

Missouri Statewide Transportation Improvement Program

--Introduction--

The Missouri Department of Transportation (MoDOT), in accordance with state and federal law, has prepared this Statewide Transportation Improvement Program, for state fiscal years 2008 through 2012 (July 1, 2007 through June 30, 2012.) The Statewide Transportation Improvement Program is prepared annually and includes all projects proposed for funding under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU,) Vision 100-The Century Aviation Act and state revenue. SAFETEA-LU was signed into law on August 10, 2005. It funds highways, highway safety, and transit improvements for the five-year period of 2005 through 2009.

The Statewide Transportation Improvement Program identifies specific projects MoDOT will undertake in the next five years. It covers highways, bridges, transit, aviation, rail, waterways, enhancements, and other projects. It is a project-specific document that tells Missourians what improvements to expect on their transportation system during this period.

On November 2, 2004, the voters of Missouri approved Amendment 3, which provided additional funds for transportation projects. These additional funds made possible the Smoother, Safer, Sooner program. This program consists of three elements: the Smooth Roads Initiative (SRI), the Accelerated Projects, and New Major Projects. The Statewide Transportation Improvement Program identifies the remaining projects made possible by Amendment 3 funding with a special logo. The SRI program was completed in December 2006, one year ahead of schedule. The SRI program improved the pavement, striping, and shoulders on the 2,200 miles of the most heavily traveled roads. The Smooth Roads Initiative represents a great beginning in MoDOT's effort to improve Missouri's major roads. But much more remains to be done.

The major highway system is composed of Missouri's most traveled highways, and consists of approximately 5600 miles. It carries nearly 80 percent of the state's traffic and approximately 95 percent of Missouri's residents live within 10 miles of these roads. The Better Roads Brighter Future program picks up where SRI left off, making more roads smoother and safer. It will bring 85 percent of Missouri's major highways to good condition by the end of 2011, and keep them in good condition. The Better Roads Brighter Future program started in January 2007, with the acceleration or addition of 34 projects. This STIP includes more, but not all, of the Better Roads Brighter Future projects. Additional projects will be added as specific project details are developed.

This STIP also includes the Safe and Sound Bridge Improvement Project, an initiative to improve more than 800 bridges around the state by December 31, 2012. A team of contractors and designers will be selected to perform all the work. Each of the bridges will be replaced or repaired and the successful bidder will be required to keep them in good condition for at least 25 years, beginning at the completion of construction. Please refer to the "Safe and Sound Bridges" subsection of Section 4 located after the district subsections for more details.

-- Public Involvement --

Public involvement in project development and programming activities is a key element in gaining public acceptance critical to the success of any transportation improvement program. The last three multi-year federal transportation bills have emphasized the necessity of public involvement. In Missouri, the approach is to primarily seek involvement from four groups. These groups are: (1) metropolitan planning organizations, (2) regional planning commissions, (3) local officials, and (4) the general public. Through public involvement, Missourians have a say in how transportation dollars are spent.

Metropolitan planning organizations represent urbanized areas with populations over 50,000. They are responsible for planning, including transportation planning, within their regions. Regional planning commissions represent multi-county rural regions and are charged with coordinating functions of local governments, including transportation planning. The public is involved in the planning process in two ways: 1) through electing the local officials who comprise the regional planning commission and metropolitan planning organization boards of directors; and 2) through direct contact with MoDOT, metropolitan planning organizations, regional planning commissions or local officials.

Public involvement for development of transportation improvements begins several years before the projects actually appear in the Statewide Transportation Improvement Program.

Transportation planning consists of a series of decisions that direct the use of current and future available resources to accomplish Missouri's transportation goals. The current transportation planning process can be summarized in the following steps.

1. Develop state's transportation vision and a plan to accomplish it
2. Identify and prioritize needs
3. Develop solutions and design projects
4. Prioritize and select projects for construction

Develop State's Transportation Vision and a Plan to Accomplish It

MoDOT's long-range transportation plan identifies the state's transportation vision. The plan also identifies what the public expects of the state transportation system, including high-priority statewide corridors and goals for taking care of the system. It identifies the values that guide needs and project prioritization for the 20-year planning horizon.

The vision is Missouri's ideal transportation system. However, Missouri cannot afford all the components of this ideal system. The long-range transportation plan also includes policies and goals and a fiscally constrained strategy for achieving the highest-priority components of the transportation vision within an agreed upon timeframe. This requires working with planning partners to determine where Missouri's transportation dollars should be spent.

MoDOT started updating the long-range transportation plan in February 2005. It was completed in April 2007. Information regarding the long-range plan can be found at www.mapourfuture.org. Projects identified in the STIP have been given priorities based on, and are consistent with, with the long-range transportation plan.

Identify and Prioritize Needs

There are many transportation problems, often called needs, on Missouri's transportation system. Identifying these needs is a continuous process and crucial for successful planning. For example, one need might be redesigning a high-accident location, such as an intersection; another need might be a location improvement that helps a new business move products more efficiently. There are two levels of needs identification, regional and statewide, and they are classified in two groups, physical system condition needs, which target the state of repair of road and bridge components, and functional needs, which target how well the transportation system is operating.

Statewide needs are identified formally through the long-range transportation plan process, and public outreach is done in conjunction with the long-range transportation plan development. These needs typically cross several county lines and involve interstates and major highways.

MoDOT districts work with planning partners to identify regional transportation needs. Specific methods and timeframes are discussed in the implementation section of MoDOT's planning framework for guiding transportation decisions and investments.

Prioritizing needs is the process of deciding which problems, from the list of identified needs, should be addressed first. This can be a difficult task given a wide variety of needs. Not only do needs have different subject matter – safety, maintenance or economic development – they have varying time horizons. A structurally deficient bridge might be a more immediate need than a resurfacing project. However, simply being an immediate need does not imply higher priority. Perhaps the deficient bridge is no longer needed and can be closed, the road to be resurfaced carries a heavy load of traffic. These complicated decisions require a coordinated effort from many groups.

Needs prioritization is based on the goals in Missouri's long-range transportation plan. MoDOT districts will work with planning partners to prioritize regional needs annually. Statewide needs are prioritized periodically; however, emerging needs can be added to the needs priority list between updates. Both regional and statewide needs will be prioritized using the processes established in MoDOT's planning framework, which are based primarily on objective data. Using the results of the prioritization process as a starting point, MoDOT districts will work with planning partners to divide needs into three categories.

- High – Resources are focused on addressing these needs first. They are the first to be selected for preliminary engineering.
- Medium – These needs may be addressed as additional resources become available.
- Low – No work is in progress to address these needs at this time.

The high-priority needs list is fiscally constrained to about ten years of funding and is not a commitment to design or construct projects. Existing needs will be reevaluated each time needs are prioritized. Some high-priority needs may never be designed or constructed due to prohibitive costs, changing priorities or other reasons. Needs from the high-priority list will be selected for preliminary project design.

Develop Solutions and Design Projects

When the high-priority needs have been identified, they are evaluated to find the best solution to the problem based on engineering expertise, public input and financial considerations. Environmental impact is another factor that influences the development and selection of a solution. There are a variety of environmental reviews that must occur for the proposed solutions. Some solutions may be less desirable or eliminated from consideration due to the extent of the environmental impacts. After a solution is agreed upon, design plans are started.

Determining the cause of a problem is often more complicated than might be expected. For instance, a high incidence of accidents at a given intersection might be due to poor sight distances, weather conditions, signal timing, roadway geometry or even reckless driving. Identifying the primary reason or combination of reasons for the problem is key to developing effective solutions.

Once a problem is identified, the natural tendency for any problem-solver is to immediately offer *the* solution. Effective planning requires developing many possible solutions in order to capture the most efficient and effective solution. MoDOT engineers and planners are experts at generating good solutions to transportation problems. MoDOT staff is even more effective when working with local and regional officials to generate the solutions. This process reveals issues and concerns that may not have previously been evident.

The public's involvement in defining needs and determining the appropriate solutions will take several forms. The public may actually initiate the investigation of needs by contacting MoDOT or its planning partners. The public, through its local officials, has representation in determining the best solution for the transportation need. As MoDOT develops public involvement plans for specific projects, the public will have further opportunity to review concepts and provide input.

Prioritize and Select Projects for Construction

Deciding which projects to do and when to do them is a complicated and often controversial matter. Gathering and discerning public input is crucial to realizing the full benefit of available funds for Missouri's transportation system. MoDOT relies on local and regional planning agencies for this process.

The project prioritization processes are based primarily on data and serve as a starting place for determining the best candidates for funding. There are separate project prioritization processes for each category in MoDOT's funding distribution method.

MoDOT recognizes the need for a balance between taking care of the current transportation system and expanding the system to accommodate anticipated future demand. As a result, transportation funding is divided accordingly. The nature of this balance is adjusted through the level of funds in each category. The project prioritization processes include the following.

- Safety
- Taking care of the system
- Major projects and emerging needs (Regional)
- Major projects and emerging needs (Statewide)
- Interstates and major bridge

- Amendment 3

Projects are divided into three categories - high, medium and low, within each funding category. Each time projects are prioritized, existing projects not yet programmed for construction will be reevaluated.

Projects are prioritized against other projects in the same funding category. Larger projects of statewide significance are compared with one another. Smaller projects and those intended to take care of the existing system are compared with one another. MoDOT works with local and regional officials to determine the priority of the projects in each funding category. Projects on the high-priority project list are candidates for funding. The projects, which were selected for funding, are show in Section 4.

Additionally, each of Missouri's seven metropolitan planning organizations located in Columbia, Joplin, Kansas City, St. Joseph, St. Louis, Jefferson City and Springfield, prepare a transportation improvement program within its respective metropolitan planning areas. These transportation improvement programs are the accumulation of federally funded projects proposed by their local governments and MoDOT. MoDOT utilizes public input received throughout the year to develop its submittal for the Metropolitan Planning Organizations transportation improvement program. Each Metropolitan Planning Organizations has approved public involvement plans for its respective areas that allow for review and feedback from individual citizens, organizations, agencies and local area governments. Using public input as one of its decision factors, the Metropolitan Planning Organization determines the projects in its area that will be programmed for construction. These transportation improvement programs are integrated into the five-year Statewide Transportation Improvement Program without modification.

Public Review Period

Comments from the public and the planning partners are considered throughout the year in an effort to maximize Missouri's resources. Based on public and engineering input, a draft of the Statewide Transportation Improvement Program is published, followed by a 45-day public review period. During this public review period, the program is distributed to MoDOT districts for public access and the Federal Highway Administration for review. Citizens have the opportunity to provide written comments, verbal comments or telephone comments (by calling 1-888-ASK MODOT) to district representatives during this period. The Statewide Transportation Improvement Program is also available on MoDOT's website at www.modot.org. MoDOT responds to the comments received during this period. Changes are made as appropriate in response to comments before a final draft is developed and presented to the Missouri Highways and Transportation Commission for approval. Input from this part of the process will be used to measure the effectiveness of the program and to begin making improvements on next year's program. The Statewide Transportation Improvement Program becomes effective when approved by the commission.

Program Amendments

Projects can be amended to the Statewide Transportation Improvement Program and to a metropolitan area transportation improvement plan. The public involvement process for Statewide Transportation Improvement Program amendments will occur prior to incorporating the project in the program. Public involvement on projects inside a metropolitan planning organization area will be done by the metropolitan planning organization according to its approved transportation improvement plan amendment process.

There will be a reasonable opportunity for public review and comment regarding major revisions to the Statewide Transportation Improvement Program (STIP) occurring outside a metropolitan planning organization's boundary that do not occur during the traditional development of the STIP. All projects, regardless of proposal time, will follow the public involvement processes and policies defined in MoDOT's Planning Framework.

Reference Information

Amendment 3 – A bonding referendum passed by voters in November 2004 that provides additional funds for transportation projects. The funding made available resulted in three initiatives: the Smooth Roads Initiative (SRI), the Acceleration of Projects, and New Major Projects.

At-grade intersection – This is an intersection with two or more roadways that provide for the movement of traffic on the same level of the riding surface for vehicular and pedestrian traffic.

Better Roads Brighter Future – A MoDOT initiative to improve and maintain the pavement condition and safety on Missouri's busiest 5,600 miles. This initiative follows the completion of SRI, which improved the busiest 2,200 miles.

Culvert - This is generally a drainage structure constructed beneath the roadway. Box sections, pipes, and arches are examples of various culvert shapes.

Deck - The portion of a bridge that provides the riding surface for vehicular and pedestrian traffic. The deck distributes loads to the superstructure elements.

Expressway - This is a multilane, divided highway where access is allowed at public roads via at-grade intersections.

Fiscal Year - This is a 12-month period which the annual operating budget applies, and at the end of which a government determines its financial position and the results of its operations. The State of Missouri fiscal year (SFY) is July 1 through June 30. The federal fiscal year (FFY) is Oct. 1 through Sept. 30.

FFOS – Funding From Other Sources – Funds applied to a project that are from sources other than the funding distribution categories available for district use.

FHWA – Federal Highway Administration - The federal agency that provides financial and technical support for the construction, improvement, and preservation of the highway system.

Freeway - This is a multilane, divided highway where access is provided only at grade-separated interchanges.

Geometric Improvement – This project includes roadway improvements other than a surface treatment, such adding turn lanes or widening an intersection.

Intersections – This is where two or more roadways meet. An interchange has two or more roadways that provide for the movement of traffic on different levels (grade separated). An at-grade intersection has two or more roadways that provide for the movement of traffic on the same level.

Lane – This is the travel path of one vehicle on a roadway, usually delineated by a dashed or solid stripe.

Let – This means to advertise and take bids from a contractor.

MAP – Missouri Advance Planning – Missouri’s long range transportation plan, which analyzes transportation trends, system conditions, and customer input and expectations. The plan makes recommendations for addressing or meeting these expectations through policies and strategies.

MPO – Metropolitan Planning Organization – The entity responsible for transportation planning in urbanized areas with populations greater than 50,000. The seven MPO’s serve the Columbia, Jefferson City, Joplin, Kansas City, St. Joseph, St. Louis, and Springfield metropolitan areas.

Major Highway System – Missouri’s most traveled roads. This system consists of approximately 5,600 miles, which carry nearly 80% of the state’s traffic. Approximately 95% of Missouri residents live within 10 miles of these roads.

Minor Highway System – Any road not on the Major Highway System.

National Highway System – This is a system of major highway networks established by the federal government that includes interstate routes, many urban and rural principal arterials, the defense strategic highway network, and strategic highway connectors.

Programmed – This means a project has right-of-way and/or construction funds committed for expenditure in state fiscal years 2008-2012 in the Statewide Transportation Improvement Program.

Reconstruction – This is a type of improvement designed to replace the existing roadway or bridge when it has reached the end of its useful life. Often accompanied by improvements to the functional and operational capacity of the highway.

Rehabilitation – This is a type of improvement designed to preserve and extend the service life and enhance the safety of an existing roadway or bridge when total replacement is not warranted.

Right-of-Way – This is land or property used specifically for transportation purposes.

Safe and Sound Bridge Improvement Project – An initiative to improve over 800 bridges around the state by 2012 and maintain them for 25 years.

SAFETEA-LU – On August 10, 2005, President George W. Bush signed the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA-LU authorizes the Federal surface transportation programs for highways, highway safety, and transit for the 5-year period 2005-2009.

SRI – Smooth Roads Initiative – One of the elements of Amendment 3 funding, completed in December 2006, which improved pavements and safety on the 2200 busiest miles of major roads.

STIP – Statewide Transportation Improvement Program – Fiscally constrained five year listing of transportation projects in Missouri.

STP – Surface Transportation Program – One of several categories of federal transportation funds.

Substructure – This is the abutments, piers, or other bridge elements built to support bridge superstructure. The substructure transfers loads from the superstructure to the ground.

Superstructure – This is the portion of a bridge that supports the bridge deck and traffic loads. The superstructure transfers these loads to the bridge substructure. Examples of superstructure types include truss, concrete I-beams, and steel I-beams.

TEA-21 - Congress passed the Transportation Equity Act for the 21st Century (TEA-21) June 9, 1998. It provided authorizations for highways, highway safety, and mass transit for six years. TEA-21 expired Sept. 30, 2003.

TIP – Transportation Improvement Program – Fiscally constrained listing of transportation projects within Metropolitan Planning Organizations.

TMA – Transportation Management Area – The entity responsible for transportation planning in urbanized areas with populations greater than 200,000. The three TMA's serve the St. Louis, Kansas City, and Springfield metropolitan areas.

Work Zone – This is a designated area where highway construction or maintenance is taking place.