.gov/nara/cfr/waisidx_07/44cfrv1_07.html).

The engineer of record, with assistance from the local agency’s floodplain administrator, is responsible for ensuring that FEMA NFIP requirements are met. In addition, the engineer of record will be responsible for attaining all required certifications before construction begins. It is advisable that the engineer of record investigates this in the early stages of the project, as the requirements of the NFIP may control the hydraulic design of the project. A current list of communities for which FEMA Flood Insurance Studies have been performed is available in the [National Flood Insurance Program Community Status Book](http://www.fema.gov/fema/csb.shtm). [Missouri-only data](http://www.fema.gov/cis/MO.pdf) is also available.

For the convenience of local agencies and engineers, [FEMA Flood Insurance Studies and flood maps](http://www.fema.gov) pertaining to a project site can be viewed by selecting “Flood Insurance, Maps and Information". Hardcopies of the FEMA Flood Insurance Studies and Flood Maps can also be ordered at the same site.

**136.4.5.4 State Emergency Management Agency (SEMA)/Federal Emergency Management Agency (FEMA) Buyout Lands**

The Flood Disaster Protection Act of 1988 (The Stafford Act), identified the use of disaster relief funds under Section 404 for the Hazard Mitigation Grant Program (HMGP), including the acquisition and relocation of flood-damaged property. The Volkmer Bill further expanded the use of HMGP funds under Section 404 to “buy out” flood-damaged property that had been affected by the Great Flood of 1993.

There are numerous restrictions on these FEMA buyout properties. No structures or improvements may be erected on these properties unless they are open on all sides. The site can be used only for open space purposes and must remain in public ownership. These conditions and restrictions (among others), along with the right to enforce same, are deemed to be covenants running with the land in perpetuity and are binding on subsequent successors, grantees, or assigns. Any decision involving these properties should take into consideration that two to three years may be necessary to process an exemption from FEMA to utilize this parcel. This exemption would likely be a permanent easement rather than a transfer of property.

**136.4.5.5** [**Section 404 Permits**](http://www.modot.mo.gov/business/manuals/documents/FIG4-5-2009usethisone.doc)

If a project involves stream crossing(s) and/or wetland impacts under jurisdiction of the U.S. Army Corps of Engineers (COE), a Section 404 Permit or a written waiver thereof is necessary. If the COE issues an individual Section 404 permit, then the project sponsor must obtain an individual Section 401 Water Quality Certification from the Department of Natural Resources (DNR). If the COE issues a nationwide permit (NWP) for project activities, then the applicant shall follow the conditions contained within DNR’s blanket 401 certifications, specific to the appropriate NWP to which it applies. For most NWPs, an individual request for DNR’s Section 401 Water Quality Certification is not necessary because the agency has granted blanket certification for the majority of commonly used NWPs. The applicant shall include the appropriate 401 certification conditions for their respective NWP(s) in the contract (see the web site referenced below).

A Section 404 permit may also be required for fill in any water body, which includes lakes, ponds, streams, rivers, and wetlands. The COE will make a final determination as to the extent of its jurisdiction and the appropriate permit(s) for all regulated activities. Stream and/or wetland impacts exceeding 0.5 acre or channelization beyond the minimum necessary to construct or protect the linear transportation project may result in the issuance of an individual permit. For individual Section 404 permits, duplicate applications should be sent concurrently to the COE and DNR. When the COE is ready to issue an individual permit, it will subsequently request 401 certification issuance from DNR. Both the 404 and 401 permits and conditions covered therein shall be included in the construction contract. A [404 permit application form](http://www.nwk.usace.army.mil/regulatory/eng4345.pdf) is available.

For linear transportation projects, if permanent fills impacting waters of the U. S. (not including wetlands) do not exceed 0.1 acre, then the applicant is not legally obligated to submit an application to the COE. If this “no pre-construction notification” protocol is met for a project, the project sponsor will then be required to provide a written statement to MoDOT verifying that permanent project impacts will not exceed 0.1 acre. If either temporary or permanent impacts to wetlands will result from project construction, then a permit submittal will be required.

For impacts that exceed the nationwide permit pre-construction notification thresholds, the project sponsor must obtain a permit from the COE and provide it to MoDOT. In either the no pre-construction notification or the permit application submittal scenario, if NWP(s) apply, then the applicant shall be required to abide by all of the following conditions and include them in all contract proposals to validate the NWP(s):

**1.** The 28 Nationwide Permit General Conditions. The (28) [General Conditions for NWPs](http://www.usace.army.mil/cw/cecwo/reg/nwp/nwp2007_gen_conditions_def.pdf) are available. The general conditions are defined on pages 24–34.

**2.** The Regional Special Conditions for NWPs. The public notice announcing approval of the [Regional Special Conditions for NWPs](http://www.nwk.usace.army.mil/regulatory.htm) are available under the topic “Nationwide Permits 2007.”

**3.** The State of Missouri Section 401 Water Quality Certification General & Specific Conditions. The public notice announcing approval of [401 Water Quality Certification for Nationwide Permits in the State of Missouri](http://www.nwk.usace.army.mil/regulatory/regulatory.htm) are available under the topic “Nationwide Permits 2007.”

**136.4.5.6 Channel Modification**

Channel changes alter the conditions of the natural waterway and may cause an increase in velocity of the flowing water, sometimes enough to cause damage to the highway embankment near the stream or excessive scour around footings of structures. Because of the likelihood that these outcomes may result from channel modifications, such alterations should be avoided to the fullest extent practical. Where unavoidable, an evaluation must be made including consideration of the environment, hydraulic, legal and geomorphic aspects involved. The investigation should determine the effect on peak flow downstream and the affected flow area. Relative to 404 permitting, any channelization should be kept to an absolute minimum and should only be undertaken to facilitate or protect a construction project. The project sponsor must include justification for any channel changes in the 404 permit application.

**1.** The new channel should duplicate the existing stream and floodplain characteristics as nearly as possible. These characteristics should include the stream width, depth, slope, flow regime, sinuosity, bank cover, side slopes, and flow and velocity distribution.

**2.** Major channel modification may be constructed if the average channel velocity would not be increased beyond the scour velocity of the predominant soil type at the project site.

**3.** The COE will require individual permit authorization for projects that involve major channel modification. Additionally, if the project sponsor is permitted to conduct the channel modifications under the terms of the individual permit, stream mitigation will be required. This can drastically add to the cost of a project and may require either a monetary contribution to an approved stream mitigation bank/in lieu fee program or the acquisition/restoration and/or, in very limited circumstances, protection of a previously impacted stream resource.

**136.4.5.7 Stormwater and Erosion Control**

Provisions of the federal Clean Water Act and related state rules and regulations require stormwater permits where construction activities disturb areas greater than one acre. MoDOT has a general permit (obtained from DNR) that allows them to accomplish road construction activities. The permit stipulates that MoDOT will follow certain erosion control guidelines and install temporary and permanent erosion control measures. This permit applies only to land disturbance activities associated with construction projects on MoDOT right of way.

A few cities (Kansas City, Columbia and others) and counties have obtained their own land disturbance permits from DNR for generic land disturbance purposes. In these areas, the project sponsor (city or county government) would have their own restrictions and erosion control guidelines to meet the intent of their program. Prior to initiation of any federal-aid project, the local sponsor needs to determine the acreage that will be disturbed. If less than one acre is disturbed, the sponsor is exempt from the requirements of the Federal Clean Water Act National Pollutant Discharge Elimination System (NPDES) program permits and DNR permit applications. However, there may be other local ordinances that must be addressed. The sponsor should inquire whether or not there are local rules and regulations that govern clean water guidelines. If greater than one acre is to be disturbed, the project sponsor should determine whether their city or county is operating under a DNR-approved program. If so, appropriate erosion controls will be imposed by the local government jurisdiction.

If the city or county does not have a DNR stormwater program and the project will disturb more than one acre, the project sponsor will need to apply for a DNR permit. If the project is entirely within MoDOT right of way, the sponsor may use MoDOT’s general permit. In either case, the sponsor will need to develop a site-specific stormwater pollution prevention plan for the project. The sponsor shall contact the DNR NPDES Storm Water Program office (573-751-1300 or 800-361-4827) for further directions. If any amount of acreage is to be disturbed, the local agency is responsible for providing a temporary erosion control plan to be included with the final plan submittal. The plans shall detail the types of temporary erosion control facilities to be used and the location of where the items shall be installed. Further information on the design criteria can be found in [EPG 806 Pollution, Erosion and Sediment Control](http://epg.modot.org/index.php?title=Category:806_Pollution%2C_Erosion_and_Sediment_Control).

**136.4.5.8 Air Quality Requirements**

The Clean Air Act defines requirements for transportation project air quality analysis. In Missouri, requirements are met through conformity demonstrations with established emission budgets contained in the State Implementation Plan (SIP). This process involves projects meeting the definition of "regionally significant", as described in 23 CFR 450.104. At a minimum, this includes all principal arterial highways and all fixed guideway transit facilities that offer a significant alternative to regional highway travel and would normally be included in the modeling of a metropolitan area’s transportation network. Generally, projects sponsored through the LPA Policy processes will not meet the definition of "regionally significant". In the event a local project is determined to be regionally significant, conformity will be demonstrated through an established process for inclusion in a metropolitan TIP.

**136.4.5.9 Noise Standards and Noise Abatement**

Federal legislation in 1970 authorized the use of federal-aid highway funds for measures to abate and control highway traffic noise. MoDOT has a federally approved [traffic noise policy](http://epg.modot.org/index.php?title=127.13_Noise#127.13.4_Traffic_Noise_Policy) to define and conform to the requirements of [Article 772, Code of Federal Regulations (23 CFR 772)](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=007c8067bb9f41b1e35f7a1b24718f42&rgn=div5&view=text&node=23:1.0.1.8.45&idno=23) and the noise-related requirements of NEPA. The guidelines in the MoDOT Noise Policy are used to determine the need, feasibility, and reasonableness of noise abatement measures and provide the basis for statewide uniformity in traffic noise analysis. If the project sponsor does not have a noise policy, it is suggested that they use MoDOT’s FHWA-approved noise policy.

The local agency is normally required to conduct a noise analysis during the project development stage to identify noise sensitive receptors. A noise analysis will not be necessary for the following types of projects since they are not likely to result in a significant increase in highway traffic noise:

**1.** Minor widening and resurfacing.

**2.** Signalization projects including intersection and ramp terminal widening.

**3.** Replacement of a bridge in proximity of the existing structure.

On projects involving partial or full control of access, environmental documents must address noise abatement at those receptors for which abatement levels are impractical or unfeasible. These must be approved prior to submitting final plans. The procedure for conducting a noise analysis is as follows:

**1.** Identify existing activities or land uses that may be affected by the project. The analysis may be terminated if it is analytically determined that activities or developed land uses are not sufficiently close to the proposed project to be adversely affected by the noise.

**2.** Predict the traffic-generated noise levels for each alternative being studied. The weighted sound pressure level reference used is dBA. The sound level shall be expressed as Leq, which is the average equivalent energy sound level. The approved basis for computing noise levels is the current model version of FHWA’s Traffic Noise Model (TNM) or any other model determined by the FHWA to be consistent with the methodology of the FHWA TNM. A method of displaying the predicted noise levels is to select locations on aerial photographs or preliminary maps, such as those used in preliminary design layouts, and show the computed general highway noise levels at these locations.

**3.** Determine the existing noise levels by field measurement.

**4.** Compare the predicted noise levels for each alternative under study with existing noise levels and the abatement criteria noise levels. It is also desirable to predict noise levels for a “no-build” alternative.

**5.** Determine whether receptors meet the criteria for noise abatement and evaluate alternative noise abatement measures for reducing or eliminating the noise impact for activities or developed lands.

**6.** Identify those lengths of roadway for each side of the highway and individual land uses where noise abatement measures appear impractical or not prudent.

**7.** Prepare a listing of abatement measures and locations based on the findings of the noise analysis items 1 thru 6 above. These shall be identified in the environmental document. Noise impacts for which no apparent solution is available are also to be listed. Plans and specifications are to include those noise abatement measures that are reasonable and feasible.

Numerous abatement measures can be considered. Obvious measures are relocating the highway to a less sensitive area or shifting the alignment. Other actions that can reduce the noise levels include purchasing additional right-of-way to increase the distance from the noise source to the receptor, reducing operating speed, reducing the grade of the road, and using vegetation screens. More costly abatement measures include erecting sound barriers and the placement of earth berms.

Noise abatement measures are not required for lands that are undeveloped at the time of public knowledge of the proposed highway project.

FHWA concurrence in the environmental document will constitute its determination that noise abatement measures have been adequately considered.

**136.4.5.10 Section 4(f) and Section 4(f) Evaluations**

Section 4(f) lands are lands that are publicly owned or held by means of a long-term lease and are intended for use as public parks, recreation areas, wildlife and waterfowl refuges, or any significant public or private historical site.

The local agency will examine the project to see whether it will require the use of or have an impact on these lands. This evaluation is separate from the NEPA classifications discussed previously. However, if Section 4(f) lands are to be impacted by a project, the project sponsor must complete a Section 4(f) evaluation and [FHWA](http://www.fhwa.dot.gov/) must approve it before a CE can be approved. The Section 4(f) evaluation will be included in an EA or EIS. Figure 4-6 contains the LPA Section 4(f) compliance worksheet (for parks/refuges only).

FHWA may not approve the use of land (permanent or temporary) from a significant publicly owned park, recreation area, or wildlife and waterfowl refuge, or from any significant historic site unless a determination is made that:

**1.** There is no feasible and prudent avoidance alternative to the use of land from the property and

**2.** The action includes all possible planning to minimize harm to the property resulting from such use.

Supporting information must demonstrate that there are unique problems or unusual factors involved in the use of alternatives that avoid these properties or that the cost, social, economic, environmental impacts or community disruption resulting from such alternatives reach extraordinary magnitudes.

Any use of lands from a Section 4(f) property shall be evaluated early in the development of the project when alternatives to the proposed project are under study. Consideration under Section 4(f) is not required when the federal, state, or local officials having jurisdiction over a park, recreation area, or refuge determine that the entire site is not significant. In the absence of such a determination, the Section 4(f) land is presumed significant. FHWA will determine whether Section 4(f) applies.

If FHWA makes a *de minimis* determination, the MoDOT district contact will notify the project sponsor, who will need to assemble the documentation required to support the finding. [Documentation requirements](http://www.fhwa.dot.gov/hep/qasdeminimus.htm) are available. A *de minimis* finding by FHWA means that if a transportation use of a Section 4(f) property, after consideration of any impact avoidance, minimization, and mitigation or enhancement measures, results in a minimal impact to that property, an analysis of avoidance alternatives is not required and Section 4(f) is complete. The *de minimis* impact criteria and associated determination requirements specified in Section 6009(a) of SAFETEA-LU are different for historic sites than for parks, recreation areas, and wildlife and waterfowl refuges. De minimis impacts related to historic sites are defined as the determination of either “no adverse effect” or “no historic properties affected” in compliance with Section 106 of the National Historic Preservation Act (NHPA). *De minimis* impacts on publicly owned parks, recreation areas, and wildlife and waterfowl refuges are defined as those that do not “adversely affect the activities, features and attributes” of the Section 4(f) resource.

FHWA has approved five nationwide programmatic Section 4(f) evaluations. The first one covers U.S. DOT assisted highway projects which use minor amounts of land from publicly owned public parks, recreation areas, and wildlife and waterfowl refuges. The second covers U.S. DOT assisted highway projects that use minor amounts of land from historic sites either on or eligible for inclusion on the National Register of Historic Places (NRHP). The third programmatic Section 4(f) covers the use of historic bridges. The fourth is for independent bikeway or walkway construction that requires the use of recreation areas or parkland. The fifth is the net benefit programmatic Section 4(f) evaluation for projects that will use property from a Section 4(f) park, recreation area, wildlife or waterfowl refuge, or historic property, which, in the view of the FHWA and official(s) with jurisdiction over the Section 4(f) property, will result in a net benefit to it.

Using the nationwide programmatic evaluations can streamline the processing of qualifying projects by eliminating a certain amount of project-by-project internal review and interagency coordination. The programmatic Section 4(f) evaluation satisfies the requirements of Section 4(f) for all projects that meet certain applicability criteria and no individual Section 4(f) evaluations need be prepared for such projects. The FHWA division administrator is responsible for reviewing each individual project to determine that it meets the criteria and procedures of the programmatic Section 4(f).

The programmatic Section 4(f) documentation is roughly equivalent in detail to that of an individual Section 4(f) evaluation. It must demonstrate that the applicability criteria for nationwide evaluation have been met, that avoidance alternatives have been evaluated, that the findings contained in the nationwide evaluation fit the project facts, and that appropriate mitigation measures have been included. It must include correspondence demonstrating that the official(s) with jurisdiction over the Section 4(f) lands agree with the assessment of impacts and with the proposed mitigation measures. The documentation should be self-contained and self-explanatory since it will be available to the public upon request. The programmatic section 4(f) cannot be used on EIS projects, with the one exception being the programmatic 4(f) for historic bridges. The applicability criteria for the programmatic Section 4(f) evaluations are available from FHWA or MoDOT.

When federal lands or other public land holdings (e.g., state forests) are administered under statutes permitting management for multiple uses and, in fact, are managed for multiple uses, Section 4(f) applies only to those portions of such lands that function for or are designated in the plans of the administering agency as being for significant park, recreation, or wildlife and waterfowl refuge purposes. The determination as to which lands so function or are so designated, and the significance of those lands, shall be made by the officials having jurisdiction over the lands. FHWA will review this determination to assure its reasonableness. The determination of significance shall apply to the entire area of such park, recreation, or wildlife and waterfowl refuge sites.

In determining the application of Section 4(f) to historic sites, the local agency shall consult with the SHPO and appropriate local officials to identify all properties on or eligible for the NRHP. The Section 4(f) requirements apply only to sites on or eligible for the NRHP.

When adequate support exists for a Section 4(f) determination, the discussion in the Section 4(f) evaluation shall specifically address:

**1.** The reasons why the alternatives to avoid Section 4(f) property are not feasible and prudent and

**2.** All measures that will be taken to minimize harm to the Section 4(f) property.

FHWA will review the final Section 4(f) evaluation for legal sufficiency before issuing an approval. Project sponsors will not proceed with any action requiring the use of Section 4(f) property and proposed to be classified as a CE until notified by FHWA of Section 4(f) approval. For actions processed with an EA or EIS, Section 4(f) approval is documented with a separate signature page concurrently with FHWA’s approval of the FONSI or final EIS. For EIS projects, the sponsor should briefly summarize the Section 4(f) impacts and mitigation measures in the ROD.

Circulation of a separate Section 4(f) evaluation will be required when:

**1.** A proposed modification of the alignment or design after the CE, EA, FONSI, draft EIS, final EIS, or ROD has been processed would require the use of Section 4(f) property;

**2.** FHWA determines that Section 4(f) applies to a property after processing the CE, EA, FONSI, draft EIS, final EIS, or ROD; or

**3.** A proposed modification of the alignment, design, or measures to minimize harm after the original Section 4(f) approval would result in a substantial increase in the amount of Section 4(f) land use, a substantial increase in the adverse impacts to Section 4(f) land, or a substantial reduction in mitigation measures.

If FHWA determines that Section 4(f) is applicable after the CE, EA, FONSI, final EIS, or ROD has been processed, the decision to prepare and circulate a Section 4(f) evaluation will not necessarily require the preparation of a new or supplementary environmental document. Where a separate circulated Section 4(f) evaluation is prepared, such evaluation does not necessarily:

**1.** Prevent the issuance of new approvals,

**2.** Require the withdrawal of previous approvals, or

**3.** Require the suspension of project activities for any activity not affected by the Section 4(f) evaluation.

**136.4.5.10.1 Content of a Section 4(f) Evaluation**

A draft Section 4(f) evaluation shall include the following information:

**1.** Proposed Action—describe the proposed project and explain the purpose and need for the project.

**2.** Section 4(f) Property—describe each Section 4(f) resource that would be used by any alternative under consideration, including:

a. Detailed map or drawing of sufficient scale to identify the relationship of the alternatives to the Section 4(f) property.

b. Ownership (city, county, state, etc.) and type of Section 4(f) property (park, recreation, historic, etc.).

c. Location (maps or other exhibits such as photographs, sketches, etc.) and for parks, size (square feet or acreage) of the affected Section 4(f) property.

d. For historic properties, description of the significant features of the affected Section 4(f) property and explanation of the property’s significance, including applicable NRHP criteria.

e. Function of or available activities on the property (swimming, golfing, etc.) and description and location of all existing and planned facilities (ball diamonds, tennis courts, etc.).

f. Access (pedestrian, vehicular) and usage (approximate number of users/visitors, etc.).

g. Relationship to other similarly used lands in the vicinity.

h. Applicable clauses affecting the ownership, such as lease, easement, covenants, restrictions, or conditions, including forfeiture.

i. Unusual characteristics of the Section 4(f) property (flooding problems, terrain conditions, or other features) that either reduce or enhance the value of all or part of the property.

j. Any other sources of federal funding.

**3.** Impacts on the Section 4(f) Property(ies)—discuss the impacts on the Section 4(f) property for each alternative. Where an alternative uses land from more than one Section 4(f) property, include a summary table to compare the various impacts of the alternatives. Quantify impacts that can be quantified, such as noise, and describe other impacts (such as visual intrusion) that cannot be quantified.

**4.** Avoidance Alternatives—identify and evaluate location and design alternatives that would avoid the Section 4(f) property. Generally, this would include alternatives to either side of the property. Where an alternative would impact more than one Section 4(f) property, the analysis needs to evaluate alternatives that avoid each and all such properties. The design alternatives shall be in the immediate area of the property and consider minor alignment shifts, a reduced facility, retaining structures, etc. individually or in combination, as appropriate.

**5.** Measures to Minimize Harm—discuss all possible measures that are available to minimize the impacts of the proposed project on the Section 4(f) lands. Detailed discussions of mitigation measures described in the EIS or EA may be referenced and appropriately summarized rather than repeated.

**6.** Coordination—discuss the results of preliminary coordination with the public officials having jurisdiction over the Section 4(f) property and with regional (or local) offices of the U.S. Department of the Interior (DOI) and, as appropriate, the regional office of the U.S. Department of Housing and Urban Development (HUD) and the Forest Supervisor of the affected national forest (U.S. Forest Service). Generally, the coordination shall include discussion of avoidance alternatives, impacts to the property, and measures to minimize harm. In addition, the coordination with the public official having jurisdiction shall include, where necessary, a discussion of the significance and primary use of the property.

*NOTE: The conclusion that there are no feasible and prudent alternatives is not normally addressed at the draft Section 4(f) evaluation stage. Such conclusion is made only after the draft Section 4(f) evaluation has been circulated and coordinated and any identified issues adequately evaluated.*

A final Section 4(f) Evaluation must contain:

**1.** All the previously mentioned information for a draft evaluation.

**2.** A discussion of the basis for concluding that there are no feasible and prudent alternatives to the use of the Section 4(f) land. The supporting information must demonstrate that “there are unique problems or unusual factors involved in the use of alternatives that avoid these properties or that the cost, social, economic, and environmental impacts, or community disruption resulting from such alternatives reach extraordinary magnitudes.” This language shall appear in the documentation together with the supporting information.

**3.** A discussion of the basis for concluding that the proposed project includes all possible planning to minimize harm to the Section 4(f) property. When there are no feasible and prudent alternatives that avoid the use of Section 4(f) land, the final Section 4(f) evaluation must demonstrate that the preferred alternative is a feasible and prudent alternative with the least harm on the Section 4(f) resources after considering mitigation to the Section 4(f) resource(s).

**4.** A summary of the appropriate formal coordination with the headquarters offices of DOI (and/or appropriate agency under that department) and, as appropriate, the involved offices of the U.S. Forest Service and HUD.

**5.** Copies of all formal coordination comments and a summary of other relevant Section 4(f) comments received and an analysis and response to any questions raised. Where new alternatives or modifications to existing alternatives are identified and will not be given further consideration, the basis for dismissing these alternatives shall be provided and supported by factual information.

**6.** Concluding statement as follows: “Based upon the above considerations, there is no feasible and prudent alternative to the use of land from the [*identify Section 4(f) property*] and the proposed project includes all possible planning to minimize harm to the [*identify the Section 4(f) property*] resulting from such use.”

**136.4.5.11 Section 6(f) of the Land and Water Conservation Fund (LWCF) Act**

The Land and Water Conservation Fund (LWCF) Act provides funds for the acquisition and development of public outdoor recreation facilities that could include community, county, and state parks, trails, fairgrounds, conservation areas, boat ramps, shooting ranges, etc. Section 6(f) of the LWCF Act places restrictions on public recreation facilities funded with LWCF monies; LWCF-assisted facilities must be maintained for outdoor recreation in perpetuity. Therefore use of such property for a transportation project will require mitigation that includes replacement land of at least equal value and recreational utility. Section 6(f) documents are lengthy, frequently taking one to two years to process, and also require a signed Section 4(f) document to be completed.

**136.4.5.12 Historic and Archaeological Sites and Historic Bridges—**[**Section 106**](http://www.modot.mo.gov/business/manuals/documents/FIG4-9-2009usethisone.DOC)

Consideration shall be given at preliminary engineering stage on the possible effects of the project on historic properties (i.e., buildings, bridges, and archaeological sites that are on or eligible for the National Register of Historic Places (NRHP)). The local agency is responsible for obtaining concurrence from the State Historic Preservation Office (SHPO) of the Missouri Department of Natural Resources (DNR) that the project has complied with [Section 106 requirements](http://epg.modot.org/index.php?title=The_Section_106_Process). The sponsor must complete SHPO's [Section 106 Project Information Form](http://www.dnr.mo.gov/forms/780-1027.pdf) (see the [instructions](http://www.dnr.mo.gov/forms/780-1718inst.pdf) for completing the form) and submit it to DNR. If the project contains a bridge, the "structures" portion of the form must be completed for submittal to DNR. The local agency can complete this form without needing the services of a cultural resources consultant.

Using the information on the forms, the SHPO examines their records for previously identified historic resources. When these forms are submitted for projects utilizing previously disturbed ground, such as those on existing alignments, DNR usually recommends no survey work required. If the SHPO believes resources may be present on a project (e.g., new alignment, project affecting buildings or involving historic bridges on old or new alignments, those involving borrow sites), the SHPO will require a cultural resource survey to be conducted for the project. The local agency must hire a cultural resource consultant to conduct the survey. If any human remains (other than from a crime scene) are discovered during archaeological investigations on non-federal land, they are subject to the immediate control, possession, custody and jurisdiction of the SHPO, pursuant to the [Missouri Unmarked Human Burial Sites Act](http://epg.modot.org/index.php?title=Missouri_Unmarked_Human_Burial_Law), §§ 194.400 – 194.410, RSMo. The cultural resource consultant should examine the project location and/or search the archival records when necessary for the existence of any cultural resources eligible for listing on the NRHP. [Additional information on Section 106 and a list of qualified professional cultural resource consultants](http://www.dnr.mo.gov/shpo/sectionrev.htm) is available.

[A brief outline of the Section 106 process](http://www.modot.mo.gov/business/manuals/documents/FIG4-9-2009usethisone.DOC) is available, followed by detailed procedures and a flow chart of the typical Section 106 process that the local agencies must follow. If a historic property will be adversely affected, an agreement document among FHWA, DNR and the local agency on how to mitigate the adverse effect would be required for Section 106 compliance. FHWA has entered into agreements with the SHPO and the Advisory Council on Historic Preservation (ACHP) for procedures to clear historic bridges. A [sample Memorandum of Agreement (MOA) for historic bridges](http://epg.modot.org/files/8/8b/136.4.10_Migration_of_Adverse_Effects_%28Fig._4-10%29.doc) and information to accompany it are available. This MOA includes advertising availability of the bridge for adaptive reuse.

*NOTE: A compliance letter issued by SHPO is only for the project as it was submitted to SHPO. Any changes to project activities after submittal may void the project’s Section 106 compliance. The project sponsor should contact SHPO to discuss the changes and the possible resubmittal and review by SHPO.*

**136.4.5.13 Threatened and Endangered Species**

The Endangered Species Act, the Migratory Bird Treaty Act, and other state and federal laws protect plants and animals and their habitats. Local agencies shall submit the following to Missouri Department of Conservation (MDC):

▪ Brief description of project (e.g., bridge replacement)

▪ Explain what is involved (e.g., tree clearing, bridge piers in river, etc.)

▪ Number of acres impacted (e.g., clear 20 acres of trees)

▪ Include a map(s) showing location of project

▪ Include pictures if available

Policy and Coordination Division

Missouri Department of Conservation

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The MDC will respond with a letter indicating whether any threatened or endangered species occur in the area. If state-listed species occur near the site, further coordination with the MDC will be necessary to minimize impacts to these species. If federally listed species are known to occur near the site, the project sponsor will need to contact MoDOT and MoDOT will coordinate with the U.S. Fish and Wildlife Service to avoid project impacts to the species and obtain clearance.

Report MDC’s findings and attach MDC correspondence along with documentation of U.S. Fish and Wildlife clearance.

**136.4.5.14 Hazardous Waste**

There are several laws and regulations that deal with hazardous waste and both underground and aboveground storage tanks. Properties containing hazardous and non-hazardous solid wastes are frequently encountered in new right-of-way acquisitions. Some properties with extensive contamination and legal liabilities may warrant avoidance. For most sites, however, early identification and planning will allow selection of feasible alternatives with incidental costs. In addressing hazardous and solid wastes, the goals are to: 1) avoid unacceptable cleanup cost and legal liability and 2) comply with federal and state laws and regulations regarding cleanup. The most common type of hazardous waste site encountered is a petroleum underground storage tank (UST) site. Local public agencies shall evaluate proposed corridors for hazardous and solid waste sites by conducting a field check (if necessary) and a thorough database search. Below is a list of possible sources.

▪ Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS): <http://www.epa.gov/superfund/sites>, select CERCLIS Hazardous Waste sites

▪ DNR Confirmed Abandoned or Uncontrolled Hazardous Waste Disposal Sites in Missouri: <http://www.dnr.mo.gov/env/hwp/downloads/index.htm>

▪ DNR Missouri Hazardous Waste Generators List: <http://www.dnr.mo.gov/env/hwp/downloads/index.htm>

▪ DNR Missouri Hazardous Waste Treatment, Storage, and Disposal Facilities List: <http://www.dnr.mo.gov/env/hwp/downloads/index.htm>

▪ DNR Solid Waste Facilities List: <http://www.dnr.mo.gov/env/swmp/facilities/sanlist.htm>

▪ DNR Registered Underground Petroleum Storage Tank List: currently unavailable on DNR website, contact DNR

▪ DNR Leaking Underground Storage Tank List: currently unavailable on DNR website, contact DNR

▪ Petroleum Storage Tank Insurance Fund: <http://www.pstif.org/>, select tank site

▪ National Response Center Hotline: <http://www.nrc.uscg.mil/nrchp.html>, select service, then query/download-select Standard Report to run query

▪ EPA Envirofacts: <http://www.epa.gov/enviro/>, select maps, then enviromapper-select Go to Enviromapper

▪ Other lists as appropriate

Coordination with EPA and DNR will help to determine liability, regulatory requirements, and potential cleanup costs. The potential to encounter unknown wastes from sites not identified through database and/or site reviews by the local agency should always be a consideration. Any unknown sites that are found during project construction shall be handled in accordance with federal and state laws and regulations. Include resource agencies response letters in the NEPA document.

**136.4.5.15 Borrow Guidance**

Borrow sites may be selected that are outside the project footprint and therefore were not previously addressed by the NEPA document and other environmental approvals for the project. If the appropriate quantity of borrow material for a project is available from several sources, the sponsor is required to specify the source from which the materials are to be obtained. The project sponsor is responsible for ensuring that the contractor clears land disturbance areas for environmental concerns unless the necessary clearances have already been obtained, with the contractor providing documentation to the resident or liaison engineer. To eliminate possible delays, the local agency should specify in the engineering services contract that a proposed borrow site be investigated. [Guidelines for Obtaining Environmental Clearance for Project Specific Locations](http://epg.modot.org/index.php?title=Guidelines_for_Obtaining_Environmental_Clearance_for_Project_Specific_Locations) are available. This information is also available from the liaison or resident engineers or the MoDOT environmental unit.

The requirements of [Section 106 of the National Historic Preservation Act](http://epg.modot.org/index.php?title=The_Section_106_Process) apply to all areas of land disturbance. The local agency must complete the [State Historic Preservation Office's Section 106 Project Information Form](http://www.dnr.mo.gov/forms/780-1027.pdf) and submit it to DNR. The sponsor must provide written certification to the MoDOT district contact that the proposed site of land disturbance has been cleared of environmental concerns under all applicable federal and state laws and regulations. These include but are not limited to the Clean Water Act; Section 4(f) of the Department of Transportation Act; the Endangered Species Act; the National Historic Preservation Act; the Farmland Protection Act; Resource Conservation and Recovery Act; Comprehensive Environmental Response, Compensation, and Liability Act; and RSMo Chapter 194, Section 194.400, Unmarked Human Burial Sites. Certification will include all clearance letters and other evidence of coordination with the appropriate regulatory.

# **EPG 136.5 Agreements**

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| **Additional Information for MoDOT Employees** | |
| Refer to [CCO's intranet webpage](http://wwwi/intranet/cc/Contracts1.asp?nav=modot) for access to current contracts. In the drop box, select the proper division for access to the desired contract. | |
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| **Additional Information for LPAs, PDF Files available for:** | |
| [Fig. 136.5.1 HS4 Safe Routes to School Program Agreement](http://epg.modot.org/files/6/68/136.5.1_HS4_Safe_Routes_to_School_Program_Agreement_%28Fig._5-1%29_Mar_2010.doc) | [Fig. 136.5.2 RM 11,STP Urban Program Agreement](http://epg.modot.org/files/5/5b/136.5.2_RM11_STP_Urban_Program_Agreement_%28Fig._5-2%29_Mar_2010.doc) |
| [Fig. 136.5.3 RM 12, Transportation Enhancement Funds Program Agreement](http://epg.modot.org/files/9/94/136.5.3_RM12_Transportation_Enhancement_Funds_Program_Agreement_%28Fig._5-3%29_Mar_2010a.doc) | [Fig. 136.5.3 RM 12, Transportation Enhancement Funds Program Agreement, ARRA](http://epg.modot.org/files/b/b0/136.5.3_RM12_Transportation_Enhancement_Funds_Program_Agreement_ARRA_Mar_2010.doc) |
| [Fig. 136.5.3.1 RM 12 SUP, Transportation Enhancement Funds Supplemental Agreement](http://epg.modot.org/files/f/f1/136.5.3.1_RM12-SUP_Transportation_Enhancement_Sup.doc) | [Fig. 136.5.4 RM 13, Off-System Bridge Replacement and Rehabilitation Program Agreement](http://epg.modot.org/files/e/e3/136.5.4_RM13_Off_System_Bridge_Replacement_%28Fig.5-4%29_Mar_2010.doc) |
| [Fig. 136.5.5 RM 14, On-System Bridge Replacement and Rehabilitation Program Agreement](http://epg.modot.org/files/7/7e/136.5.5_RM14_On-System_Bridge_Replacement_%28Fig.5-5%29_Mar_2010.doc) | [Fig. 136.5.6 RM 15, Congestion Mitigation and Air Quality Agreement](http://epg.modot.org/files/5/5f/136.5.6_CMAQ_Program_%28Fig._5-6%29_Mar_2010.doc) |
| [Fig. 136.5.7 RM 16, Transportation and Community and System Preservation Program Agreement](http://epg.modot.org/files/d/d7/136.5.7_RM16_Transportation_and_Community_System_%28Fig.5-7%29_Mar_2010.doc) | [Fig. 136.5.8 RM 17, Federal Aid Program Agreement](http://epg.modot.org/files/8/87/136.5.8_RM17_Demonstration_Project_Agreement_%28Fig.5-8%29_Mar_2010.doc) |
| [Fig. 136.5.8 RM 17 ARRA, Federal Aid Program Agreement, ARRA](http://epg.modot.org/files/3/3b/136.5.8_RM17_Demonstration_Project_Agreement_ARRA_Mar_2010.doc) | [Fig. 136.5.9 RM 15E, Congestion Mitigation and Air Quality Agreement (Vehicle and Equipment Purchases)](http://epg.modot.org/files/4/4f/136.5.9_RM15-E_CMAQ_with_Equipment_Purchase_%28Fig._5-9%29_Mar_2010.doc) |
| Fig. 136.5.9.1 RM 15 SUP, CMAQ Supplement  [Fig. 136.5.11 American Recovery and Reinvestment Act Federal Aid Agreement](http://epg.modot.org/files/5/5c/136.5.10_Sample_Ordinance_%28Fig._5-10%29.doc) | [Fig.](http://epg.modot.org/files/b/b6/136.5.11_ARRA_%28Fig._5-11%29.doc) 136.5.10 Sample Ordinance |

The latest EPG 136.5 figures are available in a large gray box at the top of

<http://epg.modot.org/index.php?title=136.5_Agreements>

It will be necessary for the local agency to enter into an agreement with the Missouri Highway and Transportation Commission for each project or group of projects. This is a legal instrument necessary in order to pass through federal funds and outlines the responsibilities of the local agency and the Missouri Highway and Transportation Commission.

A multi-party or three-party agreement may be necessary if another unit of government such as a township or special road district is involved.

If the local agency elects to construct any portion of the project with its own forces, it will be necessary to include a provision in the agreement that requires the local agency to comply with Section II, Equal Opportunity and Section III, Nonsegregated Facilities, as set out in FHWA Form 1273. FHWA Form 1273 will be attached to all project agreements.

The [MoDOT district representative](http://www.modot.mo.gov/) will initiate preparation of the agreement. The district representative will consult with the local agency to pinpoint the various arrangements and details that will be covered. The agreement will first be presented to the local agency for signature. Seven copies of the agreement, signed by the local agency should be submitted to MoDOT's district representative. Projects being constructed by cities must also return 1 copy of an enabling legislation at the time of the execution. After approval and signature by the Missouri Highway and Transportation Commission, a fully executed copy will be returned to the local agency.

If a supplemental agreement is necessary, an ordinance may be required if the original ordinance makes references to specific project information such as but not limited to, amount of federal funds, project timeline or the original agreement. Please refer to [Fig. 136.5.10 Sample Ordinance](http://epg.modot.org/files/5/5c/136.5.10_Sample_Ordinance_%28Fig._5-10%29.doc) for a sample ordinance. The local agency may elect to fill in the areas providing project descriptions in a general project descriptive manner to preclude the passage of another ordinance.

**No work is to be initiated on any part of the project until federal funding has been approved (obligated) by FHWA and the local agency has been notified by MoDOT to proceed.**

# **EPG 136.6 Consultant Contracts**

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| **Additional Information** | |
| [Fig. 136.6.1 Contract](http://epg.modot.org/files/9/93/136.6.1_Contract_%28Fig._6-1%29_Feb_2011.doc) | [Fig. 136.6.2 Consultant Selection Criteria](http://epg.modot.org/files/f/fd/136.6.2_Consultant_Selection_Criteria_%28Fig._6-2%29_Oct_27%2C_2010.doc) |
| [Missouri Revised Statutes Section 8.291](http://www.moga.mo.gov/statutes/C000-099/0080000291.HTM) | [Fig. 136.6.4 Supplement Agreement to Engineering Services Contract](http://epg.modot.org/files/d/d1/136.6.4_Supplemental_to_Engg_Services_%28Fig._6-4%29.DOC) |
| [Fig. 136.6.5 Consultant Performance Appraisal Form](http://epg.modot.org/files/b/bd/136.6.5_Consultant_Appraisal_%28Fig._6-5%29.DOC) | [Fig. 136.6.6 Common Unallowable Costs](http://epg.modot.org/files/0/04/136.6.6_Common_Unallowable_%28Fig._6-6%29_Jan_10.doc) |
| [Fig. 136.6.7 Sample Solicitation](http://epg.modot.org/files/5/52/136.6.7_Sample_Solicitation_June_2010.doc) | [Fig. 136.6.8 District Representative Engineering Services Contract Cover Letter](http://epg.modot.org/files/7/7c/136.6.8_District_Representative_Engineering_Services_Contract_Cover_Letter.doc) |
| [Fig. 136.6.9 Local Sponsor Engineering Services Contract Sample Cover Letter](http://epg.modot.org/files/e/ea/136.6.9_Local_Sponsor_Engineering_Services_Contract_Sample_Cover_Letter.doc) | |
| [Allowable Profit Curve as a Per Cent of Direct Salary Costs](http://epg.modot.org/index.php?title=Category:134_Engineering_Professional_Services#Fixed_Fee_Review)  Engineering Services Sample Invoice | |

The latest EPG 136.6 information and figures is available at the top of

<http://epg.modot.org/index.php?title=136.6_Consultant_Contracts>

If the local agency is not adequately staffed to provide the necessary engineering, architectural, land surveying, right of way and related services (including utility negotiations), they may engage a consultant to provide professional services. Under the Brooks Act, [40 USC 1102](http://www.fhwa.dot.gov/programadmin/121205_40usc.cfm), professional services means:

▪ professional services of an architectural or engineering nature, as defined by state law, if applicable, that are required to be performed or approved by a person licensed, registered or certified to provide the services described in this paragraph;

▪ professional services of an architectural or engineering nature performed by contract that are associated with research, planning, development, design, construction, alteration or repair of real property; and

▪ other professional services of an architectural or engineering nature, or incidental services, which members of the architectural and engineering professions (and individuals in their employ) may logically or justifiably perform, including studies, investigations, surveying and mapping, tests, evaluations, consultations, comprehensive planning, program management, conceptual designs, plans and specifications, value engineering, construction phase services, soils engineering, drawing reviews, preparation of operating and maintenance manuals and other related services.

Federal law also recently expanded professional services stating “engineering and design related services are defined in [23 USC§112 (b)(2)(A)](http://www.citizen.org/documents/23USC112.pdf) and [23 CFR §172.3](http://www.fhwa.dot.gov/programadmin/23cfr172.cfm) to include program management, construction management, feasibility studies, preliminary engineering, design engineering, surveying, mapping or other related services. These other services may include professional engineering related services, or incidental services that may be performed by a professional engineer, or individuals working under their direction, who may logically or justifiably perform these services."

The cost of the above professional services is eligible for federal participation provided that prior approval of the contracts by MoDOT is received. Federal participation in the cost of construction engineering is limited to 15% of the net federal participating construction costs, whether performed by consultant, in-house, or both for all contracts statewide. Construction engineering can be greater than 15% if requested by the local agency on a case-by-case basis prior to the award of the contract. Construction Inspection services may be included in the same agreement with design services. Preliminary engineering charges are permitted through the construction contract award stage. Charges after the award of the construction contract are considered to be construction engineering and cannot be charged against the design portion of the agreement. RW Acquisition Services shall be handled under a separate RW Services Agreement. This contract/agreement will be submitted at the same time the Request for Obligation of RW Funds (A-Date Request) is submitted.

Right of way project cost estimates, title work, right of way plan development and legal description writing may be included in the same agreement with Design Services and are reimbursable as preliminary engineering expenses. All other right of way acquisition activities eligible for reimbursement cannot be incurred or invoiced for reimbursement until the [A-Date has been approved and the LPA has been notified](http://epg.modot.org/index.php?title=236.18_Local_Public_Agency_Land_Acquisition#236.18.2.4_Acquisition_Authority_.28A-Date.29_is_Required_with_Federal_Funds_Participation_in_Right_of_Way).

On federal aid projects, right of way costs and incidental expenses are only reimbursable after MoDOT district staff reviews and approves the LPA personnel or the right of way acquisition contractor that will perform the right of way acquisition activities.

After execution by the local agency and consultant, three (3) copies of the contract are submitted to MoDOT for review and approval. The [Fig. 136.6.1 standardized contract format](http://epg.modot.org/files/6/67/136.6.1_Contract_%28Fig._6-1%29.doc) developed by MoDOT is required.

In cases where the preliminary engineering or construction inspection costs in the contract exceed $250,000, MoDOT’s External Civil Rights Division may establish a Disadvantaged Business Enterprise (DBE) goal for the contract. The sponsor will need the established DBE goal before a Request for Proposal (RFP) is sent out to prospective engineering consultants. The RFP must include the DBE Contract Provisions for Engineering Services Contracts (ESCs). The sponsor must first submit an estimate of anticipated activities that will take place during the design or inspection process. Examples include but are not limited to surveying, plan sheet development, design, geological studies, and borings. Estimated hours and rates for each activity are not required. In order to obtain MoDOT approval of the contract in these cases, the consultant must acquire the required DBE participation or supply sufficient evidence as to why the DBE goal was not met.

The local agency should include a letter stating the necessity for utilizing a consultant for the work. If the local agency proposes to engage a consultant who has not been previously utilized by the local agency for the particular type of work involved, the local agency should submit a brochure or other information which outlines the qualifications of the firm's employees and recent past experience in similar work. It is **not** permissible for a consultant to contract with both the local agency and the contractor on the same project.

If a local agency engages a consultant to conduct an environmental study, the consultant is required to fill out a disclosure statement specifying the consultant has no financial or other interest in the outcome of the project. Additionally, the local agency cannot engage the same consultant for the environmental document and the final design during one contract negotiation process. The same consultant may be used but the local agency must utilize their selection process for the later stages.

All consultants receiving individual awards for $100,000 or more and all subrecipients must certify that the organization and its principals are not suspended or debarred. Each local agency may, but is not required to, check the Nonprocurement List. Copies may be obtained by purchasing a yearly subscription from the Superintendent of Documents, US Government Printing Office, Washington, DC 20402, or by calling the Government Printing Office Inquiry and Order Desk at (202) 783-3238. An [electronic version](http://www.arnet.gov/epls) is available. The user will be required to record their name and organization for purposes of the Computer Matching and Privacy Act of 1988.

All required [independent assurance samples and tests](http://epg.modot.org/index.php?title=Independent_Assurance_Samples_and_Tests) will be performed by MoDOT, so this work should not be included in consultant contracts. However, required project tests are the local agency's responsibility. Should the local agency not have the required staff to administer these project tests, a consultant testing firm can be obtained and costs will be eligible for federal reimbursement.

**136.6.1 Subconsultants**

**Subconsultant cost exceeding $25,000**

If the consultant is using a subconsultant with a cost exceeding $25,000, then the subconsultant shall include [page 11 of Fig. 136.6.1, a detailed estimate of cost](http://epg.modot.org/files/6/67/136.6.1_Contract_%28Fig._6-1%29.doc) and an overhead rate breakdown.

**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 from the subconsultant shall be included that quotes the subconsultant’s cost shown in Attachment A of the contract.

**136.6.2 Solicitation and Selection Procedures**

Local agencies must use competitive negotiation for the procurement of engineering and design-related services on every project involving federal-aid highway funds. The Brooks Act and 23 CFR 172.3 must be followed if the local agency is seeking federal reimbursement for these services. The QBS process must include a public announcement, advertisement or other acceptable method that assures qualified in-state and out-of-state consultants are given a fair opportunity for consideration, which allows for a minimum two-week response time. It is recommended the local agency use the MoDOT Consultant Resources website to post the public announcement or advertisement ([Fig. 136.6.7 Sample Solicitation](http://epg.modot.org/files/a/a4/136.6.7_Sample_Solicitation.doc)). The solicitation form should be submitted to the appropriate MoDOT district representative. If the LPA wishes to use an alternative procedure to advertise and solicit qualifications for the RFQ, they must submit a written request with an advertising plan attached that complies with state and federal requirements. The advertisement plan must include advertisement of the availability in a major newspaper of general circulation. The RFQ notice must be advertised at least one time allowing a minimum 14 calendar days prior to the due date. The notice may be advertised multiple times if desired. The advertisement plan should also identify and send the solicitation to organizations qualified to do specified work as well as professional societies and recognized DBE organizations. The request must be approved by MODOT and FHWA prior to advertisement.

Local agencies must submit to MoDOT a description of procedures they use to evaluate and select consultants. When selecting a consultant, the local agency must use criteria listed in RSMo 8.289. If necessary, the local agencies can add criteria to the rating sheet, however, the criteria listed in [Fig. 136.6.2 Consultant Selection Criteria Guidance and Rating Sheet](http://epg.modot.org/files/f/fd/136.6.2_Consultant_Selection_Criteria_%28Fig._6-2%29_Oct_27%2C_2010.doc) must be included in the consultant selection rating process.

To avoid conflict of interest, the local agency may not use a consultant-engineering firm on retainer unless it satisfactorily documents the engineer or the firm was not involved in the solicitation and selection of the firm. These criteria must meet minimum federal requirements and be in compliance with Missouri Revised Statutes Chapter 8 [Sections 8.285](http://www.moga.mo.gov/statutes/C000-099/0080000285.HTM) through [8.291, RSMo](http://www.moga.mo.gov/statutes/C000-099/0080000291.HTM). The local agency may use the criteria specified in federal and state regulations or may develop its own written procedures provided a qualification-based selection procedure commensurate with state policy is used. Local agencies must prepare a written description of the scope of the proposed services. According to state law, the agency must list three highly qualified firms and then select the firm best qualified to perform the desired services. The agency may evaluate current statements of qualifications and performance data of firms on file or solicit statements from other firms interested in the project. It is not necessary for the agency to interview all the firms. Price shall not be used as a factor in the analysis and selection of a firm. Price quotations shall not be requested for consideration prior to selecting a firm. If a local agency cannot negotiate a reasonable price with the consultant selected, it can cease negotiations and select a different firm. The local agency must provide written documentation of the selection procedures used and the names of the three or more firms considered when a contract is submitted for approval. If the local agency chooses to cite the state statute, then the following wording can be used:

"We have considered the following three firms under procedures outlined in Missouri Law (RSMo Sections 8.285 to 8.291)."

The LPA must verify that firms submitting letters of interest to the solicitation participate in the Federal Work Authorization Program, E-Verify. The state statute requires firms to include an Affidavit of Compliance and a copy of the E-Verify MOU with their letter of interest. Refer to [RSMo 285.530 Affidavit and E-Verify MOU Requirement](http://www.moga.mo.gov/statutes/c200-299/2850000530.htm) and the [State Code of Regulation Attorney General’s Office Code of State Regulation Affidavit of Compliance (15 CSR 60-15.020)](http://ago.mo.gov/faqs/unauthorized-alien-workers.htm).

Failure to follow the state and federal provisions outlined above could jeopardize federal funding.

**136.6.3 Scope of Services**

The local agency should determine the scope of services when issuing an invitation for consultants to submit proposals. The scope of services should be detailed and project specific. In addition to the customary information contained in a scope of services, it is suggested that the following items be included:

**1.** The proposed design parameters to be used on the project. MoDOT design guidelines are required for projects on MoDOT right of way

**2.** When applicable, an investigation of Federal Emergency Management Agency's requirements;

**3.** Provision for 404 Permits, archaeological investigations and other environmental matters as judged necessary; and

**4.** Degree of construction inspection services to be included in the engineering service contract, if any.

**136.6.4 Basis of Payment**

The following methods may be used as the basis of payment in a contract:

**1.** Actual cost plus fixed fee; and

**2.** Specific rates of pay (for emergency situations only).

The most common basis of payment is actual cost plus fixed fee. Federal regulations prohibit the use of cost plus a percentage of cost and percentage of construction cost methods of compensation.

Subcontractors should be shown in the contract and costs passed through to the local agency at actual cost. Prompt payment of subcontractors is required.

Retainage is no longer designated by MoDOT as a routine part of the contract. 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.

**136.6.5 Evaluations**

Before a contract can be approved, it will be necessary to perform and document a technical evaluation to determine that the estimated man-hours are reasonable. In addition, if the total contract cost exceeds $100,000, an audit evaluation will need to be performed prior to contract execution, to determine that cost aspects are reasonable and that the cost estimate and overhead rates contain only items allowable under federal guidelines. Only those contracts that fall within the guidelines established for pre-negotiation audits by Audit and Investigations, MoDOT, will need to have such an audit evaluation.

**136.6.6 Contract Submittal**

The contract format illustrated in [Fig. 136.6.1 Contract](http://epg.modot.org/files/6/67/136.6.1_Contract_%28Fig._6-1%29.doc) is required. Following is a checklist of items that should be included in or submitted with the contract:

**1.** Local agency's statement regarding the necessity for utilizing a consultant for the work;

**2.** Procedures used to evaluate and select consultants and a listing of firms considered;

**3.** Qualifications and experience resume' for consultant, if consultant has not been previously utilized by the local agency;

**4.** A method for modifying the contract (extra work or modified work or any change in the contract fee requires the approval of a supplemental agreement by MoDOT and [FHWA](http://www.fhwa.dot.gov/) prior to performing the work or incurring the added cost) (Refer to [Article II of Fig. 136.6.1 Contract](http://epg.modot.org/files/6/67/136.6.1_Contract_%28Fig._6-1%29.doc));

**5.** A statement that a local agency employee will be responsible for and in direct control of the construction contract even though a consultant may perform inspection work (Refer to [Article III-G of Fig. 136.6.1 Contract](http://epg.modot.org/files/6/67/136.6.1_Contract_%28Fig._6-1%29.doc));

**6.** A time reference after which all work under the contract will be considered complete (Refer to [Article IV of Fig. 136.6.1 Contract](http://epg.modot.org/files/6/67/136.6.1_Contract_%28Fig._6-1%29.doc));

**7.** A statement that specifies the basis for allowability of costs will be [23 CFR, Part 172](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=da8a7f17da98d6b134d8a79319f16f6a&rgn=div5&view=text&node=23:1.0.1.2.3&idno=23) and [48 CFR, Part 31](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=da8a7f17da98d6b134d8a79319f16f6a&rgn=div5&view=text&node=48:1.0.1.5.30&idno=48) (Refer to [Article VI\_F of Fig. 136.6.1 Contract](http://epg.modot.org/files/6/67/136.6.1_Contract_%28Fig._6-1%29.doc));

**8.** Give residual credit for specialized equipment purchased for the contract (Refer to [Article VI-H of Fig. 136.6.1 Contract](http://epg.modot.org/files/6/67/136.6.1_Contract_%28Fig._6-1%29.doc));

**9.** The following covenant against contingent fees in the contract (Refer to [Article VII of Fig. 136.6.1 Contract](http://epg.modot.org/files/6/67/136.6.1_Contract_%28Fig._6-1%29.doc)):

"The consultant warrants that he has not employed or retained any company or person, other than a bona fide employee working for the consultant, to solicit or secure this contract, and that he has not paid or agreed to pay any company or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, gifts or any other consideration, contingent upon or resulting from the award or making of this contract. For breach or violation of this warranty, the local agency shall have the right to annul this contract without liability, or, in its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift or contingent fee plus reasonable attorney's fees."

**10.** An agreement for the retention of records for a period of three years after the consultant receives payment of their final invoice from the local agency (Refer to [Article X of Fig. 136.6.1 Contract](http://epg.modot.org/files/6/67/136.6.1_Contract_%28Fig._6-1%29.doc));

**11.** An agreement to allow MoDOT and FHWA and other authorized federal agencies to examine records pertaining to the project and costs (Refer to [Article X of Fig. 136.6.1 Contract](http://epg.modot.org/files/6/67/136.6.1_Contract_%28Fig._6-1%29.doc));

**12.** Ownership of engineering documents by local agency (Refer to [Article XI of Fig. 136.6.1 Contract](http://epg.modot.org/files/6/67/136.6.1_Contract_%28Fig._6-1%29.doc));

**13.** Procedure for settling disputes arising under the contract (Refer to [Article XIII of Fig. 136.6.1 Contract](http://epg.modot.org/files/6/67/136.6.1_Contract_%28Fig._6-1%29.doc));

**14.** A nondiscrimination provision (Refer to [Article XVII of Fig. 136.6.1 Contract](http://epg.modot.org/files/6/67/136.6.1_Contract_%28Fig._6-1%29.doc));

**15.** A cost breakdown as follows (Refer to [Attachment A of Fig. 136.6.1 Contract](http://epg.modot.org/files/6/67/136.6.1_Contract_%28Fig._6-1%29.doc)):

a. man-hours by pay grade and general work function;

b. basic rates of pay;

c. overhead rates, projected for the period of performance;

d. other direct costs (travel, subsistence, etc.);

e. fixed fee (actual cost);

f. subcontracts;

g. contract ceiling;

**16.** A breakdown of the consultant's overhead rates (Refer to [Attachment B of Fig. 136.6.1 Contract](http://epg.modot.org/files/6/67/136.6.1_Contract_%28Fig._6-1%29.doc)) (Refer to [Fig. 136.6.6 Common Unallowable Costs](http://epg.modot.org/files/0/04/136.6.6_Common_Unallowable_%28Fig._6-6%29_Jan_10.doc).);

**17.** Debarment certifications as an attachment to the contract (samples are attached in the standardized contract) (Refer to [Attachments C and D of Fig. 136.6.1 Contract](http://epg.modot.org/files/6/67/136.6.1_Contract_%28Fig._6-1%29.doc));

**18.** When the project is on MoDOT right of way, the Engineering Services Contract (ESC) shall indicate that the design must meet the requirements specified in the Engineering Policy Guide.

This checklist will help to ensure that all necessary documentation related to the project is completed in a timely manner.

**136.6.7 Supplemental Agreements**

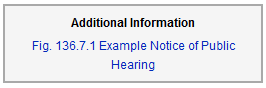
Changes to a contract should be made through a supplemental agreement. **No work is to be initiated until MoDOT has notified the local agency to proceed with the activities contained in the supplemental agreement.** If a fee is to be changed, approval is needed before the original ceiling is exceeded. The format may be by letter agreement, signed by both parties. It is desirable to include the original fee in the supplement as well as the revised fee. If the reasons in the supplement are not self-explanatory, additional justification should be included when submitting for approval. No changes in the fixed fee portion of a cost plus fixed fee contract will be approved in a supplemental agreement unless it is determined that the scope of work has changed significantly. A sample copy of a [supplemental agreement](http://epg.modot.org/files/d/d1/136.6.4_Supplemental_to_Engg_Services_%28Fig._6-4%29.DOC) is available.

1. Supplemental agreements to original engineering services contracts may need to be submitted to the External Civil Rights Unit to review for an appropriate DBE goal if the combined total of the original agreement and the supplemental(s) exceeds $250,000.00. If a DBE goal has already been set on the original contract, the supplemental agreement must still be reviewed to determine if the original DBE goal will apply, or if a new DBE goal should be established for the supplemental agreement.

**136.6.8 Consultant Performance Appraisal**

Local agencies with the assistance of MoDOT and the contractor are requested to complete the [Consultant Performance Appraisal](http://epg.modot.org/files/b/bd/136.6.5_Consultant_Appraisal_%28Fig._6-5%29.DOC) after project completion. If any questions arise concerning the Consultant Performance Appraisal, the local agency should contact the [MoDOT district representative](http://www.modot.mo.gov/) for assistance.

# **EPG 136.7 Right of Way and Public Hearings**

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EPG 136.7’s figure is available at the top of

<http://epg.modot.org/index.php?title=136.7_Right_of_Way_and_Public_Hearings>

**136.7.1 Right of Way**

Federal requirements concerning right of way are quite extensive. Detailed procedures are contained in [EPG 236.18 Local Public Agency Land Acquisition](http://epg.modot.org/index.php?title=236.18_Local_Public_Agency_Land_Acquisition). Project sponsors without Internet access should contact the MoDOT district right of way office for assistance.

Local agencies should adhere strictly to these procedures because receipt of construction funds is contingent upon compliance with the right of way requirements, whether or not federal participation is sought in the cost of right of way. If the realty rights were acquired more than 5 years prior to the first request for federal funds, the local agency shall submit a statement certifying that no new realty rights are needed and the dates the existing realty rights were acquired. If the realty rights were acquired less than 5 years prior to the first request for federal funds, the acquisition must have occurred within the parameters of the Uniform Act in order for any portion of the project to receive federal funds. Local agencies may not proceed with the development of right of way plans until they have received preliminary plan approval from MoDOT. Right of way acquisition may not begin until all applicable environmental clearances have been approved (Refer to [EPG 136.4 Environmental and Cultural Requirements](http://epg.modot.org/index.php?title=136.4_Environmental_and_Cultural_Requirements) see Section IV for details). The project agreement between the agency and MoDOT must be fully executed prior to right of way acquisition (refer to [EPG 136.5 Agreements](http://epg.modot.org/index.php?title=136.5_Agreements) for details). The request to begin right of way acquisition must be approved by MoDOT (refer to EPG 236.18 Local Public Agency Land Acquisition).

Additional information accessible through [EPG 236.10 Right Of Way Condemnation](http://epg.modot.org/index.php?title=236.10_Right_Of_Way_Condemnation) relates directly to public hearing requirements and the proper notification of potentially affected property owners, specifically EPG 236.10.7.3 Alternative Locations ([RSMo 523.265](http://www.moga.mo.gov/statutes/C500-599/5230000265.HTM" \o "http://www.moga.mo.gov/statutes/C500-599/5230000265.HTM)) and EPG 236.10.7.4 Written Notice ([RSMo 523.250](http://www.moga.mo.gov/statutes/C500-599/5230000250.HTM" \o "http://www.moga.mo.gov/statutes/C500-599/5230000250.HTM)). Pursuant to Section 523.265, RSMo, effective August 28, 2007, property owners must be informed they have the right to propose an alternative location for planned right of way acquisition. Prior to the official design public hearing, property owners who will be impacted or potentially impacted by a need for right of way and/or other realty rights must be sent a certified letter notifying them of the hearing date, time and location, and inviting their attendance. This letter is to be sent twenty-one calendar days in advance of the hearing date. In the event that a public hearing is not required for the project, at such time as it is determined no hearing will be held (see Advertisement for the Opportunity for Public Hearings), a certified letter will be sent to those property owners from whom realty rights will need to be acquired.

**136.7.2 Public Hearings**

Public hearings are forums for receiving citizen comments. They are used to furnish the public with general information and to allow the public to express their opinions relating to the proposed improvements. Information related to the impacts of a proposed action can also be gathered. One or more public hearings or opportunity for hearing(s) are required by the [23 CFR Part 771](http://www.fhwa.dot.gov/hep/23cfr771.htm). The Missouri Highway and Transportation Commission requires location and design public hearings. Public hearings must be held for all projects that meet the following:

**1.** Require the acquisition of significant additional right of way. Narrow strips of right of way frontage or easements will ordinarily not be considered significant; or

**2.** Would have a significant adverse effect upon abutting real property; or

**3.** Would substantially change the geometry or function of connecting roads or streets; or

**4.** Have a significant social, economic, environmental, or other effect; or

**5.** Require the construction of a new low water crossing.

Public hearings must be advertised and structured to ensure opportunities for minority, low-income, and disadvantaged populations to participate. Additional effort may be required by the local agency to identify and contact these populations. Minority and disadvantaged populations are those defined by Title VI and Environmental Justice guidance. Low-income populations are those defined by the census category. These efforts, beyond advertisements in newspapers and media announcements, should be documented for inclusion in environmental documents and for department-wide Title VI and environmental justice compliance.

**136.7.2.1 Location Public Hearings**

A [location public hearing](http://epg.modot.org/index.php?title=Category:129_Public_Involvement#129.3_Location_Public_Hearings) is generally held for all projects requiring an EIS (Environmental Impact Statement) and is encouraged for most EAs (Environmental Assessment). Projects with an environmental classification of CE (Categorical Exclusion) may require a location public hearing if conditions are similar to those described for design public hearings. It may be acceptable to hold a combined location and design public hearing for CE projects. It should be noted that FHWA can reclassify CE2 projects as either EA or CE; such reclassification will occur before the time of any expected location public hearing. If a CE2 is reclassified as an EA, a location public hearing may be required after FHWA approves the draft EA. A location public hearing may also be required when a CE2 is classified as a CE.

After the draft environmental documentation is approved by FHWA, MoDOT will notify the local agency that a location public hearing may be held. While tentative arrangements may be made for the location public hearing prior to the document being signed, it is not advisable to firm up the arrangements or advertise for the hearing until AFTER the signature is received. In the case of an EIS project, once the draft EIS is signed a notice of availability (NOA) must be published prior to advertising for the location public hearing. This is done by the EPA once they receive the approved draft EIS in Washington D.C. For a project with an environmental classification of CE, a location public hearing may be held after the conceptual plan is approved.

A location public hearing is held to provide effective participation by interested persons in discussing specific location features, including the social, economic, environmental and other effects of all the reasonable project alternatives. These hearings afford the local agency an opportunity to receive information from local sources that will be of value in choosing a preferred location. The hearings are not intended to determine location by a majority vote of those persons present.

The extent of public involvement needed for projects that may involve [Section 4(f)](http://epg.modot.org/index.php?title=127.10_Section_4%28f%29_Public_Lands#127.10.2.1.1_Section_4.28f.29_Properties) and [Section 6(f)](http://epg.modot.org/index.php?title=127.10_Section_4%28f%29_Public_Lands#127.10.2.1.2_Section_6.28f.29_Properties) lands can vary, depending on the nature of the encroachment. Section 4(f) documents at the programmatic or inapplicability level require minimal public involvement, while projects with greater impact will require more extensive public input. The local agency must coordinate with MoDOT on all projects that involve Section 4(f) and Section 6(f) lands to determine whether a location public hearing is advisable. In all cases, the appropriate agency(ies) must be notified, with the notification issued at the same time as the request for newspaper publication of the notice of public hearing.

When known, the project’s impacts on historic properties must be identified or discussed at public hearings. Documentation of public input or knowledge regarding these impacts is required. Some information, such as the location of archaeological sites, is considered confidential and is not for public release. This protects the site from looting and the landowner from trespassers. Archaeological site locations are not included in displays for public meetings and public hearings or otherwise disclosed to the general public. It is strongly recommended that inquiries regarding archaeological site locations be forwarded to the manager of the environmental study so that this information can be provided to the project cultural resources representative.

The local agency must advise all railroads by sending a notice to the railroads' chief engineers when the improvement is within an urban area or affects railroad yards or industrial properties belonging to the railroad. Preliminary layouts through yards or industrial areas should be discussed with the railroads to ensure their current plans are not in conflict with our layouts.

**136.7.2.2 Design Public Hearings**

A [design public hearing](http://epg.modot.org/index.php?title=Category:129_Public_Involvement#129.7_Design_Public_Hearings), or opportunity afforded for such hearing, is required for all projects regardless of environmental classification which are on new location, require substantial amounts of new right of way, substantially change the layout or functions of connecting roadways or of the facility being improved, have a substantial adverse impact on abutting property, or otherwise have a substantial social, economic, environmental or other effect, or for which FHWA determines that a public hearing is in the public interest. Substantial amounts of right of way and substantial adverse impact on abutting property as used here is defined as follows: total additional right of way and permanent easements greater than 8 hectares (20 acres) in rural areas or 18,500 square meters (200,000 square feet) in urban areas, or acquisitions from five or more properties. All projects that involve [Section 4(f)](http://epg.modot.org/index.php?title=127.10_Section_4%28f%29_Public_Lands#127.10.2.1.1_Section_4.28f.29_Properties) or [Section 6(f)](http://epg.modot.org/index.php?title=127.10_Section_4%28f%29_Public_Lands#127.10.2.1.2_Section_6.28f.29_Properties) lands should be examined to determine if a design public hearing is advisable. The criteria established in this section should be considered a minimum level for which a public hearing is required. Authority to conduct the design public hearing is given with the MoDOT's approval of the preliminary plans.

A hearing should still be considered, even if not "required", if the impact on the traveling public, adjoining property owners and businesses in the area is considered to be significant. A hearing may be desirable to advise local officials, adjacent property owners and other users of the details of the project. A hearing is an opportunity to gain comment from the public concerning the improvement and it allows the local agency an opportunity to outline a proposed solution to an identified transportation need. The desirability, methods of advertising and format for these meetings are left to the discretion of the local agency. A summary of the meeting is submitted to MoDOT.

At design public hearings, the preliminary plans and other exhibits derived from the location study are displayed. Pertinent information about the location alternatives studied and reasons for selecting the proposed location are discussed. Details of the effect of the proposed design on individual properties are discussed. Information about design alternatives studied is made available.

**136.7.2.3 Additional Hearings or Meetings**

Additional hearings or meetings or opportunities for such hearings or meetings may be scheduled when there has been a substantial change in the proposal, substantial unanticipated development in the area affected by the proposal, an unusually long lapse of time (more than 3 years) between the last location public hearing and location approval or design public hearing and design approval and/or identification of significant social, economic or environmental effects not previously considered at earlier hearings.

**136.7.2.4 Advertisement for Public Hearings**

Notices concerning public hearings are to be published as a legal notice in a newspaper having general circulation in the vicinity of the proposed project. Additional paid advertisements are encouraged to ensure maximum public input. Additional efforts may be necessary to ensure that minority and disadvantaged populations are aware of the process. Examples of these efforts include house to house contact, bulletins at kiosks, community minority liaison contacts, and notices in newspaper and media outlets, which cater to minority and disadvantaged populations. The notice of public hearing specifies the date, time and place of the hearing and contains a description of the project. If the open-house format is to be utilized, this procedure is explained in the notice. The notice of public hearing specifies that maps, drawings, appropriate environmental documents, other pertinent information developed by the local agency and written views received as a result of the coordination with other agencies or groups, will be available for public inspection. The notice also specifies that this information is available in the appropriate local agency office and at some other convenient location such as a courthouse, city hall or library for public inspection and/or copying. An [example of the proper format for the advertising notice](http://epg.modot.org/files/4/40/136.7.1_Example_Notice_of_Public_Hearing_%28Fig.7-1%29.DOC) is available. The notice of public hearing is to be published a minimum of 21 calendar days prior to the date of the hearing. A copy of the notice is to be sent to MoDOT.

In addition to publishing a notice of public hearing, the local agency must submit news releases to the newspaper and electronic media at about the same time as the official notice is to be published and again approximately 5 to 12 calendar days prior to the date of the hearing. The news releases generally contain the same information included in the official notice. If the local agency feels that other methods of advertising a public hearing would help increase public attendance, these options should be explored along with the legal notice and news releases. Options may include direct patron mailings, flyers in public areas, signs erected in the project area or other methods.

**136.7.2.5 Advertisement for Opportunity for Public Hearings**

If, in the judgment of the local agency, ample evidence of the desire for a public hearing is not apparent, the local agency may advertise the opportunity for a public hearing. In addition to the information required for the notices and news releases described above, the notice of opportunity for a public hearing includes instructions as to how to request a public hearing. All requests must be in writing and should be acknowledged in writing by the local agency.

This notice is published as either a paid advertising notice or a legal notice and submitted as a news release. This notice may be advertised on a website in addition to, but not instead of a newspaper. This notice advises the public of a deadline for the request for a public hearing. This deadline for submission of a request is set 21 calendar days after the publication of the notice.

If a request is received, the local agency may contact the individual to discuss their concerns with the project. The person making the request is allowed 14 calendar days to withdraw their request in writing. If a request is made and not withdrawn a public hearing is held.

If no requests are received by the local agency, the local agency must document the opportunity for public hearing notice and certify that no requests were received. This documentation and certification is forwarded to MoDOT.

**136.7.2.6 Procedures for Conducting Public Hearings**

Public hearings are to be held at a place and time generally convenient for persons affected by the proposed undertaking. When selecting the time and location of the meeting, special consideration should be given to making the setting comfortable for all, including minority and disadvantaged populations. The hearing is conducted by the local agency with possible assistance from MoDOT. The hearing location selected should provide adequate accessibility for physically disabled citizens. Accessibility should also be adequate for minority and low-income populations. Special attention should be paid to access from public transportation, the ability to walk to the meeting, and obstacles such as railroad tracks, crossing busy highways, etc. Two types of procedures may be used to conduct public hearings: the traditional formal speaker-audience format or the open-house format. The selection of format is at the discretion of the local agency and should be based on an analysis of the conditions involved, including consideration of minority and low-income populations. The recommended open-house format tends to be comfortable for a wider variety of people. Where there are language barriers, efforts should be made to ensure all voices are heard and all can understand presentations.

**136.7.2.7 Formal Public Hearings**

[Formal public hearings](http://epg.modot.org/index.php?title=Category:129_Public_Involvement#129.11.1_Formal_Public_Hearings) consist of an opening statement, a period for statements and questions from the public, and a closing statement. Following is a list of actions and statements that should take place at all formal public hearings:

**1.** The public hearing is to be conducted in a business-like manner, and answers to questions are to be as complete and unbiased as possible.

**2.** A complete record is made, including names and addresses, for all those in attendance and those speaking.

**3.** The opening statement includes an explanation of the purpose and need for the project. Information such as accident data, structural deficiencies, capacity problems, and public requests may be cited as justification for the project. Pertinent information about the location alternatives studied as well as major details of the proposed design are discussed. This information should describe the project's consistency with the goals and objectives of the area.

**4.** The following statement is to be made at all hearings: "This project is being processed in accordance with federal rules and regulations. Plans will be subject to review by FHWA. If federal funds are used in right of way acquisition and/or construction, the percentage of federal funds used will be in accordance with current regulations".

**5.** The tentative schedule of right of way acquisition and construction is mentioned. It is limited to a statement that as soon as design approval is received, the local agency will proceed with design and right of way acquisition and construction will take place when funds are available.

**6.** At any hearing on a project, which will require additional right of way to accommodate the proposed facility, the right of way acquisition process must be discussed. The public must be adequately informed regarding relocation assistance procedures. The local agency must describe assistance and benefits available to those that will be displaced by this project. In addition, it is necessary to discuss the number of individuals, families, businesses, etc. that may be relocated by the project under consideration and if studies indicate adequate replacement housing is available. It is also necessary to state that no one will be displaced from their residence unless an appropriate replacement dwelling is available or provided.

**136.7.2.8 Formal Location Public Hearings**

For [formal location public hearings](http://epg.modot.org/index.php?title=Category:129_Public_Involvement#129.11.1.1_Formal_Location_Public_Hearings), the following additional actions and statements should take place:

**1.** The public is advised that the public hearing is being recorded and that the transcript will be studied and submitted to MoDOT.

**2.** All substantive written views received prior to the location public hearing must be made available to the public as part of the hearing either by display at the hearing, or by reading into the transcript. These letters may be included as part of the environmental document and displayed in that manner.

**3.** Provision is made for acceptance of written statements and other exhibits in place of or in addition to oral statements at the time of the location public hearing. A statement is made that any additional pertinent information received within ten working days after the hearing will be made a part of the transcript and substantive comments will be addressed in any final environmental documentation.

**4.** The opening statement also includes a brief explanation of the content and availability of the environmental impact statement (EIS) or environmental assessment (EA). For projects with an environmental classification of CE, a statement is made that the proposed improvement is expected to have no significant impact on the environment and hence is categorically excluded from the need to prepare an EIS. For EA and EIS projects, at least two copies of the approved draft environmental document must be available for public review at the hearing. However, to avoid vandalism and looting, the location of archaeological sites should not be disclosed to the public.

**5.** Any significant encroachment on flood plains or wetland areas is discussed.

**6.** Pertinent information about all of the location alternatives studied is discussed and shown on exhibits. All alternatives carried forward in the draft environmental document as reasonable are to be given equal consideration at the hearing in terms of exhibit presentation and design detail. All alternates considered but dropped from further consideration should have pertinent information regarding this decision available for discussion at the hearing. The approved draft environmental document is also made available. If the draft environmental document indicates a preferred alternative, it should be identified as such at this hearing.

**136.7.2.9 Formal Design Public Hearings**

For [formal design public hearings](http://epg.modot.org/index.php?title=Category:129_Public_Involvement#129.11.1.2_Formal_Design_Public_Hearings), the following additional actions and statements should take place:

**1.** The public is advised that the public hearing is being recorded and that the transcript will be studied and submitted to MoDOT.

**2.** All substantive written views received prior to the design public hearing must be made available to the public as part of the hearing either by display at the hearing, or by reading into the transcript.

**3.** Provision is made for acceptance of written statements and other exhibits in place of or in addition to oral statements at the time of the location public hearing. A statement is made that any additional pertinent information received within ten working days after the hearing will be made a part of the transcript, and substantive comments will be addressed.

**4.** Preliminary plans and other exhibits derived from the location study are displayed. It is also recommended that the approved final environmental document is made available for public review at the design hearing.

**136.7.2.10 Open House Public Hearings**

An [open house public hearing](http://epg.modot.org/index.php?title=Category:129_Public_Involvement#129.11.2_Open-House_Public_Hearings) has the same requirements as formal public hearings except that some items are included on an informational handout. The advertising is the same, except all notices and letters describe the format being used with emphasis on the optional hours during which interested persons may attend. Alternate methods of submitting comments also are included in the notice. The normal time for an open house public hearing is a weeknight other than a holiday, Monday through Thursday, from 4:00 p.m. until 7:00 p.m. These hours should accommodate persons wishing to attend during normal working hours and those wishing to attend after normal working hours. The duration of the hearing may be increased as needed if a large turnout is expected.

The site for open house public hearings is separated into areas for greeting, display and recording comments. This may be done with a large, single room or a group of smaller rooms. One or more greeters stationed at the entrance to the hearing room or rooms ask people upon arrival to fill out an attendance card and direct them to exhibit and comment areas. Each person is given a comment sheet and an informational handout. The handout has all information normally included in the opening statement at a formal hearing. In addition, it may include a location sketch, summary of environmental documents or other detail. Return postage may be included on comment sheets for the benefit of persons desiring to submit written comments by mail. Several sets of exhibits should be available in order to provide visitors ample opportunity to see the information. The exhibits of the project should be of sufficient quality and scale such that property owners can clearly identify their property. It is recommended that a wide corridor is shown at the location public hearing instead of showing specific lines and design features as these are subject to change. Additional exhibits showing traffic, accident, environmental, economic or other data may also be displayed. To avoid the potential for vandalism or looting, the location of archaeological sites should not be disclosed. Exhibits of the NEPA process and project schedule may be shown in a simple format. It may also be advisable to invite other agencies, cities, or counties, to be present or set up displays if they have projects going on in the area for which public questions are anticipated. Right of way personnel are stationed in a separate, clearly labeled area to discuss right of way matters. Another area is provided for submitting written comments. Visitors should be reminded that written comments may be submitted up to 10 working days after the hearing.

**136.7.2.11 Transcripts**

The local agency is responsible for the preparation of an [accurate written transcript of the oral proceedings of each public hearing](http://epg.modot.org/index.php?title=Category:129_Public_Involvement#129.11.3_Transcripts). The oral proceedings may be recorded by a tape recorder, a court recorder or any reliable method that will assure a verbatim transcript. Shorthand notes are not considered adequate. Public comments that are expressed at the hearing but are not recorded should also be noted. Two copies of the transcript must be submitted to MoDOT.

The transcript must contain the following:

**1.** Executive Summary that describes and discusses issues raised at the hearing or during the open comment period. No recommendations are included in this summary.

**2.** Project information handout.

**3.** Double-spaced transcript of any oral hearing proceedings.

**4.** Color location map(s) showing the alternate locations presented (location public hearing only) or the location of the recommended design (design public hearing only).

**5.** Data pertinent to statements or exhibits used or filed in connection with the public hearing.

**6.** Data pertinent to information made available to the public prior to the public hearing.

**7.** Pertinent correspondence.

**8.** Copy of all written comments received.

# **EPG 136.8 Preliminary Design**

**From Engineering Policy Guide**

Jump to: [navigation](http://epg.modot.org/index.php?title=136.8_Preliminary_Design#column-one), [search](http://epg.modot.org/index.php?title=136.8_Preliminary_Design#searchInput)

**136.8.1 Design Criteria**

As described in [EPG 136.1 General](http://epg.modot.org/index.php?title=136.1_General), the engineer of record will be considered responsible for determining the appropriate design parameters for the project using good engineering judgment based on the specific site conditions, local agency needs and guidance provided in this article. The design criteria selected by the engineer of record shall be noted on the plans. The local agency and the engineer of record shall be responsible for keeping the design justification on file for all federal aid projects, and the records shall be available for review by MoDOT and [FHWA](http://www.fhwa.dot.gov/) if requested. The current edition of the following publications or any local ordinances should be followed as a guide with modifications as considered appropriate by the engineer of record and to be in keeping with good engineering practice:

Engineering Policy Guide, by MoDOT

*A Policy on Geometric Design of Highways and Streets*, by AASHTO

*Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT < 400)*, by AASHTO

*Roadside Design Guide*, by AASHTO

*Highway Capacity Manual for Railroad Engineering*, by AREMA

Traffic control devices shall be governed by the *Manual on Uniform Traffic Control Devices* (MUTCD).

The National Cooperative Highway Research Program (NCHRP) has issued guidance, Report 350, on the standards for guardrail and bridge railing design. This new guidance is required by FHWA to be incorporated into projects that are located on the National Highway System (NHS), and may be considered for use by the local agency for projects located off of the NHS. (Refer to [EPG 136.8.7.7 Bridge Rail System](http://epg.modot.org/index.php?title=136.8_Preliminary_Design#136.8.7.7_Bridge_Rail_System) for additional information).

The Americans with Disabilities Act (ADA) requires that all facilities be designed to current accessibility standards to the maximum extent feasible for sidewalks, crosswalks, grades, etc. The *Americans with Disabilities Act Accessibility Guidelines* (ADAAG) have been adopted as standards by the Department of Justice and the Department of Transportation for accessibility standards for buildings and sites. Standards for pedestrians in the public right of way are yet to be approved, but the *Public Right of Way Access Guidelines* (PROWAG) may be used. Refer to [ADA Resources](http://www.modot.mo.gov/business/manuals/documents/ADAResources.doc) for more information.

**136.8.2 Accuracy**

Table 136.8.2 lists detail design information for the accuracy of plan dimensions. This chart is a guide to assist users in the transition to metric plans production, and can be varied as needed.

|  |  |  |  |
| --- | --- | --- | --- |
| **Table 136.8.2 Dimensional Accuracy** | | | |
| **Dimension** | | **English Accuracy** | **Metric Accuracy** |
| **All stationing** | | 0.01 ft. | 0.001 m |
| **Topography** | | | |
|  | Stationing | 1.0 ft. | 0.1 m |
|  | Offset | 1.0 ft. | 0.1 m |
|  | Angle | 0 degrees 01 minutes | 0 degrees 01 minutes |
| **Bearings and Angles** | | 0 degrees 00 minutes 1 sec | 0 degrees 00 minutes 1 sec |
| **Right of way** | | | |
|  | Stationing | 0.1 ft (1.0 ft. or 5.0 ft. preferable) | 0.01 m (0.1 m or 1 m preferable) |
|  | Width | 1.0 ft. (5.0 ft. preferable) | 0.1 m (1 m preferable) |
| **Area** | | 0.01 acre or 1.0 ft2 | 0.001 hectare or 0.1 m2 |
| **Referenced Points** | | | |
|  | Stationing | 0.01 ft. | 0.001 m |
|  | Ties | 0.1 ft | 0.05 m |
| **Bench Marks** | | | |
|  | Stationing | 1.0 ft. | 0.01 m |
|  | Offset | 1.0 ft. | 0.01 m |
|  | Elevation | 0.01 ft. | 0.005 m |
| **Profile Grade** | | | |
|  | P.I. station | 0.01 ft. | 0.001 m |
|  | P.I. elevation | 0.01 ft. | 0.005 m |
|  | Rate of grade | 0.001% (where practical) | 0.001% (where practical) |
| **Length of vertical curve** | | 10 ft. increments | 5.0 m increments |
| **Stopping sight distance** | | 5.0 ft. | 1.0 m |
| **"K" factors** | | Nearest whole number | Nearest whole number |
| **Flow line elevation** | | 0.1 ft. | 0.01 m |
| **Items to be constructed** | | | |
|  | Stationing | 0.1 ft. (1.0 ft. preferable) | 0.01 m (0.1 m preferable) |
| **Culvert lengths** | | 1.0 ft. (or next even foot for metal pipe culverts) | 0.1 m (or next multiple of 300 mm for metal pipe culverts) |

**136.8.3 Preliminary Submittals**

For all projects, submittal of preliminary plans to MoDOT district offices is required. MoDOT’s review will be limited to ensuring the project meets the intent of the federal-aid program. Specific questions should be provided by the engineer or local agency in writing on their cover letter with the preliminary submittals.

For projects involving bridges or culverts, submittal of preliminary bridge plans, hydraulic studies, etc. to [Bridge Division](http://wwwi/intranet/br/default.htm) are not necessary. However, if the engineer or local agency has specific questions regarding project eligibility that they would like MoDOT to address at the preliminary stage then Bridge Division is receptive to this information. Specific questions should be provided by the engineer or local agency in writing on their cover letter with the submitted package to the MoDOT district office.

The [Categorical Exclusion](http://epg.modot.org/index.php?title=127.14_National_Environmental_Policy_Act_%28NEPA%29_Classification_and_Documents#127.14.1.3.1_Categorical_Exclusion), [Environmental Assessment](http://epg.modot.org/index.php?title=127.14_National_Environmental_Policy_Act_%28NEPA%29_Classification_and_Documents#127.14.1.3.2_Environmental_Assessment), or [Environmental Impact Statement](http://epg.modot.org/index.php?title=127.14_National_Environmental_Policy_Act_%28NEPA%29_Classification_and_Documents#_127.14.1.3.3_Environmental_Impact_Statement) must be approved by FHWA prior to 35% plan completion. (Note that the [Section 106](http://epg.modot.org/index.php?title=The_Section_106_Process) (historic properties) clearance must also be approved before right of way acquisition can begin).

**136.8.4 Traffic Signal Warrants**

When the project is on MHTC right of way the local agency should submit signal warrants prior to the preparation of traffic signal plans. Signal warrant forms are available at the MoDOT district office. Traffic counts which are recorded for time intervals of less than one hour should be subtotaled for each hour in order to facilitate proper review of warrants.

The engineer of record shall determine signal warrants based on the [MUTCD](http://mutcd.fhwa.dot.gov/pdfs/2003r1/pdf-index.htm) for all other projects.

**136.8.5 Railroad Crossings**

If the proposed improvements are on or cross railroad right of way, the railway company must be contacted. Railway company approval will be necessary to receive construction authorization. The local agency must contact the affected railway company directly.

**136.8.6 Utility Relocations**

The local agency has the ultimate responsibility of negotiating with local utility companies, cross-state pipelines and other utility facilities for right of way, easement and adjustment agreements for utility relocations. The local agency is encouraged to work with each utility to minimize impacts to the utility facilities. An [example of a Utility Scoping Checklist](http://epg.modot.org/files/b/b5/136.3.2_Utilities_Scoping_%28Fig.3-2%29.doc) is available to be utilized.

The local agency should, in the preliminary phase, identify existing utility locations and determine if any adjustments will be required. Local agencies should consult [Program Guide – Utility Adjustments and Accommodations on Federal-Aid Highway Projects](http://www.fhwa.dot.gov/reports/utilguid), published by FHWA, for assistance regarding utilities within the highway corridor.

All utility adjustments located on MHTC right of way shall conform to the [Code of State Regulations, Title 7, Division 10, Chapter 3 – Utility and Private Line Location and Relocation](http://sos.mo.gov/adrules/csr/current/7csr/7c10-3.pdf). The cost of necessary utility relocations for which the local agency is responsible is eligible for federal participation. If the local agency elects to receive federal participation, utility agreements must conform to [23 CFR Section 645A](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=ff5362ae357cd3e74c0ec29f9775f4ac&tpl=/ecfrbrowse/Title23/23cfr645_main_02.tpl), which is the applicable Federal Regulation regarding utility relocation on federally funded highways. MoDOT can assist the local agency with information about the above regulation.

Actual Cost Agreements are utilized when certain costs are unknown and the actual amount for the adjustment will be reimbursed. Lump Sum Agreements are used when costs are static and can be determined ahead of time. Provisions for the audit should be stated in the agreement between the utility and local agency. [Sample Utility Agreements on Lump Sum and Actual Cost](http://modot.gov/business/manuals/localpublicagency.htm) are available.

Utility relocations that impact MHTC right of way require prior MoDOT approval for the plan(s) of adjustment(s). Each plan of adjustment must be submitted to the district liaison engineer for review and approval prior to final PS&E approval. The utility company will be required to acquire the necessary MoDOT permits prior to any work being performed.

Some work on projects that affect MoDOT right of way may be in the vicinity of MHTC/MoDOT utility facilities, which include but are not limited to traffic signal cable, highway lighting circuits, ITS cable, cathodic protection electric cable, etc. When this is the case, Missouri One-Call (800-DIG-RITE) must be contacted in order to establish the location of the facilities.

**136.8.7** [**Alternate Pavement**](http://epg.modot.org/index.php?title=Alternate_Pavement)

To ensure that every effort is being made to increase the competition for paving contracts, and that the latest market rate is considered when determining pavement type, local agencies may allow contactors to bid an alternate pavement design. For further information contact your [MoDOT district representative](http://www.modot.mo.gov/) or consult [Alternate Pavement](http://epg.modot.org/index.php?title=Alternate_Pavement).

**136.8.8 Bridge Replacement and Rehabilitation Projects**

**136.8.8.1 Design Parameters**

As described in [EPG 136.1.2 Federally Funded Bridge Projects](http://epg.modot.org/index.php?title=136.1_General#136.1.2_Federally_Funded_Bridge_Projects), the engineer of record will be considered responsible for determining the appropriate design parameters chosen for the project using good engineering judgment based on the specific site conditions, local agency needs and guidance provided in this article.

The current edition of the following publications should be followed as a guide with modifications as considered appropriate by the engineer of record and to be in keeping with good engineering practice:

*A Policy on Geometric Design of Highways and Streets*, by AASHTO.

*Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT ≤ 400)*, by AASHTO.

*Highway Drainage Guidelines*, by AASHTO.

*Standard Specifications for Highway Bridges*, by AASHTO.

*Manual for Railroad Engineering*, by AREMA.

**136.8.8.2 Funding**

Rehabilitation will be considered for [the HBP](http://epg.modot.org/index.php?title=136.1_General#136.1.6.1_Highway_Bridge_Program) funding when that option of improvement provides the best value while meeting the needs of the local agency. If determined at the Program Eligibility Review project stage that structure improvements are eligible only for partial federal participation in funding as needed to rehabilitate the structure, the local agency may still elect to replace the structure, rather than to rehabilitate the existing structure. However, the amount of eligible federal funding will be limited to that which will not exceed the rehabilitation cost estimate unless appropriate justification is provided by the local agency that a new structure represents the best value. If the rehabilitation cost is at least 68% of the replacement costs, it can generally be assumed that the new replacement structure will provide a better value than the rehabilitation of the existing structure and therefore a better use of federal bridge funds.

**136.8.8.3 Deficiencies**

The following provides the engineer more detail concerning the 2nd criteria in [EPG 136.1.2 Federally Funded Bridge Projects](http://epg.modot.org/index.php?title=136.1_General#136.1.2_Federally_Funded_Bridge_Projects). For existing bridges, the bridge deficiencies are indicated by the bridge inspection report. The inventory criteria will be based on [EPG 753 Bridge Inspection Rating](http://epg.modot.org/index.php?title=Category:753_Bridge_Inspection_Rating) as well as the latest version of the FHWA publication [*Recording and Coding Guide for the Structural Inventory and Appraisal of the Nation's Bridges*](http://www.fhwa.dot.gov/bridge/mtguide.pdf). An inventory item is considered deficient when the condition/appraisal rating meets the definition as given below.

|  |  |  |  |
| --- | --- | --- | --- |
| **Definition of Deficiencies** | | | |
| 1 | Item 58 | Deck Condition | ≤ 4 |
| 2 | Item 59 | Superstructure Condition | ≤ 4 |
| 3 | Item 60 | Substructure Condition | ≤ 4 |
| 4 | Item 62 | Culvert Condition | ≤ 4 |
| 5 | Item 67 | Structural Evaluation rating | ≤ 3 |
| 6 | Item 68 | Deck Geometry | ≤ 3 |
| 7 | Item 69 | Under Clearance | ≤ 3 |
| 8 | Item 71 | Waterway Adequacy rating | ≤ 3 \* |
| 9 | Item 72 | Approach Roadway Alignment | ≤ 3 |
| \* Last digit for Item 42 (Type of Service) = 0, or 5 thru 9 | | | |

The bridge improvements should remove any deficiency as listed above and shall be designed to provide an increased life expectancy of at least 25 years before significant deficiencies develop unless the proposed deficient item may remain based on MoDOT’s approval. For a proposed deficient item, the engineer of record is required to provide documentation as to why the proposed parameter should be used and MoDOT will forward as appropriate to [FHWA](http://www.fhwa.dot.gov/) for their approval.

**136.8.8.4 Structure Type**

The structure type shall be determined by the engineer of record for all span type bridges or culvert type bridges and shall be based on economic comparisons, site specific conditions and local agency needs.

Although not all inclusive, the following gives the engineer of record additional guidance regarding some of the design parameters that generally have a major influence on the eligibility of a bridge project.

**136.8.8.5 Truck Loading**

For rehabilitations and replacements, variations from AASHTO HS20 design loadings are permissible provided, the minimum load capacity of the superstructure is designed or strengthened so that Item 67, Structural Evaluation from the FHWA coding guide, will not be considered deficient.

**136.8.8.6 Bridge Width**

The bridge width, as a minimum, shall be improved or built to at least a width where the bridge would not be considered functionally obsolete due to deck geometry based on the number of traffic lanes and future design year AADT or type of roadway classification. This minimum width shall be verified by the engineer of record prior to submittal in accordance with the FHWA coding guide.

**136.8.8.7 Bridge Rail System**

The appropriate bridge rail and approach railing may be determined by the engineer of record based on site specific conditions such as accident history, AADT, speed, sight distances, roadway width, etc.

For AADT≤400, the use of standard height and/or crash-tested railing is optional. For discussion of the subject, AASHTO’s *Guidelines for Geometric Design of Very Low-Volume Local Roads* may be consulted. The local agency and engineer of record may select from a variety of curbing or railing types deemed to be suitable for use based on site specific conditions such as accident history, geometric alignment, height of bridge, etc.

**136.8.8.8 Seismic Requirements**

The level of seismic protection for a particular project is optional and should be determined by the engineer of record and local agency based on agency needs and site-specific conditions such as emergency route status, AADT, functional classification, structure importance, etc.

**136.8.8.9 Hydraulics for New Structures**

The engineer of record with the local agency’s assistance is considered responsible for the investigation of field conditions related to the hydraulic design of the structure, investigation for FEMA design restrictions as related to the National Flood Insurance Program, and investigation for scour potential, embankment protection and potential channel modification requirements. Impacts on upstream properties should always be considered along with other investigations that may also be found to be appropriate. It is advisable for the waterway opening of the new structure to be designed so as to not result in more adverse flooding conditions from those that would occur with the existing structure, assuming the existing structure is already performing adequately.

As a minimum, the [bridge should also be sized appropriately](http://epg.modot.org/index.php?title=750.3_Bridges) so that the hydraulic performance will not result in a deficient NBI Item 71, Waterway Adequacy rating, and the new structure will not be susceptible to future significant damage caused by flooding based on the engineer’s scour and drift assessment. It is generally not necessary for the engineer of record to submit the hydraulic calculations and report to MoDOT. However, the local agency should keep this information for their own records and make available to MoDOT and/or FHWA if requested.

**136.8.8.10 Federal Emergency Management Agency (FEMA) and Required Certifications**

Local agencies that participate in the NFIP have the responsibility to ensure that floodplain developments meet the regulations established by the NFIP as identified in the [Title 44, Code of Federal Regulations, Parts 59 through 78](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?sid=1849c106f8fd78c8d5675e1a830a743a&c=ecfr&tpl=/ecfrbrowse/Title44/44cfrv1_02.tpl). Further information on Floodplain Development and FEMA Certifications can be found in [EPG 136.4 Environmental and Cultural Requirements](http://epg.modot.org/index.php?title=136.4_Environmental_and_Cultural_Requirements).

**136.8.8.11 Channel Modification**

Channel changes alter the conditions of the natural waterway and may cause an increase in velocity of the flowing water, sometimes resulting in damage to the highway embankment near the stream or excessive scour around footings of structures. Channel modification should be minimized to the fullest extent practical. Where such change is unavoidable, an evaluation must consider the environment, hydraulic, legal, and geomorphic aspects involved. Detailed information on channel modification can be found in [EPG 136.4 Environmental and Cultural Requirements](http://epg.modot.org/index.php?title=136.4_Environmental_and_Cultural_Requirements).

**136.8.8.12** [**Geotechnical Investigation**](http://epg.modot.org/index.php?title=Category:321_Geotechnical_Engineering)

The geotechnical investigation of the project should be as determined by engineer of record in order to adequately perform the foundation design and determine side slope and spill slope requirements at bridge abutments.

**136.8.8.13** [**National Highway System (NHS)**](http://epg.modot.org/index.php?title=Category:123_Federal-Aid_Highway_Program#123.1.1_FHWA_Oversight_-_National_Highway_System)

In the event of a non-state bridge project being located on the NHS, the design standards given in the federal-aid policy guide [Title 23](http://www.fhwa.dot.gov/legsregs/directives/cfr23toc.htm), Subchapter G, Part 625-Design Standard for Highways shall be followed with the following exception. A design vehicle truck loading factor of 1.25 applied to the AASHTO HS20 loading (1.25 times the AASHTO HS20 loading) is required (HS25) unless suitable justification is provided by the local agency and engineer of record for a reduced loading.

**136.8.8.14 State-Owned Right of Way**

When a state-owned roadway is to be crossed by a bridge, the applicable MoDOT requirements should be followed with vertical and horizontal clearances subject to approval by a MoDOT district engineer. It is recommended that the proposed vertical and horizontal clearances be submitted for MoDOT review and acceptance as soon as possible in the early stages of the project.

**136.8.8.15 Sidewalks**

Sidewalks are an eligible feature on bridge structures where such access currently exists for pedestrian or combined pedestrian and bikeway use.

**136.8.9 Retaining Walls**

For installations which are permitted to be located on state-owned right of way, guidance from the current edition of the *Standard Specification for Highway Bridges* by AASHTO along with applicable MoDOT requirements should be followed. For local agency owned routes, the above may be used as guides or local building codes and ordinances may be used as considered appropriate by the engineer of record to be in keeping with good engineering practice.

**136.8.10 Pedestrian Bridges**

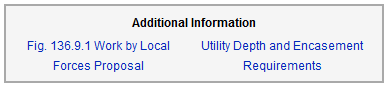
**136.8.10.1 Design Parameters**

The engineer of record shall determine all design parameters based on consideration of published AASHTO guidelines and/or local building codes and ordinances except as discussed below.

**136.8.10.2 State-Owned Right of Way**

When a state-owned roadway is to be crossed by a pedestrian structure, guidance from the applicable AASHTO documents and MoDOT requirements should be followed with vertical and horizontal clearances subject to approval by a MoDOT district engineer. It is recommended that the proposed vertical and horizontal clearances be submitted for MoDOT review and acceptance as soon as possible in the early stages of the project.

# **EPG 136.9 Final Design**

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EPG 136.8’s additional information is available at the top of

<http://epg.modot.org/index.php?title=136.9_Final_Design>

**From Engineering Policy Guide**

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According to Missouri State Statutes, plans, specifications, and cost estimates for public roadwork must be prepared by or under the immediate personal supervision of a registered professional engineer.

Plans and specifications must be prepared in such a manner that payment in the contract will be made on the basis of units of work and materials.

Plans and specifications prepared by the engineer may be reviewed by MoDOT on a cursory basis for an individual project basis only and should not necessarily be assumed to apply to other similar projects. Design computations do not need to be submitted to MoDOT unless requested, with the exception of vehicle load rating computations that meet the requirements described in this article.

**136.9.1 Roadway**

There is no set standard for the order of sheets within the roadway portion of the plans. Items that must be included are typical sections, plan, profile, or plan and profile sheets, special sheets, erosion control plans, traffic control plans, and cross section sheets or data. Other sheets to be included if applicable include culvert sheets, lighting, signals, signing, utility sheets if part of the roadway contract and standard plans.

The plan, profile, or plan and profile sheets should include a north arrow, graphic scale, description of the project’s beginning and ending points, construction details, alignment and profile data, bench marks, and any construction notes. Construction notes should not be placed in the cross section sheets.

**136.9.2 Water Quality Impacts/Land Disturbance**

The National Pollutant Discharge Elimination Systems (NPDES) program regulates construction activities where 1 acre or more of land is disturbed. If the project proponent has a general NPDES permit for all of their construction activities, this is adequate. If the project proponent does not have a valid general permit and will disturb 1 acre or more of land, a project-specific NPDES permit is required. If the project is entirely within MoDOT right of way, the sponsor may use MoDOT’s general permit. In either case, the sponsor will need to develop a site-specific stormwater pollution prevention plan for the project. The sponsor shall contact the Missouri Department of Natural Resources (DNR) NPDES Storm Water Program office at (573) 751-1300 or (800) 361-4827 for further directions. A few cities (Kansas City, Columbia, and others) and counties have obtained their own land disturbance permits from DNR for generic land disturbance purposes; see additional discussion on stormwater and erosion control in [EPG 136.4 Environmental and Cultural Requirements](http://epg.modot.org/index.php?title=136.4_Environmental_and_Cultural_Requirements).

**136.9.3** [**Traffic Control**](http://epg.modot.org/index.php?title=616.1_Preparation_of_Traffic_Control_Plan_%28TCP%29)

The local agency shall develop and implement a Transportation Management Plan (TMP) in sustained consultation with all stakeholders for each project. The TMP shall consist of strategies to manage work zone impacts and provide for the safe and efficient movement of motorized and non-motorized traffic through or around the construction. The TMP shall include a Temporary Traffic Control (TTC) plan for non-significant projects and TTC, Transportation Operation (TO) and Public Information (PI) plans for projects determined to have significant impact on the public. A significant project is one that, alone or in combination with other concurrent projects nearby, is anticipated to cause sustained work zone impacts greater than what is considered tolerable.

The TTC plan describes measures to be used to facilitate the movement of system users through or around the construction and shall conform to the guidelines set forth in Chapter 6 of the [*Manual on Uniform Traffic Control Devices* (MUTCD)](http://mutcd.fhwa.dot.gov/pdfs/2003r1/pdf-index.htm). [EPG 616 Temporary Traffic Control](http://epg.modot.org/index.php?title=Category:616_Temporary_Traffic_Control) and [EPG 616.23 Traffic Control for Field Operations](http://epg.modot.org/index.php?title=616.23_Traffic_Control_for_Field_Operations) may be used as references in the development of the TTC plan. The scope of the traffic control plan should match the complexity of the project.

The TO plan identifies strategies to be used to mitigate impacts of the work zone on the operation and management of the transportation system within the work zone impact area. The PI plan prescribes the communication strategies to be used to inform affected road users, the general public, area residents and businesses, and appropriate public and transportation entities about the project, the expected impacts of the work, and changing conditions. The plans and specifications should include the TMP and pay item for implementing the TMP, including providing, installing, moving, replacing, maintaining, cleaning, and removing traffic control devices required by the TTC plan.

The local agency shall designate a trained person on each project who has the primary responsibility, with sufficient authority, for implementing the TMP and other safety and mobility aspects of the project.

**136.9.4 Railroad Crossings**

If the proposed improvements are on or cross railroad right of way, the railway company must be contacted. Railway company approval will be necessary to receive construction authorization. The local agency must contact the affected railway company directly.

**136.9.5 Utilities**

All existing and proposed utility facilities must be shown on the plan sheets. The [minimum depth locations and encasement requirements](http://epg.modot.org/files/4/44/136.9.2_Utility.jpg) for the utilities located on MHTC right of way are available.

The local agency shall prepare a [Utility Status Letter](http://www.modot.mo.gov/business/manuals/documents/UtilityStatusLetter.pdf) and provide it to MoDOT with the final plans submittal. Projects must be cleared for bid opening and MoDOT district personnel 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.

**136.9.6 Projects with Bridges**

**136.9.6.1 Bridge Drawings and Contract Documents**

Structural drawings, specifications and special provisions for bridges or culverts must provide sufficient detail that will clearly identify all dimensional and materials requirements, and will allow the construction of all structural components in accordance with the engineer’s design.

The drawings shall provide appropriate general notes to identify all pertinent design criteria for the project; such as identification of all design loads, design unit stresses for the structural components, bearing pad and joint filler requirements, hydraulic data, geotechnical information, reinforcing steel clearances, etc. The notes should identify the usage of the appropriate AASHTO Design Standard Specification for Highway Bridges along with a listing of significant exceptions. Also, plans should note the applicable construction specifications.

Drawings shall include a summary of estimated quantities, a reinforcing steel bar list and bending diagrams and a pile data table and footing design bearing table, where applicable.

**1.** If useful as an aid and/or reference, [751 LRFD Bridge Design Guidelines](http://epg.modot.org/index.php?title=Category:751_LRFD_Bridge_Design_Guidelines) covering design and detail of prestress double tee, prestress I-beam and other type structures, including steel is available.

**2.** [Detail sheets are also available for many superstructure details and substructure units](http://www.modot.mo.gov/business/consultant_resources/bridgestandards.htm).

**3.** If a concrete box culvert structure is appropriate, [Standard Plans are readily available for single, double, or triple box culverts](http://www.modot.mo.gov/business/standards_and_specs/currentsec700.htm). These may be used in conjunction with an additional front sheet for the double and triple box culverts to be completed with information from the standard plans.

**136.9.6.2 Structural Inventory and Appraisal Sheet**

The engineer must complete the Structural Inventory & Appraisal (SI&A) Sheet and provide it with the PS&E by the engineer for any replacement structure (or rehabilitated structure) that will meet the National Bridge Inventory definition of a “bridge”. The SI&A Sheet must be completed in accordance with the [*Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges*](http://www.fhwa.dot.gov/bridge/mtguide.pdf), by [FHWA](http://www.fhwa.dot.gov/).

A blank form for the [Structural Inventory and Appraisal Sheet](http://www.modot.mo.gov/business/manuals/documents/siaform.pdf) is provided under “Commonly Used Forms”. This form can be filled out electronically and printed.

**136.9.6.3 Load Rating Calculations and Load Rating Summary Sheet**

Load rating calculations are required for all structures that will be classified as a "bridge" on the National Bridge Inventory (as defined [*Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges*](http://www.fhwa.dot.gov/bridge/mtguide.pdf). Inventory and Operating Load Ratings shall be provided compared to the AASHTO HS20 design loading. Load rating calculations for any NBI structure carrying vehicular traffic shall also account for all MoDOT standard load posting vehicles (the H20 and 3S2 vehicles) used to represent truck legal loads in the state. For bridges or culverts located within the limits of commercial zones, an additional load posting recommendation for the commercial loading shall be included, utilizing the MO5 vehicle. (For example, when the operating rating for the MO5 vehicle is less than 70T, a S-C3 posting is required). For information and details regarding MoDOT’s rating vehicles, refer to [Section Four of MoDOT’s Bridge Inspection Rating](http://epg.modot.org/files/5/5d/Bridgesection_4.pdf).

All load ratings are to be calculated using the Load Factor Rating Method in accordance with the AASHTO *Manual for Condition Evaluation of Bridges*. A Load Rating Summary Sheet, signed and sealed by a Missouri Registered Professional Engineer, shall clearly list all of the determined controlling load ratings, indicated in tons. The Load Rating Summary Sheet shall indicate all information needed for the completion of the Load Rating and Posting portion of the SI&A Sheet and the load rating calculations shall provide the information necessary to support the data indicated on the Load Rating Summary Sheet.

Load rating calculations and the load rating summary sheet will generally not be required with the PS&E submittals for projects which will utilize structural systems that are essentially proprietary based such as CMP or concrete arch culvert structures, since identification of a single proprietary manufacturer is generally not allowed in the contract documents. Unless informed otherwise by the local agency or engineer of record at the time of the PS&E submittal, MoDOT will in the interim assume that the presumptive values for the inventory and operating ratings are being achieved through the manufacturer’s conformance with the design loading indicated by the local agency’s consultant in the contract documents. However, the contract specifications should include the requirement that the actual load ratings, signed and sealed by a professional engineer licensed in Missouri be provided by the awarded manufacturer. MoDOT districts should secure this information along with an updated SI&A form and forward to the MoDOT Bridge division prior to project closeout. Upon receipt of the additional information from the local agency, MoDOT Bridge division will update the National Bridge Inventory to indicate the actual ratings.

**136.9.7 Estimates**

An engineer's estimate, showing estimated quantities, unit prices and extended totals shall be submitted to MoDOT with the detailed plans. Subtotals shall be shown for roadway items, bridge, signing/striping/signals, landscaping/streetscaping, utilities (reimbursable with federal participation) and bicycle/pedestrian facilities . The bid proposal will also need to 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. Non-participating work (work that is not eligible for federal participation) shall be identified in the submitted estimate prepared by engineer of record. Any non-reimbursable utility work shall be separated from utility work that is eligible for participation. The use of lump sum contract will not be allowed.

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.

**136.9.8 Work by Local Forces**

As required by federal regulations, [23 CFR Subpart B, Section 635.201-205](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&rgn=div5&view=text&node=23:1.0.1.7.23&idno=23#23:1.0.1.7.23.2), the contract method based on competitive bidding shall be used for performance of highway work financed with the aid of federal funds unless it can be demonstrated that some other method is more cost effective. Force Account, or [work by local forces](http://epg.modot.org/files/4/48/136.9.1_Work_by_Local_Forces_Proposal_%28Fig._9-1%29.doc) is considered to be the direct performance of work by the contracting agency or its designee utilizing labor, equipment, materials and supplies furnished by the agency and used under its direct control. When the local agency desires to construct any portion of the project with its own forces, it must be in the public interest that this is the most cost effective way to construct the project (the efficient use of labor, equipment, materials and supplies to assure the lowest overall cost). Local agencies must demonstrate to MoDOT that they have the equipment and experience to perform the items of work specified. MoDOT shall determine that the organization to undertake the work is so staffed and equipped as to perform such work satisfactorily and cost effectively. When a local agency desires that highway construction work financed with the aid of federal funds be undertaken by local forces, a request must be submitted identifying and describing the following:

**1.** The project and the kind of work to be performed,

**2.** The estimated costs,

**3.** The estimated federal funds to be provided and

**4.** The reason or reasons that force account for such project is considered cost effective.

There are two methods by which the local agency can be reimbursed for this type of work, and the estimate should be prepared accordingly. The first method is actual cost. Payment will be made for labor, materials and equipment rental rates. Estimated hours and rates should be included and final reimbursement will be made based on an audit of actual costs.

The other method is agreed to unit prices. This method requires more extensive justification at the PS&E stage, but reimbursement will be made based on the number of units constructed. This eliminates some record keeping and detailed audit. The agreed unit prices must be developed using quantities, man-hours, pay rates, material costs and equipment rental rates. The local agency by agreeing to these unit prices also agrees that no construction change order can be made to adjust the unit prices, but a construction change order is allowable for quantity changes. If the local agency and MoDOT can't come to an agreement on the unit price, the local agency can still perform the work by using the actual cost method described above.

MoDOT will not approve work by the local agency's forces unless it can be demonstrated that it can be accomplished at lower cost than if performed by contract. If the local agency determines they do not want to perform an item and the work is within the scope of the construction contract, they can negotiate a change order with the contractor to perform the work and execute a construction change order. The local agency will need to execute a [work by local forces proposal](http://epg.modot.org/files/4/48/136.9.1_Work_by_Local_Forces_Proposal_%28Fig._9-1%29.doc) that must be submitted with the construction estimate.

**136.9.9 Specifications and Job Special Provisions**

It is recommended that the engineer shall refer to [the Missouri Standard Specifications for Highway Construction and Supplemental Specification Revisions](http://www.modot.mo.gov/business/standards_and_specs/highwayspecs.htm). The engineer may modify these specifications, where appropriate for job-specific requirements or conditions, by creating job special provisions. Also, the engineer of record and/or local agency may write their own custom set of specifications. The specification used shall be referenced on both the drawings and the specifications package as the basic standard for materials and construction - except as modified or superseded by job special provisions or other specifications included in the specifications package. When the Missouri Standard Specifications for Highway Construction are supplemented by job special provisions or substituted by other specifications, the cover sheet of the supplementary or substituting specifications package is to be signed and sealed by the engineer.

MoDOT specifications can be made available to local agencies as either a reference or for actual use in contracts. Certain job special provisions are available from MoDOT for a nominal fee; however, [MoDOT Job Special Provisions](http://www.modot.mo.gov/business/standards_and_specs/jobspecialprovisions.htm) are available at MoDOT's website. Local agencies are urged to prepare the specifications and special provisions carefully to ensure that the inspection, testing and sampling procedures are adequately covered.

**When the local agency decides not to inspect at the fabricators shop, the following specifications regarding acceptance of fabricated structural members shall be included in the specification documents (as Job Special Provisions), as applicable to the following categories** of structural members:

**136.9.9.1 Acceptance of Precast Double Tee, I-Girder, Box-Girder and Slab Panels**

The following procedures have been established for the acceptance of precast double tee, I-girder, box-girder and slab panels. Shop drawings shall be submitted to the local agency’s engineer for review and approval. The approval is expected to cover only the general design features, and in no case shall this approval be considered to cover errors or omissions in the shop drawings. The local agency or their consultant has the option of inspecting the precast units during fabrication or requiring the fabricator to furnish a certification of contract compliance and substantiating test reports. In addition, the following reports will be required:

**1.** Certified mill test reports, including results of physical tests on the prestressed strands and reinforcement as required.

**2.** Test reports on concrete cylinder breaks.

The local agency or consultant must verify and document that dimensions of the units were checked at the job and found to be in compliance with the shop drawings.

**136.9.9.2 Acceptance of Structural Steel**

The following procedures have been established for the acceptance of structural steel. Shop drawings shall be submitted to the local agency’s engineer for review and approval. The approval is expected to cover only the general design features, and in no case shall this approval be considered to cover errors or omissions in the shop drawings. It is recommended that the contract documents contain provisions that the contractor shall utilize a fabricator that meets the appropriate American Institute of Steel Construction (AISC) certification provisions as outlined in [Sec 1080.3.1.6](http://www.modot.mo.gov/business/standards_and_specs/Sec1080.pdf). All welding operations, including material and personnel, shall meet the American Welding Society (AWS) specifications. The local agency or their consultant has the option of inspecting the steel units during fabrication or requiring the fabricator to furnish a certification of contract compliance and substantiating test reports. In addition, the following reports will be required:

**1.** Certified mill test reports, including results of chemical and physical tests on all structural steel as furnished; and

**2.** Non-destructive testing reports.

The local agency or consultant must verify and document that dimensions of the units were checked at the job and found to be in compliance with the shop drawings.

(Additional information regarding the AISC Certification provisions may be found at the AISC website address, www.aisc.org.)

**136.9.9.3 Preparation of Contract Documents Involving Proprietary Products or System**

Generally, on federal aid projects, the use of trade names in plans and specifications is not allowed except as outlined below. The practice of utilizing essentially proprietary products or systems is acceptable if it can be assured that three or more companies can provide an acceptable product. Overall, there are three basic approaches which are available to provide construction plans and specifications that can accommodate the use of proprietary based products or systems.

**1.** If the product or system will be specified by using trade names, the contract documents need to be prepared so that at least three different brand names of viable producers are specified in conjunction with appropriate contract requirements and also that acceptable equivalents are allowed. If structures are involved, the requirements for final plans and shop drawings in item no. 2, below, will apply.

**2.** The engineer can prepare generic or performance based contract documents which can be met by at least three viable producers or vendors that are identified by the engineer when the PS&E is submitted. Contracts set up to permit alternate bidding of different types or products providing the same function may also be used provided three vendors are available for each type. For structures, the engineer will prepare complete plans and specifications which will include sufficient key parameters to define the scope of the project such as structure and opening size, important geometrics, loading, hydraulics and foundation information. Using this approach the successful fabricator will provide design computations and shop drawings which are signed and sealed by a professional engineer for review and approval by the local agency’s engineer. Approved final plans for bridge structures should be secured by the MoDOT districts and forwarded to the MoDOT Bridge division for inventory purposes as part of the project closeout.

**3.** Fewer than three (3) specified materials or products may be approved if MoDOT concurs in a finding that it is in the public interest. For instance, a local agency may find it desirable to limit traffic signal controllers to one brand for ease of maintenance and the stocking of repair parts. If the local agency wishes to use fewer than three trade names, the following justification will need to be provided to MoDOT for review/approval:

a. Show how the item(s) is essential for synchronization with the existing roadway facility or that no equally suitable alternative exists.

b. Show how the use of the product(s) will prove to be cost-effective. This should include historical data supporting the cost effectiveness of the products.

c. Show how using the product(s) will provide ease of maintenance.

d. Provide more detail on its spare parts inventory on what impact using the trade name products(s) will have on this inventory (where applicable).

e. Provide more detail on standardization. That is, provide estimated quantity of product that was implemented in areas surrounding the product. Also include the date when the trade name product was implemented, where applicable.

If MoDOT concurs, we will forward to [FHWA](http://www.fhwa.dot.gov/) for their approval as may be required.

If the single source material cannot be justified, the item will be non-participating unless bidding procedures are used that establish the unit price of each acceptable alternative, in which case participation will be based on the lowest price established.

**136.9.9.4 Shop Drawings**

Shop drawings which are prepared in conformance with the engineer’s detailed plans and specifications are not typically required to be signed and sealed by a professional engineer. However, this is not applicable for projects where the contractor may be responsible for the design at the shop drawing stage, e.g., MSE walls, precast culverts, and steel trusses.

**136.9.9.5 Retainage**

Retainage of contractor payment is not to be automatically applied to projects as a matter of course. However, the PS&E should clearly 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.

**136.9.10 Inspection by MoDOT and FHWA**

The project [Job Special Provisions](http://www.modot.mo.gov/business/standards_and_specs/jobspecialprovisions.htm) or drawings shall stipulate that MoDOT and FHWA may make inspections of the work and that the contractor shall grant them access to all parts of the work.

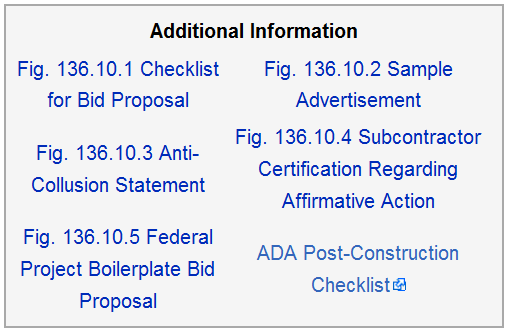
[Representatives of MoDOT](http://www.modot.mo.gov/) will make a final inspection on all projects, preferably at the same time as the local agency makes final inspection.

**136.9.11 Plans, Specifications and Estimate (PS&E) Submittal**

When the plans, specifications and the engineer's estimate of project cost and construction engineering have been completed, the local agency shall submit the "PS&E" documents to MoDOT for review.

The project sponsor must contact their district office representative to determine how many sets of plans, specifications and estimate of project cost and construction engineering need to be submitted to MoDOT and if these should be submitted by hard copy or electronic PDF. If the project contains a bridge, the completed Structure Inventory and Appraisal Sheet, the vehicle Load Rating Summary Sheet (signed and sealed by the engineer) and load rating calculations must also be submitted at this time. The title sheet of the drawings must be signed by the local agency and all plan sheets signed and sealed by the appropriate professional before MoDOT will provide approval of the submittals. **Submitted drawings shall be 11 in. x 17 in.** When the [2004 Missouri Standard Specifications for Highway Construction](http://www.modot.mo.gov/business/standards_and_specs/BEGIN.pdf) are supplemented by job special provisions or substituted by other MoDOT-approved specifications, the cover sheet of the supplementary or substituting specifications package is to be signed and sealed by the engineer.

# **EPG 136.10 Construction Authorization and Letting**

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The latest EPG 136.10 figures and additional information is available at the top of

<http://epg.modot.org/index.php?title=136.10_Construction_Authorization_and_Letting>

**136.10.1 Bid Proposals**

Bid proposals must include a number of federal provisions and documents, (refer to [Fig. 136.10.1 Checklist for Bid Proposal](http://epg.modot.org/files/f/f9/136.10.1_Checklist_for_Bid_Proposal_%28Fig._10-1R%29.xls)). The provisions are explained in detail in [the Missouri Standard Specifications for Highway Construction](http://www.modot.mo.gov/business/standards_and_specs/highwayspecs.htm) and the [Required Federal Aid Provisions & Federal Wage Rates](http://www.modot.mo.gov/business/contractor_resources/bidOpenIndex.shtml). Additional provisions are explained in the [Federal Highway Administration Form 1273](http://www.fhwa.dot.gov/programadmin/contracts/1273.cfm) publication. All three of these documents are available free of charge on [MoDOT's web site](http://www.modot.mo.gov). The local agency can also contact the [MoDOT district representative](http://www.modot.mo.gov/) to obtain the current edition to these publications and determine if any other required documents that should be included in the bid proposal.

A boilerplate bid proposal (refer to Fig. 136.10.5 Federal Project Boilerplate Bid Proposal) is available for contracts that reference the Missouri Standard Specifications for Highway Construction.

**136.10.2 Wage Rate**

Federal Davis-Bacon prevailing wage rate determinations are required on all federal contracts except when the project is located off the federal-aid highway system. Local projects that are located on roadways classified as local roads or rural minor collectors are exempt from the Federal Wage Rate requirement. However, other federal-aid provisions still apply. If other federal funds are being used on a project located off the federal-aid highway system, Davis-Bacon rates may be required by the other federal agency that provides funds. Davis-Bacon determinations may be obtained from MoDOT. The most current version of the federal wage rates will be provided to the local agency when the authority to advertise is granted. The local agency must use the applicable state or federal wage rates effective on the tenth day before the letting for all projects. If the federal wage rate changes prior to the tenth day before the bid opening, the local agency must issue an addendum to update the federal wage rates (not required for state wage rates). If the federal and state wage rates change between the tenth day and the bid opening date, the wage rates effective on the tenth day will be the rates used for the project. When state and federal wage rates are both required the higher of the two for each job classification should be used.

The local agency must request an Annual State Wage Determination for each contract from the [Industrial Commission, Missouri Department of Labor and Industrial Relations](http://labor.mo.gov/DLS/PrevailingWage/awo.asp#awo) (DOLIR), Box 449, Jefferson City, Missouri 65102 or by calling (573) 751-3403. The local agency 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. Contracts must be awarded within one year of the issuance of the official Annual Wage Order or the local agency will be required to request a new Annual Wage Order determination.

**136.10.3 Disadvantaged Business Enterprise (DBE)**

One of the provisions, which must be included, is the Disadvantaged Business Enterprise (DBE) Contract Provisions. All bidding documents must refer to [49 CFR Part 26](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=832b2f4a03638c6f66e65838f86f9dda&rgn=div5&view=text&node=49:1.0.1.1.19&idno=49). The local agency should contact the MoDOT district representative to obtain the current [DBE contract provisions](http://epg.modot.org/index.php?title=136.14_Helpful_Information_and_Links#136.14.2.1_Commonly_Used_Forms). To assist the state in achieving goals, it will be necessary for the local agency to set up goals for socially and economically disadvantaged individuals (DBEs). A request must be made to the MoDOT district representative to establish a DBE goal for each project. For small projects or for projects that do not lend themselves readily to subcontract work, the goals may be reduced or even set at zero, but the provision should still be included. The DBE submittal forms shall 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.

If any DBEs shown on the submittal forms are not listed on the MoDOT approved listing, then that DBE’s work will not be counted as DBE participation work and may be cause for rejection of the bid. If the bidder does not meet the established goal, award of contract can be made only if this bidder can document and demonstrate good faith effort to meet the goals. MoDOT will review and approve the good faith effort. DBEs must be listed on the MoDOT approved listing at the time of the contract letting (bid opening).

According to the Federal Highway Administration, [Title 23](http://www.fhwa.dot.gov/legsregs/directives/cfr23toc.htm) and [Title 29](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?sid=832b2f4a03638c6f66e65838f86f9dda&c=ecfr&tpl=/ecfrbrowse/Title29/29tab_02.tpl) prohibit any provision on federal-aid projects unless it meets federal requirements. Therefore, any provision setting a DBE/MBE/WBE goal cannot be allowed unless that program meets the requirements of [49 CFR Part 26](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=832b2f4a03638c6f66e65838f86f9dda&rgn=div5&view=text&node=49:1.0.1.1.19&idno=49). Specifically, Part 26 does not permit separate goals for minorities and females without a specific authorization and waiver. Further, federal regulations state that any amount of federal money used on a project makes that project federally funded and the prohibition is applicable.

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.

**136.10.4 On the Job Training (OJT)**

The intent of the OJT program, based on 23 CFR Section 230, is to recruit entry-level individuals, when feasible, and provide them with meaningful training intended to lead to journey-level employment. It is the policy of the program to require full utilization 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. All training goals, including the number of training hours will be established by the [MoDOT External Civil Rights (ECR) Division](http://www.modot.mo.gov/ecr/). The request to establish an OJT goal must be submitted to the [MoDOT district representative](http://www.modot.mo.gov/).

When a project receives a goal, the training special provisions (TSP) shall be included in the bid proposal. The TSP may be obtained from the MoDOT district representative or on [the LPA website](http://www.modot.mo.gov/business/manuals/localpublicagency.htm). Prior to the notice to proceed, the contractor shall submit the trainee notification form to the Resident Engineer (RE) Office where the project is located. The RE Office will then forward the notification to MoDOT ECR Division for approval of the proposed trainee(s).

In addition to the trainee notification form, the contractor must submit monthly trainee reports throughout the course of the training and the trainee completion form. The final trainee summary shall be completed at the end of the project or when the trainee goal on the project has been achieved. These forms shall also be submitted to the Resident Engineer (RE) Office where the project is located. The RE Office will then forward the notification to MoDOT ECR Division for approval. The monthly trainee reports will be verified by the RE Office against the certified payroll for accuracy and then forwarded to the ECR Division.

For further information and guidance about the OJT program and the submittal forms, you may access [the ECR website](http://www.modot.mo.gov/business/contractor_resources/External_Civil_Rights/jobtraining.htm) or call (573) 751-1216.

**136.10.5 Warranties**

The local agency 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.

**136.10.6 Environmental Clearances**

A copy of the Corps of Engineers 404 Permit, Farmland Conversion Impact Statement, concurrence from the SHPO that Section 106 requirements have been satisfied, and the FEMA Floodplain Development Permit should be included in the bid proposal. More information on environmental issues can be found in [EPG 136.4 Environmental and Cultural Requirements](http://epg.modot.org/index.php?title=136.4_Environmental_and_Cultural_Requirements).

**136.10.7 Liquidated Damages**

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. In determining this deduction, a minimum amount will be used as shown in the following table. Local agencies may therefore wish to set the amounts of liquidated damages either equal to or greater than this schedule in order not to lose any federal participation. The liquidated damage rate must be included in the bid proposal.

|  |  |  |
| --- | --- | --- |
| **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 |

**136.10.8 Contractor Requirements**

The bid proposal must also stipulate that the prime contractor on a project must perform with its own organization, contract work amounting to not less than 30% of the total original contract price. 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](http://www.modot.mo.gov/pdf/business/Contractor_Questionnaire.pdf). The following sentence could be inserted into the contract that would allow contractors not on the listing to submit a bid for the project. “[Sec 102.2 of the Missouri Standard Specifications for Highway Construction](http://www.modot.mo.gov/business/standards_and_specs/Sec0102.pdf) will be waived for this project.” This statement should 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 and the bidder is not on MoDOT’s listing, the bidder cannot be awarded the project. The project may be awarded to the second low bidder.

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

If the specifications call for contractor-furnished borrow, the contractor must ensure that all environmental requirements have been satisfied for use of the borrow site. To eliminate possible delays, the local agency shall specify in the engineering services contract that a proposed borrow site be investigated. The project sponsor must provide written certification to the MoDOT district representative, including clearance letters and other evidence of coordination with the appropriate regulatory agencies, that the proposed land disturbance site has been cleared of environmental concerns under all applicable federal and state laws and regulations. More information on [obtaining environmental clearance for borrow sites](http://epg.modot.org/index.php?title=136.4_Environmental_and_Cultural_Requirements#136.4.5.15_Borrow_Guidance) is available.

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 magazine advertisements, newspaper advertisements, invitations for bids mailed to prospective bidders and suppliers, and any other means of obtaining submission of bids for work or materials. “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.”

**136.10.9 Contractor Letting and Award**

To obtain construction authorization, the local agency must submit PS&E, all environmental clearances and the right of way clearance certification statement to MoDOT. Authorization will not be granted until right of way is cleared and railroad and utility agreements are executed. Projects on railroad right of way or crossing railroad right of way require written approval from the Railway Company of the final plans prior to construction authorization. Local agency-state agreements must also be executed before construction authorization will be given. Any supplemental agreements pertaining to the preliminary engineering of the project must be submitted, fully executed, prior to construction authorization. Projects utilizing MoDOT funding must receive bid award concurrence from the MHTC.

**A project cannot be advertised for letting until MoDOT has issued construction authorization.**

PS&E approval, DBE goal approval, and construction authorization will enable the local agency to advertise for bids. Competitive bidding will be required except where work by local agency forces or utility companies has been authorized. All bids must be publicly opened and read and award made to the lowest responsible bidder, provided acceptable bids are received. MoDOT must approve any request to reject any or all bids after the project sponsor has submitted written justification.

**136.10.10 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 and approves them only if they do not unduly restrict or limit any firm’s ability to bid on and receive award of federal-aid projects. If, at any time, modifications are made to the approved requirements, MoDOT will have to approve the revised requirements prior to use.

Law shall require no contractor, regulation, or practice to obtain a license or permit before submission of a bid or before a bid may be considered for award of a contract.

**136.10.11 Bidder Qualification Language**

Federal-aid contracts must be awarded based on the lowest responsible and responsive bid submitted by a bidder meeting the criteria of responsibility approved by MoDOT. Any qualifying or other criteria to determine the responsibility of contractors, subcontractors, and suppliers must be submitted to MoDOT for advanced approval. If any modification is made to the approved requirements, MoDOT will have to approve the revised requirements prior to use.

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. Prequalification cannot include any criteria that may operate to restrict competition, to prevent any responsible contractor from submitting a bid, or to prohibit the consideration of a bid submitted by any responsible contractor, whether resident or nonresident of the state wherein the work is to be performed. The bidders must be familiar with and aware of the requirements in [23 CFR Section 635.110](http://cfr.vlex.com/vid/635-110-licensing-qualification-contractors-19725309), [635.112](http://cfr.vlex.com/vid/635-112-advertising-bids-proposals-19725314) and [635.114](http://cfr.vlex.com/vid/635-114-award-contract-concurrence-19725316).

Requirements for the prequalification, qualification, or licensure of contractors that operate to govern the amount of work which may be bid upon by or awarded to a contractor shall be approved only if based upon a full and appropriate evaluation of the contractor’s capability to perform the work.

Contractors who are currently suspended, debarred or voluntarily excluded under [2 CFR part 180](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=577aaee33531701fbd6af64391c3b672&rgn=div5&view=text&node=2:1.1.1.2.5&idno=2), or otherwise determined to be ineligible shall be prohibited from participating in the Federal-Aid Highway Program.

To satisfy federal requirements, the local agency must ensure free, open and competitive bidding, including adequate publicity of the advertisements or calls for bids. The advertisement and approved plans and specifications must be available to bidders a minimum of three weeks prior to bid opening.

**136.10.12 Advertising and Addenda**

To satisfy federal requirements, projects must be advertised at least 21 days before the bid opening. This advertisement must be placed at least once in a newspaper having a general circulation in the area of the project and must be advertised on [MoDOT's "Projects to be Let by Others" website](http://www.modot.mo.gov/business/contractor_resources/bid_opening_info/advertisement.htm). If the local agency advertises online at another location other than MoDOT’s website they must notify all interested bidders about the website and the website must be readily accessible to all interested bidders. Internet advertising is acceptable for federal-aid projects as a supplement to traditional means. Additionally, the local agency must ensure that requirements of state statutes governing advertisement and bidding for public works applicable to local agency operations are also satisfied. The local agency should advise MoDOT of the first advertising date and the time and location of the bid opening as soon as these are determined. A [sample advertisement](http://epg.modot.org/files/4/4b/136.10.2_Sample_Advertisement_%28Fig._10-2%29.doc) is available.

The information contained in the plans and specifications (bid proposal) that was approved as part of the final plans package must not be altered prior to being made available to prospective bidders. Any revisions to the plans or bid proposal made after the MoDOT final plan approval date must be submitted to MoDOT for review and approval as an addendum to the final plans package. Approval of the addendum must be attained prior to making the revised plans or bid proposal available to prospective bidders. Failure to receive prior approval of an addendum to the bid package may jeopardize the federal funding for the project. The local agency is required to receive confirmation from every bidder that they have received their copy of the addendum that was issued.

**136.10.13 Additive Alternates**

Local agencies may use a bidding procedure called additive alternates to help keep the awarded contract amount within budget. Under this procedure, the local agency submits its construction budget for the federal-aid portion of the project (that is, the amount of funding the agency has available for construction) and also separates the “base-bid” items and the “additive alternates” in the engineers estimate. The “additive alternates” are items that will be selected if the “base plus alternates” price is within budget. The local agency must clearly specify the priority of alternates which will be considered and indicate that the award will be based on the lowest responsive bid. This budgeted amount will be used to help determine which contractor the project will be awarded to, as the agency will be required to award the project to the contractor who can provide the most amount of work (base bid plus alternates) that is within the agency’s budget.

Each bidder shall file an [anti-collusion statement](http://epg.modot.org/files/6/6f/136.10.3_Anti-Collusion_Statement_%28Fig._10-3%29.doc) at the time of the bid. The local agency will provide the anti-collusion statement to each prospective bidder. Failure to submit the anti-collusion statement as part of the bidding documents will make the bid non-responsive and not eligible for award consideration.

All bids will be evaluated based on [23 CFR Section 635.114](http://cfr.vlex.com/vid/635-114-award-contract-concurrence-19725316). MoDOT concurrence must be obtained prior to the award of contract. The sponsors must have MoDOT concurrence to reject bids and re-advertise for bids.

The request for MoDOT concurrence should be accompanied by (contact the appropriate district representative for the number of copies to submit):

Per district requirement please submit

* a cover letter from the sponsor requesting MoDOT concurrence in award
* a tabulation of all bids received
* the executed anti-collusion statements from the first and second low bidder
* the DBE submittal forms for the first and second low bidder
* itemized bid forms from the first and second low bidder (with asterisks placed by the items that the DBE will perform)

Itemized bid subtotals shall be shown for roadway items, bridge, signing/striping/signals, landscaping/streetscaping, bike/ped facilities and utilities.

Justification should be provided with any request for concurrence in award if the lowest responsible bid is more than 10% higher than the project estimate.

Following the award of contract, the local agency should submit two fully executed copies of the contract to MoDOT. This submittal should include complete contracts similar to the bid proposals, with the addition of signatures, insurance, and bond forms.

**No work is to be initiated on any part of the project until FHWA approves (obligates) federal funding and MoDOT notifies the local agency to proceed.**

**136.10.14 Request for Concurrence**

Each bidder shall file an [anti-collusion statement](http://epg.modot.org/files/6/6f/136.10.3_Anti-Collusion_Statement_%28Fig._10-3%29.doc) at the time of the bid. The local agency will provide the anti-collusion statement to each prospective bidder. Failure to submit the anti-collusion statement as part of the bidding documents will make the bid non-responsive and not eligible for award consideration.

All bids will be evaluated based on [23 CFR Section 635.114](http://cfr.vlex.com/vid/635-114-award-contract-concurrence-19725316). MoDOT concurrence must be obtained prior to the award of contract. The sponsors must have MoDOT concurrence to reject bids and re-advertise for bids.

The request for MoDOT concurrence should be comprised of the following (contact the appropriate district representative for the number of copies to submit):

* a cover letter from the sponsor requesting MoDOT concurrence in award. The letter should indicate the following:

• the bid opening date and the number of bids received

• the contractor to whom the award request is for

• the requested award amount

• if applicable, the project to be awarded (ie: base project only or base with the number of add alternates)

• the DBE goal and whether the lowest and second lowest bidders appear to have met the goal

• whether the contractors were required to be pre-qualified (and if the low and second low bidders were qualified)

• whether any bidders were declared non-responsive/irregular and the reason for the declaration

• whether the LPA had any required submittals, such as sub-contractor disclosures, beyond what is listed below, and whether the submittals were received in the appropriate timeframe

* a tabulation of all bids received (preferably with any items inconsistent with the submitted bid indicated and the estimate shown for comparison)
* the executed anti-collusion statements from the lowest and second lowest bidders
* the DBE submittal forms for the lowest and second lowest bidders.
* itemized bid forms, including the signature page, from the lowest and second lowest bidders (with asterisks placed by the items that the DBE will perform). If the bidder is a corporation (Inc.), a corporate seal is required on the bid form signature page. If the bidder is not a corporation (LLC), then the seal is not required.
* Affidavit of Publication showing proof that the project was advertised for 21 days
* Signed E-Verify Affidavit and Memorandum of Understanding (MOU) from low and second low bidders
* Bid Guaranty from low and second low bidders. Bid Bonds must include the Power of Attorney.
* Verification that ALL bidders received all addendums issued for the project.

Itemized bid subtotals shall be shown for roadway items, bridge, signing/striping/signals, landscaping/streetscaping, bike/ped facilities and utilities.

Justification should be provided with any request for concurrence in award if the lowest responsible bid is more than 10% higher than the project estimate.

Following the award of contract, the local agency must submit executed copies of the contract to MoDOT. This submittal should include complete contracts similar to the bid proposals, with the addition of signatures, insurance, and bond forms. Please contact your district representative to determine how many copies are needed and if these can be submitted electronically.

**No work is to be initiated on any part of the project until FHWA approves (obligates) federal funding and MoDOT notifies the local agency to proceed.**

# **EPG 136.11 Local Public Agency Construction**

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The latest EPG 136.11 figures and additional information is available at the top of

[http://epg.modot.org/index.php?title=136.11\_Local\_Public\_Agency\_Construction](http://epg.modot.org/index.php?title=136.10_Construction_Authorization_and_Letting)

**136.11.1 Preconstruction Conference**

**No work is to be initiated on any part of the project until federal funding has been approved (obligated) by** [**FHWA**](http://www.fhwa.dot.gov/) **and the local agency has been notified by MoDOT to proceed**.

A preconstruction conference shall be conducted by the local agency, prior to the start of work, to ensure that all parties involved are aware of their responsibilities. Those invited to attend shall include but not be limited to representatives from the consultant (if applicable), contractor, subcontractors, utilities (if involved), local police, fire, postal, and school agencies (if traffic is to be severely restricted or road closed), and MoDOT. Arrangements for and notice given of the meeting shall be completed at least one week prior to the meeting date. [Fig. 136.11.1 General Guidelines for Preconstruction Conference](http://epg.modot.org/files/c/c4/136.11.1_Preconstruction_Conference_%28Fig._11-1%29.doc) outlines some general guidelines for the preconstruction conference.

For projects that have specified contractor furnished borrow, the contractor should be reminded of the requirement that the borrow area must be reviewed by DNR for cultural resource issues, a Farmland Conversion Impact Rating statement should be filed, and the U.S. Fish and Wildlife Service and the Missouri Department of Conservation should be contacted for review of endangered species. A copy of the correspondence from these agencies should be filed with the [MoDOT district representative](http://www.modot.mo.gov/). More information on contractor furnished borrow can be found in [EPG 136.4 Environmental and Cultural Requirements](http://epg.modot.org/index.php?title=136.4_Environmental_and_Cultural_Requirements).

**136.11.2 Consultant Construction Engineering Services**

Under FHWA directive R7-4580.2, neither a consulting engineering firm, nor any of its employees, that is providing engineering and inspection services for the contracting agency shall be allowed to perform work that is the construction contractor's responsibility.

A consultant who provides both project engineering services for the contracting agency and engineering services for the project construction contractor is operating under an arrangement that gives the appearance of a possible conflict of interest and is unacceptable for federal-aid work.

**136.11.3 Bridge Deck Finishing**

The bridge deck shall be poured and finished in compliance with [Sec 703.3.5](http://www.modot.mo.gov/business/standards_and_specs/Sec0703.pdf). The use of vibratory screeds will not be permitted. Exception to this specification can be approved only for box culvert bridges with adequate justification. MoDOT recommends the local agency schedule pre-pour meetings with the contractor and the local agency’s inspection staff. Suggested topics for this pre-pour meeting can be referenced as commonly used forms on the [MoDOT website](http://www.modot.mo.gov/business/manuals/localpublicagency.htm#Forms).

Proper inspection of the bridge deck is crucial to the successful pour of the bridge slab. These forms are provided for local agency use as a checklist to ensure the proper inspection of the bridge deck is performed.

**136.11.4 Change Orders**

Any change from the original contract must be documented by a change order. Change orders must be submitted to MoDOT to ensure the changes are required for the project and they meet federal funding requirements. Change orders must include a clear, concise reason for the change and adequate justification for negotiated prices. Change orders that involve changes to structures shall state whether the change is a design change or a construction change and shall be submitted to the MoDOT district representative for review.

Change orders are classed as either major or minor. Change orders shall be numbered consecutively, whether major or minor.

A major change order is defined as follows:

**1.** Any increase in a contract bid item exceeding $20,000,

**2.** Any addition of a new item exceeding $20,000,

**3.** Any change in the design of a bridge or retaining wall regardless of cost,

**4.** Changes beyond the scope or limits of the original project,

**5.** Changes in the basic design geometry or safety features (i.e. typical section, vertical or horizontal alignment, guard rail),

**6.** Changes in specifications that would permit the implementation of alternative material into the final product, or

**7.** Changes involving an extension in contract time.

The contractor, consulting engineer, local agency, and MoDOT must approve major change orders, prior to the work being performed. When it is necessary to proceed with the work, a major change order may be approved by telephone. However, written documentation should follow after telephone approval has been given. Telephone approval should only be requested when time is of the utmost importance. A major change order in writing should be submitted immediately for written approval. MoDOT will retain two (2) copies and return the remainder to the local agency.

Major change order forms shall provide sufficient space for the signatures of the District Engineer and State Construction and Materials Engineer, in addition to the required signatures of the contractor, consulting engineer, and local agency. [Fig. 136.11.2 Change Order Form](http://epg.modot.org/files/3/3d/136.11.2_Change_Order_Form_%28Fig._11-2%29.doc) is available.

Any change not meeting the criteria of a major change order is considered a minor change order. MoDOT approval is required if the item exceeds $20,000. If the new contract item or change to a bid item exceeds this amount, contact MoDOT prior to the work being performed for verbal approval. The contractor, consulting engineer, and the local agency must approve minor change orders prior to the work being performed. Further, minor change orders that include new items, negotiated prices, force account, or construction changes for a bridge or retaining wall must be approved by MoDOT prior to the work being performed. When approval by MoDOT is required, the minor change order shall be submitted. Upon approval by MoDOT, two (2) copies will be retained by MoDOT and the remainder will be returned to the local agency and consulting engineer for distribution.

When it is necessary to proceed with the work, a minor change order may be approved by telephone. A minor change order should be prepared and signed immediately.

Minor change orders that have been approved by the contractor, consulting engineer, the local agency, and if necessary, MoDOT may be submitted for reimbursement of eligible costs. A copy of approved minor change orders shall be submitted to MoDOT with the next progress invoice to facilitate checking of the invoice.

Minor change orders require the eventual approval of MoDOT. Minor change orders may be attached to the next major change order or the final change order as directed by the MoDOT representative. The major change order may include a statement specifically referencing by change order number the attached minor change orders. (Change orders shall be numbered consecutively, whether minor or major.) Approval by MoDOT of the major or final change order will constitute approval of the attached and referenced minor change orders.

Changes should involve adjustments in quantities based on unit prices wherever possible. If the work is not a change in a bid item, it should be done by an agreed price substantiated by documentation to establish that the price is reasonable or it may be done on a force account basis. The contract files and change order documentation should clearly indicate the contractor's estimate, the project engineer's estimate and any subsequent negotiations that take place to arrive at contract costs for change orders. Any work to be done by force account must be documented by an approved minor change order showing the estimated cost, with said minor change order having been approved by MoDOT before work starts.

Contract time extensions granted by the local agency which affect project costs or liquidated damages shall be subject to the concurrence of MoDOT and will be considered in determining the amount of federal participation. To be approved by MoDOT, extensions of contract time must be fully justified and adequately documented. The local agency will be liable for any liquidated damages for time extensions granted by them and not approved by MoDOT. Under these conditions, the money value of the damages will be deducted from money due the local agency.

**136.11.5 Value Engineering**

See the [Sec 104.6](http://www.modot.mo.gov/business/standards_and_specs/Sec0104.pdf) for a guideline on [Contractor Proposals for Value Engineering](http://epg.modot.org/index.php?title=Category:130_Value_Engineering#130.2_Contractor_initiated_VECPs). After the Consultant Engineer and project sponsor approval of a Value Engineering Change Proposal (VECP), MoDOT approval must be attained prior to the change order being approved.

**136.11.6 Initial Data from Local Agency**

Within two working days after the start of work, the local agency shall furnish a letter in duplicate to MoDOT containing the following information:

**1.** Project identification;

**2.** Contractor’s name and address;

**3.** Resident engineer’s name, address, and phone number;

**4.** Name of full-time employee of agency to be in "responsible charge" of project, including projects with consultant services (23 CFR 635.105). "Responsible charge" means:

* Aware of day-to-day operations on the project
* Aware of and involved in decisions about changed conditions that require change orders
* Aware of qualifications, assignments, performance of consultant staff at all stages of the project
* Visiting the project on a frequency that is commensurate with the magnitude & complexity of the project

**5.** Name, address, and telephone number of local agency’s consultant, if applicable;

**6.** Date of construction engineering contract approval;

**7.** Date of notice to proceed;

**8.** Completion date or working days;

**9.** Amount of contract;

**10.** Location and description of work;

**11.** Date of letting;

**12.** Date of award;

**13.** Date of preconstruction conference;

**14.** Date on which work actually started; and

**15.** Summary of Disadvantaged Business Enterprise (DBE) intent.

**136.11.7 General Documentation Requirements**

All costs incurred by the local agency for which federal reimbursement is sought must be supported by original source documents or documentation that provides adequate assurance that the quantities of completed work were determined accurately and on a uniform basis. Sample documentation as presented in the Examples for Field Book Documentation book can be obtained from the MoDOT district representative. This would include, but is not limited to, the following:

|  |
| --- |
| **"Improving the Daily Diary", a web-based course** |
| ["Improving the Daily Diary"](http://www.nhi.fhwa.dot.gov/training/course_detail.aspx?num=FHWA-NHI-134071&cat=&key=diary&num=&loc=&sta=%25&typ=%25&ava=1&str=&end=&tit=&lev=&drl=) is a National Highway Institute (NHI) course. |
| [Other NHI courses](http://www.nhi.fhwa.dot.gov/training/course_search.aspx) are available. Type in a key word, such as "documentation", and a listing will be provided. |

**1.** Securely bound high-grade field books and diaries must be used. Field books and diaries can be handwritten bound documents or saved as computer files. If computer files are used, a secure back up should be maintained.

**2.** Daily entries must be dated and signed in ink by the author.

**3.** Entries should describe the day’s operations, quantities placed, and traffic control use or changes. When computations or diagrams are necessary, they should be shown in the field book.

**4.** Material receipts must be retained and shall show proper reference to the job and indicate proper weight and measurements and moisture deductions when applicable. Each material ticket must be validated by both the scale inspector and the inspector at the job site. Certain small quantities are exempted from weight requirements. It is suggested that tickets be bound according to type of material and date. Each bundle would then support the entries in the field book.

**5.** Testing and certification reports must be retained. It is also necessary that they be received by the local agency prior to their payment to the contractor for the material represented. Certain small quantities are exempted from testing requirements. Certification and test reports shall be labeled with the number of the bid item represented and shall be kept in numerical order.

**6.** Engineer’s payment estimate must never exceed the in-place quantities on which a testing report or a certification has been received. Any quantities in excess of plan quantity must be covered by an approved change order prior to being placed on the payment estimate.

**7.** If material allowances are used, they must not exceed the estimated quantities required by the job nor the test reports or certifications. Care must also be taken to reduce the material allowance, as the material is paid-in-place. The invoice must be marked paid by the supplier. Being marked paid by the contractor is not allowed.

**8.** Care should be taken that the necessary change order is properly filled out and approved prior to performance of the work it covers. Changes to the Traffic Control Plan need to be documented by change order. It is suggested that the answer to any change order question be obtained from MoDOT’s district office to prevent any loss of reimbursement.

**9.** Field measurements, when necessary, should be taken and specifically documented in the field book. Contact the MoDOT district representative for examples of acceptable documentation.

**10.** A summary showing the portion of each bid item installed by date shall be included in the project diary and signed by the inspector.

**11.** For lump sum items and excavations, an estimated percentage of completed work shall be placed in the summary. Documentation for payment shall be shown in the project diary entries as the work is being accomplished.

**12.** The MoDOT district representative shall review project diaries and summary of quantities during their inspection of the project and upon final acceptance of the project from the local agency.

The local agency shall maintain all books, documents, papers, accounting records and other evidence pertaining to the costs incurred. Such materials shall be available at its office for inspection by MoDOT, [FHWA](http://www.fhwa.dot.gov/) or their authorized representatives at all reasonable times during the contract period and for three years after the date on which the local agency receives reimbursement of its final invoice from MoDOT, and copies thereof shall be furnished if requested.

**136.11.8 Progress Reports**

The local agency shall submit a copy of a monthly report to the MoDOT district representative stating the progress of the work. [Fig. 136.11.3 Progress Report](http://epg.modot.org/files/0/03/136.11.3_Progress_Report_%28Fig._11-3%29.doc) is available. The local agency may elect to summarize construction activities for the project on a weekly basis. However, these summaries shall be submitted to MoDOT on a monthly frequency.

**136.11.9 Materials Testing**

Three different types of samples and tests are required for each project as follows:

**1.** Job control samples and tests should be run by the local agency as work progresses to assure the local agency that the project is constructed in compliance with the applicable specifications. All project sampling and testing of materials shall be performed by the local agency or by a consultant employed by the local agency.

All technicians who perform, or are required by the FHWA to witness, such sampling and testing shall be deemed as qualified by virtue of successfully completing the requirements of [EPG 106.18 Technician Certification Program](http://epg.modot.org/index.php?title=106.18_Technician_Certification_Program), for that specific technical area. They will be identified by a certification card issued by the certifying authority. The card will note the expiration date and each certification level. Any individual who has not been qualified is not eligible to perform these functions on federal aid projects.

Test reports or certifications are necessary for all material incorporated into the work. The test report or certification must show the quantity of material being reported and whether it meets the specifications.

Actual test results of materials tested are preferred, although certifications from the supplier are acceptable on certain items. A [guide schedule for federal-aid acceptance sampling](http://epg.modot.org/index.php?title=Off-Systems_Guide_Schedule_for_Federal-Aid_Acceptance_Sampling_and_Testing_%28FAST%29) (FAST) is available.

Submission of job control test results to MoDOT is not required unless requested by MoDOT or FHWA. These test results must be retained as outlined in this article.

**2.** Independent assurance will be performed by MoDOT personnel in accordance with the procedures set forth in [EPG 123 Federal-Aid Highway Program](http://epg.modot.org/index.php?title=Category:123_Federal-Aid_Highway_Program).

**3.** In order to facilitate the acceptance of small quantities of materials with a minimum of inspection and testing, MoDOT has approved a schedule of materials quantities which may be accepted without complying with the sampling and testing requirements mentioned above. This schedule of material items is listed in [EPG 136.11.20 Acceptance of Small Quantities of Material on Federal-Aid Projects](http://epg.modot.org/index.php?title=136.11_Local_Public_Agency_Construction#136.11.20_Acceptance_of_Small_Quantities_of_Material_on_Federal-Aid_Projects). Any major deviation from this schedule should be approved by MoDOT at the PS&E submission.

**136.11.10 Invoices**

Invoices may be submitted by the local agency to MoDOT for reimbursement of all costs contained in the agreements and contracts as they are incurred. For detailed information on the procedures to be followed, see [EPG 136.12 Reimbursement and Auditing](http://epg.modot.org/index.php?title=136.12_Reimbursement_and_Auditing).

**136.11.11 Subcontracts and Approval**

All contracts shall stipulate that no less than 30% of the contract work shall be performed by the prime contractor’s own forces and equipment. All contracts shall further hold to the right of approval of any subcontract prior to performance of subcontract work. The form of approval shall be such as to assure the local agency that the proposed subcontractor is both qualified to perform the proposed items of work and legally bound to comply with all the requirements of the contract as they would apply to the prime contractor, for example, wage rates, equal employment opportunity regulations, submittal of payrolls, etc. No subcontractor may further subcontract any of his work.

At the time of approval, the local agency shall furnish the MoDOT representative the name and address of each subcontractor, the percentage of work sublet to that particular subcontractor, the percentages awarded to DBEs, and the total percentage of work sublet to date. DBEs must be on the MoDOT-approved listing at the time of letting. In figuring the percentage of the contract work performed, all prices for sublet work shall be at contract unit bid prices. Sample forms ([Fig. 136.11.4.1](http://epg.modot.org/files/c/cb/136.11.4.1_Request_for_Approval_of_Subcontract_%28Fig._11-4-1%29.doc) and [Fig. 136.11.4.2](http://epg.modot.org/files/d/d1/136.11.4.2_DBE_Subcontract_Worksheet.xls)) that may be used for submitting subcontractor information and [instructions for completing the form (Fig. 136.11.4.3)](http://epg.modot.org/files/2/24/136.11.4.3_Contractor%27s_Instructions_%28Fig._11-4-3%29.doc) are available.

**136.11.12 Labor Records**

The local agency shall obtain payrolls and forms related to [Equal Employment Opportunity (41 CFR 60.1)](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=3275bea9e2d87163209535159a10234d&rgn=div5&view=text&node=41:1.2.3.1.1&idno=41) and [(41 CFR 60.2)](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=3275bea9e2d87163209535159a10234d&rgn=div5&view=text&node=41:1.2.3.1.2&idno=41). They shall also ascertain that [necessary posters](http://epg.modot.org/index.php?title=136.11_Local_Public_Agency_Construction#136.11.13_Information_Posters) (information posters) are in place on the project.

The prime contractor and each subcontractor on all projects are required to submit one certified copy of labor payrolls for each week that work is in progress. In the event that work is temporarily suspended, the last payroll shall be marked appropriately to note that it will be the last payroll until work is resumed.

Payrolls to be submitted shall be checked for compliance with the contract requirements. The local agency shall retain all payrolls for a period of three years after the date on which the local agency receives reimbursement of its final invoice from MoDOT, during which time they shall be open to inspection by MoDOT.

A certified copy of each weekly payroll must be submitted by the prime contractor within 7 days of the payment date of the payroll. The certification may be attached to the payroll or may be on the payroll itself. The prime contractor will be responsible for the submittal of payrolls and certifications for all subcontractors on the project.

The local agency shall check payrolls, with the following checks being made to ensure proper labor compliance:

**1.** The employee’s full name as shown on his social security card, his address, and social security number shall be entered on each payroll.

**2.** Check the payroll for correct employee classification.

**3.** Check the payroll for correct hourly wage and, where applicable, the correct overtime hourly rate.

**4.** Check the daily and weekly hours worked in each classification including actual overtime hours worked (not adjusted hours).

**5.** All deductions are listed and the net wage shown. The [Form WH-347](http://www.dol.gov/esa/whd/forms/wh347.pdf) is to be used where fringe benefits are paid into established programs. However, if fringe benefits are paid in cash to the employee, the amount shall be indicated on the payroll.

**6.** To assure that the payrolls are arithmetically correct, approximately 10% of the extensions on the first three payrolls shall be checked. The contractor is to be advised of any violations noted on the labor payroll. All the errors are to be corrected by means of a supplementary payroll.

**7.** All checking by the local agency shall be made in red pencil and initialed by the checker.

**8.** Final payrolls shall be marked “Final” or “Last Payroll.”

**9.** The local agency is to maintain a record of all payrolls.

The prime contractor and each subcontractor are required to submit a weekly statement of compliance within seven days of the payment date of each payroll period. This statement, [Form WH-347](http://www.dol.gov/esa/whd/forms/wh347.pdf), is to be submitted in the prescribed form as set out in the “Required Contract Provisions” included in the contract. The local agency is to maintain a record of all statements. This Form WH-347 is available to contractors from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

**136.11.13** [**Information Posters**](http://epg.modot.org/index.php?title=135.4_Required_Notices_and_Posters)

The contracts for construction projects require that certain information be displayed in a conspicuous place within the project limits for the duration of the contract. The following is a list of required information to be posted both on the project and in the resident engineer’s office:

**1.** In the resident engineer’s office:

a. ["Discrimination in Employment is Prohibited by Law in Missouri"](http://www.modot.org/business/materials/discrimination%20in%20employment.pdf)]

b. PR-1022, title 18, Section 1020, [Notice on False Statements](http://www.modot.org/business/materials/Notice%20FHWA%201022.pdf)

**2.** On the project:

a. State and Federal Wage Rates Notice (as required)

b. [Federal Equal Employment Opportunity (EEO) Notice](http://www.modot.org/business/materials/Equal%20Employment%20Opportunity.pdf) (English and Spanish version)

c. PR-1022, Title 18, Section 1020, [Notice on False Statements](http://www.modot.org/business/materials/Notice%20FHWA%201022.pdf)

d. [Form FHWA-1495](http://www.fhwa.dot.gov/programadmin/contracts/fhwa1495.cfm), Wage Rate Information (post with Federal Wage Rates)

e. EEO policy statements and name, address, and telephone number of designated EEO Officers for all contractors and subcontractors performing more than $10,000 of work

f. Notice to labor unions of contractor’s commitment to EEO (if requested)

g. Notice requesting referral of minorities/women by present employees

All posters shall be completed as required, showing names and telephone numbers where indicated.

**136.11.14 Labor Interviews**

Local agency personnel are to conduct one wage rate interview on each project every two weeks. Labor interviews are not required on railroad and other utility adjustments. The interviewer shall determine the employee’s name, the classification of the employee, the actual wage paid, and the posted wage. Interviews shall be documented as shown on the attached form, [Fig. 136.11.5 Wage Rate Interview (Labor Compliance/EEO)](http://epg.modot.org/files/9/97/136.11.5_Wage_Rate_Interview_%28Fig._11-5%29.doc).

The local agency shall submit two (2) copies of a semi-annual report to the MoDOT district representative containing the following information:

**1.** Number of contractors or subcontractors against whom complaints were received

**2.** Number of investigations completed (if complaints were received)

**3.** Number of contractors or subcontractors found in violation

**4.** Amount of restitution due under:

a. Davis-Bacon and Related Acts

b. Work Hours Act of 1962

(The Davis-Bacon Act encompasses prevailing wage rate violations, whereas the Contract Work Hours Act encompasses daily and weekly overtime violations.)

**5.** Number of employees due wage restitution under Davis-Bacon and related Acts and/or Work Hours Act of 1962

**6.** Amount of liquidated damages assessed under Work Hours Act of 1962

The above report is due not later than April 4 for the period from October 1 to March 31 and not later than October 5 for the period from April 1 to September 30. This report shall include all information gathered on all projects.

**136.11.15 Equal Employment Opportunity Requirements**

The [EEO requirements (41 CFR 60.1)](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=3275bea9e2d87163209535159a10234d&rgn=div5&view=text&node=41:1.2.3.1.1&idno=41) and [(41 CFR 60.2)](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=3275bea9e2d87163209535159a10234d&rgn=div5&view=text&node=41:1.2.3.1.2&idno=41) are contained in the contract. The local agency should be familiar with those requirements as they must be enforced.

All contractors or subcontractors whose contract or subcontract is $10,000.00 or more must submit Federal-Aid Highway Construction Contractors Annual EEO Report, [Fig. 136.11.6 Form FHWA-1391](http://epg.modot.org/files/1/11/136.11.6_Form_FHWA-1391_%28Fig._11-6%29.doc). Employment data should total correctly on this report.

If a contractor or subcontractor has been active on a project but no work was performed during the above payroll report period, a “No Work Was Performed” report is to be submitted. If a project has not started, no report is required.

**136.11.16 Final Acceptance**

The local agency shall notify MoDOT when the project is complete. A semi-final inspection is then arranged by the local agency. Representatives from the agency, MoDOT, general contractor, and in some cases, the subcontractor(s) do a walk-through inspection and compile a list of corrections. The sponsor then issues a letter to MoDOT and the contractor listing the corrections and those present at the semi-final inspection.

A final inspection is held after the corrections have been satisfactorily completed. The local agency then accepts the job, assumes maintenance of it, and issues a letter to the contractor and MoDOT stating this. This letter would also include a final working/calendar day count.

“Final Acceptance” by the local agency occurs when the corrections are completed and the agency takes over maintenance of the job. The agency’s final acceptance letter with the final working/calendar day count becomes part of the final documents.

“Final Acceptance” by MoDOT occurs after the local agency has submitted all the applicable [final documents](http://epg.modot.mo.gov/forms/CO/Final%20Acceptance%20Checklist.dot) (certifications). MoDOT then issues a final acceptance report, [form C-239](http://epg.modot.mo.gov/forms/CO/Final%20Acceptance%20-%20Off%20System.dot), and sends a copy of this report to the local agency.

“Substantial Completion” can sometimes be used by sponsors on off-systems jobs to indicate partial acceptance and a halt to the working day count. Completion of the construction activitiesthat constitute substantial completion should be outlined in the original contract agreement. Final inspection and acceptance then follows the process listed above.

**136.11.17 Certifications**

Full payment of the final invoice will not be considered until the local agency has furnished two (2) copies of the following documents:

**1.** The local agency’s semi-final inspection letter stating the date of semi-final inspection and listing those who were present. Required for both contractor and local agency work, where applicable.

**2.** The local agency’s final acceptance letter showing the number of working days or calendar days charged and the amount of liquidated damages, if any.

**3.** A certification stating

a. “The results of the tests or acceptance samples indicate that material incorporated in the construction work and the construction operations controlled by sampling and testing were in reasonably close conformity with the approved plans and specifications, and such results compare favorably with the results of independent assurance sampling and testing.” Any deviations from the specifications must be explained along with the reason for acceptance.

b. “All field tests were performed in conformity with the governing specifications and the results were in reasonably close conformity with the specifications.” Explain any deviations and why the work was accepted.

c. “The project was constructed substantially in conformity with the plans and specifications for the project.”

**4.** Contractor certification and local agency recommendation

a. The [Fig. 136.11.7 Contractor Certification](http://epg.modot.org/files/a/a2/136.11.7_Contractor_Certification_%28Fig._11-7%29.doc) showing the final DBE participation on the project including the DBEs used, the type of work performed, and the dollar amount paid to each DBE.

b. The local agency’s recommendation regarding the contractor’s fulfillment of the DBE requirements. If DBE goals were not met, include documentation as to why.

**5.** Final Invoice

**6.** Final Detailed Estimate of Quantities

**7.** [Fig. 136.11.8 Contractor's Affidavit Regarding Settlement of Claims](http://epg.modot.org/files/b/bd/136.11.8_Contractor%27s_Affidavit_Regarding_Settlement_of_Claims_%28Fig._11-8%29.doc)

**8.** [Final Change Order](http://www.modot.mo.gov/business/manuals/documents/FIG11-2.DOC) (if needed)

**9.** [Fig. 136.11.9 Affidavit (Compliance with Prevailing Wage Law)](http://epg.modot.org/files/1/1b/136.11.9_Affidavit_%28Prevailing_Wage_Law%29%28Fig._11-9%29.doc)

MoDOT will certify the dates on which any on-site inspections were made.

**136.11.18 Work by Local Agency Forces**

If the local agency elects, with MoDOT approval, to perform work with its own forces (see [EPG 136.9 Final Design](http://epg.modot.org/index.php?title=136.9_Final_Design) for more information), it will not be necessary to comply with the aforementioned labor records, postings, payroll checking, interviews, and Davis-Bacon minimum prevailing wages. However, it will be necessary for the local agency to comply with the provisions of [Form PR-1273](http://www.fhwa.dot.gov/programadmin/contracts/1273.cfm), Required Federal-Aid Provisions - All Federal-Aid Construction Contracts, Section II - Equal Opportunity, and Section III - Non-segregated Facilities. These two sections essentially require that the local agency be an “Equal Opportunity Employer.” See [EPG 136.12 Reimbursement and Auditing](http://epg.modot.org/index.php?title=136.12_Reimbursement_and_Auditing) for required records to support reimbursement for work performed by local agency forces.

**136.11.19 Final Plans**

If any project involves work on state right of way or if MoDOT will be maintaining any portion of the completed improvement, the local agency shall furnish to the MoDOT district representative two complete sets of final “as built” plans. Final plans shall be submitted within 60 days of final acceptance of the project.

For bridge plans, if there are any design changes, final “as built” bridge plans shall be submitted to the MoDOT district representative.

**136.11.20 Acceptance of Small Quantities of Material on Federal-Aid Projects**

The guidelines below may be used to reduce the amount of engineering control and sampling and testing for relatively small quantities of materials. These guidelines are intended for use on materials that will not adversely effect the traffic-carrying capacity of the completed facility and are not to be used for concrete in major structures, permanent mainline or ramp pavements, or other structurally critical items.

**1.** Weighing of Materials

The project engineer may accept small quantities of material on the basis of weights determined and placed on the delivery ticket by the contractor or supplier. The city representative who observes receipt of the material and obtains the delivery ticket should inspect the load and indicate that the quantity of material delivered appears reasonably in accord with the weight shown on the ticket before accepting the material for incorporation in the work.

The following quantities of material may be accepted on the basis of weights supplied by the contractor or supplier:

a. Aggregate—Not to exceed approximately 100 tons per day of (1) aggregate for bases, (2) aggregate for surfacing, and (3) sand for primer nor more than approximately 500 tons per project.

b. Bituminous Mixtures—Not to exceed approximately 50 tons per day nor more than approximately 250 tons per project. These quantities may be in addition to any materials of this type required for temporary construction to be maintained by the contractor and removed before final project acceptance.

**2.** Sampling and Testing of Small Quantities of Miscellaneous Materials

The project engineer may waive sampling and testing of small quantities of miscellaneous materials and accept the material on the basis of one of the two following methods:

a. Acceptance on the basis of visual examination provided the source has recently furnished similar material found to be satisfactory under the city’s normal sampling and testing procedures or

b. Acceptance on the basis of certification by the producer or supplier stating that the material complies with the specification requirements

The project engineer or person approving the material should provide the primary documentation of acceptance of material under either of these two methods. The documentation may consist of a daily inspector’s report with a statement as to the basis of acceptance of the material and the approximate quantity of material covered by the acceptance.

The following quantities of material may be accepted under the methods indicated above:

1) Aggregates—Not to exceed approximately 100 tons per day nor more than approximately 500 tons per project

2) Bituminous Mixtures—Not to exceed approximately 50 tons per day nor more than approximately 250 tons per project

3) Bituminous Material—Not to exceed approximately 100 gallons per project

4) Paint—Not to exceed approximately 20 gallons per project, acceptance to be based on weights and analysis on the container label

5) Lumber—Recognized commercial grades only may be used

6) Masonry Items—Subject to checking for nominal size and visual inspection, not to exceed approximately 100 pieces

7) Plain concrete or clay pipe—100 feet

**3.** Portland Cement Concrete

Concrete for the items listed below may be accepted on the basis of occasional conventional field sampling and testing for characteristics such as slump and air, where specified, and test cylinders, with only intermittent or random plant inspection as the project engineer deems necessary for control. Under this system, arrangements should be made for the producer to state on the delivery ticket accompanying each load of concrete the class of concrete being furnished; the weights of cement, aggregates, and water used in the batch; and the time of batching. Only tested aggregates and cement, or supplier-certified cement, may be used.

a. Sidewalks—Not to exceed approximately 500 square yards per day

b. Curb and gutter—Not to exceed approximately 500 lineal feet per day

c. Concrete base course and concrete base course widening—Not to exceed approximately 500 square yards per day

d. Pavement patching and temporary pavements

e. Building floors and foundations

f. Slope paving and headers

g. Paved ditch

h. Guardrail anchorage

i. Metal pile shells

j. Small culvert headwalls

k. Fence posts

l. Catch basins, manhole bases, and inlets

m. Sign, signal, and light bases

# **EPG 136.12 Reimbursement and Auditing**

MoDOT will request from the [Federal Highway Administration (FHWA)](http://www.fhwa.dot.gov/) payments for cost of completed work which meets eligibility requirements as set forth by FHWA directives. As a supplement to the specific requirements as outlined elsewhere in [EPG 136 Local Public Agency (LPA) Policy](http://epg.modot.org/index.php?title=Category:136_Local_Public_Agency_%28LPA%29_Policy), the following audit requirements shall be applied by the local agency to ensure full participation:

**1.** Authorization and federal funding must be approved prior to incurring costs. This applies to all types of work, such as preliminary engineering or right of way. Preliminary engineering costs may be incurred only up to the construction contract award stage. Specific MoDOT concurrence in the awarding of any contract must be obtained before a notice to proceed is issued.

**2.** All costs incurred by the local agency for both contract work and work performed by local agency personnel for whom reimbursement is sought must be supported by original source documents or documentation which provides adequate assurance that the quantities of completed work were determined accurately and on a uniform basis. Whenever the actual cost method of payment is used, reimbursement requests for costs incurred should be substantiated as follows:

a. Labor costs are supported by the documentation described below in item 3.

b. Material and equipment costs are supported by submitting a paid receipt from the vendor.

c. Machinery rental costs are supported by submitting a paid receipt from the rental vendor.

d. Rental fees for agency-owned equipment and machinery are supported with hourly documentation. The rental rates and operating costs shall be based on either the Dataquest (Dunn & Bradstreet) *Rental Rate Blue Book* or the current Federal Emergency Management Agency (FEMA) public assistance schedule of equipment rates. The blue book is a standard reference for rental rates on all classes of construction equipment. The FEMA equipment rates and the agency developed prepared rates are an acceptable alternative.

**3.** Project-specific local agency costs (except for administration costs) are allowable to the extent that they are supported by original source documentation. Daily time records supported by a project number must be kept for audit. They shall include the daily breakdown of the employee's time. The hourly rates must be the rate the employee actually received, plus actual labor additives calculated on a percent of labor basis (Social Security, Workmen's Compensation, insurance, etc.). The cost of vehicle and other equipment usage may be claimed on an hourly or mileage basis to the extent that the cost can be supported.

**4.** Incidental costs, arbitrary or otherwise unsupported costs or items not necessary to complete the project will not be reimbursed.

**5.** Additional construction costs due to error on the part of the contractor are not eligible for federal participation. Also, additional inspection costs incurred as a result of contractor error are normally assessed against the contractor and are not eligible for federal reimbursement. The term "contractor" shall also include subcontractors, fabricators, and suppliers working on the project.

**6.** A request must be submitted for additional federal funding if the construction change orders for the project exceed the construction contract. Federal funding for change orders is limited to the TIP amount for projects within an MPO, agreement amount for enhancement projects, and programmed amounts for BRM projects. Change orders for projects are limited to the local agency's federal allocation balance.

**7.** Additional engineering and/or resulting construction costs due to design errors and omissions are not eligible for federal participation. Participation in added project costs resulting from re-design or plan changes can only be considered in cases where it can definitely be established that the changes were the result of unforeseen site conditions or other causes that would not reasonably be under the control of the local agency or its engineer.

**136.12.1 Progress Invoices**

The local agency may submit invoices for reimbursement of costs incurred as the work progresses. The invoices may not be submitted more than once every two weeks. Progress invoices must be submitted monthly for invoices equal to or greater than $10,000. The final invoice must be submitted within 30 days of final acceptance. The local agency may use either of the following alternate methods of seeking progress payments:

**1.** the local agency pays the contractor/consultant for work performed and then submits a progress invoice for reimbursement; or

**2.** the local agency prepares the pay estimate for work performed and monies due the contractor/consultant. This estimate is placed in line for payment under the local agencies normal payment procedure, and at the same time, the local agency submits a progress invoice to MoDOT. If the local agency adopts this method, it must develop cash management procedures to ensure payment is made to the contractor/consultant within two (2) business days of receipt of funds from MoDOT. Failure to disburse the funds promptly will result in a violation of federal cash management provisions and may result in an interest penalty assessment against the funds.

Whichever of the above methods is used, the state will expedite reimbursement back to the local agency as quickly as possible. It is estimated that the average length of time from invoice submittal to receipt of federal reimbursement will be about 20 working days. A local agency cannot withhold or make payment to a contractor/consultant contingent upon "reimbursement" of progress invoices.

The invoice shall be based on the total incurred costs, provided that no nonparticipating costs are involved. The invoice may include material allowance, the payment for which is subject to the approval or disapproval of MoDOT.

If nonparticipating costs are involved, it will be necessary for the local agency to include on each invoice an itemization of nonparticipating charges incurred to date and to deduct them from the total incurred cost of the project. If nonparticipating costs are involved in the project but not yet paid, a statement by the local agency to that effect will suffice.

A form resembling this [sample](http://epg.modot.org/files/d/da/136.12_Sample_Form_%28Fig._12-1%29.xls) must be used when submitting all invoices. Items not applicable to the project may be omitted. Special items peculiar to that project should be added.

Two copies of the progress invoice shall be submitted by the local agency. Invoices shall be accompanied by one copy of the supporting details indicating the units for which payment is allowed, the unit price for each item and total price for each item. MoDOT personnel may request additional documentation to support the costs billed on the progress invoice to obtain assurance that the costs are reasonable and allowable. Such documentation may include, but not be limited to, detailed engineering invoices, contractor pay estimates, expense reports, equipment usage logs, payroll information, timesheets, materials or other vendor invoices, and other documentation as needed. The local agency shall also submit two copies of a request for payment of the invoice. If the invoice is submitted on the local agencies letterhead and signed by an authorized local agency official, the letter requesting payment may be omitted.

**136.12.2 Final Invoices**

Two copies of the final invoice should be submitted after all work has been completed and accepted. The final invoice must be marked "Final Invoice" and be accompanied by a detailed itemization of total project costs. The final invoice should be submitted in the same manner as progress payment invoices. For detailed information on the procedures to be followed see [EPG 136.11 Local Public Agency Construction](http://epg.modot.org/index.php?title=136.11_Local_Public_Agency_Construction).

**136.12.3 Audit and Final Reimbursement**

The [FHWA](http://www.fhwa.dot.gov/) and the MoDOT have the right to audit the local agency's records at any stage of completion. MoDOT will process invoices by requesting payment from the FHWA. The final invoice will require an audit of project records that will be conducted by MoDOT Audits and Investigations Staff. It is the local agency's responsibility to supply a copy of the final audit report to their respective MPOs. Source documentation (timesheets, lodging receipts, etc.), accounting records, and project records (construction diary, etc.) must be retained for three years following the date on which the local agency receives reimbursement of their final invoice from MoDOT.

# **EPG 136.13 Glossary**

**From Engineering Policy Guide**

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**23 CFR:** [Title 23 of the Code of Federal Regulations](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?sid=7fc37ae97d35b169f2d3bbada0f105e9&c=ecfr&tpl=/ecfrbrowse/Title23/23tab_02.tpl) is a collection (updated annually) of the general and permanent rules and regulations required to implement the provisions of federal law relating to the National Highway Traffic Safety Administration and Federal Highway Administration.

**AADT:** Annual Average Daily Traffic. (ADT, Average Daily Traffic, is also commonly used.)

**AASHTO:** American Association of State Highway and Transportation Officials.

**ACHP:** Advisory Council on Historic Preservation

**Agreement:** The legal document between agencies necessary to administer projects.

**Allocation:** The reservation of federal funds to the local agencies each year.

**AREMA:** American Railway Engineering and Maintenance-of-Way Association.

**Authorization:** Approval by FHWA to incur future costs relative to a project.

**BRM:** On-System Bridge Replacement and Rehabilitation Program.

**BRO:** Off-System Bridge Replacement and Rehabilitation Program.

**Brooks Act:** Consultant contracts for engineering and design related services financed with Federal-Aid highway funds must result from negotiations which utilize [qualifications based selection procedures](http://epg.modot.org/index.php?title=Category:134_Engineering_Professional_Services#134.2_The_Professional_Services_Committee_.28PSC.29_and_Qualifications_Based_Selection_.28QBS.29). Qualifications based procedures do not allow for price to be used as a factor in the selection process.

**Categorical Exclusion (CE):** Projects that are minor enough in nature that they will not require preparation of a formal environmental statement.

**Change Order:** A supplement to the contract that provides authority to pay for revisions in quantities or authorize changes to design features or specifications.

**CMAQ:** Congestion Mitigation and Air Quality

**COE:** U.S. Army Corps of Engineers

**Commission:** Missouri Highway and Transportation Commission.

**Competitive Bidding:** Construction projects are required to be advertised and awarded to the lowest responsible and responsive bidder through open competitive bidding, unless use of an eligible force account is more cost effective.

**Construction Engineering (CE):** Construction inspection engineering

**Credit Bridge:** Bridge constructed to BRO standards with local funds, 80% of the cost may be applied to a normal federally funded bridge project in lieu of the 20% local match.

**Cultural Resources:** A cultural resource is any archaeological site, building, structure (e.g., bridge), district, or object. A historically significant cultural resource is one that meets certain criteria and is included in, or eligible for inclusion on, the National Register of Historic Places (NRHP) and is termed a historic property or historic resource. Not all cultural resources are historically significant, but potential project impacts to all must be considered.

**DBE:** Disadvantaged Business Enterprise

**Deficient Structure:** A bridge which is either structurally deficient or functionally obsolete.

**Design Standards:** Projects on the National Highway System (NHS) must be designed with AASHTO and/or FHWA approved standards. It is recommended that all projects follow AASHTO guidelines for design and construction.

**DNR:** Missouri Department of Natural Resources

**DOI:** U.S. Department of Interior

**EEO:** Equal Employment Opportunity

**EPA:** Environmental Protection Agency

**FEMA:** Federal Emergency Management Agency

**FHWA:** Federal Highway Administration

**Force Account Work:** Work that arises unexpectedly during the construction of a project. The work can be performed by a contractor, a subcontractor, or the local agency's forces and the cost is determined by keeping track of the labor forces, equipment, material, and associated costs used to complete the unexpected work.

**Functionally Obsolete:** A bridge is generally considered functionally obsolete if it is unable to properly accommodate traffic due to poor roadway alignment, waterway, insufficient width, waterway, low structural evaluation, or inadequate clearances. For a more detailed description of the specific criteria used to determine this item, refer to MoDOT's ["Bridge Inspection Rating"](http://epg.modot.org/index.php?title=Category:753_Bridge_Inspection_Rating), or the appropriate FHWA publication.

**FWS:** U.S. Fish and Wildlife Service

**HABS:** Historic American Building Survey

**HAER:** Historic American Engineering Record

**Hazardous Waste:** [Hazardous waste](http://epg.modot.org/index.php?title=127.8_Hazardous_and_Solid_Waste) is a material that could cause harm to people or the environment; it can include solid materials, liquids, and gases. Some examples could be gas station releases, drums or containers of known or unknown material, tanks, old dumps, and e-waste. Any container with unknown contents should be considered hazardous until identified by a qualified person. If there is a question about what might be hazardous, contact the Missouri Department of Natural Resources Environmental Emergency Response Unit at 573-634-2436 for assistance with identification.

**HBP:** Highway Bridge Program.

**Historic Resource:** A historic resource is a cultural resource that meets at least one of the following criteria: a) it is associated with events that have made a significant contribution to our history; b) it is associated with significant persons in our past; c) it has high artistic value, is the work of a master craftsman, or embodies distinctive characteristics of a type, period, or method of construction; or d) it can answer specific research questions and topics or can contribute to our current state of knowledge. Historic resources typically must be at least 50 years of age or older but exceptionally important resources can be less than 50 years old.

**HUD:** U.S. Department of Housing and Urban Development

**Independent Assurance Test:** A test performed independently of a job control test and according to the [guide schedule](http://epg.modot.org/index.php?title=Category:123_Federal-Aid_Highway_Program#123.3.1_Independent_Assurance_Samples_and_Tests_.28IAS.29).

**In Kind Services:** Donated labor, equipment, or material.

**ISTEA:** Intermodal Surface Transportation Efficiency Act. Six year Highway Act from October 1, 1991 to September 30, 1997.

**Job Control Test:** Routine test performed on the site by the local agency or its representative to assure that the project is constructed in compliance with the applicable specifications.

**Low Water Bridge:** A bridge having a waterway capacity design less than the 10 year frequency discharge.

**Low Water Crossing:** Waterway crossing other than a bridge where construction improvements have been made to produce a firm surface for vehicles to travel.

**LPA:** Local Public Agency a city, county, or civic organization sponsoring a federally funded transportation project.

**MHTC:** Missouri Highway and Transportation Commission

**MoDOT:** Missouri Department of Transportation

**MOA:** Memorandum of Agreement

**Materials Certification:** Statements provided by the contractor, fabricator, or manufacturer that certain materials comply with the requirements of the contract.

[**Missouri Standard Plans**](http://www.modot.mo.gov/business/standards_and_specs/standardplans.htm)**:** Construction detail plans available from MoDOT which meet AASHTO design requirements.

[**Missouri Standard Specifications for Highway Construction**](http://www.modot.mo.gov/business/standards_and_specs/highwayspecs.htm)**:** The directions, provisions, and requirements for the performance of the work for the quantity, quality, and proportion of materials.

**MPO:** Metropolitan Planning Organizations carry out the transportation planning process for communities with a population greater than 50,000.

**MUTCD:** Manual on Uniform Traffic Control Devices

**NBI:** National Bridge Inventory

**NEPA:** National Environmental Policy Act

**NHPA:** National Historic Preservation Act

**Obligation Limitation:** Limits the amount of federal funds that may be obligated during a certain time period (also called Obligation Authority and Contract Control).

**Obligation of Funds:** The formal commitment by FHWA to participate in a share of the project costs.

**Off-System Routes:** Routes that have a functional classification of rural local, local road or street, or a rural minor collector.

**On-System Routes:** Routes that have a functional classification of urban collector, rural major collector, rural or urban arterial, or an expressway.

**PE:** Preliminary Engineering. All engineering work performed by the local agency or their consultant prior to award of contract.

**PS&E:** Construction plans, specifications, and quantity estimates.

**Posting:** Establishment of a maximum weight limit for vehicles using the bridge.

**Pro Rata Share:** The legal federal share for a project established at the time of project approval. Pro rata share is typically expressed as a percentage of the total participating costs of the project.

**Public Interest Finding:** Cost effective justification that must be provided to MoDOT by a local agency that is seeking to do a federally funded project with its own forces.

**Rehabilitation:** Work required to eliminate the items that cause a bridge to be identified as deficient.

**Reimbursement:** Payment of federal funds to a local agency.

**RFP:** Request for Proposal

**SAFETEA-LU:** Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users. Five year Highway Act from October 1, 2004 to September 30, 2009.

**Section 106:** [Section 106 of the National Historic Preservation Act of 1966](http://epg.modot.org/index.php?title=The_Section_106_Process) is the primary legislation that requires cultural resource investigations. Any project using federal funds or needing federal permits must comply with the Section 106 requirements . The Section 106 process consists of three primary stages, with the outcome of each stage determining whether the activities of the next stage are necessary (36 CFR Part 800).

[**Section 404/Wetlands**](http://epg.modot.org/index.php?title=127.4_Wetlands_and_Streams)**:** A project may involve activities in an area which contain wetlands or waters of the United States and may require a Section 404 permit from the U.S. Army Corps of Engineers. It is a violation of federal law to place fill in waters of the U.S. or wetlands without the necessary permits.

[**Section 4(f)**](http://epg.modot.org/index.php?title=127.10_Section_4%28f%29_Public_Lands#127.10.1.2_Section_4.28f.29_Laws_and_Regulations)**:** Provides protection for public parks and recreation areas, wildlife and waterfowl refuges and significant historic sites on publicly owned land. It requires demonstrating that there is no feasible and prudent alternative to the use of the property and that all possible planning has been done to minimize harm to the property.

[**Section 6(f)**](http://epg.modot.org/index.php?title=127.10_Section_4%28f%29_Public_Lands#127.10.1.4_Section_6.28f.29_Laws_and_Regulations) **of the Land and Water Conservation Fund:** A project that has potential involvement with parks or other public lands which may have been purchased or improved using funds from the Land and Water Conservation Fund (LWCF).

**S.E.M.A.:** The State Emergency Management Agency has responsibility for coordinating state agencies' response to disasters.

**SHPO:** State Historic Preservation Officer

**Soft Match:** Credit earned by counties who replace their deficient bridges with local funding. It can be used in lieu of the 20% local match on bridge projects.

**Sponsor:** The local government or public agency responsible for providing matching funds for the proposed project.

**SRTS:** Safe Routes to Schools

**STIP:** Statewide Transportation Improvement Program

**STP:** Surface Transportation Program

**Structurally Deficient:** A bridge is generally considered to be structurally deficient if it is in relatively poor condition, or has insufficient load carrying capacity for modern design loadings. The insufficient load capacity may be the result of the loads used in the original design or degradation of structural properties due to deterioration. For a more detailed description of the specific criteria used to determine this item, MoDOT's ["Bridge Inspection Rating](http://epg.modot.org/index.php?title=Category:753_Bridge_Inspection_Rating)" or appropriate FHWA publications should be consulted.

**Sufficiency Rating:** A numerical rating of a bridge based on its structural adequacy, safety, serviceability, functional obsolescence and essentially for public use.

**TEA21:** Transportation Equity Act for the 21st Century. Six year Highway Act from October 1, 1997 to September 30, 2003 with a one-year extension to September 30, 2004.

**TIP:** Transportation Improvement Program

**Title 23 U.S.C.:** Title 23 of the United States Code contains most of the laws governing the Federal-Aid Highway Program.

**USDA:** United States Department of Agriculture

**USGS:** United States Geological Survey

**WBE:** Women Business Enterprise. Term not in current usage. Definition of Disadvantaged Business Enterprise includes WBE's.

**Work by Local Forces:** Construction performed by the local agency's work force. If the local agency elects to perform work with its own forces, and/or use their own materials and equipment, MoDOT and FHWA must approve all work being done. The work by local forces must be in the public interest and shown to be cost effective. See [EPG 136.3 Project Selection and Programming](http://epg.modot.org/index.php?title=136.3_Project_Selection_and_Programming) and [EPG 136.9 Final Design](http://epg.modot.org/index.php?title=136.9_Final_Design) for more detail.

# **EPG 136.14 Helpful Information**

**MoDOT Addresses**

**NW District** **NE District**

3602 North Belt Highway 1711 South Hwy 61, PO Box 1067

St. Joseph, MO 64506 Hannibal, MO 63401

(816) 387-2350 (573) 248-2490

Fax: (816) 387-2359 Fax: (573) 248-2467

**Kansas City District** **Central District**

600 Northeast Colbern Road 1511 Missouri Blvd.

Lee’s Summit, MO 64086 Jefferson City, MO 65102

(816) 622-6500 (573) 751-3322

Fax: (816) 622-6550 Fax: (573) 522-1059

**St. Louis District** **SW District**

1590 Woodlake Drive 3025 East Kearney, PO Box 868

Chesterfield, MO 63017 Springfield, MO 65801

(314) 275-1500 (417) 895-7600

Fax: (314) 340-4119 Fax: (417) 895-7652

**SE District**

2675 North Main Street, PO Box 160

Sikeston, MO 63801

(573) 472-5333

Fax: (573) 472-5351

**Metropolitan Planning Organizations**

**Columbia Jefferson City**

Columbia Area Transportation Study Organization Capital Area Metropolitan Planning

701 East Broadway, City Building City of Jefferson

PO Box 6015 320 East McCarty Street

Columbia, MO 65205 Jefferson City, MO 65101

(573) 874-7214 (573) 634-6410

Fax: (573) 442-8828 Fax: (573) 634-6457

**Joplin Kansas City**

Joplin Area Transportation Study Organization Mid-America Regional Council

602 South Main St. 600 Broadway, Suite 200

Joplin, MO 64801 Kansas City, MO 64105-1554

(417) 642-0820 (816) 474-4240

Fax: (417) 625-4738 Fax: (816) 421-7758

**St. Joseph St. Louis**

St. Joseph Area Transportation Study Organization East-West Gateway Council of Governments

City Hall, 1100 Frederick Ave. One Memorial Drive, Suite 1600

St. Joseph, MO 64501 St. Louis, MO 63102-1714

(816) 236-1471 (314) 421-4220

Fax: (314) 231-6120

**Springfield**

Ozarks Transportation Organization

117 Park Central Square, Suite 107

Springfield, MO 65806

(417) 836-5442

Fax: (417) 862-6013

**Other Regulatory Agencies**

State Historic Preservation Office Charles Scott

MO Dept. of Natural Resources Field Supervisor

PO Box 176 Columbia Field Office

Jefferson City, MO 65102 U.S. Fish and Wildlife Service

Phone (573) 751-2479 101 Park DeVille Drive, Suite A

Columbia, MO 65203-0007

Phone (573) 234-2132

Policy and Coordination Division Kevin Ward

MO Dept. of Conservation Federal Highway Administration

PO Box 180 3220 W. Edgewood, Suite H

Jefferson City, MO 65102-0180 Jefferson City, MO 65109

Phone (573) 751-4115 Phone (573) 636-7104

**Corps of Engineer’s Office**

Commanding Officer Commanding Officer

Department of the Army U.S. Army Corps of Engineers

Little Rock Dist., Corps of Engineers Kansas City District

P.O. Box 867 700 Federal Office Building

Little Rock, AR 72203-0867 601 East 12th Street

Phone (501) 324-5531 Kansas City, MO 64106

Phone (816) 426-5241

Commanding Officer Commanding Officer

Department of the Army Department of the Army

Rock Island Dist., Corps of Engineers Memphis Dist., Corps of Engineers

P.O. Box 2004 167 North Main Street, Room B202

Rock Island, IL 61204-2004 Memphis, TN 38103-1894

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St. Louis District

1222 Spruce Street

St. Louis, MO 63103-2833

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