



# Missouri Department of Transportation

105 West Capitol Avenue  
Jefferson City, Missouri

## 2007 Application for the Missouri Quality Award



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A blue rectangular graphic containing the text 'MODDOT' in a large, light blue, sans-serif font. Below the text are several overlapping, semi-transparent geometric shapes, including a large 'M' and a large 'D', rendered in a darker shade of blue. The overall design is modern and technical.

**Intent  
To Apply  
Form**

# 2007 INTENT TO APPLY FORM

## Missouri Quality Award

**NOTE:** This form uses text fields ( ) and check boxes (). Use your TAB key to move from one field to the next. To mark a check box, point and click with your mouse, or tab to the box of your choice and type an "x". To remove the "x", click the box or type "x" again. To select the appropriate name within the drop down boxes, click on the arrow located to the right of the box. Click on the appropriate item and press tab to move to the next item.

### 1. Applicant

Name: MoDOT (Missouri Department of Transportation) (fields will expand as you type)  
Address: 105 W. Capitol Avenue, Jefferson City, MO 65102

Has the applicant officially or legally existed for at least one year? (Check one)

Yes  No

If no, briefly explain:

*Attach a line and box organizational chart for applying organization.*

### 2. Highest-Ranking Official

Name: Mr. Pete K. Rahn  
Title: Director, Department of Transportation  
Organization:  
Applicant Name: MoDOT  
Address: 105 W. Capitol Avenue, Jefferson City, MO 65102  
Telephone #: 573-751-4622  
Fax #:  
E-mail: Pete.Rahn@modot.mo.gov

### 3. For-Profit Designation

Is the applicant a for-profit business? (Check One)

Yes  No

### 4. Size of Applicant

- a. Total number of employees: 6350
- b. Percent employees in Missouri: 100%
- c. Percent physical assets in Missouri: 100%
- d. Total number of sites: 415 throughout Missouri: 8 Jefferson City locations, 10 district offices, 378 local or regional facilities.
- e. Preceding fiscal year: (Check one and indicate amount)  
 Sales  Revenues  Budgets

\$0-1M  \$1 – 10M  \$10-100M  
 \$100-500M  Over \$500M  N/A

### 5. Award Category

(Check one in each section)

Manufacturing  Service  Education  
 Public Sector  Health Care

Small  Medium  Large

### 6. Percent Customer Base

Is over 50% of the sales of the applicant to customers outside the applicant's, its parent company, and other companies with financial or organizational control of the applicant or parent company? (Check one)

Yes  No  Not applicable

If no, briefly explain:

## 7. Site Listings and Descriptors

A. Address of Site	B. Relative Size Percent of Applicant's:		C. Description of Products and Services
See attached sheet	Employees	(Check one) <input type="checkbox"/> Sales <input type="checkbox"/> Revenues <input type="checkbox"/> Budgets	

Provide all the information for each site except where multiple sites produce similar products or services.

## 8. Key Business/Organization Factors

List, briefly describe or identify the following key organization factors. Be as specific as possible to help us avoid real of perceived conflicts of interest when assigning Examiners to evaluate your application. "Key" means those organizations that constitute five percent of greater of the applicant's competitors, customers/users, or suppliers.

a. List of key competitors

As an agency of state government, we are charged by Missouri's state constitution to develop and maintain Missouri's transportation infrastructure. We are solely responsible for design, construction, and maintenance of the state's highway and bridge system, and we work with our local and regional partners in providing other modal services to the citizens of Missouri. In providing these services, MoDOT has no direct competition with others in our industry. We indirectly compete against other state departments of transportation for Congressional budget dollars at the federal level. At the state level, we compete with other state agencies to receive appropriations from the General Assembly. At the local level, tax ballot issues that affect MoDOT sometimes compete with local tax ballot initiatives.

b. List of key customers/users

The traveling public makes up MoDOT's largest customer group. This includes not only nearly all of Missouri's 4,000,000 licensed drivers, but also licensed drivers from across the country who travel on our transportation system.

Other customer groups, or stakeholders, include motor carriers, motorist assist customers, city and county governments, the Missouri General Assembly, mass media organizations, and contractors.

c. List of key suppliers

Federal and state regulations require that MoDOT abide by competitive bidding practices to ensure fair and open competition among suppliers. This applies to nearly all of MoDOT's operations. There are a few exceptions where MoDOT must use the services of certain suppliers. These suppliers include: Missouri Vocational Enterprises (for office furnishings), Office of Administration's State Printing Center (for agency printings), and World Wide Technology, Inc. (for computer-related equipment). Missouri Vocational Enterprises and State Printing Center are located in Jefferson City, while World Wide Technology, Inc., is located in St. Louis.

d. Description of the applicant's major markets (local, regional, national, and international)

The market for MoDOT's services includes all citizens of the state of Missouri. In 2005, Missouri's population was estimated to be 5,800,310, ranking us 17th in the nation. Ranking 7th in the nation, Missouri's transportation system contains more than 32,448 miles of state highways and more than 10,138 bridges. Because of Missouri's location in the center of the United States, a significant amount of interstate and international commerce utilizes our transportation system. This includes ferry traffic on the Missouri and Mississippi Rivers, interstate highway corridors, international airports, passenger and freight rail lines, intercity transit systems, and trails.

e. The name of the organization's financial auditor

BKD, LLP  
3230 Hammons Boulevard  
P. O. Box 1824  
Joplin, MO 64802-1824  
417-624-1065

## 9. Subunit Designation

Is the applicant a component of a larger organization? (Check one)  
 Yes (Continue)    No (Go to Item 10)

a. Parent Organization

Name:

Address:

Highest Official:

Title:

Number of worldwide employees of the parent organization:

b. Does the applicant comprise more than 25 percent of the parent company? (Check one)  
 Yes    No

c. Does the applicant consist of more than 50 percent of the total sales of the parent company? (Check one)  
 Yes    No

d. Briefly describe the organizational structure and management links to the parent. Attach line and box organization chart(s) showing the relationship to the highest management level.

e. Do other units within the parent organization provide similar programs or services? (Check one)  Yes    No  
If yes, briefly explain.

f. Briefly describe the major business support functions provided to the applicant by the parent organization or by other units of the parent organization, if applicable.

**10. Official Inquiry Point**

Name: Margie Bramon  
Title: Sr Organizational Performance Analyst  
Organization: Organizational Results  
Applicant Name: MoDOT  
Address: 2217 St. Mary's Blvd.  
Jefferson City, MO 65109  
Telephone #: 573-526-5508  
Fax #: 573-526-4324  
E-mail: Margaret.Bramon@modot.mo.gov

**11. Signature, Authorizing Official**

Date:  
**X**\_\_\_\_\_

Name: Mara Campbell  
Title: Organizational Results Director  
Applicant Name: MoDOT  
Address: 2217 St. Mary's Blvd.  
Jefferson City, MO 65109  
Telephone #: 573-526-4335  
Fax #: 573-526-4337  
E-mail: Mara.Campbell@modot.mo.gov

**This form, along with the \$150.00 Intent to Apply Fee must be received by February 26, 2007 in the Missouri Quality Award Office at:**

**Excellence in Missouri Foundation  
205 Jefferson Street—14th Floor  
PO Box 1085  
Jefferson City, MO 65101**

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DO NOT WRITE BELOW THIS LINE

2006 Eligibility Determination

- Small
- Medium
- Large

- Manufacturing
- Education
- Health Care
- Service
- Public Sector
- Ineligible

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Award Administration

For Official Use Only

Site	Percent of Employees	Percent of budget	Description of Products and Services
<b><i>Central Office Facilities</i></b>			
105 West Capitol Avenue Jefferson City, MO 65102	18.8 % (for all facilities in Jefferson City and statewide-deployed individuals)	21.6% (includes program costs for statewide programs)	Commission activities, executive offices, department management and coordination, and district support Offices for: Commission Secretary's Office, MoDOT Director's Office, System Delivery Team (Bridge, Design, and Right of Way), System Facilitation Team (Controller's, Employee Benefits, Resource Management, and Risk Management) and Organizational Support Team (Chief Counsel's Office, Audits and Investigations, Governmental Relations, Community Relations)
2217 St. Mary's Boulevard Jefferson City, MO 65102			Department management and coordination, and district support Offices for: System Delivery Team (Multimodal Operations and Transportation Planning) and Organizational Support Team (Organizational Results)
2211 St. Mary's Boulevard Jefferson City, MO 65102			Department management and coordination, and district support Offices for: System Delivery Team (Highway Safety, Maintenance, and Traffic)
1320 Creek Trail Drive Jefferson City, MO 65102			Motor carrier registration, permits, and compliance; department management and coordination; and district support Offices for: System Delivery Team (Motor Carrier Services) and System Facilitation Team (Equal Opportunity, General Services, and Human Resources)
601 West Main Street Jefferson City, MO 65102			Information systems activities and training facilities for central office and districts Offices for: System Delivery Team (Design) and System Facilitation Team (Human Resources and Information Systems)
1617 Missouri Boulevard Jefferson City, MO 65102			Physical and chemical laboratories, department management, coordination, and district support Offices for: System Delivery Team (Construction and Materials)
1913 William Street Jefferson City, MO 65102			Management and administration of the retirement system for central office and districts Offices for: MoDOT Retirement System

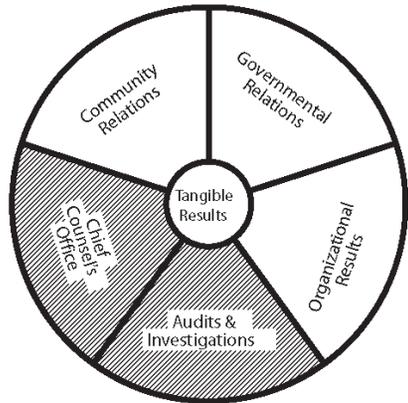
Site	Percent of Employees	Percent of budget	Description of Products and Services
MoDOT Drive Jefferson City, MO 65102			Facilities for general service activities for central office and sign production for central office and districts Offices for: System Delivery Team (Traffic) and System Facilitation Team (General Services)
<b><i>District Facilities</i></b>			
Northwest District (District 1) 3602 North Belt Highway St. Joseph, MO 64502	6.4%	6.1%	District leadership, management, and coordination for system delivery and system facilitation activities, along with district organizational support activities. District division offices mirror those at Central Office (Design, Right of Way, Human Resources, Community Relations, etc.). Each site includes an office building, garages, storage facilities, and other buildings.
North Central District (District 2) 902 North Missouri Street Macon, MO 63552	6.5%	3.1%	
Northeast District (District 3) 1711 South Hwy. 61 Hannibal, MO 63401	6.4%	6.7%	
Kansas City Area District (District 4) Kansas City Scout Traffic Operations Center 600 Northeast Colbern Road Lee's Summit, MO 64086	11.6%	11.5%	
Central District (District 5) 1511 Missouri Blvd. Jefferson City, MO 65102	7.7%	8.2%	
St. Louis Area District (District 6) 1590 Woodlake Drive Chesterfield, MO 63017	13.3%	17.9%	
Southwest District (District 7) 3901 East 32 <sup>nd</sup> Street Joplin, MO 64804	7.1%	5.7%	
Springfield Area District (District 8) 3025 East Kearney Springfield, MO 65801	7.6%	8.9%	

Site	Percent of Employees	Percent of budget	Description of Products and Services
South Central District (District 9) 910 Springfield Road Willow Springs, MO 65793	6.6%	5.4%	
Southeast District (District 10) 2675 North Main Street Sikeston, MO 63801	8.0%	4.9%	
<b><i>Other Sites and Facilities operated by districts</i></b>			
Transportation Management Center 14301 South Outer 40 Road Chesterfield, MO 63017	Included in district numbers	Included in district numbers	Operations of the Gateway Guide, the St. Louis Metro area intelligent transportation program. The program provides real-time traffic information to motorists and emergency services, thereby allowing motorists to make an informed decision on the best route to travel and helping emergency services (including Motorist Assist and the towing industry) to remove roadway incidents in a quicker fashion.
Maintenance Facilities (345 total located throughout the state)	Included in district numbers	Included in district numbers	Each facility is responsible for local or regional operations necessary for maintenance of the highway system. Activities may include snow removal, roadside management, pavement maintenance, debris removal, emergency preparedness, etc.
Project Offices (46 total located throughout the state)	Included in district numbers	Included in district numbers	Each facility is responsible for administration of construction program contracts and materials and construction inspection for quality assurance and specification compliances.
Rest areas (19 total located along interstate routes)	No employees assigned	Included in district numbers	These unmanned facilities are provided for the traveling public with daily, routine maintenance activities provided by contractors.

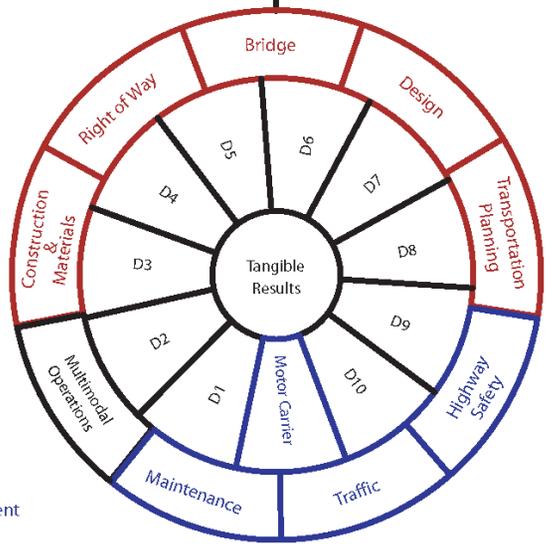
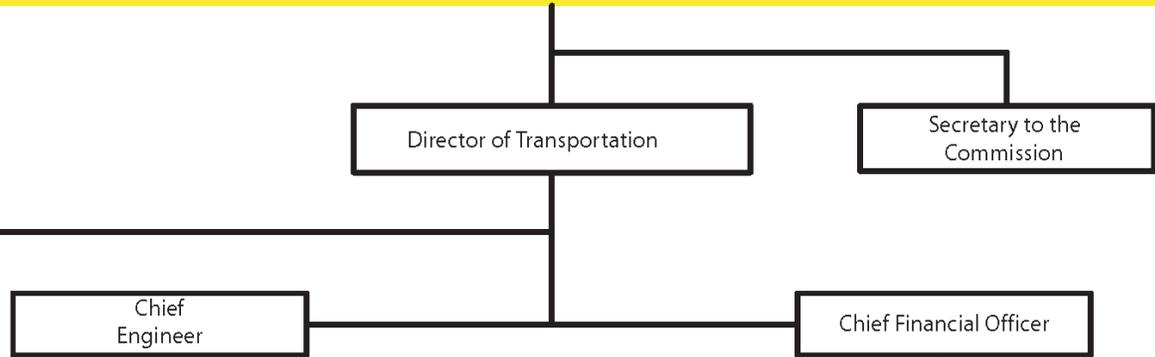


# Organization Chart

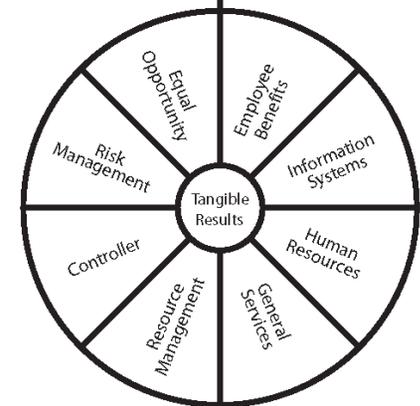
# Missouri Department of Transportation



Organizational Support Team



System Delivery Team



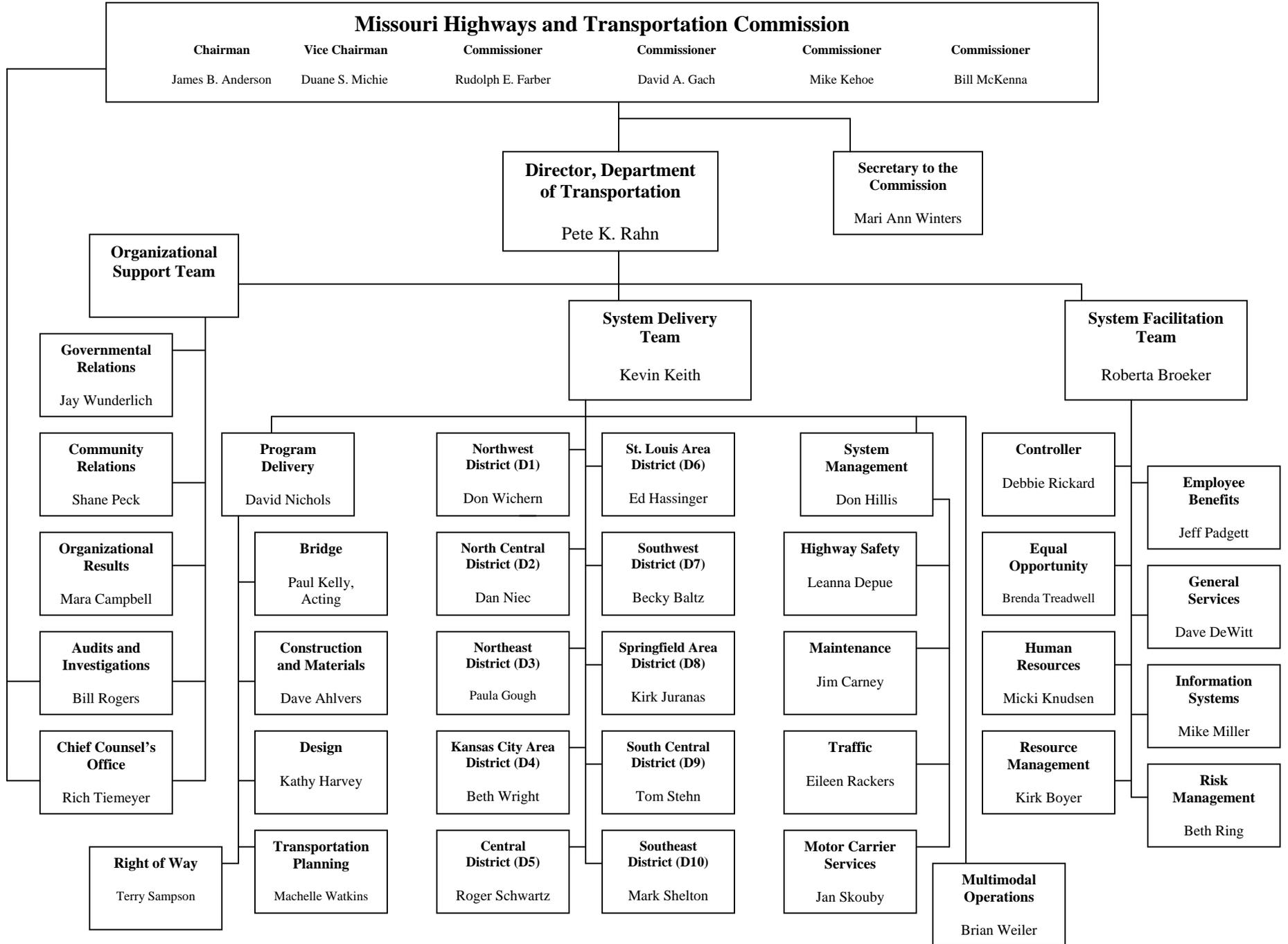
System Facilitation Team

- Legend
- Reports to the Director of Program Delivery
  - Reports to the Director of System Management
  - Also reports to the Commission as needed

xi

## Team MoDOT

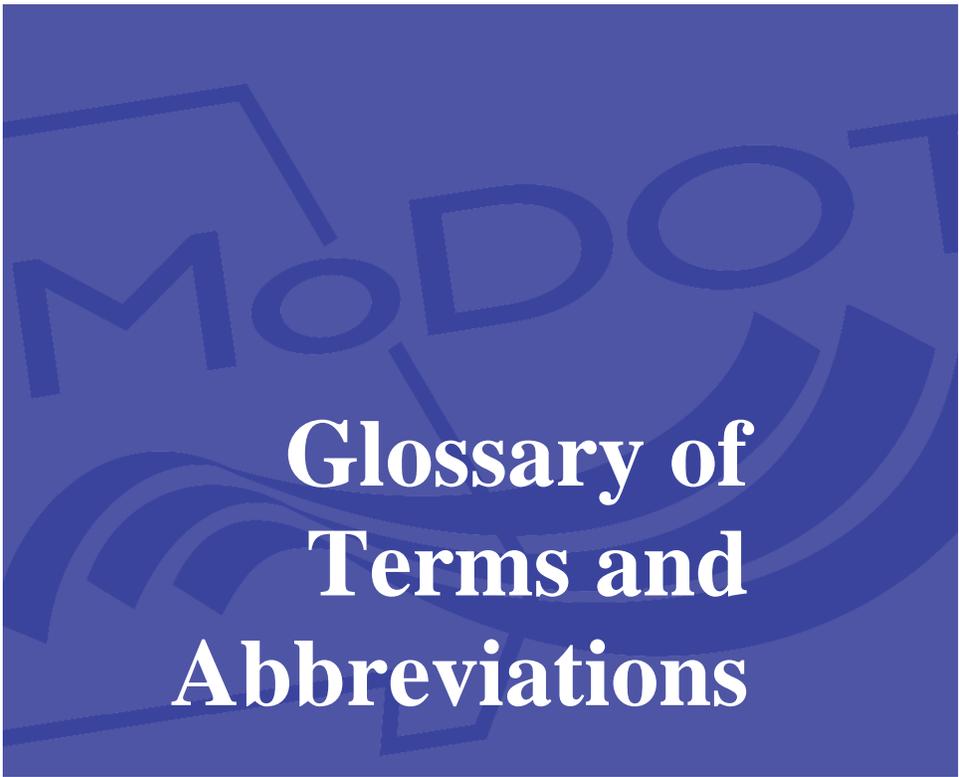
# Missouri Department of Transportation





**Application  
Form**

[Application form on file with Excellence in Missouri Foundation.]

The background of the lower half of the page is a solid blue rectangle. Overlaid on this rectangle is a large, semi-transparent watermark of the MODOT logo. The logo consists of the word "MODOT" in a bold, sans-serif font, with a stylized graphic element below it that resembles a road or a bridge structure.

# **Glossary of Terms and Abbreviations**

## Glossary Of MoDOT Terms and Abbreviations

### **AASHTO (American Association of State Highway and Transportation Officials)**

The primary goal of this organization is to foster the development, operation, and maintenance of an integrated national transportation system.

### **Accountability report**

A report prepared for the Missouri General Assembly's Joint Committee on Transportation Oversight. The report is a comprehensive account of MoDOT's projects and finances for a fiscal year.

### **Amendment 3**

A 2004 amendment to the Missouri State Constitution that enabled MoDOT to receive additional funds from state revenues previously diverted to other agencies.

### **Better Roads, Brighter Future**

A transportation initiative to improve the remainder of the state's 5,600 miles of major highways over the next five years. These busy highways will receive wider stripes and rumble stripes, brighter signs, paved shoulders and smooth pavement that will bring 85 percent of Missouri's major highway system up to good condition by the end of 2011.

### **Chip Seal Performance Contest**

An incentive program created to determine the most efficient and effective chip sealing process and, in turn, financially reward employees for excellence in their field.

### **Compa ratio**

A measure that expresses current pay rates as a percentage of range midpoints and is used to track progress towards moving employees to the market rate for their positions.

### **Core-team**

A team composed of members from various units in the System Delivery Team responsible for project development.

### **Design-build**

A project delivery method that combines both the design and construction phases into one contract allowing MoDOT to save time and resources while encouraging innovation.

### **DOT**

An acronym used to designate federal and state departments of transportation.

### **Earmarked projects**

Projects impacted by federal legislation on the state highway system that are included in the STIP or projects ready to be added as soon as funding becomes available.

### **EAC (Employee Advisory Council)**

A 25-member committee established to foster and enhance a positive and supportive work environment among the department employees by assisting management with cultural diversity, policy review, and communication issues.

### **Executive management team**

A team composed of the managers who report directly to the director and other high-level managers with subject matter expertise.

### **FHWA (Federal Highway Administration)**

A federal agency charged with the broad responsibility of ensuring that America's roads and highways by providing financial and technical support to state, local, and tribal governments for constructing, improving, and preserving America's highway system.

### **FHWA cost index**

A price index, using a base year of 1987, that indicates the average price and index for major items of highway construction.

### **Federal fiscal year**

An accounting period used by the federal government. Federal fiscal years run from October 1 to September 30.

### **Finalized contract**

The final agreement with a contractor that includes all payouts, incentives or disincentives and changes from the original contract award.

### **Fiscal year**

An accounting period used by Missouri state government. A fiscal year period runs from July 1 to June 30.

### **Fit for Duty**

A policy created in order to provide procedures and department criteria for a Fit for Duty Review Program. The Fit for Duty Review Program is necessary to ensure employees can perform and safely perform the essential work tasks of his or her job. The program's goal is to keep all employees safe on the job and make sure we're working as efficiently and effectively as possible.

### **Funding allocation process**

A method for determining where and on what to spend limited transportation dollars based on objective, transportation-related factors that are representative of physical system needs.

### **HMVM (100 million vehicle miles)**

The national standard used for expressing crash rates.

**HVMT (100 million vehicle miles traveled)**

A standard used for expressing rates for fatalities and disabling injuries resulting from motor vehicle crashes.

**Innovative financing**

Financing options for a variety of transportation projects that serve a public purpose through public/public and public/private partnerships.

**LOW (Letter of warning)**

A letter from the U.S. Corps of Engineers, the Environmental Protection Agency or the Missouri Department of Natural Resources warning that an NOV will be issued if the described action is not stopped or rectified.

**Listening tours**

Interactive events where the senior management and employees discuss concerns and issues facing MoDOT employees.

**MAPS (MoDOT Accountability and Performance System)**

A process where employees receive continuous, prompt communication and feedback on their performance, and supervisors evaluate and document performance in a fair and consistent manner.

**Measurement driver**

An individual responsible for monitoring and reporting on a Tangible Result performance measure.

**Metropolitan planning organizations (MPOs)**

Organizations formed through federal requirements to coordinate transportation planning activities in urban areas.

**Mitigate**

Reduce or minimize the loss or damage caused by a MoDOT project to the environment, historical resources, or cultural resources.

**NOV (Notice of violation)**

A letter or report issued by the U.S. Corps of Engineers, the Environmental Protection Agency or the Missouri Department of Natural Resources that describes an unlawful action taken by MoDOT or its contractor. An NOV can result in fines or stoppage of the project.

**One Team Agreement**

A document outlining a set of standards that reflect MoDOT leadership's commitment to the Mission, Values and Tangible Results.

**PIE (Partnering for Innovative Efficiencies)**

A meeting to seek input from its partners to improve transportation in Missouri, while involving them in the process to seek innovative solutions. With limited resources, the intent of these meetings is to look for ideas that can help improve performance, reduce costs and satisfy more customers.

**Performance Plus**

An employee incentive program designed to compensate MoDOT employees who achieved performance targets, which increased MoDOT's productivity and saved dollars.

**Planning Framework**

A series of decisions with each one narrowing the list of projects considered for construction through local officials' and the general public's involvement.

**Planning partners**

Other state and federal agencies, metropolitan planning organizations, regional planning commissions, local organizations, businesses and communities that work with MoDOT to address issues and identify unforeseen circumstances and opportunities that might affect the transportation decision-making process.

**Practical design**

A project delivery method that allows for projects to be customized to fit specific needs rather than apply generic standards across the board.

**PrePass**

A system that automatically prescreens over-the-road trucks for safety ratings, registration fees, fuel taxes and insurance, allowing them to bypass weigh stations if everything is in order.

**Program delivery**

A sub team within the System Delivery Team that is responsible for completing highway and bridge projects.

**Programmed amount**

MoDOT's cost estimate at the time the project was placed on the STIP.

**Project letting**

MoDOT's formal, public process of opening confidential estimates of what a contractor is bidding to build a transportation project. The proposed cost, or bid, is in response to a request sent from MoDOT to all contractors asking for the information. A bid opening is held each month, except for December, at the Jefferson City Central Office.

**RPC's (Regional planning commissions)**

Consortiums of local governments that coordinate local issues related to regional planning and development.

**SIB (State Infrastructure Bank)**

A program created by federal law in 1995 to finance both highway and non-highway projects.

**SMT (Senior management team)**

A team composed of all heads of divisions and districts in the System Delivery Team as well as the heads of divisions and units in the System Facilitation and Organizational Support Teams.

### **Smoother, Safer, Sooner**

Launched by MoDOT following the passage of Amendment 3, it includes three components: 1) Smooth Roads Initiative; 2) accelerated projects; and 3) adding new, high-priority projects.

### **Solutions At Work**

A program designed to collect, evaluate, document and communicate best practices that are delivering improved results within MoDOT. The program also provides recognition to employees for approved best practices.

### **SRI (Smooth Road Initiative)**

A plan to provide 2,200 miles of smoother pavement, brighter road markings and other safety improvements in three years. The initiative is the first part of a three-part plan to use Amendment 3 funds to improve the state's highway system.

### **STAR (State Transportation Assistance Revolving)**

A program that finances non-highway projects such as air, water, rail, or mass transit facility construction, mass transit vehicles, and vehicles for elderly or handicapped persons.

### **STIP (Statewide Transportation Improvement Program)**

Identifies the specific construction projects MoDOT will undertake in the next five years. It covers highways and bridges, transit, aviation, rail, waterways, enhancements and other projects.

### **System management**

A sub team within the System Delivery Team that is responsible for maintenance of the state transportation system after projects have been completed.

### **Tangible Result driver**

A senior management team member who is responsible for developing, monitoring and reporting on measures that track MoDOT's performance on a Tangible Result.

### **Tangible Results**

Results that MoDOT's customers expect the department to accomplish as the department fulfills its mission.

### **Tracker**

MoDOT's performance management system used to assess how well the organization is achieving the Tangible Results for its customers.



# Organizational Profile

## ORGANIZATIONAL PROFILE

### P.1 Organizational Description

**P.1a(1)** The Missouri Department of Transportation (MoDOT) is committed to providing the public with a safe and modern transportation system. Missouri's state highway system is ranked seventh largest in the United States, and the state's 55 major river bridges places Missouri first among all other states. Missouri's 32,340 miles of state highways is more than the state highway miles in Iowa, Nebraska, and Kansas combined. The state highway system, along with the 10,183 bridges located throughout the state, is valued at more than \$65 billion.

In addition to designing, building, and maintaining roads and bridges, MoDOT works to improve airports, river ports, railroads, public transit systems and pedestrian and bicycle travel. MoDOT also administers motor carrier services and highway safety programs.

MoDOT delivers its programs and services statewide through its central office in Jefferson City and 10 district offices. Figure P.1-1 provides detail about MoDOT's programs and services.

Product or Service	Functions
Statewide Transportation Improvement Program	<ul style="list-style-type: none"> <li><b>Planning</b> framework for customer input to evaluate needs, select projects, and define work to be done resulting in five-year Statewide Transportation Improvement Program (STIP). Also includes direction, evaluation of needs for the department for a 20-year look into the future.</li> <li><b>Design</b> projects, compliance verification for applicable federal and state laws, and right of way purchases</li> <li><b>Construction</b> — contract administration, quality assurance, specification and regulatory compliance, and inspections for safety, quality, compliance, financial accuracy</li> <li><b>Maintenance</b> of roads including road repairs and snow removal</li> <li>Bridge inspecting, repairing, and painting, provides assistance with inspection of bridges on county and city systems</li> <li>Roadside maintenance - litter pick-up, landscaping, mowing, drainage, chemical weed control, brush cutting &amp; tree removal</li> <li>Traffic management — monitor traffic trends, manage signals and signs, accident assistance</li> <li>Rest area and commuter lot maintenance</li> <li>Disaster response &amp; cleanup — flood, snow/ice storm, windstorm/tornado, &amp; other natural disasters</li> <li>Safety activities — mark pavement, repair edge ruts, guardrails and median guard cables, and replace substandard roadway signs</li> </ul>
Traffic management	<ul style="list-style-type: none"> <li>Monitor traffic trends</li> <li>Manage signals</li> <li>Manage signs</li> </ul>
Bridge inspection (both state and non-state)	<ul style="list-style-type: none"> <li>Inspect state bridges at least every two years, some more often</li> <li>Assist with inspection of bridges on county and city systems</li> </ul>
Public airport improvements	<ul style="list-style-type: none"> <li>Airport maintenance</li> <li>Capital improvement projects</li> </ul>
Port authority assistance	<ul style="list-style-type: none"> <li>Technical assistance in development and operations</li> <li>Promote the use of Missouri's navigable waterways</li> </ul>
Railroad support	<ul style="list-style-type: none"> <li>Support Amtrak rail passenger service</li> <li>Inspection of railroad infrastructure</li> </ul>
Transit funds administration	<ul style="list-style-type: none"> <li>Transit capital grants to purchase equipment</li> <li>Assistance to rural and urban transportation agencies</li> </ul>
Bicycle and pedestrian program administration	<ul style="list-style-type: none"> <li>Integration of bicycle and pedestrian friendly policies and standards into transportation projects</li> </ul>
Motor carrier services	<ul style="list-style-type: none"> <li>Commercial vehicle licensing and permits</li> </ul>
Highway safety programs	<ul style="list-style-type: none"> <li>Programs that address driver behaviors and reduce the number of crashes and fatalities</li> </ul>
Motorist assistance	<ul style="list-style-type: none"> <li>Assist motorists with vehicle problems and keep roadways clear of debris along selected St. Louis and Kansas City interstates</li> </ul>
Adopt-A-Highway	<ul style="list-style-type: none"> <li>Public and private partnerships to beautify Missouri's roadsides</li> <li>Provide litter education</li> </ul>
Work zone safety	<ul style="list-style-type: none"> <li>Coordinate safety campaigns</li> <li>Publicize locations of highway projects</li> </ul>
Intelligent Transportation Services	<ul style="list-style-type: none"> <li>Congestion management systems that provide real-time traffic information in St. Louis, Kansas City and Springfield</li> </ul>
Innovations	<ul style="list-style-type: none"> <li>Research best practices and new technology to find better solutions</li> </ul>

Figure P.1-1

**P.1a(2)** The department's mission statement provides the basis for the general direction and business of MoDOT, the products and services provided to customers, and the focus needed by its employees. MoDOT's values establish the boundaries within which all department activities are conducted and represent the fundamental principles and

philosophy that guide manager and employee behaviors. Tangible Results are the results that will delight MoDOT's customers and promote a prosperous Missouri as the department provides a world-class transportation experience for them.

MoDOT's Mission, Values, and Tangible Results are illustrated in Figure P.2-1.

**P.1a(3)** MoDOT employs 6,371 people throughout the state. An average MoDOT employee:

- is 42.3 years of age,
- stays for 12.2 years,
- works 69.5 overtime hours annually, and
- earns \$38,725 annually.

Figure P.1-2, shows the breakdown of employees by ethnicity and gender.

Ethnicity	Females	Males	Total
White	19.41%	72.64%	92.05%
Total Non-white	2.13%	5.82%	7.95%
Black	1.25%	3.95%	5.20%
Hispanic	0.24%	0.49%	0.73%
Asian	0.34%	0.28%	0.62%
American Indian	0.30%	1.10%	1.40%
Total	21.54%	78.46%	100.00%

Figure P.1-2

MoDOT has ten broad employee categories. Figure P.1-3 illustrates these categories and the percentage breakdown in each category. The minimal educational requirement for the first three categories is high school diploma or GED. The next two categories require some post-high school education, but short of a four-year degree. The remaining categories require a bachelor's degree or higher. There is representation for each of these categories found in all ten districts and central office.

Employee Category	Percent of Employees
High school diploma or GED required	
Service and Maintenance	31.06%
Skilled Craft	11.91%
Office and Clerical	4.34%
Some post-high school education required	
Paraprofessionals	3.81%
Technicians	9.18%
Four-year degree required	
Professional-Technical	2.59%
Civil Engineers	10.15%
Professional-Administrative	6.11%
Managers	20.22%
Upper Management	.63%

Figure P.1-3

The Missouri Highways and Transportation Commission negotiates a memorandum of understanding with the Missouri branch of the International Union of Operating Engineers representing approximately 2,200 employees within the service and maintenance and the skilled craft categories. MoDOT is required to meet and confer with the union, but it is not under any collective bargaining requirements.

MoDOT uses contract employees in a limited capacity, and usually in situations where an incumbent employee is on extended leave or while in the process of filling a position permanently.

Many jobs in MoDOT require physically demanding work that is sometimes performed under adverse weather conditions. A significant hazard faced by employees is working outdoors on highways and bridges that often have high traffic volumes. The work requires the use of department-provided personal protective equipment, provided to employees by MoDOT, such as blaze orange safety vests and hats, hard hats in construction zones, eye and face protection, and steel-toed boots. Employees who work in safety-sensitive jobs are also required to complete safety training. Nearly 60 percent of MoDOT's workforce are in safety-sensitive jobs and receive this training.

A new program, Fit for Duty, will guide the job review process when an employee can potentially no longer perform or safely perform the essential duties of his or her job. The program's goal is to keep all employees safe on the job and make sure staff is working as efficiently and effectively as possible. All employees have access to computers.

**P.1a(4)** MoDOT relies heavily on technology and equipment to deliver its products and services throughout the entire state of Missouri. Department computer systems support over 450 applications. Nearly 5,000 of the 6,371 employees are set up as e-mail and calendar users. Computers are available in every facility for employees' use in accessing MoDOT's intranet. Laptop computers are available to employees for work in the field. Videoconferencing services are available in central office facilities and in all 10 district offices.

There are 636 locations maintained throughout the state plus 18 leases statewide. MoDOT has at least one facility located in all 114 counties in Missouri. These locations include fourteen Jefferson City (central office) locations, 10 district offices, and 305 active regional and local facilities. Statewide, there are 1,751 buildings situated on 4,437 acres. The current capital investment records indicate a replacement value of \$510,609,076.

The department maintains around 6,784 items in its fleet inventory with a valuation of over \$396 million. The fleet contains items such as pickups, heavy-duty trucks, tractors, extra heavy-duty trucks with tandem axles, passenger cars, trailers, backhoes, sweepers, and cranes.

**P.1a(5)** MoDOT is a heavily regulated organization. Environmental regulations from Missouri's Department of Natural Resources and the Federal Environmental Protection Agency impact projects. Statutory requirements require the agency to operate under a competitive bidding process to ensure that the department and the taxpayers are getting the best value for every dollar spent. As many projects are funded with federal dollars, MoDOT must also comply with any federal requirements attached to the authorizations. The department also maintains standards established by organizations that include American Association of State Highway and Transportation Officials (AASHTO), Federal Motor Carrier Safety Administration (FMCSA), and National Highway Traffic Safety Administration (NHTSA).

**P.1b(1)** The Missouri Highways and Transportation Commission, established by the Missouri Constitution, is a six-member bipartisan board that governs the Missouri Department of Transportation. Commission members are appointed for a six-year term by the Governor and are confirmed by the Missouri Senate. No more than three commission members may be of the same political party. The commission appoints MoDOT's director and secretary to the commission. The department is responsible for all other employee appointments.

As illustrated in the organizational chart, MoDOT is divided into three teams: System Delivery, System Facilitation, and Organizational Support. The three teams are organized around the Tangible Results, which are at the heart of everything MoDOT does.

System Delivery houses the functions of "Retail MoDOT". This team has direct public contact and includes the 10 districts and Motor Carrier Services. The ring of functions, represented by central office divisions, surrounding the districts and Motor Carriers supports MoDOT's customer service efforts. The chief engineer is responsible for the System Delivery team and reports to the department director.

The role of the System Facilitation Team is to help the System Delivery team achieve the department's Tangible Results. Divisions in this team perform primarily support functions necessary to maintain operations. These units are located at the central office. The chief financial officer leads System Facilitation and reports to the department director.

The Organizational Support Team, also located at the central office, provides services to both the System Delivery and System Facilitation teams. The Organizational Support Team reports to the department director. To assure direct accountability, the Chief Counsel's Office and the Audits and Investigations units also report to the Commission.

**P.1b(2)** MoDOT considers a customer to be “anyone who is paying taxes and has specific expectations for a service in return.” Partners are those “who come to the table to help us deliver on those expectations.”

The traveling public makes up MoDOT's largest customer group. This includes all of Missouri's 4,000,000 licensed drivers as well as licensed drivers from across the country that travel on Missouri's transportation system. MoDOT's customers also include passengers using Missouri's multimodal services (rail, air, transit, and waterways).

Other customer or partner groups include motor carriers, motorist assist customers, city and county governments, the Missouri General Assembly, mass media outlets, regional planning commissions, metropolitan planning organizations and contractors.

Customer requirements and expectations are outlined in MoDOT's Tangible Results and affect the design and delivery of all of MoDOT's products and services. Customer and partner involvement in the project development processes ensures that specific customer requirements and expectations are built into the final construction plans.

**P.1b(3)** Private contractors complete nearly all of MoDOT's road and bridge construction projects. These contractors prepare bids on projects and submit them to the Commission for review. The Commission approves the bid awards. Once the contract has been signed, construction projects begin.

MoDOT acquires other products and services through competitive bidding processes. When specific supplies or equipment are needed and are available from a variety of sources, vendors are asked to submit bids. Bids allow for equal comparisons among the vendors, and the award is based upon the lowest bid meeting the minimum specifications. MoDOT also uses a request for proposal (RFP) process that builds into the solicitation specific, desired outcomes for a product or a service. In an RFP, lowest cost is not the only factor that determines an award. This process ensures that MoDOT receives a product or service that best meets its needs and provides the best procurement value for the taxpayer.

While MoDOT uses competitive processes to procure most of its supply needs, there are exceptions. These exceptions

apply in situations where another state agency provides a support function to other state agencies, such as the Office of Administration for information management services and printing services.

**P.1b(4)** Partnering for Innovative Efficiencies is one of many ways that MoDOT seeks input, from its partners, to improve transportation in Missouri. At these partnering meetings, MoDOT brings together contractors, engineers, vendors, citizens and public agency leaders. Discussion is open to every aspect of the design and construction process, including project planning, construction techniques, specifications, schedules and contracts. With limited resources, the intent of these meetings is to look for ideas that can help improve performance, reduce costs and satisfy more customers. Partnering teams implement ideas in a six- to nine-month timeframe.

## **P.2 Organizational Challenges**

**P.2a(1)** As a state government agency, MoDOT's charge, by the Missouri State Constitution, is to develop and maintain the state's highway system of roads and bridges and work with local and regional partners to provide other modal services to Missouri citizens. In providing these services, MoDOT has no direct competition with others in this industry. MoDOT indirectly competes with other state departments of transportation (DOTs) for budget dollars at the federal level. At the state level, MoDOT competes with other Missouri state agencies to receive appropriations from the General Assembly. At the local level, MoDOT could compete with local tax ballot initiatives.

MoDOT's real competitive struggle is to maintain a vast, heavily-travelled, dynamic, growing system and changing population's needs with inadequate funding. MoDOT has identified \$37 billion of transportation needs over the next 20 years. Expected available funding for these same years totals \$19 billion. This creates a gap of \$18 billion. The size and market served are:

**Roads** — Missouri has 32,340 miles of state highway system, ranking 7<sup>th</sup> largest in the United States.

**Bridges** — With 10, 224 bridges Missouri ranks 7<sup>th</sup> in the nation. Approximately, 200 bridges are “major” bridges, consisting of 1,000 feet or more in length. Missouri ranks 1<sup>st</sup> in the country for the number of major river bridges with 55.

**Motor Carrier Services** — With 25,000 customer accounts, more than 80 percent of all manufactured goods transported in Missouri are moved by motor carriers.

**Aviation** — Missouri has 140 public airports plus 12 airports that support air cargo service. Each year, 27 commercial airlines provide service to more than 24 million passengers.

**Rail** — With more than 7,500 total miles of freight and passenger tracks, Missouri's railroad system ranks 11<sup>th</sup> in the nation. Missouri has the second and third largest rail

hubs in the country located in Kansas City and St. Louis, respectively. In 2001 passenger service peaked at 207,000.

**Ports and Waterways** — Missouri has 14 port authorities and 1,050 miles of navigable waterways. Missouri's ports annually move more than 2 million tons of commodities.

**Public Transit** — Missouri has 37 public transportation agencies and 200 specialized programs for the elderly and disabled. Public transportation systems in Missouri provide more than 69 million one-way trips per year.

**Bicycle and Pedestrian** — At least 12,000 miles of Missouri's highway system can accommodate bicycles and pedestrians. Statewide there are approximately 600 miles of shared-use paths or greenways.

**P.2a(2)** MoDOT's success depends on continuing to make Missouri roads smoother and to fix worn-out bridges, continuing to make safety a top priority, and continuing to look for innovative ways of doing business and saving money.

Missouri's population is increasing and aging. In 2000, the state's population was 5.6 million, and it is expected to exceed 6 million by 2010. However, there are some portions of the state experiencing static or declining population rates.

As demands on the highway system increase and change, congestion becomes a problem for travelers. Projects for the Missouri Advance Planning (MAP) 20-year planning horizon estimates St. Louis drivers can expect to experience annual delays of 78 hours, while Kansas City drivers can expect annual delays of 42 hours. Travel on Missouri's interstate highways is expected to increase by 40 percent by 2026.

Missouri's system of road and bridges is aging. A large number of these roads and bridges are 30 to 50 years old. The average age of bridges on Missouri's highway system is 44 years. More than 1,000 of Missouri's 10,000 plus bridges are more than 70 years old. In addition, most of Missouri's interstates are more than 40 years old; some sections are more than 50 years old.

The price tag for Missouri's expectations of the transportation system, expressed in 2007 dollars, totals \$37 billion for the next 20 years. The expected available funding for construction of highways and bridges, and alternative modes for these same 20 years totals \$19 billion, assuming 2013 year funding levels through the end of the planning horizon. This creates a gap of \$18 billion. With the impacts of inflation on investment costs over the next 20 years, this value could easily double.

MoDOT constantly explores new innovations in treatments, technologies, strategies and policies to get the most value for each tax dollar invested in Missouri's transportation

system. As an example, MoDOT was recently recognized and honored by the AASHTO Technology Implementation Group (TIG) for testing a "Soil Nail Launcher". This technology was selected as one of only three from a national field of experts as utilizing innovative technology. The TIG was specifically created to facilitate the incorporation of technologies into State DOT practices.

MoDOT collaborates with cities, counties, transportation corporations and transportation development districts to fund projects through cost sharing and partnering programs. Through this collaboration, these entities invest funds to complete local projects that benefit both the local communities and the state highway system.

**P.2a(3)** MoDOT strives to avoid using national averages as benchmarks, choosing rather to measure itself against applicable best in class organizations.

MoDOT obtains comparative information from other state DOTs on many of its measures, especially those related to the state highway and bridge system. Additional sources include the Federal Highway Administration (FHWA) and the American Association of State Highway and Transportation Officials (AASHTO).

MoDOT seeks comparative information from best-in-class organizations in the areas of customer satisfaction, financial performance, human resources and innovation. Locating suitable benchmarks in outside industries poses a challenge because of MoDOT's size, products, agency status, etc.

**P.2b** Some of the department's greatest strategic advantages include MoDOT's:

- employees' agility, engagement and ability to get the job done in spite of limited resources and low pay;
- commitment to safety in planning, designing, building and maintaining Missouri's transportation system;
- efforts to involve the public in making decisions and finding innovative solutions;
- sharp focus to work *better, faster and cheaper*, providing the *best value for every dollar spent*; and
- dedication to achieve all Tangible Results to fulfill the department's mission and meet customer expectations.

MoDOT faces numerous challenges, yet one is its greatest competitor, impacting all other challenges – transportation revenues are inadequate to meet customer expectations.

The foundation of Missouri's current transportation revenue is the user fee fuel tax – a tax that does not respond to market fluctuations or inflation. The state receives revenue based on the amount of fuel sold and does not receive additional transportation revenues as the price of fuel increases. Increased fuel efficiency also compounds this

issue by reducing the amount of fuel consumed. While revenue has been stable and growing at a predictable rate, it is not keeping up with the increased costs for construction materials, transportation trends and customer expectations. For example:

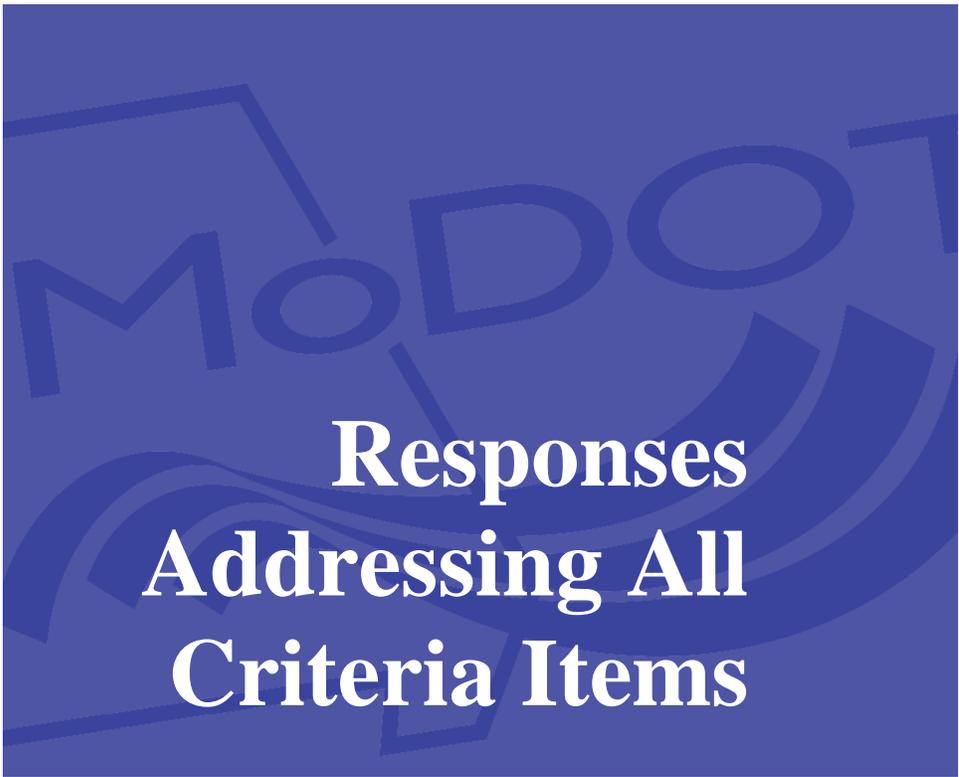
- MoDOT has identified \$37 billion of transportation needs for the next 20 years. I-70 and I-44 improvements alone are estimated at \$7.1 billion. I-70 was designed for a 20-year life; it recently reached a 50-year milestone.
- By the year 2016, 39 percent of the state’s Interstate system (463 of 1,181 miles) will need significant rehabilitation or reconstruction.
- Bridges have an expected life of 50 to 75 years, and the average age of Missouri’s bridges is 44 years.
- Missouri does not have the \$10 billion in needed Interstate expansion over the next 10 years.

- MoDOT is unable to compete with salaries demands to meet its engineering needs. In addition, many of MoDOT’s currently employed engineers with years of experience are nearing retirement in the next six years.

**P.2c** MoDOT uses the Tracker to monitor and improve its products and services. The current Tracker has over 100 measures that indicate how well MoDOT is achieving its Tangible Results. MoDOT conducts quarterly reviews of these measures with all members of senior management and the measurement drivers present. Each measure is expected to have an improvement status that explains the current results and the strategies that are currently underway to improve the measurement’s status.

<i>Mission</i>	
Our mission is to provide a world-class transportation experience that delights our customers and promotes a prosperous Missouri	
<i>Values</i>	
<ul style="list-style-type: none"> <li>• MoDOT will <i>support and develop employees</i> because we believe they are the key to our success.</li> <li>• MoDOT will <i>be flexible</i> because we believe one size does not fit all.</li> <li>• MoDOT will <i>honor our commitments</i> because we believe in integrity.</li> <li>• MoDOT will <i>encourage risk and accept failure</i> because we believe in getting better.</li> <li>• MoDOT will <i>be responsive and courteous</i> because we believe in delighting our customers.</li> <li>• MoDOT will <i>empower employees</i> because we trust them to make timely and innovative decisions.</li> <li>• MoDOT will <i>not compromise safety</i> because we believe in the well-being of employees and customers.</li> <li>• MoDOT will <i>provide the best value for every dollar spent</i> because we’re taxpayers too.</li> <li>• MoDOT will <i>value diversity</i> because we believe in the power of our differences.</li> <li>• MoDOT will <i>be one team</i> because we all share the same mission.</li> <li>• MoDOT will <i>use teamwork</i> because it produces the best results.</li> <li>• MoDOT will <i>foster an enjoyable workplace</i> because we care about each other and our mission.</li> <li>• MoDOT will <i>be open and honest</i> because we must be trustworthy.</li> <li>• MoDOT will <i>listen and seek to understand</i> because we value everyone’s opinion.</li> <li>• MoDOT will <i>treat everyone with respect</i> because we value their dignity.</li> <li>• MoDOT will <i>seek out and welcome any idea that increases our options</i> because we don’t have all the answers.</li> <li>• MoDOT will <i>always strive to do our job better, faster, and cheaper</i> because we want to meet more of Missouri’s needs.</li> </ul>	
<i>Tangible Results</i>	
<ul style="list-style-type: none"> <li>• Uninterrupted Traffic Flow</li> <li>• Smooth and Unrestricted Roads and Bridges</li> <li>• Safe Transportation System</li> <li>• Roadway Visibility</li> <li>• Personal, Fast, Courteous and Understandable Response to Customer Requests (Inbound)</li> <li>• Partner with Others to Deliver Transportation Services</li> <li>• Leverage Transportation to Advance Economic Development</li> <li>• Innovative Transportation Solutions</li> <li>• Fast Projects that are of Great Value</li> <li>• Environmentally Responsible</li> <li>• Efficient Movement of Goods</li> <li>• Easily Accessible Modal Choices</li> <li>• Customer Involvement in Transportation Decision-Making</li> <li>• Convenient, Clean and Safe Roadside Accommodations</li> <li>• Best Value for Every Dollar Spent</li> <li>• Attractive Roadsides</li> <li>• Advocate for Transportation Issues</li> <li>• Accurate, Timely, Understandable and Proactive Transportation Information (Outbound)</li> </ul>	

**Figure P.2-1**

The background of the slide is a solid dark blue rectangle. Overlaid on this rectangle is a large, semi-transparent watermark of the MODOT logo. The logo consists of the word "MODOT" in a bold, sans-serif font, with a stylized graphic element below it that resembles a road or a bridge structure. The watermark is centered horizontally and vertically within the blue area.

**Responses  
Addressing All  
Criteria Items**

## CATEGORY 1 - LEADERSHIP

### 1.1 Senior Leadership

**1.1a(1)** The Senior Management Team (SMT) developed MoDOT's Mission, Values and Tangible Results (Figure P.2-1) during a strategic advance in November, 2004. The Tangible Results have been affirmed by data obtained from multiple customer and stakeholder satisfaction surveys. The Mission, Values and Tangible Results set the parameters for the department's strategic direction and subsequent action planning further defined in item 2.1 and 2.2. The Tangible Results are monitored via the Tracker, a system of measurements to ensure that MoDOT is accountable for achieving customer expectations. The Tangible Results are reinforced quarterly during a Tracker Review Meeting. These meetings help leadership manage diverse transportation responsibilities and adjust plans in real-time, based on quarterly updated information.

Some formal and informal ways senior management reinforce the Mission, Values, and Tangible Results for employees include: MoDOT's intra- and internet, emails, newsletters, bulletin board flyers, all internal and external publications, Tracker, Tracker quarterly update meetings, division/district Trackers and staff meetings, process improvement teams, MAPS performance appraisal process, the director's "listening tours" and several employee incentive programs.

**1.1a(2)** MoDOT leadership promotes an environment of ethical behavior based on a set of standards outlined in a document called the One Team Agreement. The language in the One Team Agreement, renewed annually, reflects MoDOT's Values and outlines the manner in which senior leadership will behave and interact as well as the manner in which they lead their respective business divisions or districts. A copy of the One Team Agreement is found in Figure 1.1-1.

The Audits and Investigations (AI) Unit emphasizes the values of accountability and integrity in department operations. To ensure these values are an integral part of the culture, AI works to instill in all employees a sense of responsibility for their actions and honesty in their dealings with other employees, transportation stakeholders, and the citizens of Missouri. MoDOT also mandates policy and procedure training for all new managers and supervisors. These policies and procedures are written as guidelines for behavior that is expected within MoDOT.

**1.1a(3)** Multiple approaches are used to ensure sustainability in MoDOT including a focus on achieving results, sound financial management, customer satisfaction, partnering, and employee mentoring and development. Employees are given the opportunity to participate in strategic planning, serve on process improvement teams (See Item 6.1) and attend quarterly Tracker update meetings to learn more about MoDOT and how its performance

management system works. In addition to Tracker review meetings, the performance measurement system has been systematically deployed throughout the divisions and districts within the department to ensure all levels of the organization are driving breakthrough performance. The director makes it clear that continual improvement is everyone's responsibility.

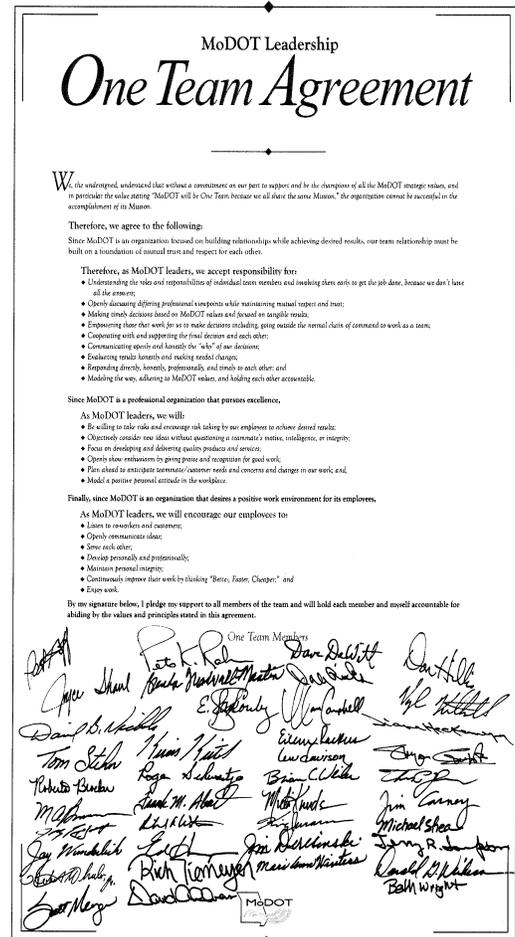


Figure 1.1-1

The graduate orientation program, open to all employees hired within the last calendar year who have a college degree, provides employees the opportunity to meet department leaders, learn how central office divisions support them in their day-to-day activities, and explore career growth opportunities available to them. Participants discuss with senior management MoDOT's Mission, Values and Tangible Results.

MoDOT leadership prepares managers throughout the organization for increased responsibility through the Management Development Institute (MDI), described in item 5.1.b(2). The curriculum is designed to improve a manager's ability to manage people, processes and results. MoDOT's director, chief engineer, and chief financial officer personally participate in the MDI by conducting a

question and answer session during each week of the two-week program. They also conduct a similar session at the one-week program for newly hired supervisors.

MoDOT also prepares for sustainability through both informal and formal mentoring relationships. In the formal mentoring program, employees (mentees) are paired with a more experienced co-worker (mentor) from the same geographical area and line of career interest. The mentee benefits by learning how his or her skills help achieve the department's Mission, Values and Tangible Results and by building the skills necessary to compete for advanced placement opportunities. Ultimately, MoDOT benefits by improving employee skills, creating leadership succession and enhancing its ability to recruit and retain employees.

A recently deployed program at the department that has enriched succession planning is the Accelerated Leadership Program. This program offers identified potential leaders within the department the opportunity to work with their managers to identify strengths and weaknesses as leaders. Action plans are individualized for participants based on identified gaps. A myriad of development opportunities are available to participants including Institute for Management Studies (IMS) offerings, externally provided leadership programs from universities and other vendors, MoDOT's mentoring program, job sharing, etc. Additionally, a leadership development course is currently being developed and delivered by the director of MoDOT. This program is expanded upon in Category 5.1.

**1.1b(1)** Multiple methods of communication are utilized at MoDOT to achieve its Tangible Results. The Tracker is used to reinforce to all employees those functions and activities that are the most important to MoDOT. More personal to the individual employee is MoDOT's annual performance management tool called MoDOT Accountability and Performance System (MAPS). MAPS is a tool for management and employees to discuss and agree upon goals and outcomes during the performance rating period. Formal meetings are held twice a year, but informal meetings and continuous discussions of performance are encouraged. Alignment between the goals of the Tracker and goals on MAPS plans is optimal. MAPS is further described in Category 5.1.

A popular and effective communication vehicle is the senior leaderships' "listening tours". These tours give the director and his immediate staff an opportunity to visit face-to-face with district and division employees. Following a visit by the department director, a transcript of the comments, questions and answers is prepared, distributed through e-mail to all users and posted on the intranet. While all employees have access to a computer, supervisors are requested to print out copies to distribute and post.

Another way senior leaders encourage frank, two-way communication is through the use and access of "your comments". This email address is linked to senior

leadership and employees are encouraged to ask questions or raise issues of concern by emailing "yourcomments@modot.mo.gov". All of the questions or inquiries are answered within one week of receipt of the email. In addition to this special email access, employees have the ability to use the intranet to obtain information on issues and concerns, employee focus group information, employee satisfaction surveys, staff and safety meetings, training, and multi-disciplinary cross functional teams for process improvement or problem solving as described in Category 6.

The SMT is actively involved in empowering and motivating employees by implementing performance incentive and best practice programs such as Performance Plus, Solutions at Work (SAW) and the Chip Seal Challenge, described in items 5.1 and 5.2. These programs provide senior leaders an opportunity to recognize and reward high performers within MoDOT. (See Figure 1.1-2.)

## Chip Seal Winners Get Their Money

MoDOT Director Pete Rahn was in Lamar on Feb. 2 to present the chip seal contest winners their \$5,000 "check" to be split among the winners.

Pictured from left to right are Maintenance Superintendent Tim Rice, Lamar Senior Crew Worker Justin Jeffries,

Lamar Assistant Maintenance Supervisor Dan Caruthers, Golden City Maintenance Specialist Ted Lessman, Sheldon Maintenance Supervisor Allen Bley and Director Pete Rahn.

Congratulations to the winners!



**Figure 1.1-2 Recognizing High Performers**

**1.1b(2)** The main tool used by MoDOT leadership to focus actions toward the mission is the Tracker. Each of the Tangible Results, designed to exceed the expectations of customers, is outlined in the Tracker. Senior leaders use consistent language (e.g. better, faster & cheaper, one team, results, etc.) to maintain a focus on how leadership expects MoDOT to work and for whom MoDOT works (the customers). Divisions and districts have the same mission statement as the department: "Our mission is to provide a world-class transportation experience that delights our customers and promotes a prosperous Missouri." Leadership also regularly reviews organizational performance of budget, program delivery and staffing to

identify trends. Progress and actions are evaluated at all levels of the organization including workforce, resources and work systems. These are systemically reviewed to ensure continuous improvement in productivity is achieved.

## 1.2 Governance and Social Responsibilities

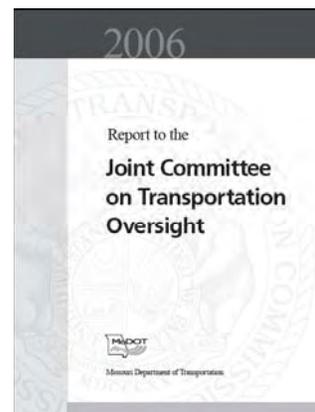
**1.2a(1)** MoDOT's mission directly benefits society by "providing a world-class transportation experience that delights our customers and promotes a prosperous Missouri." The overall impact to society is significant. As an example, the Tracker depicts a performance measure on the "rate of economic return from transportation investment". This demonstrates MoDOT's attention to meeting the needs of society while investing federal and state dollars wisely. Another measure found in the Tracker shows the "Distribution of expenditures" by maintenance, construction, and other appropriations. While construction and maintenance expenditures may fluctuate, MoDOT strives to keep the other expenditures constant from one fiscal year to the next.

Two external checks to ensure Missouri citizens interests are being protected include:

- The Accountability Report to the Joint Committee on Transportation Oversight that highlights financial statements, program information, planned expenditures, and other information for review by the Legislature. This is an annual report and is available to the public through the MoDOT website. (Figure 1.2-1)
- The Missouri State Government Review Commission created by Governor Blunt, was charged to "...identify opportunities to restructure, retool, reduce, consolidate, or eliminate state government functions in accordance with what will result in the best and most cost-effective service for Missouri citizens" reviewed MoDOT, along with all other state agencies, in 2005. One recommendation was offered to all state agencies: "Encourage objective, performance-based, results-driven service delivery systems in state government similar to the Missouri Department of Transportation's Tracker system." Thus, the Tracker has become a model for all state agencies.

Details from both of these reviews and their findings can be found on MoDOT's website along with an abundance of information as a result of MoDOT's intent to be a transparent organization. Further, as a state agency, MoDOT complies with the Missouri Open Records (Sunshine) law and exceeds its requirements by posting many documents on its website. Finally, the greatest testimony to MoDOT's efforts to be transparent is placing the entire Tracker on its website. "The Tracker is the public's window into MoDOT and the transportation system we're responsible for," said department director Pete Rahn. "It spells out what's working, as well as where we've got to improve. The taxpayers deserve to see the progress we're making with their money, and the Tracker lays it out for them - warts and all."

**1.2a(2)** MoDOT evaluates the performance of its senior leaders, including the department director. These evaluations take different forms such as individual performance evaluations as well as evaluation of performance at Tracker review meetings. The Commission evaluates the department director during an annual performance review meeting. Another example of the dedication the department places on performance reviews of its leaders, is that every member of the senior management team is given the opportunity to evaluate the department director on his behavior compared to those outlined in the One Team Agreement. The outcome of the department director's evaluation is made available to all management members as well as the Commission. Similarly, staff members reporting to senior management complete a trust and empowerment survey on the senior managers. This commitment sends a message to all staff within the department that leadership is being held accountable for its performance and their adherence to the One Team Agreement.



**Figure 1.2-1 Accountability Report**

**1.2b(1)** MoDOT uses a variety of methods to anticipate public concerns, including public meetings, and advisory and stakeholder input sessions. These public hearings allow the public and vested stakeholders the opportunity to voice concerns with MoDOT's products and services, and provides information regarding changing societal needs – perceived or real. An example of this type of transparent approach is evident in the Planning Framework process, discussed further in Item 6.1. This proactive approach helps MoDOT understand public concerns that may exist or are emerging regarding its current or future services or operations. This input is also utilized during MoDOT's strategic advance (See Item 2.1) so they can better address their societal responsibility.

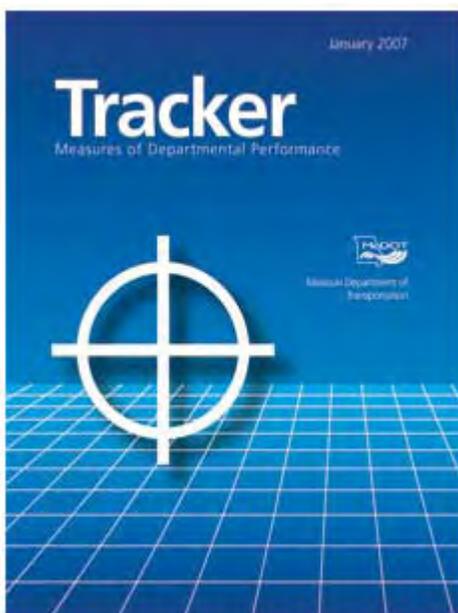
MoDOT maintains compliance in all regulatory and legal issues. The very structure of MoDOT is designed to maintain ethical and legal standards. A bi-partisan, six member Commission governs MoDOT as a check and balance for MoDOT leadership. As an example of how this promotes ethical behavior, MoDOT uses numerous

contractors to complete projects and uses a Bid Analysis Management System (BAMS) to ensure that contracts are awarded in an ethical manner. This responsibility is paramount as there are numerous compliance issues required to be able to utilize both federal and state dollars. An example of this type of compliance is environmental efforts. By ensuring environmental compliance, MoDOT reinforces its commitment to being environmentally responsible as well as compliant with law. Specifically, MoDOT uses eight Tracker measures to ensure environmental responsibility including “Number of projects on which MoDOT protects sensitive species or restores habitat” and “Percent of alternative fuel consumed.” (See Item 7.6.)

Five of MoDOT’s 18 Tangible Results address the impact of MoDOT’s products and operations on society:

- Uninterrupted Traffic Flow
- Safe Transportation System
- Roadway Visibility
- Environmentally Responsible
- Convenient, Clean and Safe Roadside Accommodations

Tangible Results measures that address the public’s concerns for environmental responsibility, highway and work zone safety, and rest area/commuter lot attributes of convenience, cleanliness and safety are incorporated into MoDOT’s Tracker. (Figure 1.2-2)



**Figure 1.2-2 Quarterly Tracker Publication**

**1.2b(2)** MoDOT submits annually an Accountability Report to the Joint Committee on Transportation Oversight that highlights financial statements, program information, planned expenditures, and other information for review by the Legislature. (Figure 1.2-1)

Additionally, MoDOT is open to all state and external audits. Internally, MoDOT’s Audits and Investigations Unit is charged with performing internal audits of department operations and external audits of contracts and grant agreements, and is responsible for investigating allegations of fraud, waste and abuse, and making recommendations to management to reduce opportunities for the misuse of department resources. AI also monitors the construction industry for anti-competitive business activities and investigates employee grievances and complaints. To proactively suppress waste, fraud and abuse, AI also provides information briefings to districts and divisions to promote awareness. To promote ethical behavior among all MoDOT employees, AI provides a confidential/anonymous statewide 800 number to encourage internal reporting and is measured in its department Tracker. (See Item 7.6.)

Additionally, all new supervisors at MoDOT are provided training on all policies and procedures that are designed to guide employee behavior (further outlined in Category 5.2). Further, the MDI and New Supervisor curriculum, an annual policy update program and New Employee Orientation include ethics training.

**1.2c** MoDOT’s director, chief engineer and chief financial officer are actively involved in a number of professional organizations that contribute to professionalism and ethical behavior in an organization. These memberships include:

*Department Director*

- Transportation Research Board Executive Committee
- TRB Task Force on Accelerating Innovation in Highway Industry
- TRB SHRP II Oversight Committee
- AASHTO Committees as follows:
  - o Vice President of AASHTO
  - o Board of Directors
  - o Standing Committee on Highway Traffic Safety
  - o Special Committee on TRAC
  - o Policy Team
- NCHRP 20-24 Committee
- Visioning Team
- AASHTO-AGC-ARTBA Committee
- FHWA Transportation Curriculum Coordination Council
- National Center for Asphalt Technology Board of Directors
- Missouri’s Homeland Security Advisory Council
- Governor’s Highway Safety Administration
- American Association of State Highway and Transportation Officials’ Board of Directors

*Chief Engineer*

- AASHTO Committees:
  - o Standing Committee on Highways
  - o Standing Committee on Research
  - o Standing Committee on Highway Traffic Safety
  - o Special Committee on US Route Numbering
- Missouri Society of Professional Engineers
- Rotary Club

*Chief Financial Officer*

- American Institute of Certified Public Accountants
- Missouri Society of Certified Public Accountants
- Association of Government Accountants
- Institute of Internal Auditors

MoDOT staff are involved in a number of activities in its local regions, including the Missouri State Employees Charitable Campaign and Rotary, Lions and other civic clubs and organizations. A notable achievement is that 2006 was the fifth consecutive year that MoDOT employees donated the second largest amount out of 27 agencies toward the Missouri State Employees Charitable Campaign.

MoDOT also serves on the Chamber of Commerce, Transportation Boards and Councils, United Way and participates in blood drives in nearly every district.

MoDOT employees participate in an annual golf tournament that raises funds for the Missouri 10-33 Benevolent Fund. This public charity assists families of public service personnel, including highway workers, who have died in the line of duty. In addition, recycling and litter pick-up efforts are encouraged in all areas of MoDOT. MoDOT is committed to reducing waste through strong recycling efforts, purchases of recycled products is highly encouraged. In these ways, MoDOT contributes to improving its local communities.

One key community the department identified as critical is AASHTO. This organization has significant influence in national policy making and setting standards for the overall industry. Because of this influence, MoDOT has strategically placed engineers and business leaders on specific AASHTO committees to ensure Missouri has a voice in national engineering and industry standards and policies.

**CATEGORY 2 – STRATEGIC PLANNING**

**2.1 Strategy Development**

**2.1a(1/2)** As indicated in Item 1.1, MoDOT’s leaders set and communicate the overarching organizational direction through the department’s Mission, Values and Tangible Results. Then, MoDOT senior management team takes that direction and further outlines strategic objectives and strategies through three planning documents: 1) Annual Organizational “WOWs”, 2) the State Transportation Improvement Program (STIP), 3) and a long-term plan, the Missouri Advanced Plan. The STIP outlines the delivery of projects over a 5-year timeframe that directly impacts MoDOT’s Tangible Results. The Missouri Advance Plan looks 6-20 years into the future and identifies a broad transportation direction and funding initiatives related to any major infrastructure improvements or expansion. The time horizons for both the STIP and the Missouri Advance Plan are based on federal planning guidelines outlined by the U.S. Department of Transportation.

MoDOT develops its Organizational “WOWs” by using a comprehensive strategic planning approach, integrating both a “top-down” and “bottom-up” methodology. The process consists of four steps that integrate forecasting, direction setting and prioritization, desired outcomes and customer expectations, action strategies, implementation, and monitoring and evaluating performance to ensure organizational effectiveness and continual improvement.

**Step 1: Strategic Advance** - A daylong meeting, involving all of senior management and lead by the director, starts the process. It is called the *Strategic Advance* based upon the Director’s belief that MoDOT is “*advancing*” and not “retreating.” This philosophy sets the tone for the day. After reviewing state and federal mandates/requirements, Tracker measures, and input from regional planning partners, employees, statewide surveys and other customer input (specific gathering methods can be found in Item 3.1), leadership conducts an analysis of its strengths, weaknesses, opportunities and threats (SWOT) to determine its strategic challenges, advantages, and potential blind spots. The SMT lists all the “WOW Accomplishments” throughout the year, allowing members to celebrate the Department’s success in “wow-ing” customers and to discuss what has gone well to become best practices. Identifying “Possible New Wows” is done through frank, two-way discussion. Voting narrows the focus and is based upon the impact to Tangible Results. The number of strategic challenges that advance in the process depends upon the scope and complexity of the ones that receive the most votes. Topics that do not advance are dealt with by other means.

**Step 2: Teams and Action Planning** - The SMT assigned leader sponsors a cross-functional team of employees, and

partners as needed, to investigate, research, and recommend innovative solutions to address the issue, achieve the Tangible Results and produce another WOW for MoDOT’s customers. (See Figure 2.1-1.)

**Timeline – Detailed Team Activity**

Activity	Person(s) Responsible	Due Date
Draft communication to district maintenance engineers for district program plan assignment, to provide guidance, and solicit input. The communication includes: <ul style="list-style-type: none"> <li>Cover letter</li> <li>Directions</li> <li>Timeline</li> </ul>	Scott Stone and Jay Bledsoe	April 2 2007
Email the draft communication to the entire team to proof and provide any final input – feedback deadline is April 4th	Scott Stone and Jay Bledsoe	April 2
Finalize communication - incorporate any suitable team suggestion(s) and email to Jim Carney	Scott Stone and Jay Bledsoe	April 6
Email program plan assignment/guidance communication to district maintenance engineers – this is being emailed prior to the statewide maintenance meeting on April 18 <sup>th</sup> , allowing them time to identify and compile any questions, concerns and need for clarification – to be addressed at the meeting Email copies to: <ul style="list-style-type: none"> <li>Chief Engineer, Kevin Keith</li> <li>district engineers</li> <li>assistant district engineers</li> </ul>	Jim Carney	April 9
Present the program plan assignment at the statewide maintenance meeting with a question and answer session	Jim Carney	April 18
District program plans due with suggestions, ideas, and feedback emailed to Jim Carney for inclusion into the program plan, recommendations, and proposal	District maintenance engineers	June 29
Email to Scott Stone and Jay Bledsoe all district maintenance engineers’ plans plus any suggestions and ideas to be incorporated into the program plan proposal package	Jim Carney	July 6

**Figure 2.1-1 WOW Action Plan**

**Step 3: Approval and Implementation** - Teams present their findings and recommendations complete with costs, implementation plan, timeline, action plan, anticipated outcomes, impact to the Tangible Results and performance indicators. Included in the action plans are workforce needs and its impact on the organization. Recommendations are approved, amended, or rejected by the director. This triggers the need for resource allocations, if deemed appropriate, and implementation of the approved action plan begins. In some cases, these action plans require the processes to be reengineered or improved to ensure completion of the action plan. (See Item 6.1)

**Step 4: Monitoring Results** - Inspecting and monitoring begins. Results are made available in the Tracker, MoDOT’s performance management system. SMT meets quarterly to discuss all Tracker measures. Strategies are listed in the Improvement Status section of each Tracker measure. Any additional internal and external communication occurs according to the implementation plan.

MoDOT attempts to benchmark every measure in the Tracker against the best in class. MoDOT does this not only to continuously improve, but also to strive to provide a world-class transportation experience. Because of this, many positive changes in financing options (innovative financing) and project development (design-build and

practical design) have occurred. Technology and innovation are integral to MoDOT success. The Organizational Results unit works with System Delivery and System Facilitation to research and develop new technologies and innovations that keep MoDOT on the leading edge.

MoDOT is sustained by the crucial nature of its work. MoDOT's current focus is maintaining and improving existing infrastructure including ports, runways, roads and bridges. Emergency response plans have been developed and deployed to respond to natural and man-made disasters. Examples include training programs that deal with infrequent incidents such as earthquake events (post-incident bridge inspection) and security awareness. (Figure 2.1-2) More frequent events such as snow removal also have response plans in place.

 <p><b>EARTHQUAKE RESPONSE PLAN</b></p>	Table of Contents	
	I. <a href="#">Statement of Purpose</a> .....	API-5
	II. <a href="#">Situation and Assumptions</a> .....	API-5
	III. <a href="#">Organization</a> .....	API-5
	A. <a href="#">General</a> .....	API-5
	B. <a href="#">Earthquake Emergency Operations Interaction</a> .....	API-7
	C. <a href="#">Coordination with Other Agencies</a> .....	API-7
	D. <a href="#">MoDOT Coordination</a> .....	API-8
	E. <a href="#">Earthquakes of 5.0 to 6.0 Measured on the Richter Scale</a> .....	API-8
	IV. <a href="#">Logistics</a> .....	API-9
	A. <a href="#">Damage Assessment</a> .....	API-9
	B. <a href="#">Assembly Areas</a> .....	API-11
	C. <a href="#">Equipment</a> .....	API-11
	D. <a href="#">System Repair Supplies</a> .....	API-12

**Figure 2.1-2 Sample Incident Management Plan**

MoDOT's ability to deliver on the STIP and the Missouri Advance Plan is rooted in continuous measurement and monitoring of Tangible Results in the Tracker. MoDOT measures what its customers want, thus high performance on these measures is a good indication of achievement of both short-term and long-term plans.

**2.1b(1)** "Unreasonably fast" is the timeframe set out by leadership to achieve the Tangible Results. One of MoDOT's important goals in achieving its Tangible Results was to complete the Smooth Roads Initiative (SRI) by the end of 2007 with 70% of major roads in good or better condition. The initiative delivered smoother pavement, paved shoulders, brighter and wider striping, rumble stripes and other safety improvements on 2,200 miles of Missouri's most heavily traveled highways was delivered **ONE YEAR** ahead of schedule. This is clearly an example of how MoDOT has key strategic objectives and then meets or exceeds the timetables associated to those objectives. This data can be found in Figure 7.6-1.

Two other examples of many current major goals or strategic initiatives MoDOT is undertaking are:

- **Better Roads, Brighter Future (See Figure 2.1-3.)** - Within five years, MoDOT will improve the remainder of the state's 5,600 miles of major highways not enhanced as part of the SRI goal. This will bring 85 percent of Missouri's major highway system up to good condition by the end of 2011.

- **Safe and Sound Bridge Project** - This improvement plan targets 800 of Missouri's state-owned bridges in poor condition and will repair or replace them by 2012.

These two key strategic objectives were selected because of the impact their success would have on meeting customer's expectations (Tangible Results) as well as closing organizational gaps that were identified as a strategic challenge for the department.

Individual measures in the Tracker are the yardstick for achieving the Tangible Results. The Tangible Results stem from MoDOT customers' expectations. The strategies employed by MoDOT are designed to exceed customer expectations, maintain accountability, continuously improve quality, provide meaningful and rewarding work for MoDOT employees and strive for innovation.

**2.1b(2)** MoDOT's strategic objectives set its longer-term direction and help SMT make data-driven decisions regarding allocation of resources while ensuring the departments mission is achieved. MoDOT's greatest challenge is funding. There's not enough money to meet the transportation expectations of the Missouri citizens. In addition, current transportation funding sources are losing their ability to keep pace with inflation, the effects of fuel-efficient vehicles and rising costs. Missouri's transportation revenues are seriously inadequate, and surveys show that Missourians are reluctant to pay more taxes.

MoDOT is committed to addressing these challenges, collaborating with citizens, community leaders, regional planning partners and elected officials at every opportunity. MoDOT continues to make roads smoother and to fix worn-out bridges and continue to make safety a top priority. To do this, MoDOT looks for innovative ways of doing



**Figure 2.1-3 Better Roads, Brighter Future Internet Page**

business and saving money. The Organizational Results unit works with System Delivery and System Facilitation to research and develop new technologies and innovations that keep MoDOT on the leading edge. Technology and innovation are integral to MoDOT's success and to meeting its strategic challenges. MoDOT always strives to work better, faster and cheaper in order to meet more of

Missouri's transportation needs. Some examples of MoDOT's innovative successes include:

- **Design-build** — This project delivery method combines both the design and construction phases into one contract. The agency or owner selects one contract team to complete the design and construction of the project. Until recently, Missouri was not allowed by law to use design-build as a bid/building method.
- **Practical Design** — "Practical Design" customizes projects to fit specific needs, rather than apply generic standards across the board without compromising quality and safety of projects. Design engineers and planners make project decisions based on the specific purpose and need for the improvement, rather than modifying project features that are desirable, but not necessary. An example is not replacing an entire bridge if only a new bridge deck is needed. In 2005, Practical Design saved nearly \$250 million and the money saved has funded additional projects. (Figure 7.6-4)
- **PrePass** — From the Motor Carrier Services unit a new technology automatically prescreens over-the-road trucks for safety ratings, registration fees, fuel taxes and insurance, allowing them to bypass weigh stations if everything is in order. The program is saving taxpayers millions of dollars.
- **Safe and Sound Bridge Project** — MoDOT has identified an innovative process to quickly replace or rehabilitate 800 of its lowest-rated bridges. It's the strongest action ever taken by MoDOT to address the conditions and problems with its huge inventory of bridges – more than 10,200 statewide. MoDOT will seek to award a single contract to design and build the bridge upgrades as well as maintain the bridges in good condition for at least 25 years.
- **Innovative Financing** — Various creative mechanisms for successful public/public and public/private partnerships expand financing options for transportation projects. Innovative financing is available for all transportation modes including highway and rail projects, transit equipment, air and water transportation facilities, and elderly/handicapped vehicles. The benefits to a project assisted by these partnerships include: inflation cost savings, early economic and public benefits, financing tailored to the project's needs, and a reduced cost of project financing.

## 2.2 Strategy Deployment

**2.2a(1-5)** Action plans are based on a combination of the Organizational "Wow's", STIP, Missouri Advance Plan, and Tracker measures. Action plan development occurs in step two of MoDOT's strategic planning process. WOW planning teams, PIE action teams and chartered teams supply action plans along with recommendations for solutions to strategic issues and initiatives. On-going monitoring and performance measures sustain key action plan outcomes. Action plans are also completed at the district and division level and are filtered throughout units and down to individual performance plans with MAPS. Figure 2.2-1 illustrates an action plan used in the General Services unit at the Central Office. Changes to these plans are generally determined at the division and district level and are supported by a shift in a Tracker measure. Additionally, districts and divisions use a Tracker Supplement to compare measurement outcomes to one another (Figure 2.2-2).

Funding takes place during the implementation of the recommendations and action plans, step three of the strategic planning process. One of the team's tasks is to identify what resources are needed to implement the action plan. These resources include employees as well as equipment and expenses. These costs and risks associated with the action plans are validated through research and investigation. This validation may take the form of life-cycle costs as in the case of recommending high-tension median guard cable systems over the low-tension system for added safety from cross-over crashes. The director and his immediate staff are responsible and accountable for adequately prioritizing and balancing resources while keeping in mind the overall obligation to provide a safe and adequate transportation system.

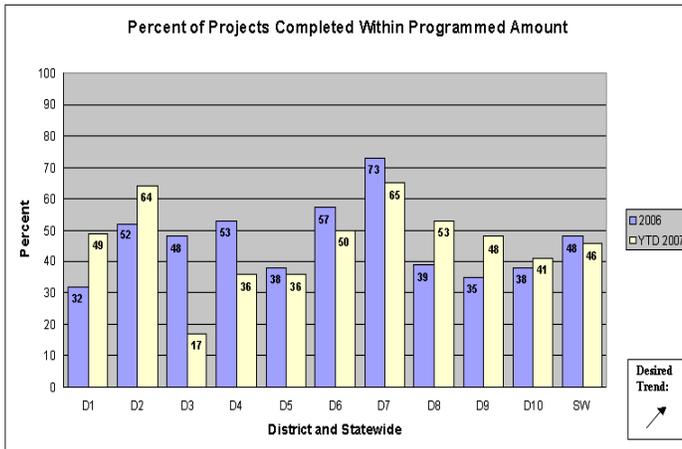
The Tracker drives short-term action planning and allows for agile decision making, while longer-term planning is captured in the Missouri Advance Plan and the STIP. Districts and divisions also use their own district / division Trackers to capture measures that are specific to their area and cascade down from the Tracker. (See Figure 2.2-3)

General Services FY06 Work Plan Facilities Management Unit Chris DeVore, General Services Manager				
Outcome/Result	Contact Person(s)	Actions	Performance Measure	Status
An improved process for planning and programming of projects	Chris DeVore, Steve Swofford, Clayton Hanks	<ul style="list-style-type: none"> <li>◆ Plan and program for optimal use of facilities capital budget</li> <li>◆ Monitor the execution of fiscal year capital plan throughout the year</li> <li>◆ Look for opportunities to reduce project costs</li> <li>◆ Ensure consistent assessments of all facilities and consistent recording of data</li> </ul>	<ul style="list-style-type: none"> <li>◆ Percent Capital Improvements/CAPP completed vs. identified</li> <li>◆ Capital Improvement/CAPP program budget vs. expenses</li> <li>◆ Building expenditure per square foot</li> <li>◆ Associated projects that promote the Tracker Measure</li> </ul>	<ul style="list-style-type: none"> <li>◆ As of 3<sup>rd</sup> Qtr end, 52% of the CVCAPP projects are completed.</li> <li>◆ As of 3<sup>rd</sup> Qtr end, the budget is \$12,703,500.00 and expenses are \$8,927,844.50.</li> <li>◆ As of 3<sup>rd</sup> Qtr end, the building expenditures per sq ft are \$3.46. Jobs still in progress.</li> </ul>

Figure 2.2-1 Division Action Plan

**Comparative – Percent of projects completed within programmed amount**

The following chart shows the percent of projects completed within the programmed amount per fiscal year by district and statewide.



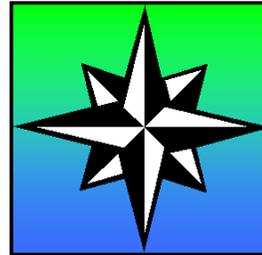
**Figure 2.2-2 Sample Tracker Supplement Measure**

**2.2b** The Tangible Results’ measures within the Tracker serve as the key indicators for MoDOT’s organizational effectiveness. Completion of projects move measures within the Tracker in the direction of each desired trend. The most substantial change MoDOT will face in the short-term is a continued acceleration in the number of projects that are started and completed. These include improvements of interstate highways, several new bridge constructions,

and completing 4-lane highways on eight major corridors. In December MoDOT celebrated the successful completion of the first accelerated project (SRI) completed one year a head of schedule. All of these key products will necessitate an increasingly flexible planning process.

**District 5 Tracker**

Performance Data Report  
April 2007



Missouri Department of Transportation

**Figure 2.2-3 District Tracker Publication**

Rather than goal setting based on past performance, MoDOT uses benchmarking for creating stretch goals. The thought process is, “there is always an organization that is performing better than MoDOT” and MoDOT strives to achieve and overtake that benchmark. Examples of benchmarks used in MoDOT’s Tracker measures are found in Figure 2.2-4.

Tangible Result	Tracker Measure	Benchmarked Organization
Smooth and Unrestricted Roads and Bridges	Percent of major highways that are in good condition	Georgia DOT
Safe Transportation System	Most measures	National rankings
Personal, Fast, Courteous and Understandable Response to Customer Requests (Inbound)	Percent of overall customer satisfaction	Federal Express
Partner with Others to Deliver Transportation Services	Number of dollars of discretionary funds allocated to Missouri	State of California
Innovative Transportation Solutions	Percent of innovative transportation solutions implemented	New York DOT
Fast Projects That Are of Great Value	Annual dollar amount saved by implementing value engineering (construction phase)	Georgia and Michigan (best in nation)
Environmentally Responsible	Percent of air quality days that meet EPA standards by metropolitan area	Dallas
Efficient Movement of Goods	Percent of satisfied motor carriers	Federal Express
Easily Accessible Modal Choices	All airline measures (airports, flights, passengers)	Arizona DOT Washington DOT
Easily Accessible Modal Choices	Number of rail passengers	Washington DOT
Easily Accessible Modal Choices	Number of transit passengers and Number of intercity bus stops	Wisconsin DOT
Easily Accessible Modal Choices	Average number of days per week rural transit service is available	Tennessee DOT
Easily Accessible Modal Choices	Number of active transit vehicles	Wisconsin DOT
Customer Involvement in Transportation Decision-Making	Percent of customers who are satisfied with feedback they receive from MoDOT after offering comments	Utility companies (through American Customer Satisfaction Index)
Best Value for Every Dollar Spent	Rate and total of OSHA recordable incidents	Maryland and New Mexico DOTs Private construction industry

**Figure 2.2-4 Sample Benchmarks**

## CATEGORY 3 – CUSTOMER AND MARKET FOCUS

### 3.1 Customer and Market Knowledge

**3.1a (1-3)** MoDOT considers a customer to be “anyone who is paying taxes and has specific expectations for a service in return.” Partners are those “who come to the table to help us deliver on those expectations.” Customers usually seek information from MoDOT, partake in the department’s services or are impacted by what MoDOT does. MoDOT’s customers range from groups as large as urban metropolitan planning organizations to the citizens who stop by MoDOT’s offices for highway maps.

MoDOT recognizes that it must target its audience to communicate effectively with customers. The customer base is narrowed according to the project, issue, business need or initiative at hand. MoDOT’s common customer groups include legislators, stakeholders, the media and the public.

MoDOT has contact with each of these groups in a multitude of ways, ranging from individual correspondence to public meetings. In addition, some department units are set up to serve specific customer bases. For example, the Governmental Relations unit is designed to meet the needs of legislative customers, the Community Relations unit is charged with handling media inquiries and developing positive media relations, and Motor Carrier Services must meet all the commercial carrier needs to allow the efficient movement of goods throughout the United States and Canada. The Motor Carrier Services unit was added to MoDOT in 2002. A gubernatorial executive order created the unit through a merger of agencies scattered throughout Missouri state government. This unit, a one-stop shop, reduces the frustration and confusion of these customers often experienced in the past.

MoDOT meets its customers’ expectations by achieving the 18 Tangible Results (Figure P.2-1) and implementing the planning process. Category 6.1 contains several examples of how MoDOT involves customers in its system delivery processes. MoDOT listens to its customers in a variety of ways that runs the gamut from informal to formal.

#### *Planning Framework*

The Planning Framework incorporates customer input from all customer groups into the planning process. This nationally acclaimed process gives local officials and the general public a greater role in making Missouri’s transportation decisions. The process is highly successful, especially when MoDOT works with its planning partners to select construction projects to be financed with Amendment 3 funds. Examples of customer involvement in the Planning Framework are provided in Item 6.1. The department also uses formal groups to gather customer input from individual

transportation interests such as the Bicycle and Pedestrian Advisory Committee and the Aviation Advisory Committee.

#### *Customer Service Centers*

Customer service centers are set up in each of the 10 districts and the central office to serve the public by answering their questions, listening to their concerns and providing requested information. MoDOT also offers a toll-free telephone number and an interactive web site to solicit and respond to customer input.

#### *Public Involvement*

MoDOT listens to its customers on specific projects through the public hearing process. At the initial onset of a project, the concept is introduced to the affected community, and the public – MoDOT’s customers – provides feedback and voices concerns, objections and approval about the concept. Customer input is balanced against engineering practice to choose the most effective transportation solution. Figure 3.1-1 is a photograph taken at a MoDOT public meeting.



**Figure 3.1-1 Project Open House**

In a typical transportation project, potentially affected interests are identified early in the program delivery process, and a public involvement plan is developed. As the project moves through its initial steps and into design, the public is engaged as a critical part of the decision-making process. Various tools may be used: public meetings, mailings, drop-in centers, advisory groups, one-on-one meetings, stakeholder group presentations and so on. The process ultimately concludes with official public hearings. Project managers use customer input from these meetings to make final adjustments to design and construction projects. Public hearing reports along with department action plans are filed with the Federal Highway Administration.

Public comment is encouraged throughout the process, and transcripts of the official public hearings become part of the official project record. Substantive issues raised by the

public are addressed by the project team and are a key factor in determining just what will be built and where MoDOT seeks to avoid negative impacts to property owners and environmental resources.

However, as stated above, MoDOT listens to its customers long before a project enters the design stage. MoDOT's Planning Framework is based on its public participation philosophy:

*The Missouri Department of Transportation will work side-by-side with local officials to make transportation decisions. Public participation opportunities will be offered before these decisions are made.*

*Partnering for Innovative Efficiencies*

These meetings with industry leaders, government officials and interested citizens develop ideas for improving transportation in Missouri. After the group generates ideas during the daylong meeting, they prioritize them and reach consensus about ideas that can be implemented in a relatively short timeframe, usually six to nine months.

*Missouri Advance Planning – Mapping Our Transportation Future*

MoDOT develops a long-range plan called the Missouri Advance Planning (MAP) initiative. The Missouri Advance Planning initiative defines what Missouri's transportation system could and should do for its citizens. The effort officially kicked off in August 2005 when a variety of stakeholders around Missouri were interviewed about the future of transportation. MoDOT frequently gathers additional information through a telephone survey asking Missourians about transportation services and challenges.

*Industry Business Needs*

Getting input from international organizations to state organizations to individuals, MoDOT identifies the barriers for allowing the motor carrier industry to safely and efficiently deliver its freight. Because the motor carrier industry operates on a 24/7 basis across the continent, MoDOT works with international and state partners to provide consistent requirements to meet motor carriers' needs. MoDOT provides many educational opportunities for the carrier industry throughout the year as well as a quarterly newsletter to keep them abreast of changing requirements.

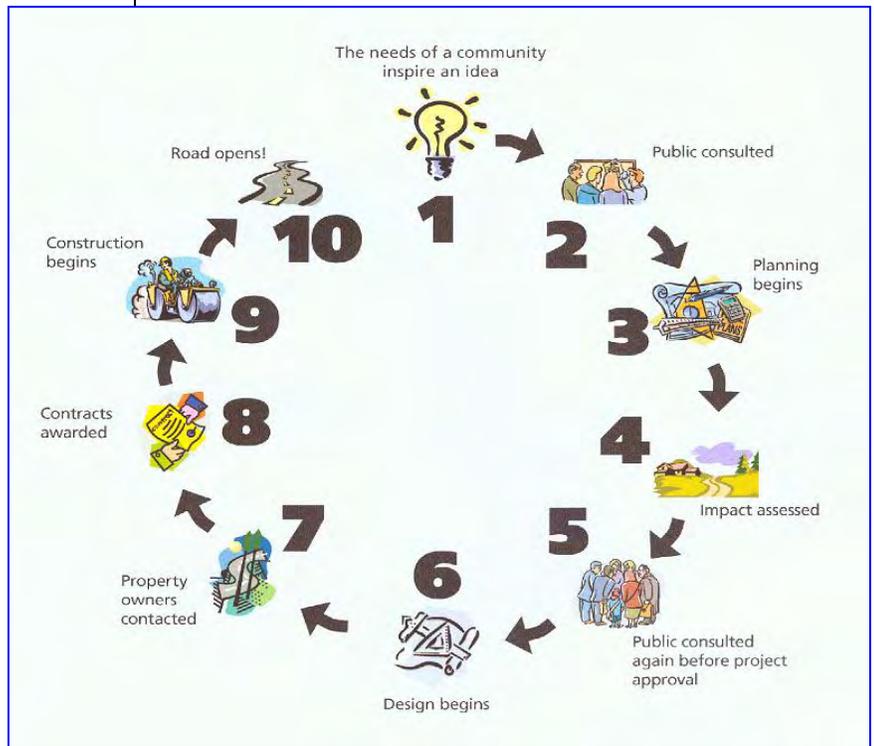
Customers are involved all along the way in the typical highway project as it goes from an idea to a reality. Figure 3.1–2 illustrates this process.

*Defining Project Scope*

Sometimes the process is not a direct route from idea to reality. Customers give input as MoDOT determines and modifies product, program and service features. Often the project design or the construction plan is altered to accommodate customer requests.

For example, MoDOT had more than 1,000 active work zones in 2006, the largest total in MoDOT history. Customers told MoDOT that they did not want to be detained—that they wanted “uninterrupted traffic flow” (one of MoDOT's Tangible Results). MoDOT met this requirement by doing some of the major work during off-peak times and at night in about 250 of these work zones. Incentives were provided on another 250 projects to encourage quicker project completion time. By listening to its customers, MoDOT was able to minimize the impact to the traveling public being delayed any longer than necessary by a work zone.

MoDOT also changes a project's scope, location, construction schedule and other features to accommodate the needs and wants of its customers when it is possible to do so. Further local flexibility is offered to local governments interested in accelerating transportation improvements with customized cost sharing agreements.



**Figure 3.1-2 From Idea to Reality Process**

### *Smooth Roads Initiative*

The Smooth Roads Initiative (SRI) is an excellent example of how MoDOT uses customer information to meet expectations. With additional funding from the November 2004 passage of Amendment 3, MoDOT quickly went to work to give Missourians what they wanted: smooth roads. On November 2, 2004, four out of five Missouri voters said they wanted their roads fixed, and they trusted MoDOT to do it. Since its passage, MoDOT has worked hard to identify needs, make wise use of these additional resources and get projects under way. The completion of the SRI one year ahead of time in November 2006 has increased public trust and confidence that MoDOT delivers on its promises. The recently announced Better Roads, Brighter Future and the Safe and Sound Bridge programs are targeted to further increase public trust, confidence and customer satisfaction.

### *Access to Meeting Business Needs 24/7*

Commercial motor carriers have needs, which may vary considerably with the type of freight and destination of the freight. Their ability to move this freight is impacted by their ability to make changes or receive permits for states and provinces. MoDOT implemented a web-based system, located at [www.modot.org/mcs](http://www.modot.org/mcs), that allows commercial carriers to meet most of their business needs on a 24/7 basis with online access no matter where they are traveling and will eliminate unnecessary trips to complete transactions in an office. Daily system performance data and customer feedback are used to make changes to meet customer needs.

In the future, contractors will be able to electronically access MoDOT's project bidding processes after these processes are incorporated into MoDOT's web site in 2007.

## **3.2 Customer Relationships and Satisfaction**

**3.2a(1-3)** MoDOT delivers the Tangible Results by meeting the expectations in the products and services it provides to its customers. Achieving the 18 Tangible Results is how MoDOT will "wow" its customers. To ensure MoDOT is meeting expectations, a variety of access mechanisms are available for its customers.

### *Business offices*

MoDOT has facilities in the ten district offices and the central office that are open to the public to address their needs. Staff members dedicated to serving walk-in customers are specially trained to address customer concerns, provide information about department operations and services and find needed information. To implement the one-stop shop concept discussed in Item 3.1, MoDOT located Motor Carrier Services in a central office facility and allows commercial carriers to meet all their business needs in one location—with ample parking available for their trucks. Department managers in all 11 locations are

expected to maintain regular contact with local legislators and community leaders. Needs identified at the local level are aggregated and analyzed by the Governmental Relations staff to guide the department's annual legislative priorities.

### *Customer service centers*

MoDOT has 11 customer service centers; one in each district and one in the central office. Professionals trained in customer response and experienced in department operations staff each center. Customer satisfaction with information and responses from the centers is about 99 percent. Item 7.2 contains measures on customer satisfaction with MoDOT's call centers. Over 97 percent of all customer service center inquiries can be handled within 24 hours. Customer calls that cannot be handled immediately are entered into the customer call report database and assigned to an appropriate manager to handle within a specified timeframe. Customer service center review the database daily to ensure prompt customer responses. Written customer requests to all business offices are expected to be responded to within five business days.

### *Web site*

MoDOT's web site, [www.modot.org](http://www.modot.org), is specifically designed for easy customer access and readability. Among the many items found on the web site are:

- a business section for contractors, suppliers and other vendors, as well as project information geared to the needs of construction contractors,
- general information for the public, such as work zone locations, project maps, an electronic newsletter, annual reports and the current issue of the Tracker,
- e-mail contact information, welcoming customers to send e-mail directly to MoDOT with questions and concerns to be promptly addressed by appropriate department staff, and
- a "newsroom" that supplies a selection of sound bites, logos, digital photographs and other electronic information for use by the media.

### *Additional public meetings*

MoDOT conducts frequent public meetings throughout the state to gather public input before project construction begins. Thousands of comments are received in this way each year, and project plans have been altered and improved many times based on this input. Meetings are always advertised well in advance, facilities are fully accessible, and expert staff is always on hand to respond to questions and provide detailed project information.

### *Toll-free customer service number*

By calling 1-888-ASK MoDOT, customers in Missouri and surrounding states can call directly to one of MoDOT's

customer service centers to get their questions answered. The number is automatically routed to the center nearest the caller to facilitate local response to project questions. These trained customer service professionals answer more than 90 percent of questions within 24 hours.

Customer complaints are regularly received through the customer service centers. All complaints are logged into a database and responded to, usually within 24 hours. When necessary, complaints are directed to technical staff with the expertise to address specific complaints.

The database is capable of producing regular reports that show frequency and types of complaints and how or if they were resolved. This response rate is measured in the Tracker document, so it is a vital part of determining organizational success. (See Item 7.2.)

**3.2a.(4)** MoDOT ensures that customer access is kept current with business needs and directions in a variety of ways.

*Customer surveys*

MoDOT conducts statewide customer surveys to get feedback in many areas – overall satisfaction, investment levels, project quality, etc. MoDOT contracts with outside professionals to conduct random sampling phone surveys to gauge statewide response levels and then tracks progress over time with follow-up surveys. Each year MoDOT uses this approach to conduct a statistically valid statewide survey of all its customer groups.

MoDOT also conducts more narrowly targeted surveys – customer service surveys, media surveys, landowner purchase surveys, etc. – to measure quality of service in specific areas.

Figure 3.2-1 contains a table detailing information on some of MoDOT’s customer service surveys.

*Additional public meetings*

After MoDOT holds initial project meetings to gather public input, additional meetings are held to provide updated information to customers, including changes as a result of earlier input. At these meetings MoDOT determines whether its improvements meet public expectations, and whether further work is needed.

*Business Organizations*

MoDOT’s involvement in international and state organizations is critical in determining existing business needs, trends and future needs. Organizations such as the International Fuel Tax Agreement provide an international perspective on transportation issues, while state organizations such as the Missouri Chamber of Commerce and the Association of General Contractors provide a statewide perspective. MoDOT works with organizations to see if expectations are being met and to determine future expectations. For example, Community Relations professionals regularly meet with their counterparts in other DOTs and government agencies to stay current with customer access mechanisms.

**3.2b.(1)** Customer satisfaction is an important goal for MoDOT. Two of MoDOT’s Tangible Results (Figure P.2-1) directly apply to customer service:

- Personal, fast, courteous and understandable response to customer requests
- Accurate, timely, understandable and proactive transportation information

Product or Service	Survey Methodology
Motorist Assist	Metro-area drivers, who are helped when their vehicle stalls or are involved in a crash, rate the service they receive via a postage-paid reply card.
Motor Carrier Services	Commercial motor carriers licensed in Missouri, international hauling companies, and regulated carriers rate their satisfaction with the services provided by MoDOT’s Motor Carrier Services through a mailed survey administered by the Missouri Transportation Institute (MTI).
Public involvement	People who offer comments during the stages of project planning report their satisfaction with the feedback they receive from MoDOT through a mailed survey administered by MTI.
Rest areas	Visitors give their opinion of the convenience, cleanliness and safety of roadside facilities using a postage-paid reply card. (An example of a rest area survey appears in Figure 3.2-1).
Commuter parking lots	Users rate their satisfaction with the convenience and usefulness of the lots via a postage-paid reply card.
Employee satisfaction	MoDOT employees receive a printed survey they complete while on the job to rate their overall satisfaction in 11 individual aspects of their work experience. An independent consultant compiles and analyzes the results.
Inbound customer communication	Customers rate their satisfaction with the timeliness, courtesy and clarity of employees’ responses to their questions. Callers are transferred to a computer-based survey at the end of their phone call to MoDOT.
Media information	Television, print and radio reporters rate MoDOT’s performance in providing information that is newsworthy, timely and understandable. The first survey is faxed to media outlets; follow-up surveys are e-mailed.
Web site	Visitors to <a href="http://www.modot.org">www.modot.org</a> rate their satisfaction with the site and offer suggestions for improvement through a five-question, site-based survey.

**Figure 3.2-1 MoDOT Customer Surveys**

Meeting these goals is the responsibility of all employees. For customer service representatives, multimodal representative and other employees whose focus is mostly on external customers, these requirements are built into their performance expectations. (This process is further explained in Item 5.2).

To gauge overall customer satisfaction, MoDOT conducts statistically valid customer surveys every year. Respondents indicate their level of satisfaction with the department as a whole and with dozens of specific aspects of the state transportation system.

Several other surveys measure satisfaction with specific aspects of MoDOT’s work. Figure 3.2-2 is an illustration of a customer satisfaction card that rest area users can complete.

MoDOT updates its long-range plan to address the state’s transportation needs. Supported by extensive public outreach efforts, this plan draws on the expertise and experience of Missourians across the state to express a clear vision for what transportation should do for Missouri citizens and businesses.

**3.2b(2)** MoDOT customers can contact MoDOT by mail, telephone, fax and e-mail. Representatives record questions that require follow-up, complaints and other feedback in a database maintained by the statewide customer service team.

Managers look for trends when analyzing and comparing data between regions and statewide. When the analysis uncovers a problem, corrective plans are implemented. When regional data differ, employees compare experiences and adopt the best practices found.

**3.2b(3)** MoDOT identifies benchmarks in the public and private sectors against which to compare departmental performance in customer satisfaction and reports this benchmark in the Tracker measure “Percent of overall customer satisfaction”. Federal Express has been identified as the benchmark for overall customer satisfaction because they achieved a 86 percent average composite score for each of the last three calendar years. MoDOT’s rating was at 70 percent in 2006. (See Item 7.2.)

**3.2b(4)** The department consistently seeks new ways to gauge customer satisfaction. In addition to the phone survey customers are asked to take, MoDOT has added the survey to all e-mails from customer service representatives responding to customer inquiries.

**Rest Area Report Card**

*Tell us how we are doing!*

Date \_\_\_\_\_ Time \_\_\_\_\_ a.m. p.m.

Rate the following at this rest area.

	Poor	Average	Excellent
Parking Lots	1	2	3
Rest Rooms	1	2	3
Grounds	1	2	3
Picnic Facilities	1	2	3
Lighting	1	2	3
Vending	1	2	3
Sidewalks	1	2	3
Overall	1	2	3

*Tell us what you would like!*

Would you like to see the following at this site?

Wireless internet Yes  No  Waste of \$\$

Weather Info Yes  No  Waste of \$\$

Travel Info Yes  No  Waste of \$\$

Tourist Info Yes  No  Waste of \$\$

Minutes spent at the rest area?  
 0 - 5  5 - 15  15 - 30  over 30

Was the rest area

Clean	Yes <input type="checkbox"/>	No <input type="checkbox"/>	I'm driving:
Safe	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Car/pickup <input type="checkbox"/>
Convenient	Yes <input type="checkbox"/>	No <input type="checkbox"/>	RV..... <input type="checkbox"/>
			Semi..... <input type="checkbox"/>

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name and Address (optional)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

MoDOT 1-888 ASK MODOT (275-6636)

www.modot.org

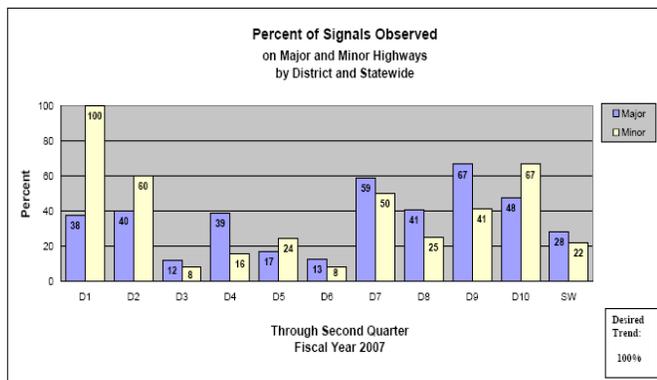
**Figure 3.2-2 Customer Satisfaction Card**

## CATEGORY 4 – MEASUREMENT, ANALYSIS, AND KNOWLEDGE MANAGEMENT

### 4.1 Measurement, Analysis, and Improvement of Organizational Performance

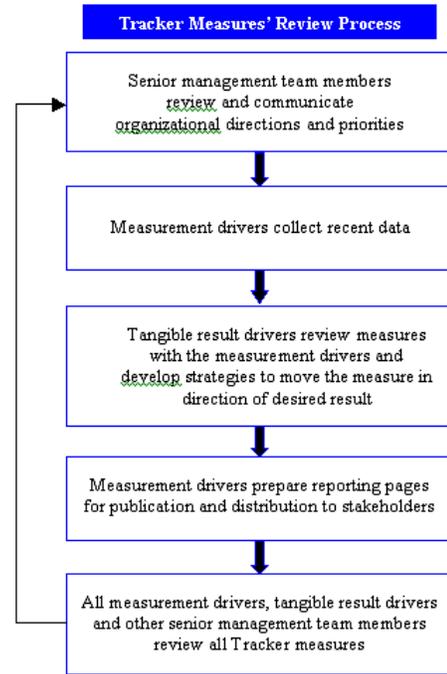
**4.1a(1)** Measuring organizational effectiveness has been in place for a number of years at MoDOT. The appointment of a new department director in 2004 offered MoDOT the opportunity to assess its effectiveness in delivering its products and services. Following the 2004 strategic advance where MoDOT’s leadership confirmed the Mission, Values and Tangible Results (Figure P.2-1), the organization turned its attention to determining how to measure its effectiveness. Members of the SMT identified measures to gauge how well MoDOT would achieve the Tangible Results. The measures were reviewed, documented and updated into MoDOT’s performance management system. This system, the Tracker, was designed to be a tool to assess how well MoDOT delivered the Tangible Results to its customers.

Each Tangible Result has a “driver” assigned to it. Tangible Result drivers are members of the SMT, and are responsible for selecting and monitoring the measures that are built into the Tracker. Once a suitable measure has been selected, a measurement driver is assigned to collect the data and prepare the reporting page that is incorporated into the quarterly Tracker. Data collection varies depending upon the measure. In most instances, MoDOT has the information readily available in its system. Some data is collected from outside sources. As soon as new data is available, the information is incorporated into the next quarterly publication of the Tracker.



**Figure 4.1-1**

Tangible Result drivers frequently review information with their measurement drivers and other staff members. Strategies are developed and incorporated into the measure’s reporting page in the Improvement Status section. Measurement drivers are encouraged to find best practices



**Figure 4.1-2 Tracker Measure Review**

that can be incorporated into MoDOT’s processes, all with the intent of moving the measure in the direction of the desired trend. Division and District Trackers were deployed in 2006 and allowed for further review and monitoring at the daily operations level.

MoDOT’s management uses information from the Tracker to make daily business decisions and allocate resources in a more manageable and quality-driven way. For example, one of the Tracker measures, “Percent of signals observed”(Figure 4.1-1), indicates how well MoDOT is checking signals to make any necessary corrections and achieve uninterrupted traffic flow. Following a Tracker review meeting where supplemental Tracker information was provided, one district office’s leadership shared the information with district staff and action plans were developed. The results for the next quarter’s measure showed significant improvement as a result of actions that were taken. Figure 4.1-2 illustrates the process used to review the Tracker measures.

**4.1a(2)** MoDOT compares itself to other DOTs and other organizations throughout the country to benchmark its results against organizations that offer comparable products and services or that have similar outcomes. As MoDOT compares its results to best-in-class organizations, both within and outside of the industry, the department makes strategic decisions that reinforce the Tangible Results based on the comparative or benchmark data. Some of the benchmarks that relate to MoDOT’s effort to improve safety on Missouri’s transportation system have been instrumental in the future planning and development of the organization’s strategy. (See Figure 2.2-4 for benchmark examples.)

**4.1a(3)** The Tracker, as a performance measurement system, is reviewed at quarterly Tracker review meetings. To continuously improve its effectiveness, the Tracker system's processes are studied to find ways to make them more efficient and systematic. After changes are incorporated into the processes, workshops are conducted with measurement drivers. These workshops provide measurement drivers with information about Tracker process changes and additional education on performance measurement practices.



**Figure 4.2-1 MoDOT's Intranet Homepage**

**4.1b(1-3)** MoDOT has analyzed the validity of the Tangible Results via survey methods of its customers in 1999, 2003, 2005 and again in 2007. Tangible Result Drivers internally validate the measures that represent the department's success towards achieving those tangible results using their professional expertise, contacts with colleagues and industry standards. The executive staff, with the input of the SMT at annual Strategic Advances, prioritizes key initiatives such as SRI, Safe and Sound Bridges and Better Roads, Brighter Future [2.1b(2)] and promotes these initiatives using the Tracker as a vehicle to monitor progress. The Tracker is updated and published quarterly to ensure accountability and to see the progress MoDOT is making towards achieving the Tangible Results for its customers. The Tangible Result drivers and other members of the SMT, along with measurement drivers, meet quarterly to review and discuss the performance measures' current results. Each measurement driver explains the information found in the measure's chart, reports on the status of the measure along with an explanation of the trend, and states what is being done or has been done to improve results. The department director and members of the SMT are actively involved in the discussions and regularly ask questions to ensure actions are being taken to improve the results. Any new measures that are introduced into the Tracker are also discussed at the meetings to ensure they are in alignment with the Tangible Results (Figure P.2-1).

If measures are not moving in the desired direction, the department director may indicate that strategies and actions in that area must take priority. An example of how performance results triggered breakthrough is related to the measure "Average time to clear traffic incidents." Disparity existed between results from Kansas City and St. Louis. The St. Louis numbers were always significantly lower than the numbers for Kansas City. St. Louis' success was attributed to the cooperation that Motorist Assist has from other emergency responders in getting traffic flowing again. Employees from the Kansas City district met with employees from the St. Louis district to determine ways that they could improve the partnering relationships with emergency responders in their area. The most recent numbers on this measure showed a reduction in the disparity (Figure 4.1-2).

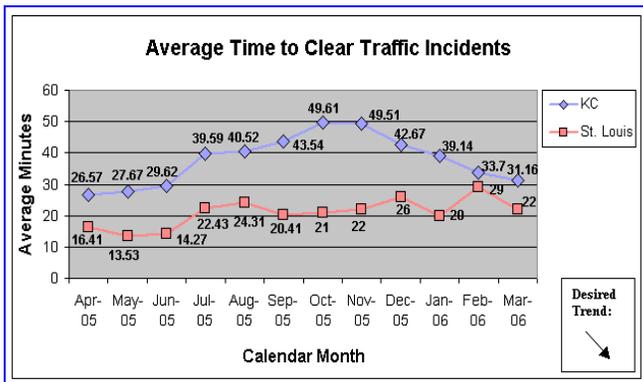
## 4.2 Management of Information, Information Technology, and Knowledge

**4.2a(1)** Through MoDOT's intranet, employees are able to access links to policy manuals, data systems, the Tracker, and news information. Links to district and division home pages, the MoDOT telephone directory and job announcements are also available for employees. Figure 4.2-1, illustrates MoDOT's intranet home page.

Employees can retrieve stored data and develop reports through MoDOT's intranet. Data that is available to applicable users include:

- Financial
- Payroll
- Human resource
- Budget
- Project
- Fleet fuel card
- Risk management

MoDOT also provides its employees with the ability to use any web browser to send and receive e-mail, view their



**Figure 4.1-2 Average Time to Clear Traffic Incidents**

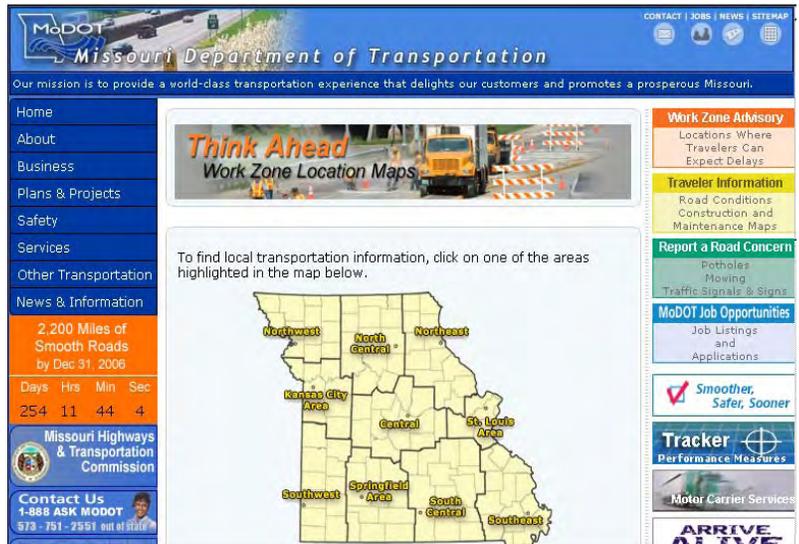
calendar, invite people to a meeting, create a task for a “do” list, or access their contact list. This tool enables MoDOT employees to continue to conduct business while traveling or working in outlying facilities.

Through business intelligence tools, such as the Cognos suite of products, MoDOT makes available information such as risk management data, construction management data, right of way parcel acquisition data, transportation contract data, and transportation management system data. This information is integral to employees’ daily work and accessibility to it, both in the office and in the field, is vital.

Through MoDOT’s external internet web site, MoDOT makes information available to its customers and partners (described in Item 3.2). Figure 4.2-2 illustrates the home page for MoDOT’s external internet web site. Community Relations staff proactively supplies information to the public through press releases, e-mail, the internet web site, mailings, presentations and conferences. Members of the SMT often speak before groups or to the media to share information about MoDOT’s projects. Staff responds to citizen inquiries via MoDOT’s 1-800 number and MoDOT website e-mail inquiries. Most responses are given instantly, as indicated in a chart in Item 7.2. In cases where a response cannot be immediately given, the inquirer’s information is recorded in a database and action is usually taken within a 24-hour period.

**4.2a(2)** MoDOT ensures information system reliability by designing certain systems, such as servers, to have redundancy by setting up these systems with automatic monitoring software so that incidents are communicated to proper personnel and by proactively monitoring those not set up. MoDOT also strives to do appropriate testing prior to production implementation, sometimes using software “robots.” Finally, MoDOT makes it a priority to stay at the manufacturer’s recommended levels of software and firmware in order to ensure they provide customer support should failures occur.

Systems are secured by employing firewalls, both network and personal, by an IT security officer, by participating in the State of Missouri’s IT security committees, by using access authorization systems such as the Shared Technology Access Request Tracking System (STARTS), by monitoring and filtering and authenticating Internet access, and by using other technologies, such as Secure VPN, anti-virus systems, intrusion detection and monitoring systems (IDS), spam filtering systems, and physical building security systems such as Sonitrol.



**Figure 4.2-2 MoDOT Internet Homepage**

User input and sign-off on interface requirements, prototypes, graphical user interface (GUI) and screen flow ensure that application systems are designed to be user friendly. By using GUI Standards, MoDOT achieves a consistent look and feel for its applications’ users.

**4.2a(3)** Redundancy for certain key system components, such as servers, wide-area networks and storage area networks, are designed into systems. Using UPS systems and a backup generator for the central data center ensure backup for utility power. Copies of data and applications are made and stored offsite. The State of Missouri’s Data Center provides some critical applications such as financial and human resource data.

**4.2a(4)** Information System employees meet regularly with internal customers and partners to gather business direction information that translates into system requirements. Information about customer business problems and requirements is prepared for senior management and presented to them on a regular basis for achieving success in helping internal customers and partners complete their job responsibilities in an efficient and effective way. Much of this senior management review formally takes place though the Information Technology Improvement Program (ITIP). Regular meetings with a suite of vendors keeps MoDOT current on new technologies and to get recommendations for technology upgrades to MoDOT’s base infrastructure.

**4.2b(1)** MoDOT has policies in place that provide for single-sourcing key MoDOT data, such as financial and human resource data, from the data marts. With only one authoritative source for this type of data, MoDOT ensures that responsibility for accuracy is held by one area. Similar policies exist for mailing external correspondence. In general, functional units own the data they are responsible

for and gather feedback from other units that give input as to the accuracy of the data they own.

MoDOT incorporates data integrity and reliability by first designing systems so that data can be altered only by the rules coded into the system. Access to data is strictly controlled, thereby ensuring that MoDOT provides reliability by backing up and storing offsite its critical enterprise data.

Certain systems, such as MoDOT's data marts, are designed to be refreshed with new data at a rate commensurate to the needs of the business. Systems have also been implemented that allow access to such data at times when the organization needs it on a 24/7 basis.

MoDOT enforces data security and confidentiality by defining access rights only to users who need to see such data. Data is segregated both logically and physically, and access to data is only given to employees who are permitted by management to have access. Access permissions are granted and tracked through the use of a STARTS application (Shared Technology Access Request Tracking System). Multi-level signoffs are required prior to granting application and data access. Physical access to servers and data is controlled through the use of Sonitrol badge access systems. Policy provisions are in place to prohibit the sharing of user ids and passwords. Finally, there are acceptable use policies that govern the use of information technology systems, and provisions are in place to aggressively investigate the misuse of such systems.

**4.2b(2)** MoDOT ensures that systems such as e-mail, intranet and internet sites, shared server drives, discussion databases, and chat capability are available to employees to aid the collection and transfer of knowledge.

For MoDOT's customers and partners, systems such as e-mail, the MoDOT internet website, ftp servers, VPNs and publicly accessible applications are available to enable interaction with MoDOT employees.

MoDOT's customers, partners and employees have access to a number of materials on best practices. MoDOT publishes the current Tracker on its web site so that the public and employees can see how well it is achieving its Tangible Results. Internal and external newsletters are published and distributed, and various training events are sponsored to allow for the exchange of information. Best practices on a variety of transportation related issues are available to employees, customers and partners through MoDOT's Innovation Library.

MoDOT launched Solutions at Work statewide in 2006 (Figure 4.2-3). Solutions at Work is a new method to identify, measure, document and communicate best practices within the organization. The process begins with employees or work groups filling out a short six-question

online form. The information is routed to Organizational Results staff to work with division and district managers in evaluating and documenting implemented best practices. A searchable online database has been developed to store best practices and share them through the intranet. Regular recognition events are held to honor successful work groups. Tangible Results are monitored via the Tracker. The Tracker is a system of measurements to ensure that MoDOT is accountable for achieving customer expectations. The Tracker is part of MoDOT's performance improvement system, evaluation and learning process and the Tracker process is explained in section [P.2c](#).



**Figure 4.2-3 Solutions at Work Intranet Page**

The entire organization is aligned to the Tracker as each division and district has a Tracker based upon the Tangible Results. The division and district measures represent the specific day-to-day business management that each division and district utilizes to drive decisions. The alignment to the mission through the Tangible Results continues down to each individual employee's performance plan and appraisal — MoDOT Accountability and Performance System (MAPS) is described further in Figure 5.1-1.

MoDOT has a centralized process to work with vendors and suppliers to test and approve new and innovative products for use in transportation construction process. Additionally, the department is an active member of the Transportation Research Board, which is part of the National Academy of Sciences. This allows MoDOT to tap the newest technologies and greatest research minds in the United States. For example, this national involvement even has allowed the department to take the lead on three national initiatives for a soil nail launcher to secure slopes, a new computer analysis of hardened concrete and a study of wind vibrations on cable stayed bridges. This allows MoDOT to be on the leading edge of technology development and application.

## CATEGORY 5 – WORKFORCE FOCUS

### 5.1 Workforce Engagement

**5.1a(1)** MoDOT utilizes the recommendations of a consulting firm, Behavioral Health Concepts (BHC), to determine the key factors that affect both workforce engagement and overall job satisfaction of employees. BHC surveyed MoDOT employees, reported findings, and made recommendations for improvement in 2003 and again in 2005. BHC facilitated focus group meetings with randomly selected employees in 2004. Over 75 organizational improvements that can be linked to issues identified in the survey were implemented. BHC conducted the next survey with a report of findings and recommendations for improvement in 2005. MoDOT senior management utilizes these recommendations to drive continued improvements in the key areas of concern to employees. MoDOT's key factors that affect workforce engagement include organizational commitment, empowerment, pride in work and the organization, and performing meaningful work. MoDOT researched best practices at both governmental agencies and private industries to determine these factors and the qualities of individuals most successful in our work environment. Managers, supervisors and employees reviewed these factors and qualities through a variety of methods. These qualities were then incorporated into the selection process for filling vacancies, consideration in career progression promotions, and inclusion in leadership development programs.

Managers and supervisors at the district, division and workgroup levels determine the values, competencies and qualities most important for the successful performance within the individual work group and link individual goals to the achievement of MoDOT's strategies. For example, in creating the selection criteria for a position on a maintenance crew, the supervisor might focus selection on qualities such as: being safety conscious, respectful of authority, appreciative of others, and finally working well with and encouraging others. However, the supervisor of a purchasing agent might focus selection on qualities such as: acting as a good steward of taxpayer dollars, accountability, ethical, and being trustworthy, depending on the needs of the position and the work group.

To determine the factors that affect workforce satisfaction, MoDOT uses BHC's scientifically validated survey tool that measures 11 categories related to workplace performance. Among the categories used in MoDOT's survey are: organizational justice, management effectiveness, teamwork, job resources, and communication.

MoDOT has also selected a set of measures to monitor employee satisfaction. These measures were determined through management involvement in the development of

MoDOT's HR-Tracker. These measures include hiring process satisfaction, work capacity, turnover by location, and number of employee complaints.

**5.1a(2)** MoDOT accomplishes cooperation, effective communication, and skill sharing within and across work units, operating units, and locations through adherence to the stated values. Work is managed through various programs linked from the Tangible Results to district/division/office business plans to work unit or section work plans and then to individual performance plans. Senior managers and their management teams reinforce the organizational direction and address issues related to Tangible Results delivery through regular management team meetings, project team meetings, functional team meetings both at the district and statewide level, and through statewide conference calls on special topics as needed.

Completion of daily work is achieved through use of natural work units, core project teams, special cross-functional teams, quality circles, and process improvement teams empowered by senior management to achieve projects identified in district/division/office business plans. Supervisors are expected to communicate frequently with their employees. MoDOT management provides a variety of opportunities for employees to meet with them to discuss issues of importance to them. For example, MoDOT's Director meets periodically with selected groups of employees to address their questions or concerns. Following the Director's annual State of Transportation address, employees from the Central Office and districts participate in a question-and-answer session. The session is recorded on video and is available for all employees to view on MoDOT's intranet so all employees can hear the questions and the responses. Transcripts are also available from other meetings that are held. Senior managers, including the HR Director, meet with the EAC and respond in writing to concerns, which are then posted on the EAC web.

During the MAPS review process (Figure 5.1-1), employees meet with their supervisor not only to review their performance, but also to develop a new set of expectations. These expectations (Figure 5.1-2) are tied to at least one of the competencies and reflect individual employee abilities to perform at a higher level. The supervisor and employee also discuss any developmental opportunities that would impact the employee's ability to perform successfully. Developmental opportunities may involve formal and informal training that prepares an employee for advancement to the next step on his or her career ladder. Another development opportunity may include assigning new or different tasks the employee can be expected to perform within their respective job classification.

MAPS Step	Tasks
Pre-step: Supervisor Preparation (completed before Step 1)	<ul style="list-style-type: none"> <li>Review MoDOT's plans and Tangible Results</li> <li>Develop initial employee expectations</li> <li>Schedule the performance planning meeting with employee</li> </ul>
Step 1: Performance Planning (conducted in April)	<ul style="list-style-type: none"> <li>Review and discuss MoDOT's plans and Tangible Results</li> <li>Review competencies that are important to the employee's job</li> <li>Review, negotiate, and finalize employee expectations</li> </ul>
Step 2: Performance Progress Review (conducted in November)	<ul style="list-style-type: none"> <li>Review and discuss MoDOT's plans and Tangible Results</li> <li>Review and discuss employee performance</li> <li>Make any necessary changes to employee expectations</li> </ul>
Step 3: Final Performance Review (conducted in April)	<ul style="list-style-type: none"> <li>Review all performance information and documentation</li> <li>Provide written feedback and determine the final performance rating</li> <li>Review and discuss employee performance</li> <li>Discuss the overall final performance rating</li> </ul>

**Figure 5.1-1 MAPS Process Overview**

One of MoDOT's values is to "empower employees because we trust them to make timely and innovative decisions." To support this value, all MoDOT managers and supervisors are expected to lead employees to lead themselves, using MoDOT's mission, values, One Team Agreement, and Tangible Results to set the direction. In addition to the annual performance review, where managers and supervisors are rated on this expectation, employees complete an annual trust and empowerment survey that shows how well managers are perceived at embracing these values.

The Solutions at Work (SAW) program (Figure 4.2-3) is designed to collect, evaluate, document and communicate best practices that are delivering improved results within MoDOT. All full-time employees are eligible to submit best practices to Solutions at Work. Employees may submit innovative best practices as an individual or as a team. Employees submit an application that describes the best

practice and its applicability to other areas. The application is reviewed by selected MoDOT staff to verify the best practice. MoDOT management receives notification a submission has been approved, and they are expected to incorporate the best practice in their division or district. The database is available to all employees through MoDOT's intranet. The program also provides recognition to employees for approved best practices. Accomplishments, large and small, innovative and practical, occur every day on every work team. SAW is a systematic method for capitalizing on the innovative thinking of employees, empowering employees to put those ideas to practical use in ways that are within their control, and sharing those ideas with other work units doing the same work in other locations.

All senior managers and measurement drivers participate in the quarterly Tracker review meetings. Measurement drivers present their measure's progress from the previous report and describe the actions implemented to improve the measure. Senior leaders and other measurement drivers ask each measurement driver questions about their presentation. All participants are expected to attend the duration of the meeting. A supplemental document that provides district comparisons on certain measures is prepared for participants. District and division management are encouraged to bring two additional members of their staff to attend these quarterly meetings. These employees gain insights into the work that is done by other MoDOT units resulting in a broadened view of the organization. To further communicate Tracker results, district engineers and division directors also meet regularly with their management staff to share information they receive at senior management meetings and Tracker review meetings.

Sample MAPS Expectations
<b>Job Title:</b> Motorist Assistance Operator
<b>Tangible Result:</b> Uninterrupted Traffic Flow
<b>Sample Expectation:</b> Ensure roadways are safe and uncongested by promptly removing debris and reporting accidents.
<b>Job Title:</b> Senior Construction Inspector
<b>Tangible Result:</b> Best Value for Every Dollar Spent
<b>Sample Expectation:</b> Make sure that all change orders are accurate and prepared in a timely manner.
<b>Job Title:</b> Customer Service Representative
<b>Tangible Result:</b> Personal, Fast, Courteous and Understandable Response to Customer Requests (Inbound)
<b>Sample Expectation:</b> When notifying department personnel about customer concerns, detailed and thorough information is gathered and communicated in a way that allows for complete understanding of the problem.

**Figure 5.1-2 Sample MAPS Expectations**

All MoDOT employees have computer access to its intranet site to gain organizational knowledge. Each district and division hosts a site in the intranet. At each intranet site, employees can access descriptions of programs and services, reference manuals, news and other information pertinent to their jobs. A monthly publication, *Connections*, provides MoDOT's employees with information about MoDOT's progress on delivering its products and services to customers. Districts and divisions publish periodic newsletters to share information. Employees also receive an e-mail newsletter, the "MoDOT Express Lane – Transportation News to You in 12 Articles or Less." This twice-monthly newsletter features the latest, most interesting news articles about department activities in a short, easy-to-read format and at a low cost to the department.

To gain better insights into the diverse ideas and thinking of its employees, MoDOT supervisors and their work groups are encouraged to participate in a teambuilding course. The course provides the whole team an opportunity to better analyze and respond to given work or team situations. This new knowledge helps improve team skills and working relationships in the areas of problem solving, conflict resolution, communication strategies and work division.

MoDOT hosts an annual Diversity conference to bring staff together with individuals from government, higher education and private industry to discuss diversity issues as they relate specifically to the department. In addition, MoDOT's 25-member Employee Advisory Council fosters and enhances a positive and supportive work environment among the department employees by assisting management with cultural diversity, policy review, and communication issues.

MoDOT's efforts to further capitalize on diversity include partnering with Lincoln University in a Cooperative Education Program. (See 5.2a2)

**5.1a(3)** MoDOT's key factors that affect workforce performance include job quality, job quantity, job knowledge, interpersonal skills and accountability. MoDOT researched best practices at both governmental agencies and private industries to determine factors that have an affect on workforce performance. These factors are reviewed with managers and supervisors through a series of focus groups. These factors are then incorporated into the core competencies found in MoDOT's performance management system known as MAPS. Before full implementation of the competencies into the MAPS process, MoDOT conducted pilots on select groups of employees to determine if they were easy to understand, valid for measuring employee performance, flexible enough to meet supervisor and employee needs at all levels of MoDOT and effective for managing performance.

MoDOT's employee performance management system, MAPS, enables the appropriate linkage from Tangible Results to district, division, or office business and work plans to individual performance management plans. Work plans that contain specific projects outlined in the business plans are developed with more specific strategies for achieving the objectives of the business plan and Tangible Results. Lower level measures are then developed within each district, division or office to track progress.

Supervisors then complete individual performance management plans with employees that detail each employee's individual role in helping the department achieve the identified Tangible Results. To supplement continuous and immediate performance feedback, supervisors conduct semi-annual performance meetings with individual employees during which supervisors review the Tangible Results, business plan, and work plan with employees to show how their efforts tie to the accomplishment of the Tangible Results. In this way, employees specifically can see their role in helping the department achieve the Tangible Results. Figure 5.1-1 illustrates the MAPS process.

Supervisors and employees work together to develop expectations on what the employee will accomplish in his or her job. The expectation should tie to one or more of the competencies the employee will exhibit in order to successfully meet the expectation. For supervisors and managers, two additional competencies apply: work management and supervision. Through this process, employees are able to successfully match their competencies to an expectation leading to successful job performance.

Sample expectations are available for supervisors to use in the MAPS process. These expectations cover the top 30 job titles (by number of employees). Supervisors may use the examples as they appear or customize them to fit a specific performance plan. Employees and supervisors are also expected to agree on a way to measure the expectation as part of the MAPS process.

Employees who do not meet performance expectations or have disciplinary actions are not eligible for pay increases, career ladder promotions, or participation in employee incentive programs.

To further encourage high performance, MoDOT has developed and deployed an employee incentive program, Performance Plus, designed to compensate MoDOT employees for going "above and beyond" to increase MoDOT's productivity. All full-time salaried and permanent part-time employees have the opportunity to participate in Performance Plus and benefit from the program. Proposals are first reviewed by a team of MoDOT senior managers to make sure they are appropriate, have

department support, will save money and can be measured. For each Performance Plus program, targets are tied to a specific Tangible Result and corresponding performance measure in the Tracker. Proposals that meet these requirements are sent to senior leadership for final approval. Once approved, data collection begins and incentive payments are made to eligible employees when all targets are met. The cost savings realized when the targets are met fund the payouts. All Performance Plus programs, as well as the overall concept, is reviewed each year to make sure they are still providing value.

**5.1b(1)** MoDOT has training programs in place to meet its workforce needs and new programs are available upon request. MoDOT's training unit works with managers and supervisors and subject matter experts to find or develop training programs that best meet the needs of the requesting unit. This enables MoDOT to deliver a tailored program to its employees. In the area of computer software training, MoDOT often utilizes the training programs provided by Missouri's Office of Administration. For training that is uniquely related to a transportation agency, MoDOT may contract with the National Highway Institute.

Employees work with their supervisors to determine their training needs, usually during the MAPS review period. Through the MoDOT Learning Management System (LMS), employees can access their MoDOT training transcript, view the course catalog, enroll in classes, and complete on-line courses. Employees may also work with their supervisors to coordinate schedules with vendor-provided training programs that the employee and supervisor feel will help the employee improve performance.

After identifying the core competencies necessary for successfully managing workforce and operations at MoDOT, basic supervisory and management development coursework was implemented to develop these competencies. Employees attend these courses as they progress to positions with higher levels of responsibility within MoDOT. When introducing new or updated technology, MoDOT usually has a training component built into the project for the primary users. For example, hands-on training classes were conducted for affected employees when MoDOT introduced a new report building software program.

All managers and supervisors are expected to have an awareness and understanding of workplace policies and procedures. Within their first six months new managers or supervisors are expected to complete training in all compliance-based programs (Figure 5.1-3).

One of MoDOT's values is "MoDOT will not compromise safety because we believe in the well-being of employees

and customers." To ensure this value is upheld, MoDOT requires all employees to receive safety training as a part of the New Employee Orientation program. Additional safety training programs are available for all employees, including office and building staff. Employees who are assigned to work in highway work zones are required to complete the series of safety and training programs (Figure 5.1-3).

Training in these programs contributes to fewer incidents in the many highway work zones that over 3,700 MoDOT employees work in on a regular basis.

MoDOT provides New Employee Orientation (NEO) to newly hired employees. The program familiarizes these employees with MoDOT's human resource policies and procedures, benefit packages, and an overview of MoDOT's history, programs and services. Special components are built into the NEO that address diversity, ethical, safety, sexual harassment, and discrimination issues.

MoDOT also offers programs that provide employees with opportunities to improve their skills. Workforce development courses are designed to improve skills in:

- teamwork,
- time management,
- negotiating,
- interpersonal communication, and
- customer relations.

To aid the transfer of knowledge from departing or retiring employees, MoDOT has established several programs. In some cases, rehiring a retired employee on a temporary, part-time basis has facilitated the training of a replacement. In addition, MoDOT has developed a mentoring program where the participants agree to work together to discover and develop the mentee's skills and abilities. This process gives the mentee an understanding of the organization and how their skills fit into the goals and objectives of the department. The mentor gains a deeper understanding of their job function and the ability to relate that understanding to the mentees. The department gains by creating a continuous learning environment to ensure leadership succession and improve recruitment and retention of highly skilled professionals.

MoDOT reinforces the new knowledge and skills employees learn through the career ladder process. Employees generally advance to the next step in their career ladder when they reach the appropriate time for advancement, and have demonstrated proficiency in performing the tasks associated with the next step. MoDOT also assesses the new knowledge or skills gained through a training program primarily through pre- and post-testing and skills checklists. In the snow removal training required for maintenance operations' employees, employees new to this task complete classroom training, then complete the next phase of "ride-

along” with veteran employees, and then must complete the task on their own with the veteran employee. The employee is not considered to be “trained” in this task until the veteran employee or supervisor has completed the form that verifies the successful completion of all three phases.

**5.1b(2)** To meet strategic challenges, MoDOT has adopted a training policy that sets forth specific requirements for mandatory technical training, supervisory and management training, and the development of individual training plans. MoDOT complies with the State Management Training Rule which requires a new supervisor or manager to complete a minimum of 40 hours of training in his or her first year in the position; and thereafter, take at least 16 hours of continuing competency-based training each year. Through the LMS, managers and supervisors are able to meet this requirement through on-line courses and outside conferences.

Managers and supervisors must complete a 40-hour, 5-day Basic Supervision program. Missouri State University delivers the program. MoDOT worked closely with staff from Missouri State University to develop a program that aids employees who are new to supervision and management develop skills in leadership, self-management, communication, interpersonal relationships, and managing for results they need in order to be successful in their career progression. Through interaction at the program, managers

and supervisors from all areas of the organization, participants gain value from the shared expertise that others bring to the program.

MoDOT further develops its managers and employees by offering a two-week Management Development Institute program. This program is also administered by Missouri State University and was designed to enhance a manager’s leadership skills. It is designed for those who have had a few years of experience as supervisors or managers and are now exercising broader authority than they had in the past.

MoDOT invests in training programs geared for senior leaders through the Institute for Management Studies with chapters in both Kansas City and St. Louis. To further enhance their organizational knowledge, all members of the senior management team participate in the quarterly Tracker review meetings. Measurement drivers, often middle-level managers also attend the quarterly Tracker review meetings. The mentoring program also gives managers and supervisors the opportunity to further their organizational knowledge as mentors and mentees do not have to be from the same unit.

**5.1b(3)** MoDOT conducts post-training assessments at the end of the training program. Generally, this level of assessment is considered Level One of the Kirkpatrick model. In some of the training programs, follow-up

Program	Modules	Purpose and Audience
Compliance	Equal Employment Opportunity, Drug and Alcohol Awareness, Annual Policy Review, Workplace Aggression, Performance Management, Documenting Performance	Managers and supervisors gain an awareness and understanding of workplace policies and procedures
Safety	Basic Safety Training (any), Radio Operations, Work Zone, Flagger, Post-incident Bridge Inspection, System Security Awareness for Transportation Employees	Provides all employees, notably those in field operations and other safety-sensitive position safety awareness and skills ultimately leading to reduced injuries and incidents
New Employee Orientation	Human Resource policies, Employee benefits, MoDOT programs, history and organization	Familiarize newly-hired employees with MoDOT’s programs, services and organization
Technical	Software applications, equipment operations, engineering applications, professional development	Develop, enhance and improve employees skills to boost productivity and to stay current with evolving trends
Workforce Development	Teamwork, Time Management, Negotiation, Interpersonal Communications, Customer Relations	Improved skills and productivity levels for any MoDOT employee
Basic Supervision	Leadership, Self-management, Communication, Interpersonal Skills, Managing for Results	Familiarizes managers and supervisors who are new to supervision with basic supervisory skills; ensures compliance with Missouri’s State Management Training Rule
Management Development Institute	Managing change and conflict, strategic vision, Problem solving, situational leadership, presentation skills	Enable mid-level managers to refresh, enhance or improve their skills as they progress in their MoDOT career
Institute for Management Studies	Various seminars that focus on strategic management, decision-making, leadership, communications, managing change	Opportunities for managers to improve their skills through workshops led by national speakers and allows for networking with other managers from a variety of organizations
Accelerated Leadership Development Program	Attend any one of 12 training programs offered by universities identified by <i>Financial Times</i> as being top-tier or second-tier world class programs in leadership development	Develops managers and supervisors who demonstrate capability to assume senior leadership roles in the organization

Figure 5.1-3 MoDOT Training Programs

assessments, Level Two of the Kirkpatrick model, are performed. The information from these assessments is analyzed and improvements based on the analyses are made to MoDOT's training programs. The employee development unit is utilizing pre and post-training tests to evaluate the effectiveness of some technical training modules and developing further assessments to gain knowledge of training effectiveness through Levels Three and Four of the Kirkpatrick model.

**5.1b(4)** MoDOT's present compensation administration and job classification structure includes numerous opportunities at levels below supervision for increased pay upon individual employee achievement. Promotions through a "career ladder" job series (entry, intermediate, and senior level in labor, clerical, technical, and professional positions) are granted upon achievement of the necessary level of skills, knowledge, training (in some cases professional certification), and expected performance level. To aid employees in their career progression, MoDOT has developed career ladder checklists (Figure 5.1-4) detailing the requirements that need to be met before advancement can take place. Items included in the career ladder checklists include the education level and amount of MoDOT work experience, training programs, skill proficiencies and general work habits that are required in order to attain the next position available on the career ladder.

<b>Safety</b> (Check as Completed)	
<input type="checkbox"/>	The employee has read and follows the Employee Safety Handbook and has been instructed in safe work practices and safety requirements.
<input type="checkbox"/>	The employee has completed MoDOT Flagger Training (LMS# 24503).
<input type="checkbox"/>	The employee has completed Work Zone Training (LMS# 24502).
<input type="checkbox"/>	The employee knows the proper use and maintenance of the TMA and arrowboard.
<input type="checkbox"/>	The employee knows and uses the proper procedures and safety requirements for setting up a work zone.
<input type="checkbox"/>	The employee knows the procedure and safety requirements for flagging, and can coach/train others in proper flagging practices.
<input type="checkbox"/>	The employee knows how to fill out fleet liability reports when accidents or equipment damage occur.
<input type="checkbox"/>	The employee knows his/her responsibilities related to workers' compensation reporting. (Is familiar with the Workers' Compensation handbook and "Employee Responsibilities" handout).

**Figure 5.1-4 Sample Career Ladder Checklist**

For many jobs within a career ladder series, MoDOT's Learning Management System (LMS), an electronic tool designed to aid employees in their training and career development, links career ladder jobs with the recommended training curriculum such that supervisors are able to draft development plans and obtain training transcripts to assist employees in preparation for their progression through the career ladder. MoDOT's graduate orientation program, provides employees an opportunity to explore areas of MoDOT where they may further develop their skills.

To prepare leaders for senior level positions, MoDOT has instituted an Accelerated Leadership Development program.

This program is open to managers who are already in mid-to high-level management positions.

Because the number of available senior-level management positions is extremely limited, participation in the program is highly selective, voluntary and is reserved for those employees with legitimate chances for top leadership positions. Employees recognize they are not guaranteed promotion through their participation in the program and understand their personal and professional gaps and needs will be discussed honestly and professionally. The participants also are eligible to attend university training at one of 12 executive education programs identified by Financial Times magazine as being top tier or second tier, world-class programs in this area.

**5.1c(1)** MoDOT assesses the level of workforce engagement in a variety of ways. Each year, employees complete a trust and empowerment survey. Employees rate their supervisors and managers on a variety of statements. Aggregated results are shared with individual managers and supervisors. Managers and supervisors discuss the results with their managers.

To assess workforce satisfaction, MoDOT initiated an employee satisfaction survey in 2003 to all employees that yielded a response rate of over 51 percent. Over 75 organizational improvements were made which can be

linked to issues identified in the survey. A subsequent survey issued in 2005 (with a response rate of over 71 percent) shows employee satisfaction levels have increased in all areas. In 2007, the data from these surveys was analyzed to develop a measure of employee engagement. An in-house survey will be administered in May 2007, which will include consistent measures of both job satisfaction and employee engagement. Survey results are

segmented among the central office and the ten district offices. Further segmentation is provided among field offices and the district offices.

MoDOT formally recognizes its employees' length of service in five-year increments. Both the overall program and the individual activities at the district or division level have gone through several improvement cycles over the past five years.

An additional role of MoDOT's 25- member Employee Advisory Council (EAC) is to provide management with an overall pulse of the employee population. The EAC maintains a web page to share information with employees and allow them to express concerns or ask questions and receive answers.

Management meets informally with a variety of employees to talk about what concerns them. For example, Human Resources staff met with women working in maintenance positions to discuss issues unique to that profession. In addition, Director Pete Rahn meets with random employees to listen to concerns and answer questions, and the Chief Engineer meets with a group of employees in each district in semiannual evaluations of district engineers.

In the spring of 2006, MoDOT's central office won the distinction of being the state agency "employer-of-choice" in the Jefferson City area based on a study completed by the Department of Economic Development's Division of Workforce Development (Figure 5.1-5).



Roberta Broecker, Gilbert Hake and Micki Knudsen celebrate MoDOT's top employee award.

City Career Center recently went to task to determine who those businesses and agencies are locally, and MoDOT came out on top.

During a four-month period beginning November 2005, the staff surveyed their job-seeking customers to find out which business and government agency they

most want to work for. Much to our delight, MoDOT was selected as the most sought after government agency!

Human Resources Director Micki Knudsen and Chief Financial Officer Roberta Broecker accepted the award on behalf of MoDOT during a presentation at Job Fair Jefferson City on April 6.

The Department of Economic Development's Division of Workforce Development oversees nearly 40 Missouri Career Centers where the staff's primary goal is to help match job seekers and employers. It's not unusual for individuals to consider certain employers as the most popular to work for in a specific area, so staff at the Jefferson

**Figure 5.1-5 Employer of Choice Award Presentation**

**5.1c(2)** Results of MoDOT's workforce engagement and workforce satisfaction measures are found in MoDOT's Tracker. The Tangible Result "Best Value for Every Dollar Spent" reflects MoDOT's commitment to operating the agency as efficiently and effectively as possible for the taxpayers. Because our employees are taxpayers, these values are important to them as well. MoDOT presumes that if our employees are engaged and satisfied, they are more likely to be providing the best possible services and products to our customers. Results for percent of employee satisfaction, percent of work capacity, rate of employee turnover, and rate and total of OSHA recordable incidents are reported among other results in Best Value for Every Dollar Spent. Because these results are reported in the Tracker, they are reviewed quarterly along with strategies to improve them.

## 5.2 Workforce Environment

As a state agency, MoDOT is subject to legislative oversight. Through the annual budgeting process, legislators review the number of full-time equivalencies (FTEs) MoDOT utilizes, as well as the dollars allocated to the personal services budget. MoDOT uses a variety of job models to fill its FTEs. Salaried employees include those who are employed either on a full-time or permanent part-time basis. Most of MoDOT's employees fall into this model. The number of wage employees is based on the seasonal (for construction and roadway maintenance programs) or emergency (snow and ice removal) needs of the department.

MoDOT conducts job studies to fine-tune its ability to attract and retain qualified employees and ensure it has jobs placed within the appropriate salary ranges. While there is no set schedule for how often a job is studied, MoDOT reviews each job classification at least once every five years to ensure the job description is accurate. Jobs are studied, if requested by a district or division, when market information indicates a study is warranted, or an audit of a job class (to update job descriptions) indicates a more comprehensive study is needed.

Requests to classify a new job or to reclassify an existing job may originate from an employee, supervisor, or manager. Employees and their supervisors complete job analysis questionnaire (JAQ) forms. From there, human resource staff review the JAQs and conduct external market research. Reports are shared with management and may be made available for employees to view. Revised job descriptions are also made available for review at the time job study reports are shared with employees.

**5.2a(2)** MoDOT is committed to selecting the best candidate for vacancies. Strong efforts are made to ensure MoDOT has minority and female representation in jobs and that the selection of individuals conforms to federal and state regulations and statutes. The department prepares a Diversity Plan annually and reports are distributed quarterly to illustrate progress and areas for improvement. Outreach activities to minority groups and active recruitment at college campuses encourage individuals to apply for MoDOT positions. MoDOT's employment application, as well as employment advertisements and other publications are translated into Spanish. In addition, the Equal Opportunity office sponsors an annual Diversity Conference for managers and supervisors to highlight the value and benefits a diverse workforce provides to MoDOT.

The department has developed guidelines to follow on all posted vacancies. Panel interviews are utilized for evaluating candidates being considered for a vacancy. The purpose of the panel is to bring objectivity and differing

perspectives into the selection process. Although a consensus among the panel members is the desired outcome of this process, the final authority for the hiring decision rests with the direct supervisor. MoDOT has developed a list of employee qualities for supervisors to consider when selecting the “best” candidate for a vacant position.

In 2006, Human Resources developed a communication tool describing what diversity means at MoDOT and what responsibility each employee has for supporting a diverse workforce that reflects the customers, communities and cultures MoDOT serves. In addition to the MoDOT Tracker report of the number of females and minorities employed and quarterly reports of hiring results for each district and Central Office division. A quality assurance review process includes analysis of where improvement can be made at each location.

MoDOT provides new employee orientation (NEO) that familiarizes newly-hired employees with MoDOT’s human resource policies and procedures, benefit packages, and an overview of MoDOT’s history, programs and services. Special components are built into the NEO that address diversity, ethical, safety and sexual harassment and discrimination issues. To aid the retention of recently hired employees with college degrees, MoDOT provides a graduate orientation program. This program provides these employees with an opportunity to meet department leaders, to learn how central office operations function and impact district operations, and to explore career growth opportunities available to them.

An internship program is in place at MoDOT. This program enables MoDOT to hire college students to perform job duties that meet program needs during critical or peak periods. The program provides students with progressive job experience during their time at MoDOT and could lead to full-time employment upon graduation.

MoDOT’s efforts to further capitalize on diversity include partnering with Lincoln University in a Cooperative Education Program. Through this program, eligible students alternate between full-time work phases and full-time school phases. The alternating work and college schedule gives students a chance to take classes and move into professional positions that build on their class work. Work assignments and classes become more challenging as students progress with their course of study. At MoDOT, students are rotated among divisions in order to give them more experience in the various aspects of the work done at MoDOT.

During the semesters that students work 40 hours per week for MoDOT, they are paid a competitive salary and receive benefits. Upon graduation, a student’s degree and cooperative education experience can lead to employment

with MoDOT. Since the program began in 2000, MoDOT has employed 87.5 percent of the participants. MoDOT also partners with Lincoln University to host students earning civil engineering degrees at other colleges and universities.

MoDOT makes efforts to recruit minority and female civil engineering students to employment by attending campus-networking meetings with minority and female organizations and career fairs at historically black colleges and universities with civil engineering programs including several out-of-state universities.

**5.2a(3)** MoDOT’s organizational structure is designed to focus on its core competencies, reinforce a customer and business focus, and achieve the agility to address changing business needs and strategic challenges. The organization’s core competencies that enable MoDOT to accomplish its mission include both program delivery (planning, designing, building) and system management (maintenance, movement and safety). Central office divisions oversee the statewide system with ten districts in place to carry out the mission with each district responsible for approximately one-tenth of the state highway system. The multimodal operations division, program delivery and system management divisions, and the districts make up the System Delivery Team. To aid the work of the System Delivery Team, MoDOT has set its business and support functions in its System Facilitation and Organizational Support Teams.

To achieve agility, MoDOT recently incorporated the principles of Practical Design into its core competencies. Rather than be hindered or delayed by applying rigid standards to projects, MoDOT designers develop plans that meet the real needs of the situation. For example, building a bridge on a low-volume route to handle a 100-year flood when the roadway on either side of it will flood is not practical. All project-level decisions MoDOT makes now depend on the road and its context. By changing work processes, MoDOT is better able to build the most efficient solutions to transportation problems that lead to the completion of more projects across the state.

To reward employees for being efficient and saving taxpayers money, MoDOT has implemented incentive programs that rewards employees for making significant progress toward meeting our Tangible Results. The Chip Seal Challenge (Figure 1.1-2) allowed work groups to perfect the chip seal method and compete for team rewards and recognitions. Best practice results are being shared statewide via the System Management website. The Performance Plus programs provide cash payouts to work unit team members for providing results that exhibit high performance.

**5.2a(4)** MoDOT has training and employee development processes in place to constantly revise the training program

to meet the needs of the future. MoDOT's changing capacity needs are continuously evaluated and monitored by members of the senior management team. Each time a position becomes vacant, management within the district or division considers how to best utilize that authorization to maximize benefits to the department. Sometimes the position can be utilized at a lower level or the workload can be redistributed and the vacancy is filled in a more critical area.

Workload for the department can be cyclical in terms of the seasonality of highway construction and roadway maintenance, as well as the budget dollars available for new construction. MoDOT typically staffs salaried positions for the valleys rather than the peak workload seasons. Salaried staff (full- and part-time permanent employees) is then supplemented with temporary employees and consultants, when workload necessitates and as budgets allow. To date, this process has eliminated the need for a reduction in force for over twenty-five years, and should minimize the impact as funding sources dwindle in the future.

MoDOT monitors reports that indicate employees currently eligible to retire and those eligible in the next five years. When these reports indicate a significant loss in a particular region, function or skill set, steps are taken to eliminate or minimize the impact to the department. For example, in 2006 supervisory positions in the field maintenance function were identified as having a significant number of employees eligible to retire. Crew leader positions were targeted as an area to emphasize pre-supervisory training and selecting individuals with the core competencies to take on leadership roles in the future.

MoDOT has developed incident management plans in the event of emergencies or disasters. These plans, which include continuity of operations, identify MoDOT's priorities, command structure, and procedures to implement in the event that an emergency or disaster situation occurs anywhere in the state. Plans include information from district and divisions at the Central Office, which identify key personnel to notify and systems to be restored in emergency situations. The plans are available on MoDOT's intranet site. In addition, emergency drills are performed to test the plan. Real-life experiences also test MoDOT's ability to manage incidents as in the devastating 2007 ice storm in southwest Missouri. Emergency generators and mobile satellite communications were deployed to the area from the Central Office and unaffected areas of the state.

**5.2b(1)** MoDOT has an established safety awards program that has long recognized and rewarded good individual and team safety practices and acts of heroism. Additional enhancements will be recommended following a team's evaluation of the present program.

Several employee support and safety programs that help ensure the protection of employees and the traveling public are in place. Some programs extend beyond federal requirements. For example, the drug-testing program in existence since the mid-1990s extends beyond federal DOT requirements. Other programs such as the pre-employment physical process (which now includes work simulation testing for some jobs); fit for duty program; adult and child cardio pulmonary resuscitation (CPR), standard first aid, and workplace aggression training; background checks for new employees; threat assessment process; security awareness; and disaster preparedness contribute to ensuring safety and security for the department and its customers. An electronic newsletter that emphasizes a safety topic is delivered to all employees each month. (Figure 5.2-1)

Employee safety is also emphasized at the local level through use of district specific programs such as district safety days, safety committee activities, safety talks by supervisors and managers and quality assurance activities for functions such as work zone set up, seat belt usage, and equipment and building inspections. Safety and health managers are located in the districts to coordinate safety, health, environmental and risk management programs.

MoDOT tracks the number of lost workdays per year and the rate and total of OSHA recordable incidents in MoDOT Tracker. One strategy MoDOT uses to reduce the rate and total of OSHA recordable incidents is the Injury Reduction Incentive under the department's Performance Plus program. This program encourages employees working in MoDOT's field maintenance operations to either reduce the number of OSHA recordable incidents by 60 percent over the same period in the previous year or to have no recordable incidents during the period. The incentive amount increases if the district and the department achieve an overall 25 percent reduction in overall workers compensation claims during the same period.

**5.2b(2)** MoDOT offers a wide array of employee support services that contribute to employee wellness and satisfaction. Numerous examples exist of benefits and services provided that are valued by employees as evidenced by employee satisfaction surveys and exit interviews. These include:

- generous annual leave and sick leave accrual;
- 12 paid holidays;
- no cost medical and life insurance coverage for employees;
- noncontributory defined-benefit retirement plan;
- tuition assistance;
- professional certification and dues reimbursements;
- flexible work hours (including compressed work weeks, job sharing, and work-at-home schedules);
- employee assistance program;

- free long-term disability benefits;
- cooperative education program;
- mentoring program;
- training and development opportunities;
- service awards recognition;
- Family Medical Leave Act and overtime programs that exceed federal requirements;
- extended leave;
- shared leave program and disaster leave programs;
- credit union services;
- clothing and boot allowance;
- dry-cleaning drop off and, in some areas, dry cleaning discounts

MoDOT has staff experts at the district level whose responsibility is exclusive to employee support functions such as employee health and safety, employee benefits, and all human resources functions including hiring and promotions, employee counseling, training, conflict resolution, grievance investigations, and supervisor and management support. Dedication of these staff resources has provided a high level of employee support and has contributed to high success rates with respect to determinations of appropriate management or supervisor action on internal grievances, findings of no probable cause on internal and external civil rights claims, and limited employment litigation.

MoDOT has in place processes that offer avenues for sharing information with employees as well as collecting their input and feedback through:

- greater use of the internet, the intranet, and e-mail communications;
- formation of the Employee Advisory Council;
- employee satisfaction surveys;
- employee focus groups; and
- mediation services (in addition to internal grievance and EEO complaint procedures).

MoDOT's 25- member Employee Advisory Council (EAC) was established in January 2005 and is comprised of employees elected by their peers from every district and several divisions or offices within MoDOT's Central Office. Since its inception, the EAC has collaborated with management on employee issues and concerns, reviewed policy issues and provided input to management, and assisted with job studies appeals.



Figure 5.2-1 Sample Safety Newsletter

**CATEGORY 6 – PROCESS MANAGEMENT**

**6.1 Work Systems Design**

**6.1a (1)** MoDOT’s core competencies are determined by the state’s constitution - develop and maintain the state’s transportation system. The department is committed to exceed this purpose and provide the public with a safe and efficient system that is world-class, delights its customers, and promotes a prosperous Missouri. MoDOT delivers on its promise through its expertise in customer and partner input, economic development, stewardship of taxpayers’ money, and agility.

These core competencies and areas of expertise are how MoDOT reaches its mission as evidenced by achieving its Tangible Results, as reported in the Tracker. This measure of proof of MoDOT’s success and employee’s abilities, skills, and talents allows the department to continue to plan, design, construct and maintain the state highway system. The primary core competencies are contained within the field of civil engineering.

It is these very competencies that produce a competitive environment for its partners and suppliers through the letting and bidding process to get the “best value for every dollar spent.” Without these competencies MoDOT would not be able to execute its aggressive action plans and successfully deliver a safe, efficient transportation system to meet the driving public’s current and future transportation needs. No matter how challenging the action plans or initiatives are — MoDOT employees deliver.

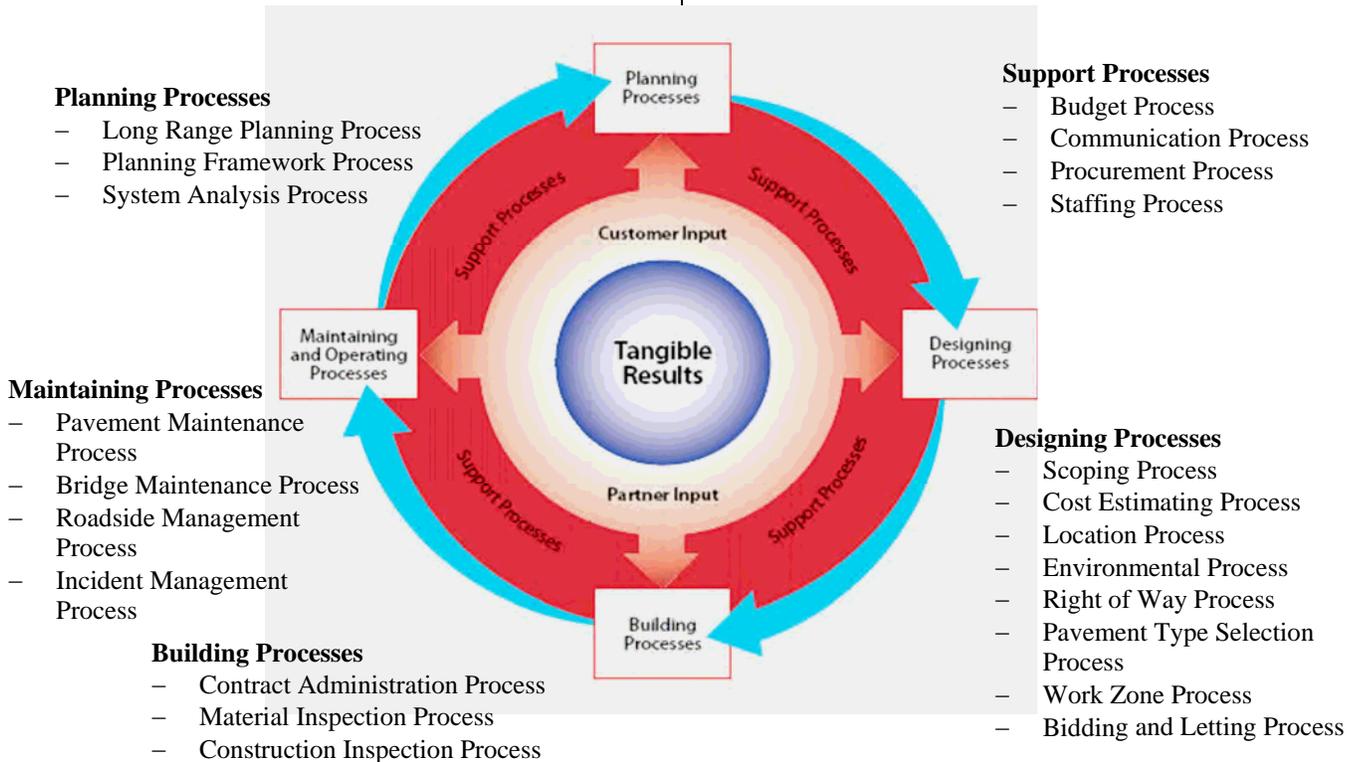
**6.1a (2)** The same legislative edict that created MoDOT prescribes its work systems of planning, designing, building and maintaining the transportation system. All state DOTs have a comparable structure.

Deciding which work system processes are internal or external is based upon MoDOT’s Tangible Results, core competencies and expertise. While each of the Tangible Results is a measuring stick and deciding factor, the two overriding and most frequently drawn upon are safety and customer value – “Safe Transportation System” and “Best Use for Every Dollar Spent.”

**6.1b (1)** MoDOT uses a myriad of processes driven by its Mission, Values, and Tangible Results (Figure P.1-2) to deliver the state’s transportation programs and services for all modes of travel. The department’s processes work together with its core competencies to achieve its mission. In other words, all of the planning, designing, building, and maintaining processes help MoDOT develop and maintain the state’s transportation system to provide a world-class transportation experience that delights its customers and promotes a prosperous Missouri.

Figure 6.1-1 illustrates MoDOT’s work system design and key processes. Tangible Results are at the center of everything MoDOT does with customer and partner input involvement throughout every step.

**Figure 6.1-1 Work System Design and Key Processes**



MoDOT's key processes deliver value to customers in numerous ways. A few examples include:

- Ensure the best value for every dollar spent and fast projects that are of great value - scoping and estimating projects accurately to fund more projects, bidding and letting to promote competition and economical pricing, securing best prices by contract administration, inspecting to guarantee quality
- Maintain uninterrupted traffic flow - controlling traffic and incident management to lessen congestion and shorten wait times
- Provide a safe transportation system - maintaining roads and bridges for safe travel, increasing roadway visibility and managing safe roadside accommodations
- Make available easily accessible modal choices - administering funds to support and improve air, rail, port, and public transit options

The department's key processes contribute to profitability by efficiently and/or effectively getting the best value for every dollar spent. In addition, the key processes assure organizational success and sustainability by allowing MoDOT to meet and exceed customers' expectations to develop and maintain the state's transportation system and multimodal choices.

**6.1b(2)** The key requirements of all MoDOT processes are that they be timely, efficient, and effective without compromising safety. All work processes must be better, faster, and cheaper. MoDOT's work process requirements come from a variety of sources including state and federal

regulations and mandates, industry specifications, and the expectations of MoDOT's customers as captured in the 18 Tangible Results. Current processes are modified according to systematic input from customers and partners. This input comes from many methods including surveys, focus groups, e-mails, editorials, public meetings, Partnering for Innovative Efficiencies meetings, research and the Planning Framework to name a few. Process changes are monitored through the Tracker or the district/division Tracker results.

**6.1b(3)** The ultimate requirement for each process is to achieve MoDOT's Tangible Results. Figure 6.1-2 outlines the key processes with key requirements and Tracker measures to indicate how effective the processes are at meeting the customers' expectations and delivering on its mission.

The Tracker measures the key indicators that senior leadership needs to make data-driven decisions. Each division and district has a Tracker in alignment with the organization-wide Tracker. This alignment continues down to each employee's individual performance appraisal through MAPS as explained in Category 5.1. It is within these several layers of performance indicators and measures that cycle time, productivity, cost control and a variety of measures for effectiveness, efficiency and safety are monitored.

New technology, organizational knowledge, and agility are incorporated into the processes by setting the focus and allowing empowered employees to manage the performance

**Figure 6.1-2 Key Process Requirements and Performance Indicators**

Key Transportation Delivery Processes	Key Requirements Tangible Results	Key Tracker Measures
<b>Planning Processes</b> <ul style="list-style-type: none"> <li>• Long Range Planning</li> <li>• Planning Framework</li> <li>• System Analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Customer Involvement in Transportation Decision-Making</li> </ul>	<ul style="list-style-type: none"> <li>• Percent of customers who feel MoDOT includes them in transportation decision-making process</li> <li>• Percent of customers who feel completed projects are the right transportation solutions</li> </ul>
<b>Designing Process</b> <ul style="list-style-type: none"> <li>• Scoping</li> <li>• Cost Estimating</li> <li>• Location</li> <li>• Environmental</li> <li>• Right of Way</li> <li>• Pavement Type Selection</li> <li>• Work Zone</li> <li>• Bidding and Letting</li> <li>• Contract Development</li> </ul>	<ul style="list-style-type: none"> <li>• Fast Projects That Are of Great Value</li> <li>• Environmentally Responsible</li> <li>• Uninterrupted Traffic Flow</li> </ul>	<ul style="list-style-type: none"> <li>• Percent of estimated project cost as compared to final project cost</li> <li>• Percent of projects completed without environmental violation</li> <li>• Percent of work zones meeting expectations for traffic flow</li> </ul>
<b>Construction Processes</b> <ul style="list-style-type: none"> <li>• Contract Administration</li> <li>• Material Inspection</li> <li>• Construction Inspection</li> </ul>	<ul style="list-style-type: none"> <li>• Fast Projects That Are of Great Value</li> </ul>	<ul style="list-style-type: none"> <li>• Percent of projects completed within programmed amount</li> <li>• Percent of projects completed on time</li> <li>• Percent of change for finalized contracts</li> <li>• Average construction cost per day by contract type</li> <li>• Unit cost of construction expenditures)</li> </ul>
<b>Maintaining Processes</b> <ul style="list-style-type: none"> <li>• Pavement Maintenance</li> <li>• Bridge Maintenance</li> <li>• Roadside Management</li> <li>• Incident Management</li> <li>• Traffic Control</li> </ul>	<ul style="list-style-type: none"> <li>• Smooth and Unrestricted Roads and Bridges</li> <li>• Attractive Roadside</li> <li>• Uninterrupted Traffic Flow</li> </ul>	<ul style="list-style-type: none"> <li>• Percent of major highways that are in good condition</li> <li>• Percent of minor highways that are in good condition</li> <li>• Number of deficient bridges on the state system</li> <li>• Number of miles in Adopt-A-Highway program</li> <li>• Average time to clear traffic incident.</li> </ul>

with an eye on measurement indicators. Further, MoDOT's core competencies come into play, especially gathering input and involvement from customers and partners. Senior leadership gives employees the outcome expectations through the Mission, Values and Tangible Results and get out of the way to allow the transportation experts to get the job done. When employees identify an issue, which is larger than one to solve, it is elevated to a team. Just like the strategic planning process described in 2.1a(1-2) a team is formed. The team may first come together in a Partnering for Innovative Efficiencies meeting to collaborate with MoDOT's partners or a process improvement team may be chartered to follow the five-step process. In addition, the work improvement process comes into play as described in Item 6.2b.

**6.1c** The department has a continuity of operations plan that identifies essential and key processes and personnel, and procedures to follow during an emergency. MoDOT developed this plan in conjunction with the State Emergency Management Agency in accordance with Emergency Management Accreditation Program guidelines.

The plan provides guidance to MoDOT staff for maintaining departmental capability to fulfill all of its assigned mission-critical functions during all contingencies, including employee safety and well-being if any MoDOT facility is threatened or inaccessible. Specific objectives of this plan include: ensure continuous performance of mission-critical functions; protect essential facilities, equipment, vital records, and other assets; reduce or mitigate disruptions to operations; reduce loss of life and minimize damage, and losses, and achieve a timely and orderly recovery from an emergency and resume full service to Missouri citizens.

## **6.2 Work Process Management and Improvement**

**6.2a(1-2)** MoDOT designs its work processes to ensure all key requirements are met by paralleling the strategic planning process (Figure 2.1-2). MoDOT bases the processes on its Mission, Values and Tangible Results, gathers and analyzes information (step one), forms teams (step two) seeks approval (step three), implements (step four) and tracks results (step five).

**Step 1, Gather Information:** To ensuring all requirements are met, MoDOT's design process starts with gathering information through the use the Planning Framework process (Item 3.1). MoDOT and its planning partners, which include 19 regional planning commissions and five metropolitan planning organizations, identify transportation needs, prioritize those needs, develop projects to address those needs and prioritize projects statewide.

Once needs have been identified and prioritized, locations are identified for any necessary environmental and cultural

studies. Some of these studies and their associated public involvement can take years to complete, so MoDOT works quickly to get them underway once the need for them is determined. Once needed studies are performed, projects are scoped to determine the exact improvements necessary and the costs associated with the improvement. Before inclusion into Missouri's five-year Statewide Transportation Improvement Program (STIP), projects are prioritized by region. Since MoDOT works collaboratively with its planning partners to develop the STIP through the Planning Framework process, the result is a STIP that is supported statewide. Working with its planning partners enables MoDOT to achieve the Tangible Result, "Customer involvement in transportation decision-making."

MoDOT has established a planning process that sets the overall direction of the agency and includes both long-range goals and a short-term (five-year) plan for improving road conditions.

MoDOT begins the system delivery process through its long-range planning process that looks at the challenges and opportunities that face the transportation system over the next 20 years. MoDOT's long range planning initiative pairs technical facts and data regarding the transportation system with a strong public involvement effort to accomplish two goals: identify the guiding principles, policies and necessary trade-offs to make improvements in Missouri's transportation system; and to familiarize the public with the issues facing transportation in Missouri and educate them in the trade-offs that must be made in addressing those issues at current funding levels.

In coordination with the long-range plan, MoDOT reviews and updates its funding allocation process to ensure alignment of program funding with the Tangible Results and policies for Missouri's transportation system.

**Step 2, Core Teams:** MoDOT uses a decentralized core-team project development process to design transportation projects. A project manager leads the project core-team. This individual is responsible for delivering the project on time and on budget, as outlined in the STIP. The team is made up of a variety of individuals with expertise in many areas, including employees from the design, environmental, maintenance, right of way, construction, and other units found in the System Delivery Team. Team members work together throughout the project development process to ensure a quality project. This process helps limit problems such as constructability issues and long-term maintenance problems. It also helps accelerate the design process.

MoDOT develops an annual value engineering work plan to identify projects which would likely benefit from a value engineering study. Value engineering (VE) refers to the review of a project currently in the design or construction

process by an experienced and objective team to identify areas for potential cost and timesavings in the project. In general, MoDOT performs a VE study on major projects that have the greatest potential cost and timesavings. All projects over \$25 million are studied. Projects between \$10 million and \$25 million are considered for study. Those that pose an opportunity for savings are pursued. MoDOT saved nearly \$60 million in federal fiscal year 2005 through its VE program.

**Step 3, Review and Approval:** While MoDOT’s design process is decentralized, all projects are reviewed by a project review section at the Central Office. The purpose for this review is to certify that project requirements have been met. Projects are reviewed for any significant errors or unclear expectations in the bidding documents. In addition to preparing projects for awards, this same project review section provides expertise and advice to project managers throughout the design process to develop the project in a way that encourages competitive bidding. Considerations such as the letting date, whether the project is let in combination with another project, and working days allowed for the construction all have an effect on both the number of bids received for a project and the amount of the bids on the project. This group serves as a resource to project managers to ensure MoDOT is developing projects that maximize bidding competition. Further, the engineer’s estimate is prepared by this section and used to evaluate the final bids on a project. Projects that receive bids deemed excessive are further evaluated, reformulated and re-let with the goal of increasing bidder competition. This process of evaluating project bids, reformulating projects and re-letting for more competitive bids saves MoDOT millions of dollars.

**Step 4, Implementation:** Following Commission award of a construction project, it is assigned to a resident engineer in the affected district. The resident engineer performs the engineering and ensures compliance with the contract. Resident engineers are responsible for delivering the project on time and managing the project within the budget allocated for it. Recently, resident engineers have been challenged to deliver projects within 2 percent of the award amount, compared to the 3 percent used in previous years. In addition, these same resident engineers provide suggestions for improvement in future projects or processes directly back into the core team process. This helps ensure projects are continually improving based on field experience.

**Step 5, Results:** Central office employees input construction project information into a database called SiteManager; and they perform several checks to verify the accuracy of the data. The resident engineer is notified of its availability and additional project office employees are granted access to enter information on the project. Every

day a MoDOT construction inspector visits the project site to gather information to populate into SiteManager. This information includes, but is not limited to, daily work reports, change orders, pay estimates, subcontractors, material samples and key dates such as project completion. This information is used to monitor construction progress and performance measures, compensate contractors, and adjudicate any contractor discrepancies. These processes enable MoDOT to achieve the Tangible Result, “Fast Projects That Are of Great Value”.

Once construction projects are completed they become part of the existing transportation system. This system is continuously monitored to ensure it performs at an acceptable level. MoDOT uses traffic studies, system condition analysis, capacity reviews, and other means to monitor the performance of Missouri’s transportation system and report results through Tracker measures (Figure 6.1-2). Together these tools help MoDOT pinpoint problem areas to address and help identify future needs of the system. This information is circled back into the Planning Framework process so that those needs compete with other identified needs in the prioritization process.

**6.2b** MoDOT employees have comfort and experience with the five-step planning process, which is based upon Edward Deming’s work with Plan-Do-Check-Act (PDCA) depicted in Figure 6.2-1.

When new technology is tested, a performance measure indicates an issue that includes variances, teams form to investigate and make recommendations, which are creating a plan or the second and third steps of the strategic planning process (Figure 2.1-2). The approved recommendations are piloted as the Do phase and step four of the strategic planning process (SPP). Finally, employees watch and monitor results, which is the Check and SPP step five. Once the results prove effective, efficient and safe delivering on the Tangible Results, then the new technology, product or process is rolled out to the rest of the organization.

Organizational Results tests new products through a systematic process and report approval or decline conclusions in a database. This efficiency allows one area to test a product rather than 10 different districts or numerous maintenance sheds throughout the entire state.



**Figure 6.2-1 PDCA Model**

## CATEGORY 7 – RESULTS

### 7.1 Product and Service Outcomes

Whether they are passengers or drivers, MoDOT’s customers expect a transportation system to be free of congestion and to offer a high level of mobility for all modes of travel. In their travels on Missouri’s roads and bridges, they expect a smooth, safe ride and clean, attractive roadsides. They expect the movement of products and commodities to grow and sustain Missouri’s economy. And they trust that MoDOT will keep them informed of its plans and projects and to give them answers to their questions.

These measures (Figures 7.1-1 and 7.1-2) indicate how smooth and unrestricted roads and bridges are on the state highway system. For customers, smoother roads mean less wear on vehicles, safer travel and greater opportunity for economic development.

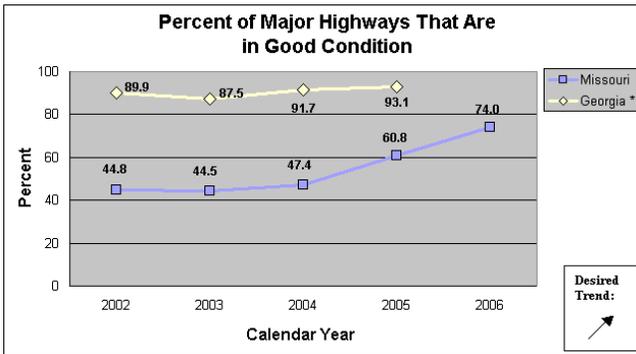


Figure 7.1-1

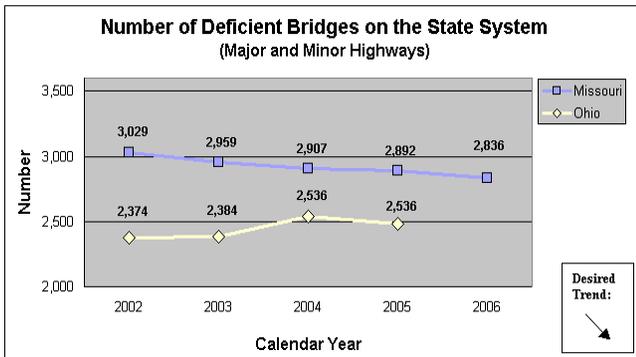


Figure 7.1-2

Completion of the SRI has resulted in a significant improvement in pavement condition. Currently, 74 percent of the major highways are in good condition, up from 46 percent at the beginning of the SRI. Source data for Georgia is “Highway Statistics” published by FHWA.

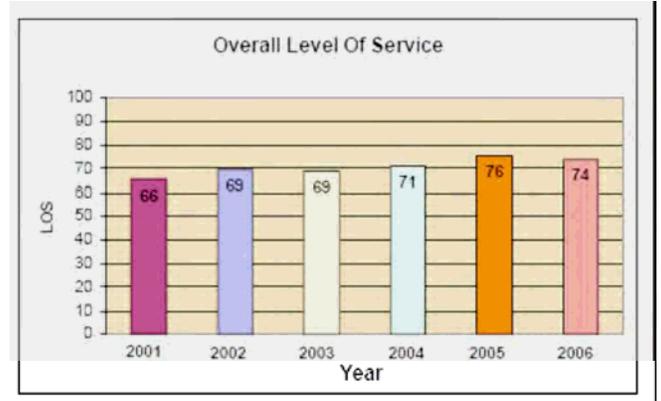


Figure 7.1-3

Overall system totals from previous year reports can be used to identify system trends. In summary it is anticipated that district maintenance managers will utilize this report to identify the condition of their highways and plan their maintenance program and budget for fiscal year 2007.



Figure 7.1-4

The data shows a 14 percent increase in the percent of signs on the major highways that are meeting customer expectations. Results should continue to improve with the emphasis on improving the major roads within the next five years and the proposed 10-year replacement program for signs on major roads. In addition, the proposed 12-year replacement program for signs on minor roads should continue to improve the results.

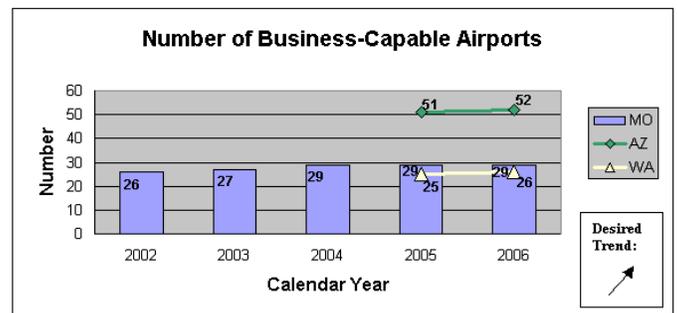
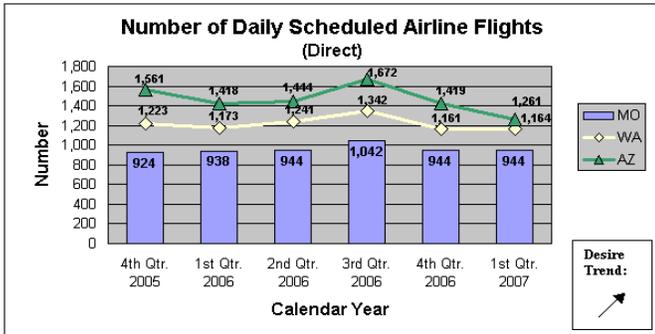


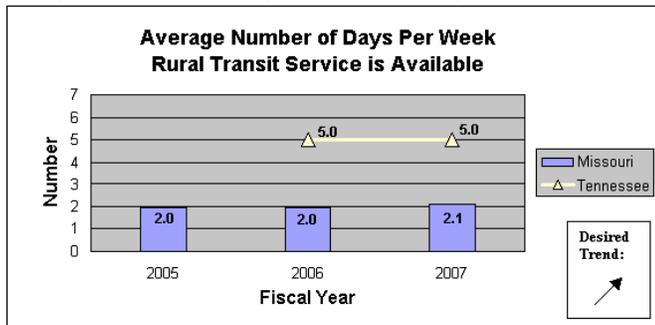
Figure 7.1-5

Figure 7.1-5 depicts the number of airports capable of handling business aircraft. Local communities and economic development agencies can use airports to assist in increasing a community's economic viability for business retention and development.

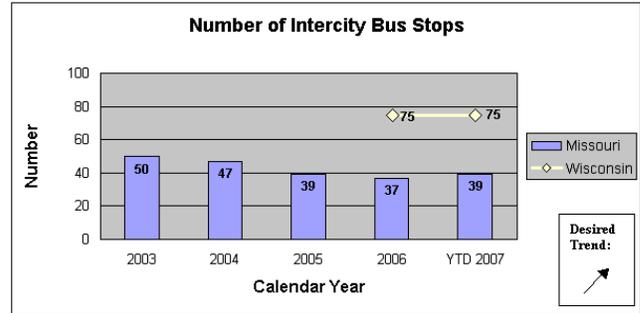
The State Aviation Trust Fund, which is used for maintenance and capital improvement projects at airports, increased from approximately \$3 million in calendar year 2004 to \$6 million in calendar year 2006.



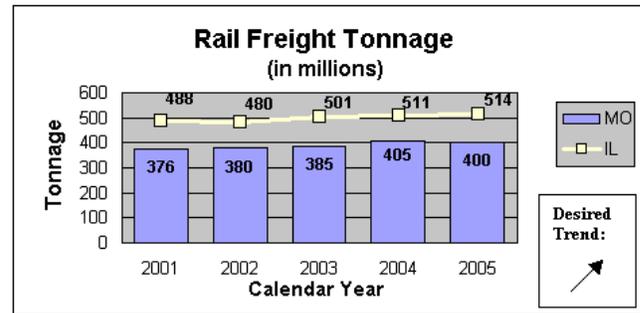
**Figure 7.1-6**  
This measure tracks the number of airline flights. The data assists in determining options available to the traveling public. It provides an indication of the airline industry's economic stability in Missouri. Daily scheduled airline flights in Missouri have increased from the fourth quarter of 2005 compared to the fourth quarter of 2006 and from the first quarter of 2006 compared to the first quarter of 2007.



**Figure 7.1-7**  
Rural transit service at a statewide average of two days per week is not sufficient for its riders to support full-time employment. The outlook for 2008 suggests an opportunity for growth in rural transit service based on an increase of federal rural transit funds authorized to Missouri through SAFETEA-LU, which is the federal transportation funding legislation. For 2006, Tennessee deployed more days of rural transit service with five-day-a-week service, subject to available seating. However in 2005, Missouri's rural transit providers together delivered 3.3 million trips compared to 1.4 million rural transit trips provided in Tennessee.



**Figure 7.1-8**  
This measure tracks the number of intercity bus stops. Intercity bus stops represent access points to intercity bus services provided by Greyhound, Jefferson Lines and Trailways, and most recently, Megabus. More stops among Missouri's 114 counties means greater access. Fewer stops create a barrier by requiring greater traveling distances in order to board an intercity bus. Data on the number and location of intercity bus stops is obtained annually from the national and regional intercity bus carriers.



**Figure 7.1-9**  
Rail tonnage data is obtained from the Association of American Railroads and 2006 data is not expected until late 2007. Rail freight tonnage declined 5 percent in 2005 despite strong demand.

MoDOT will not compromise safety because it believes in the well being of its employees and customers. Figures 7.1-10 through 7.1-14 indicate how safe Missouri's transportation system is for its customers.

This data drives the development and focus of the Missouri Highway Safety Plan. This plan is required annually by the National Highway Traffic Safety Administration and outlines key strategies to reduce these losses. Also, this data supports the Missouri Blueprint for Safer Roadways, a statewide initiative with a goal of reducing fatalities to 1,000 or fewer by 2008.

Crash data is collected by the Missouri State Highway Patrol and entered into a traffic accident record system. The record system automatically updates MoDOT's traffic management system.

Figures 7.1-10 shows annual trends in disabling injuries resulting from traffic crashes on Missouri roadways. MoDOT also tracks annual trends in fatalities and injuries resulting from traffic crashes on all Missouri roadways involving drivers who are impaired by alcohol and/or drugs (Figures 7.1-12 ).

Figure 7.1-11 and 7.1-14 show Missouri’s ranking compared to other states.

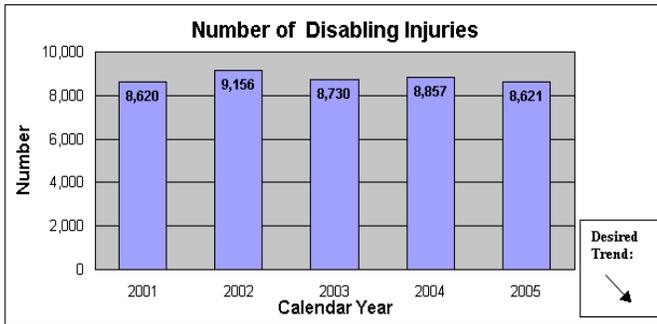


Figure 7.1-10

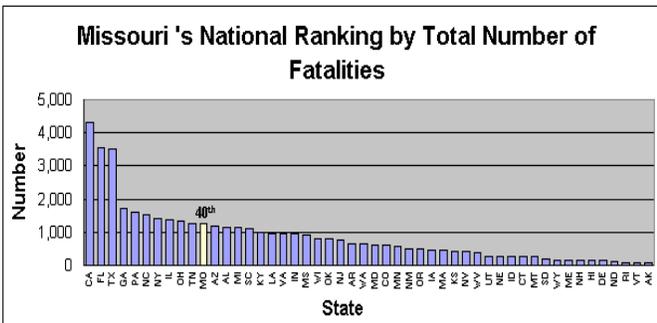


Figure 7.1-11

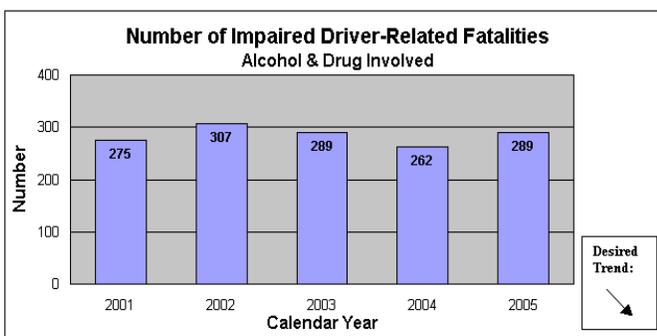


Figure 7.1-12

MoDOT continues to coordinate its railroad crossing projects in the areas of greatest need using a safety exposure index, in addition to focusing on crossings with a history of accidents or limited sight distance. By agreeing with the railroads to look at a defined area, called a corridor, and sharing financial responsibilities for improvements, limited funds can be spread over a wider area. This increases the

number of overall projects completed in specific areas of the state.

Other improvements include an increased emphasis on and MoDOT employee participation in public outreach opportunities on rail safety in conjunction with Operation Lifesaver, Inc. Another improvement is the exploration of partnerships with other government agencies, cities and school districts to upgrade flasher-only crossings to crossings with both lights and gates, to install gates and lights at crossings and to replace outdated lighting with LED systems. There is also a renewed emphasis on closing redundant or unnecessary crossings.

Although fatalities and collisions in calendar year 2006 were decreased markedly from 2005, so far in 2007 there have been four fatalities, which nearly matches the total for 2006. In order to combat this, in addition to the above engineering factors, MODOT has increased and implemented more public outreach efforts. This has included distributing an emergency responder manual for train accidents, a specific light-rail safety brochure for Metrolink in St. Louis, and a special in-cab card detailing specific crossing safety tips for truckers in large semis. Most importantly MoDOT is co-sponsoring Rail Safety Week April 22-28, 2007, with the Missouri Highway Patrol and Missouri Operation Lifesaver. This event is designed to increase public awareness and discussion of the need for increased safety and heightened awareness at railroad crossings.

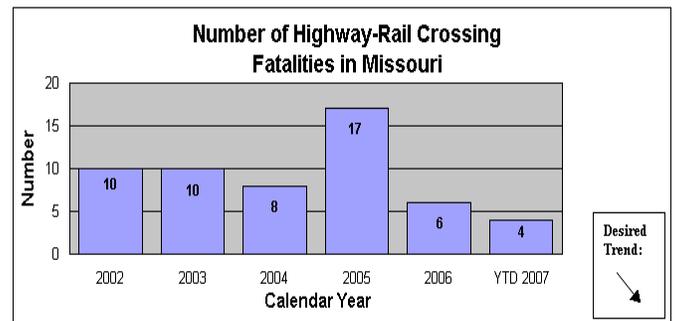


Figure 7.1-13

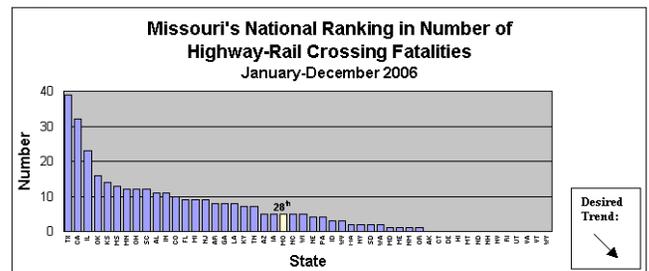


Figure 7.1-14

The following measure tracks information regarding use of ferryboat services in Missouri. In the first three quarters of fiscal year 2007, the New Bourbon ferryboat carried a total

of 7,779 vehicles with 23,956 passengers compared to 11,780 vehicles with 27,054 passengers in the first three quarters of fiscal year 2006. While this is a 34 percent decrease in vehicle traffic from one year ago, it still has improved from a 55 percent decrease in the first quarter and a 40 percent decrease in the second quarter. The service was closed for 15 days in February due to low water.

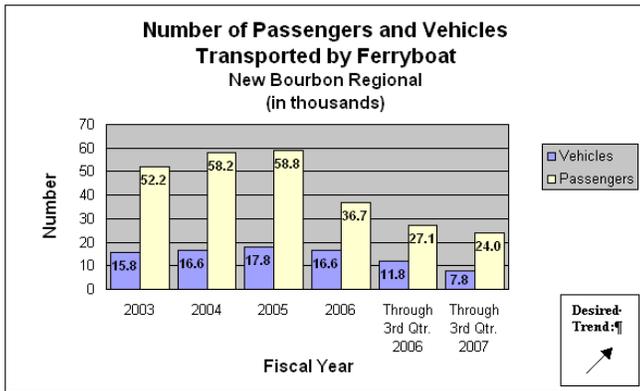


Figure 7.1-15

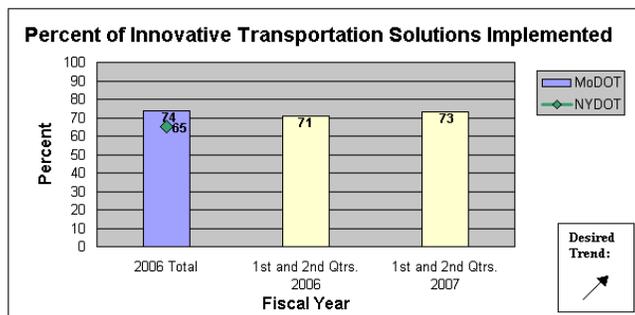


Figure 7.1-16

This measure tracks the percentage of new and innovative ideas, methods, or tools MoDOT implements as a result of research and innovation efforts. MoDOT realizes the importance of supporting innovation and research and is driven to provide the department with the latest ideas, technologies, and solutions needed to deliver the most efficient, safe, and economical transportation system.

## 7.2 Customer-Focused Outcomes

MoDOT's customers use the system over and over again. Repeat business is nearly guaranteed. Keeping customers satisfied with the state's transportation system leads to positive customer relationships and trust in MoDOT's actions. Customer-focused outcome measures are built into seven of MoDOT's Tangible Results.

MoDOT conducts an annual survey of Missourians through the Missouri Transportation Institute to measure their overall level of customer satisfaction. Results indicate that 70 percent of those surveyed in 2006 were either satisfied or

very satisfied with MoDOT. (Figure 7.2-1) Customers indicating they were very satisfied with MoDOT has risen from 5 percent in 2003 to 15 percent in 2006.

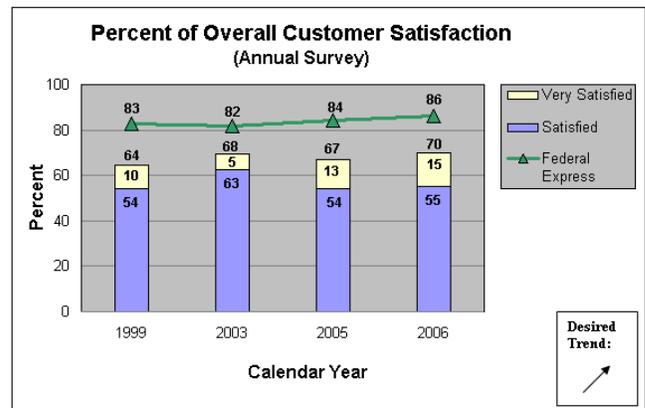


Figure 7.2-1

MoDOT targeted Federal Express as the benchmark for this measure. Based on information compiled by the American Customer Satisfaction Index, Federal Express has the highest customer satisfaction rate – 86 percent – out of the 200 companies and government agencies that the ACSI scores.

MoDOT tracks the level of satisfaction of customers who contact MoDOT's Customer Service Centers. At the conclusion of the call, customers are asked to answer three short questions regarding the speed, accuracy and clarity of the answers they received.

Figures 7.2-2 through 7.2-4 illustrate MoDOT's performance in responding to its customers in a quick, courteous, and understandable manner. MoDOT's performance in these areas consistently remain at levels of 98 percent or higher from quarter to quarter.

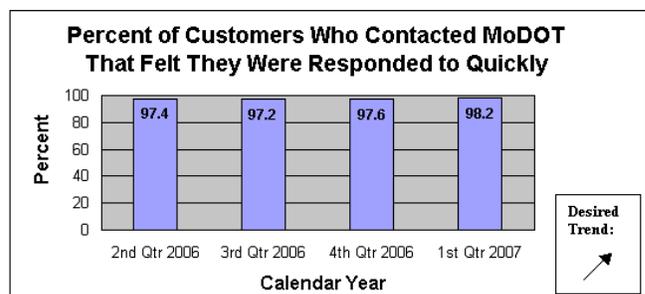


Figure 7.2-2

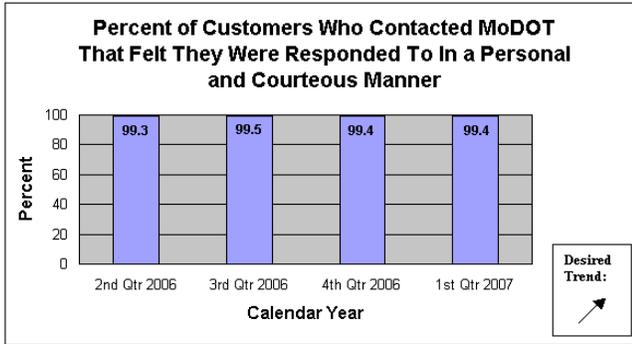


Figure 7.2-3

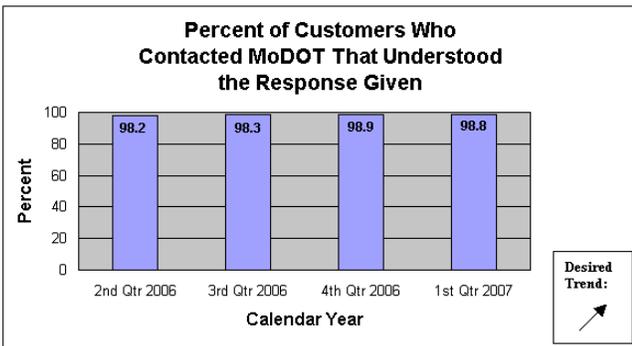


Figure 7.2-4

More than 90 percent of MoDOT’s total customer requests are responded to immediately, including basic phone call transfers, questions, or requests for general information.

Customer requests requiring follow-up are further documented. Requests are tracked from the time the call comes in until the request is responded to. These requests may include signs, traffic signal review, pothole patching or work zone congestion. Figure 7.2-5 indicates MoDOT’s performance in addressing these customer requests in a timely manner. Results are consistently above 96 percent from quarter to quarter.

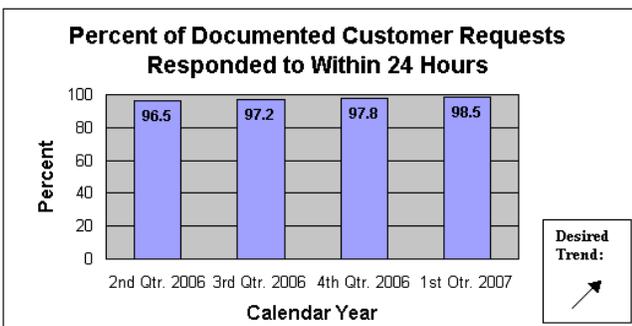


Figure 7.2-5

Figure 7.2-6 indicates how satisfied Motorist Assist customers were with the service they received when they experienced an incident on Missouri’s highway system. Information received provides direction on how to better serve MoDOT’s customers and keep traffic moving safely and efficiently.

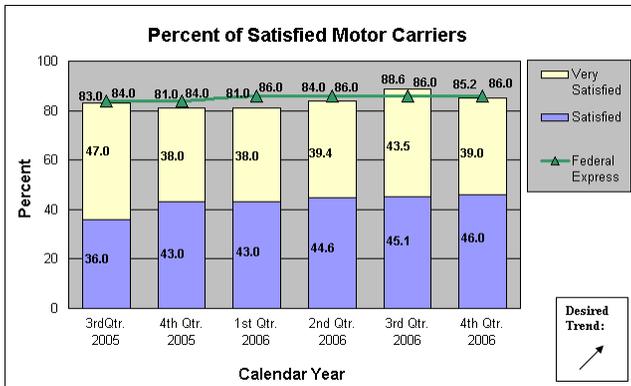
Each year, tens of thousands of motorists traveling along Missouri’s urban interstates use the Motorist Assist program. Motorist Assist operators distributed survey cards to customers starting June 1, 2005. Data from the cards is compiled and tabulated by the Missouri Transportation Institute. Surveys with selections identifying that the service was “probably” or “definitely” valuable were tabulated as “satisfied” for this measure. Results in this measure are consistently near 100 percent from quarter to quarter.



Figure 7.2-6

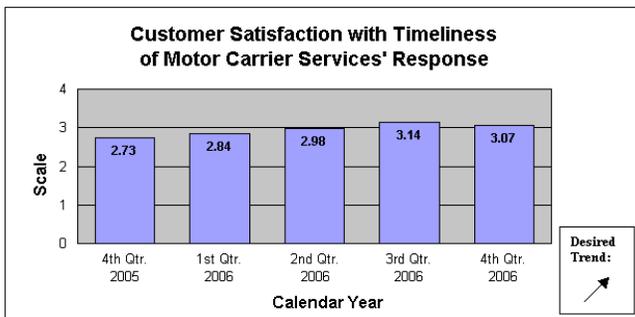
Motor carrier customers complete surveys by first identifying the service(s) they use when doing business with MoDOT, and then indicating their level of satisfaction with 12 customer service factors such as “timely response”, “friendly”, “respectful”, and “outcome”. They also provide an “overall satisfaction” score.

Motor carrier customer satisfaction is illustrated in Figure 7.2-7. MoDOT consistently scores at 80 percent or higher from quarter to quarter in survey results collected by Missouri Transportation Institute. This measure is also benchmarked against Federal Express. MoDOT’s performance has been near Federal Express’ level for the last three quarters, and surpassed it in the 3<sup>rd</sup> quarter of 2006’s calendar year.



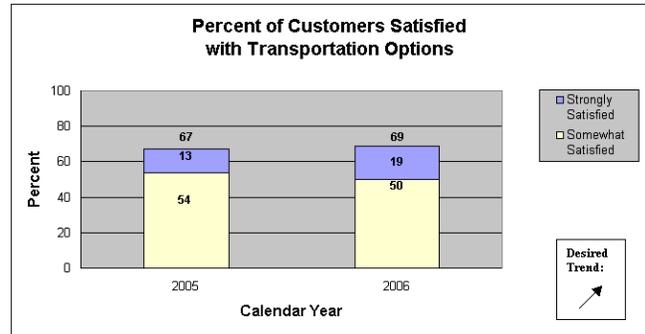
**Figure 7.2-7**

One factor motor carriers evaluate in their customer satisfaction survey is “Timely Response”. Customers rate MoDOT’s performance with a four-point scale: 4 = Very Satisfied, 3 = Satisfied, 2 = Dissatisfied and 1 = Very Dissatisfied. MoDOT’s customers consistently rate MoDOT’s performance with timely response near or over 3.0 which indicates satisfied to very satisfied. (Figure 7.2-8)



**Figure 7.2-8**

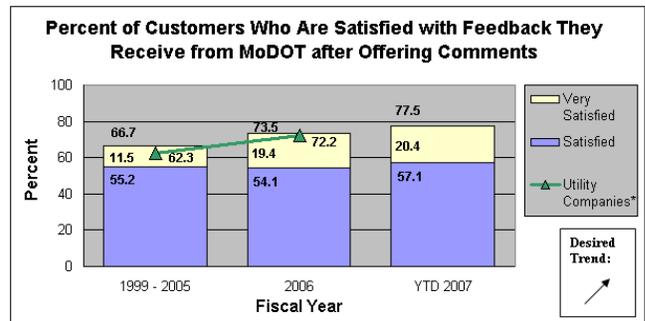
In Figure 7.2-9, results indicate the public’s perception of MoDOT’s performance in providing transportation options in areas of rail, air, transit and waterways. The results are based on an annual survey administered by Missouri Transportation Institute. In 2006, 69 percent of the Missourians surveyed stated they were either strongly or somewhat satisfied with transportation options available to them as compared to 67 percent in 2005. Most notable about the increase was the improvement of the strongly satisfied result that increased from 13 percent to 19 percent in a one-year period.



**Figure 7.2-9**

Through a survey administered by Missouri Transportation Institute, MoDOT routinely asks people who attend public meetings/hearings to submit comments that will be examined by the project team and will become part of the project’s official record. MoDOT tracks their level of satisfaction with the feedback they receive as illustrated in Figure 7.2-10.

Customers’ level of satisfaction with this feedback has consistently increased since 1999, especially in the “very satisfied” responses. MoDOT’s satisfaction rate compares favorably with that of utility companies whose customer satisfaction is evaluated by the American Customer Satisfaction Index, coordinated by the University of Michigan.



**Figure 7.2-10**

A May 2006 customer telephone survey showed that 52 percent of the survey sample feels MoDOT takes into consideration their concerns and needs when developing transportation decisions, up from 46 percent in 2005. Dissatisfaction with MoDOT has dropped from 44 percent in 2005 to 37 percent in 2006. (Figure 7.2-11)

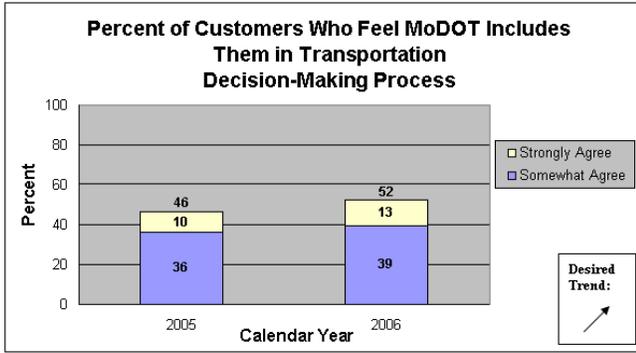


Figure 7.2-11

Figure 7.2-12 indicates the level of satisfaction on the convenience, cleanliness and safety of rest areas. MoDOT's results indicate satisfaction levels over 90 percent in all three evaluated factors. Rest area customer satisfaction benchmarks are limited. Florida's 2004 rest area customer survey results found: 90 percent said the rest areas were clean, 83 percent said there were enough rest areas and 88 percent said the rest areas were safe.



Figure 7.2-12

These measures (Figures 7.2-13 and 7.2-14) indicate the level of satisfaction that MoDOT's customers have with the information they receive. Results indicate that in 2006 more customers strongly agreed that MoDOT provided information that was timely and understandable than those in 2005.

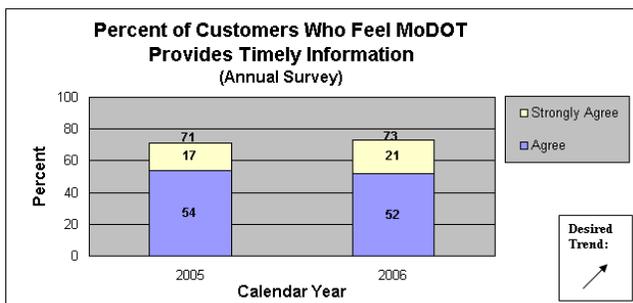


Figure 7.2-13

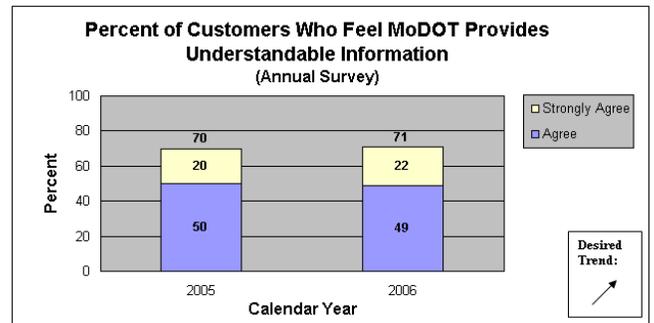


Figure 7.2-14

MoDOT's media partners are asked to rate their level of satisfaction in the areas of press releases, public meetings and events. Each area is further rated in newsworthiness, timeliness, and how understandable it is. (Figures 7.2-15 and 7.2-16) 2006 results show improvement over 2005 in both press releases and information provided at public meetings.

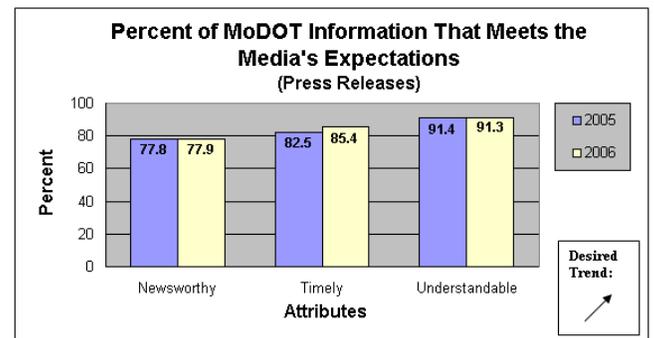


Figure 7.2-15

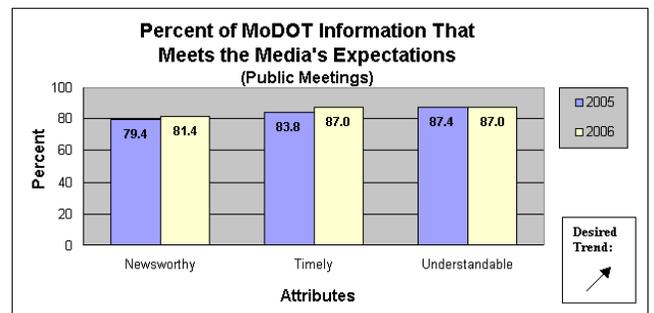


Figure 7.2-16

### 7.3 Financial and Market Outcomes

MoDOT's customers are taxpayers. As taxpayers, they expect a government agency to be responsible with its spending. Stretching dollars to get the maximum benefit is a high expectation. Finding new sources of revenues help stretch those dollars. When an agency fails to be good stewards of the taxpayers' resources, trust and confidence in the agency erodes.

These measures (Figures 7.3-1 through 7.3-4) indicate the impact these additional funding sources have upon MoDOT's projects.

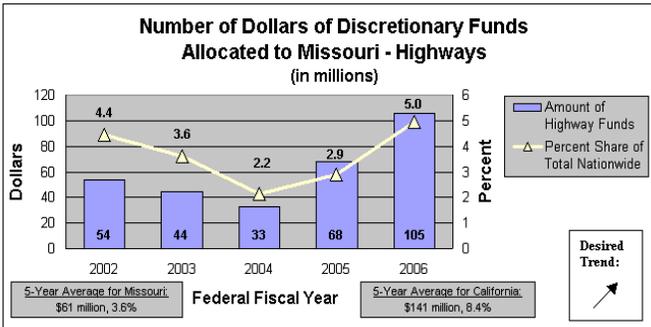


Figure 7.3-1

Figures 7.3-1 and 7.3-2 show the number of dollars of discretionary funds allocated to Missouri. The federal government allocates discretionary funds to states for specific highway and multimodal projects. These funds are distributed administratively for programs that do not have statutory distribution formulas. States compete for these funds, which are above the formula apportionments. Missouri's share of the total highway funds allocated nationwide over the last five years is 3.6 percent, which ranks seventh. The state of California received the largest share with 8.4 percent. Missouri's share of the total multimodal funds allocated nationwide over the last five years is 2.0 percent, which ranks 16th. The state of New York received the largest share with 11.8 percent.

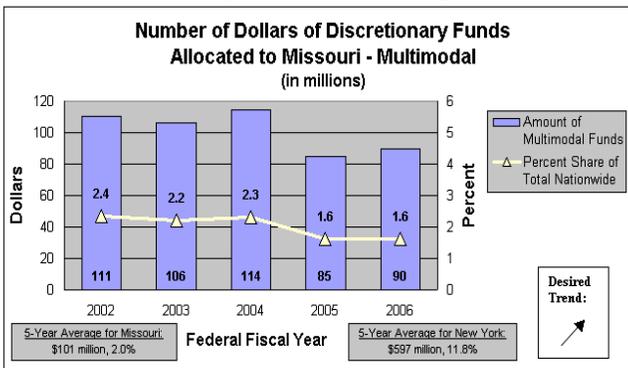


Figure 7.3-2

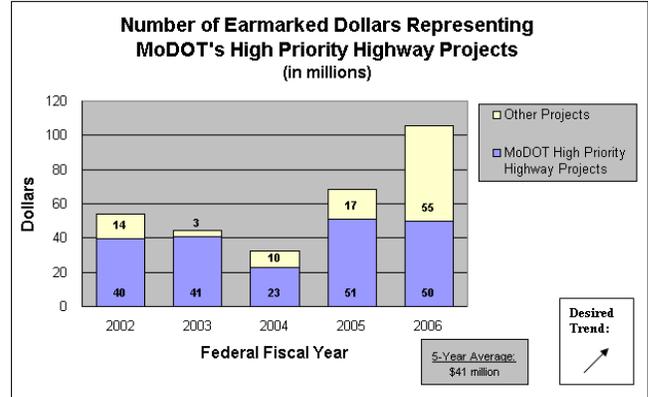


Figure 7.3-3

Figure 7.3-3 depicts Missouri's earmarked dollars for specific highway projects. A significantly increase in 2006 is mainly attributable to an increase in the funds made available from the annual appropriations bill and an increase in the annual allocation percentages for the projects identified in the current highway act, SAFETEA-LU.

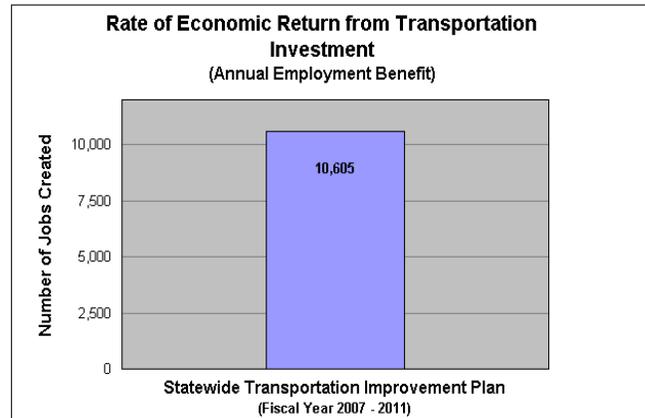


Figure 7.3-4

Figures 7.3-4, 7.3-5 and 7.3.6 presents the economic return from the state's roadway transportation investment through the number of jobs created, changes in personal income, and value-added GSP (Gross State Product).

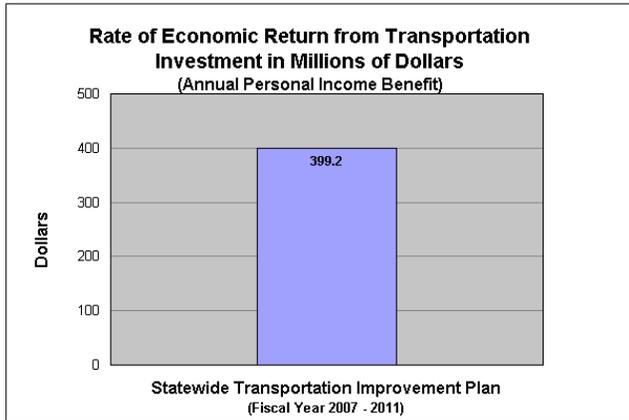


Figure 7.3-5

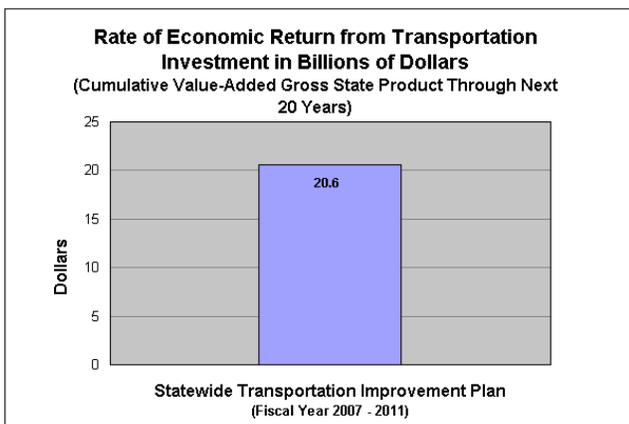


Figure 7.3-6

A year-by-year analysis of the Statewide Transportation Improvement Program is used to provide a summary of economic benefits related to transportation investments on a program basis. As a summary measure of transportation's contributions, the fiscal year 2007 through 2011 Statewide Transportation Improvement Plan (STIP) will invest over \$5.7 billion in 900 transportation projects across the state. In the average year, the STIP investments create approximately 10,605 new jobs paying an average wage of \$28,207 per job. There is an expected increase in annual average personal income of \$399.2 million and an expected increase in economic activity of \$1 billion. In terms of Gross State Product – value added, the fiscal year 2007 through 2011 STIP projects contribute over \$594.7 million per year and \$20.6 billion over the next 20 years. This equates to a 3.61:1 return on the transportation investment.

These measures (Figures 7.3-7 through 7.3-9) indicate MoDOT's commitment to cost-efficiency and timely completing its projects.

Value in this measure has simply been related back to dollars per unit of measure. MoDOT staff categorizes raw

data from an outside vendor for the unit cost from other states. Identifying the "lowest in the country" is from data produced by FHWA as well as the FHWA national average price. Bridge price data is also from FHWA. The FHWA comparative data may lag as much as one year.

MoDOT prices have remained in the same relative position vs. states surrounding Missouri in the areas of concrete pavement and soil excavation while the average asphalt price for 2006 compares more favorably than in 2005. The percentage increase in price for MoDOT for the items of work in all categories is approximately one-half that of the straight average increase of the states compared. This can be attributed to the increase in competition that MoDOT has seen in the past six to eight months.

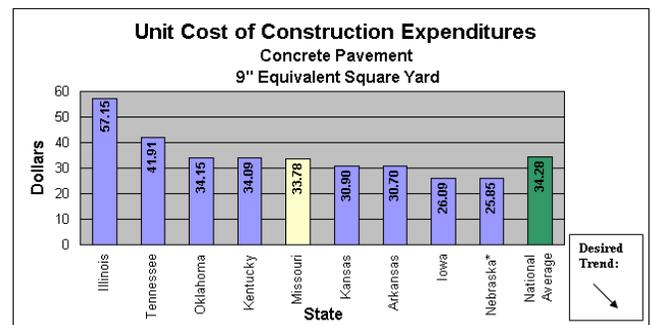


Figure 7.3-7

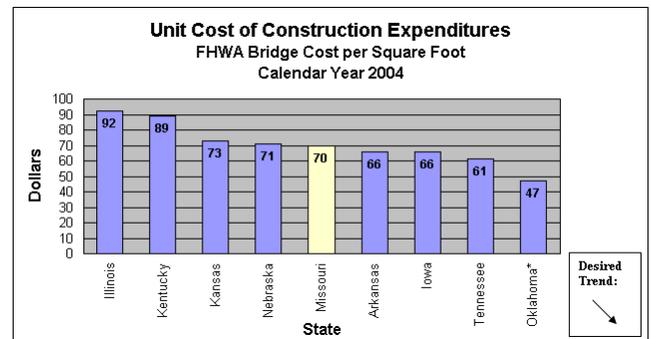


Figure 7.3-8

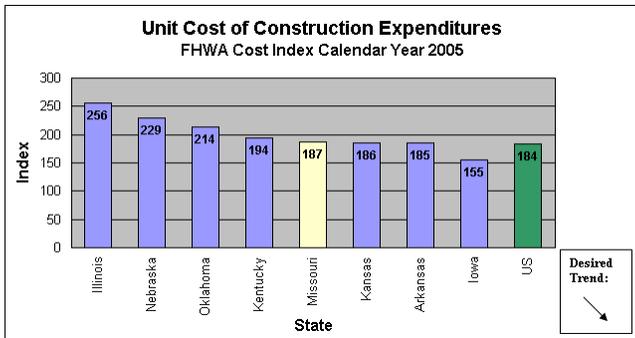


Figure 7.3-9

Figure 7.3-10 through Figure 7.3-14 demonstrates MoDOT's commitment to getting the *Best Value for Every Dollar Spent*.

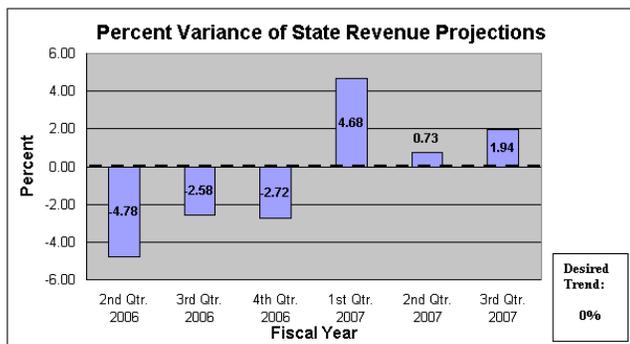


Figure 7.3-10

Figure 7.3-10 shows actual state revenue was greater than projected through the third quarter of fiscal year 2007. The projected revenue was \$742.9 million. However, the actual receipts were \$757.3 million, a difference of \$14.4 million and a positive variance of 1.94 percent. The desired trend is for the actual revenue to match projections with a variance of 0 percent. MoDOT staff adjusts future operating and capital budgets to account for these variances.

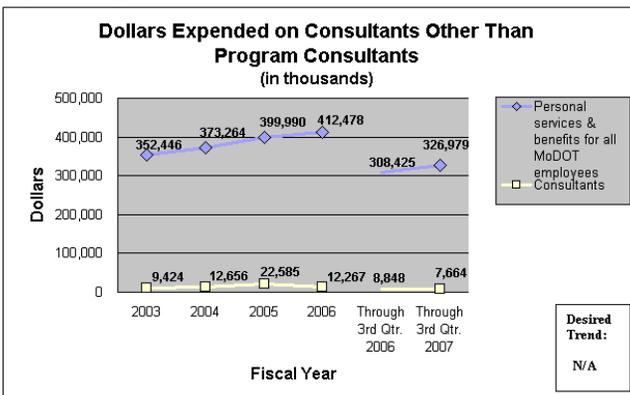
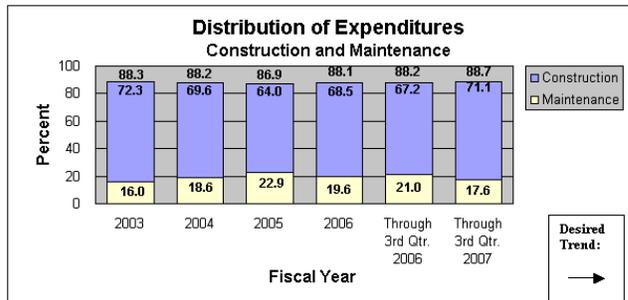


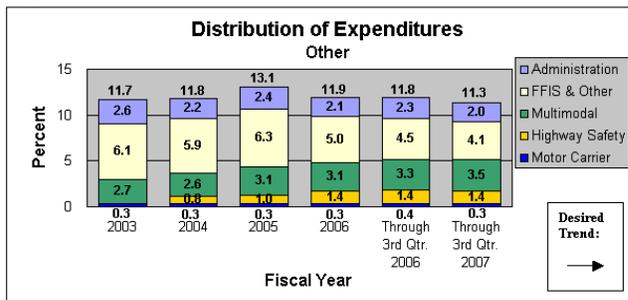
Figure 7.3-11

Figure 7.3-11 tracks the department's use of consultants for units other than right of way and construction. The department uses consultants to complement employee resources and expertise. Reporting heightens awareness and provides a tool to measure the utilization of consultants.



	Thousands of Dollars				
	2003	2004	2005	2006	YTD 2007
Construction	\$ 1,302,824	\$ 1,247,541	\$ 1,085,840	\$ 1,373,699	\$ 1,192,911
Maintenance	\$ 286,509	\$ 333,361	\$ 386,399	\$ 391,817	\$ 295,420

Figure 7.3-12



	Thousands of Dollars				
	2003	2004	2005	2006	YTD 2007
Administration	\$ 47,053	\$ 40,486	\$ 41,288	\$ 43,076	\$ 33,292
Multimodal	\$ 48,451	\$ 46,741	\$ 52,681	\$ 61,431	\$ 57,655
FFIS & Other	\$ 110,054	\$ 105,130	\$ 106,822	\$ 99,418	\$ 69,260
Motor Carrier	\$ 5,473	\$ 5,035	\$ 5,811	\$ 6,741	\$ 4,962
Highway Safety	\$ -	\$ 14,673	\$ 17,702	\$ 27,657	\$ 23,771

Figure 7.3-13

Figures 7.3-12 and 7.3-13 illustrate the department's emphasis is on expenditures for routine maintenance of the system (maintenance appropriation) and renovation and construction of the system (construction appropriation).

#### 7.4 Workforce-Focused Outcomes

MoDOT needs a highly skilled and productive workforce to produce the products and services it has committed to deliver to its customers. A highly trained and safe workforce leads to engaged employees who show up every day ready to perform their duties as public servants.

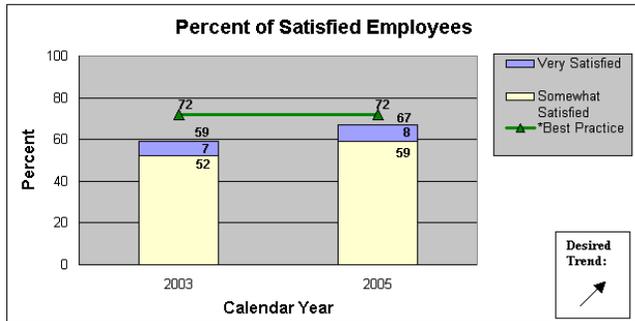


Figure 7.4-1

Figure 7.4-1 measures the level of employee satisfaction throughout the department using 18 items from a biennial employee survey. A survey to gather 2007 data will be distributed in May 2007. 2005 results indicate an increase of 8 percent over 2003's results with 1 percent more employees reporting in 2005 that they were very satisfied than those reporting in 2003. Of particular note is that MoDOT's level of employee satisfaction rose from 2003 to 2005 while the benchmark data remained constant. Best practice data for an anonymous company was provided by the vendor contracted to conduct the employee survey.

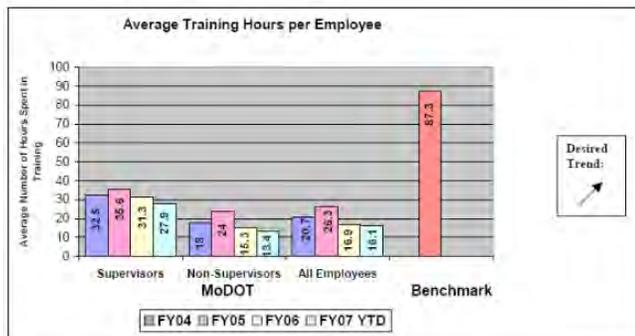


Figure 7.4-2

MoDOT tracks its training investment in its employees through a measure on average training hours per employee (Figure 7.4-2). MoDOT's benchmark in this measure reflects the average number of hours spent in training for employees in the top 10 of *Fortune Magazine's*, "100 Best Companies to Work For 2007." The decline in FY2006 reflected MoDOT's drive to complete SRI one year ahead of schedule. YTD FY2007 numbers indicate that MoDOT's employees are increasing their time spent in training.

MoDOT tracks its responsibility to provide Missouri citizens with the best value for every dollar spent by monitoring its number of employees (Figure 7.4-3). Overtime includes both salaried and wage employees. The number of salaried employees is compared to the number of authorized positions. MoDOT has maintained salaried

positions at an amount significantly lower than the number of authorized positions consistently since 2003.

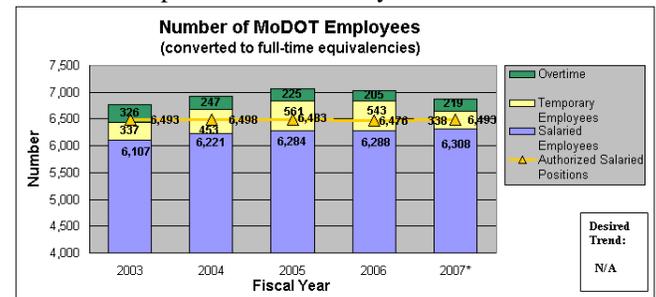


Figure 7.4-3

MoDOT also tracks how many hours the average employee works on an annual basis. (Figure 7.4-4) This measure assists management in determining staffing and productivity levels. Benchmark data is from Saratoga Institute report, "Key Trends in Human Capital – Global Perspective," indicating average hours worked per person in the United States. MoDOT employees have consistently worked an close to an average 1,800 hours annually. This compares favorably to Saratoga's average of 1,819 hours.

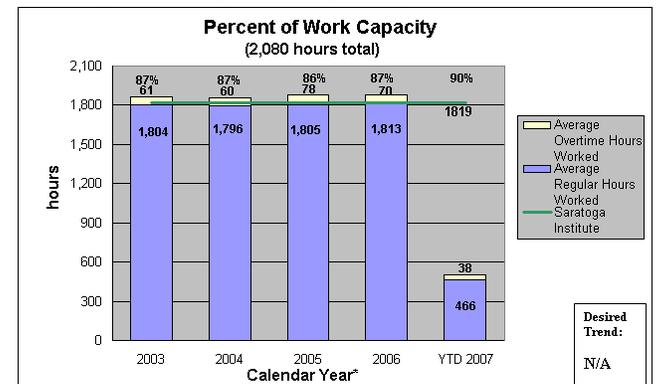
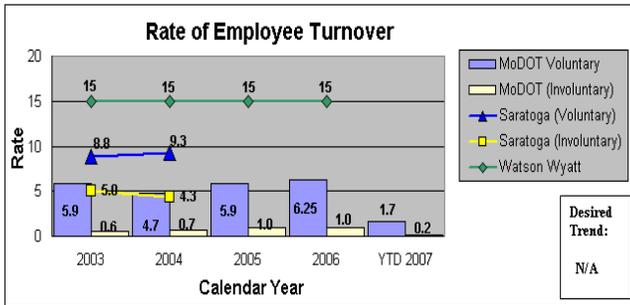


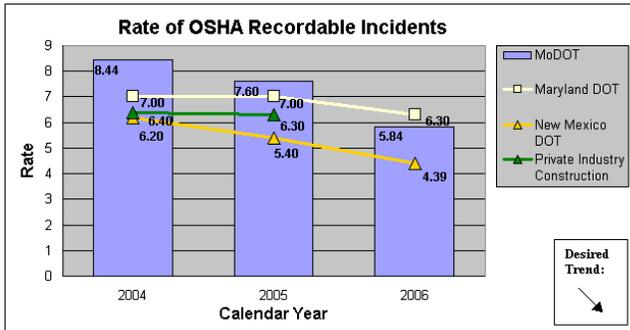
Figure 7.4-4

Figure 7.4-5 indicates the percentage of employees who leave MoDOT annually and compares the department's turnover rate to benchmarked data. For benchmarked data, MoDOT uses the Saratoga Institute's information from a survey of 288 organizations representing a wide variety of industries. In addition, the Watson Wyatt study determined the optimum turnover rate by analyzing turnover rate compared to organizational financial performance.

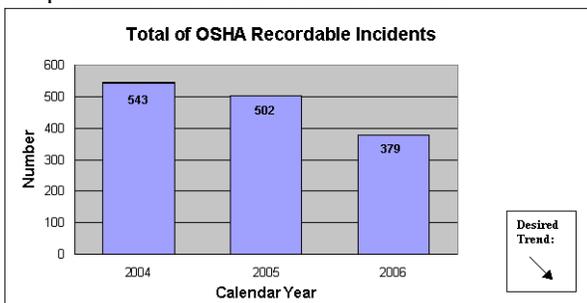


**Figure 7.4-5**  
MoDOT has traditionally had a low rate of employee turnover. However, MoDOT is witnessing higher levels of voluntary turnovers since 2004 due to an increasing number of resignations of long-term employees.

MoDOT tracks the number of recordable injuries, as defined by OSHA, in total and as a rate of injuries per 100 workers.



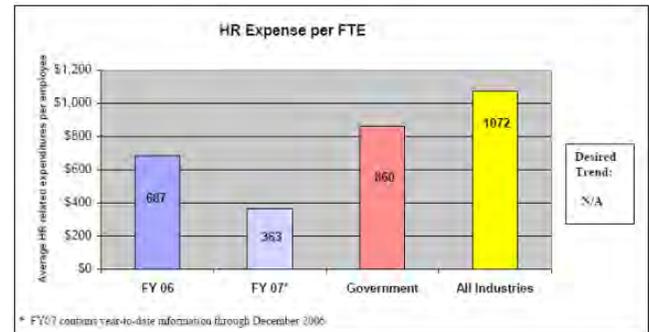
**Figure 7.4-6**  
The number of OSHA recordable incidents (Figure 7.4-6) and the incidence rate (Figure 7.4-7) has declined over the reporting periods noted. The incidence rate has declined by 23 percent over 2005, dropping from 7.6 to 6.3. The number of recordables has declined by 25 percent over the same period, demonstrating a reduction from 502 to 379 OSHA recordables. The department has reduced its injury rate as a result of successfully implementing numerous safety-related initiatives. MoDOT benchmarks against New Mexico and Maryland DOTs and the private construction industry. MoDOT's performance in 2006 surpassed the Maryland DOT benchmark and its decrease in rate paralleled that of New Mexico's DOT.



**Figure 7.4-7**

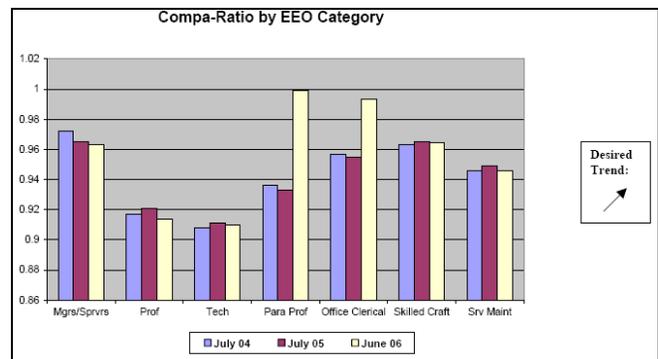
MoDOT measures the cost effectiveness of its human resource function by taking the HR expenses and dividing it by the number of employees. (Figure 7.4-8) This measure helps MoDOT determine whether it is spending too much or too little on HR related expenses.

Data indicates that MoDOT is significantly lower than the benchmarked averages, even for government organizations. (Benchmarked data is found in the Society for Human Resource Management's *Capital Benchmarking Study: 2006 Executive Summary*.) MoDOT's YTD 2007 costs are on track to surpass the 2006 results.



**Figure 7.4-8**

MoDOT measures current salary rates as a percentage of salary range midpoints. (Figure 7.4-9) This yields a compa-ratio. For an individual at the midpoint of the range, the compa-ratio is 1.0, while someone at the minimum might have a compa-ratio of 0.87 and someone at maximum a compa-ratio of 1.15. This measure allows the department to track progress towards moving employees to the market rate for their positions.



**Figure 7.4-9**

Job studies completed in 2005 and 2006 moved many employees to a lower salary grade; however, MoDOT did not reduce any employees' salaries. This resulted in a significant increase in the number of employees at or above market in the office/clerical and paraprofessional EEO categories. In July 2006, MoDOT made revisions to its

salary grid for classified employees to achieve more consistent midpoint-to-midpoint differential between each salary grade in five salary grades. The revision included elimination of short steps within these grades. MoDOT employees received an annual salary increase in July 2006.

Recently hired employees' satisfaction with MoDOT's hiring processes is indicated in Figure 7.4-10. Successful candidates rate their level of satisfaction on 22 items using a 4-point scale with 1 being the lowest and 4 being the highest rating. MoDOT's newly-hired employees rated its application, interviewing and orientation processes at 3.37 or higher on this 4-point scale.



Figure 7.4-10

By placing the right people in the right place, MoDOT can better serve its customers. These measures (Figures 7.4-11) indicate MoDOT's success in promoting a diverse workforce that has the best person in the job. MoDOT benchmarks its female employment against the number available for employment. Central Office professional positions are benchmarked against statewide professional availability numbers. All other positions are based on district (regional) information.

MoDOT's female employment surpasses Missouri availability.

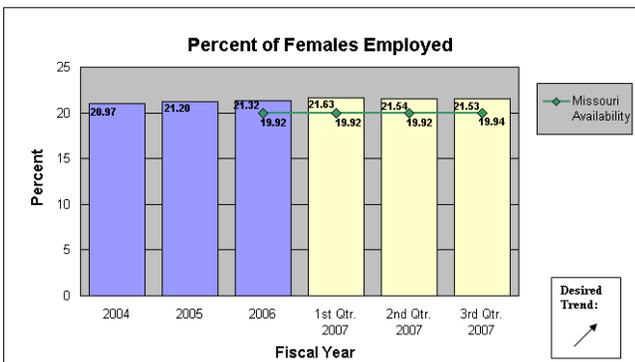


Figure 7.4-11

## 7.5 Process Effectiveness Outcomes

Customers expect MoDOT to plan, design, construct and maintain a transportation system efficiently and effectively. Below are measures to indicate success in each work system. In planning, MoDOT shows success at involving the public (7.2-9 and 7.2- 11) and meeting customer expectations with the right solutions for their needs.

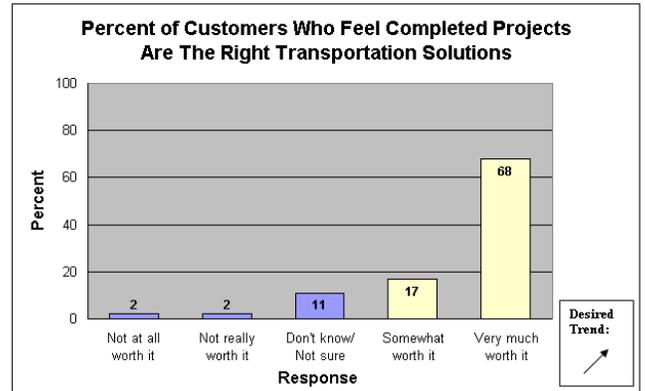


Figure 7.5-1

Figure 7.5-1 provides information regarding the public's perception of MoDOT's performance in providing the right transportation solutions. More than 85 percent felt MoDOT's transportation projects were either somewhat or very much worth the investment.

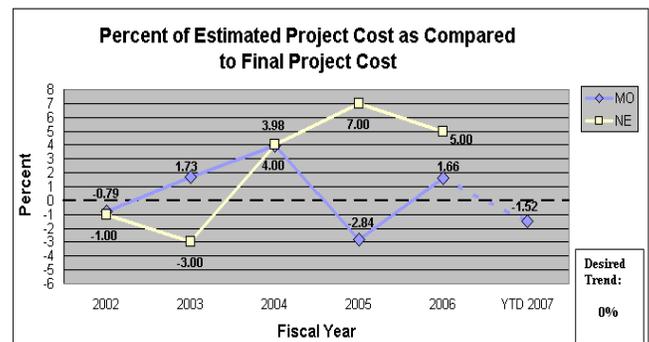


Figure 7.5-2

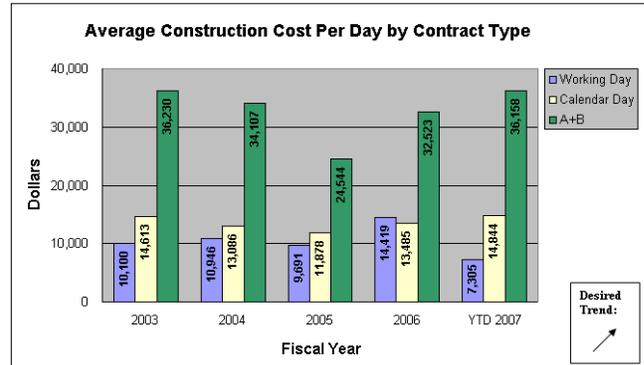
This measure, Figure 7.5-2, determines how close MoDOT's total program completion costs are to the estimated costs. Positive numbers indicate the final (completed) cost was higher than the estimated cost. To date a total of 352 jobs have been completed at a cost of \$918 million. This represents a deviation of -1.52 percent or \$14 million less than the estimated cost of \$932 million. While a number of states track construction costs, very few provide data for total project costs. Fewer still compare estimated total project costs to final total project cost. The graph above shows how MoDOT performance compares with neighboring Nebraska.



**Figure 7.5-3**

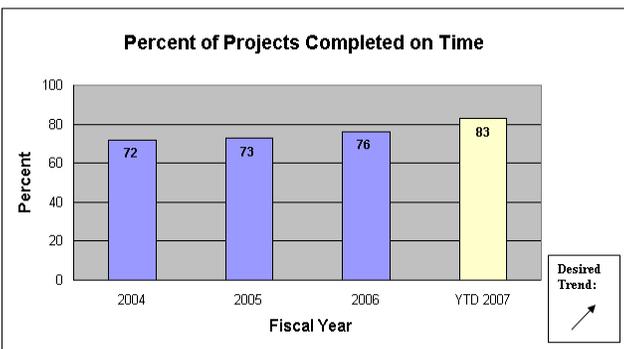
Figure 7.5-3 tracks environmental violations starting in the design phase. MoDOT projects must comply with several environmental laws and regulations. This graph shows a relatively level trend line for the past five years.

Figure 7.5-5 tracks the percentage difference of total construction payouts to the original contract award amounts. This indicates how many changes are made on projects after they are awarded to the contractor. The overall improvement is a result of a strong emphasis placed on constructing projects within budget, the use of practical design and value engineering. By limiting overruns on contracts, MoDOT can deliver more projects, leading to an overall improvement of the highway system.



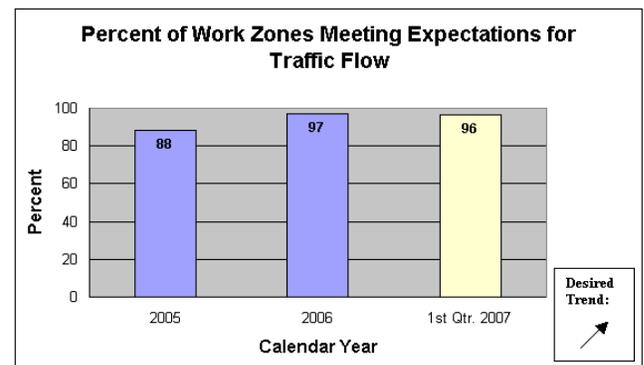
**Figure 7.5-6**

This measure, Figure 7.5-6, tracks the cost per day for project completion to determine the impact to the traveling public, enabling MoDOT to better manage project completion needs. MoDOT's strategy of utilizing innovative contracting techniques has resulted in faster contract completion and fewer delays to the traveling public.



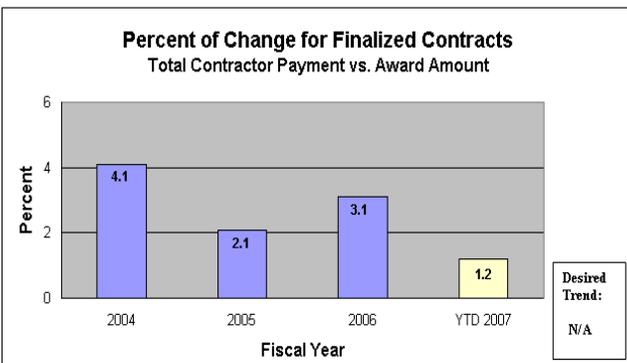
**Figure 7.5-4**

This measure, Figure 7.5-4, tracks the percentage of projects completed by the commitment date established in the contract. Adjustments to the completion date are made when additional work is required or for unusual weather occurrences. It indicates MoDOT's ability to complete projects by the agreed upon date. The results indicate a significant increase from previous years in the percent of projects completed on time.

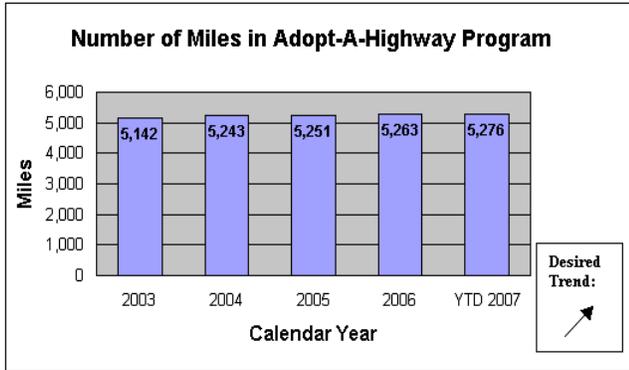


**Figure 7.5-7**

Figure 7.5-7 tracks how well the department meets customer expectations of traffic flow in, around, and through work zones on state highways. This rating is within one-half a percentage point of last calendar year's first quarter and year-end ratings – a year the department showed an 8.4 percent improvement in work zone traffic flow when compared to the previous year's inspection results.

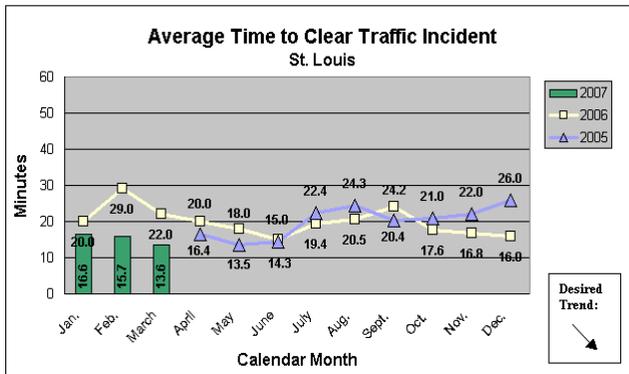


**Figure 7.5-5**



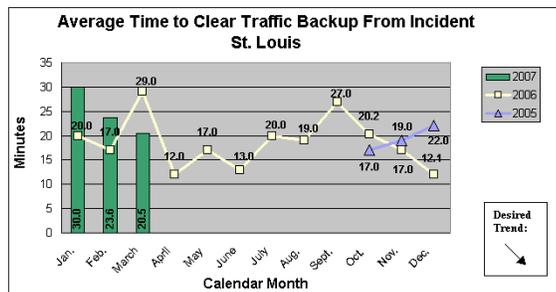
**Figure 7.5-8**

The number of miles adopted has increased due to increased public awareness through No MORE Trash!, a litter-prevention campaign coordinated by MoDOT and the Department of Conservation. Total miles increased in 2007 with 72 new adoptions. The program will continue to be promoted at Earth Day, state and county fairs, and other events.



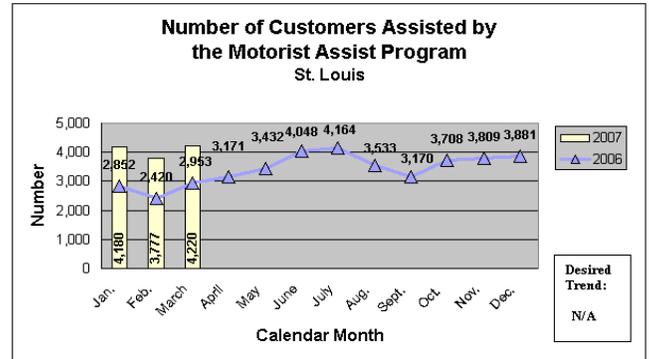
**Figure 7.5-9**

Figure 7.5-9 is used to determine the performance in incident clearance on the state highway system. A traffic incident is an unplanned event that creates a temporary reduction in the number of vehicles that can travel on the road such as crashes, flat tires and stalled vehicles. The sooner an incident is cleared, the sooner traffic flow resumes to normal.



**Figure 7.5-10**

This measure, Figure 7.5-10, tracks the amount of time it takes to return traffic flow back to normal after a traffic incident. Reducing backup creates a more efficient movement of traffic, which saves motorists time and money.

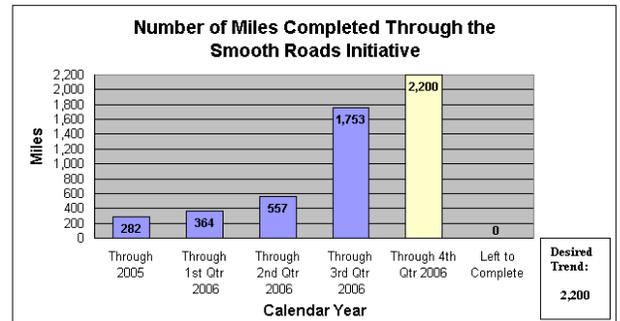


**Figure 7.5-11**

Figure 7.5-11 is used to gauge the use of the Motorist Assist programs. St. Louis operators patrol approximately 160 freeway miles, while Kansas City operators patrol approximately 60 freeway miles. This data demonstrates that the Motorist Assist program in St. Louis is critical to keeping the movement of transportation.

## 7.6 Leadership and Social Responsibility Outcomes

Measuring Missouri’s transportation system is not only about the number of miles of highways or number of bridges there are in place. It’s also about the safety of the users of the system, its impact on our natural resources, and its contribution to economic development.



**Figure 7.6-1**

Under the Better Roads Brighter Future program MoDOT will emphasize maintenance of the miles improved under the SRI while making major improvements to the remainder of the 5,573 major highway system. Figure 7.6-1 indicates that the Smooth Roads Initiative was completed one year ahead of schedule. By the end of 2011, a total of 85 percent of the major highways will have improved surfaces along with new or improved shoulders and rumble stripes. (Figure 7.6-2) However, all 5,573 miles will benefit from safety features such as wider striping and brighter signing.

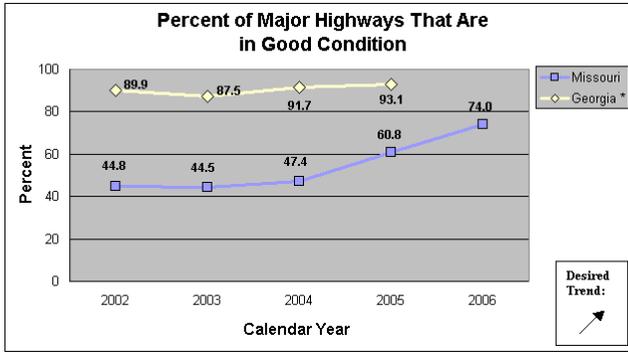


Figure 7.6-2

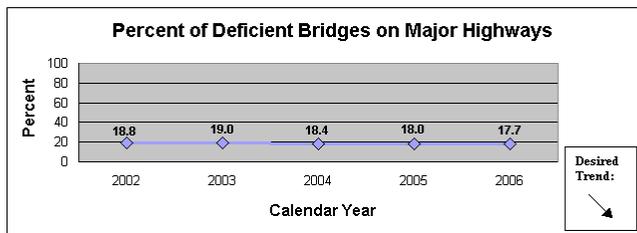


Figure 7.6-3

The Safe & Sound bridge improvement program will address more than 800 of the state's most critical structures. This program will repair or replace these bridges over a five-year period and emphasize their maintenance at an acceptable level for an additional 25 years. Bridge conditions on major highways have shown a moderate improvement. The percent of deficient bridges has been reduced to 17.7 percent over the last five years (Figure 7.6-3).

Dealing with the complexity of a statewide transportation system requires strong leadership. This measure indicates how well MoDOT is fulfilling its responsibilities to the taxpayers by ensuring the best value for every dollar spent. In 2006 alone, over \$2 million saved due to Practical Design (Figure 7.6-4)

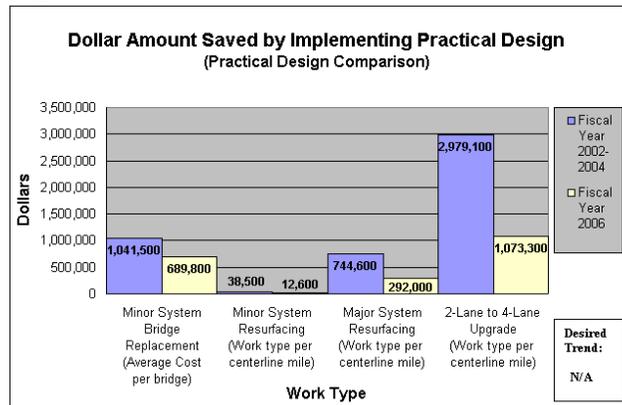


Figure 7.6-4

These measures (7.6-5 through 7.6-9) indicate how well MoDOT strives to protect, conserve, restore and enhance the environment while it plans, designs, builds, maintains and operates a complex transportation system.

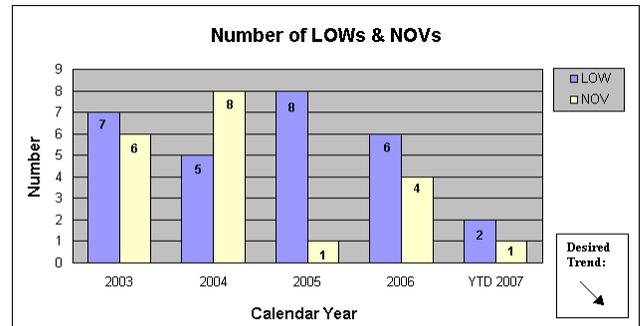


Figure 7.6-5

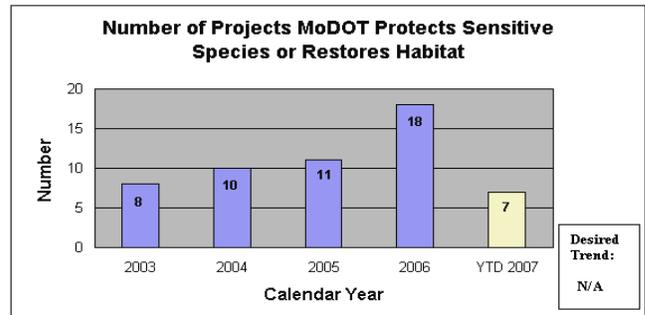


Figure 7.6-6

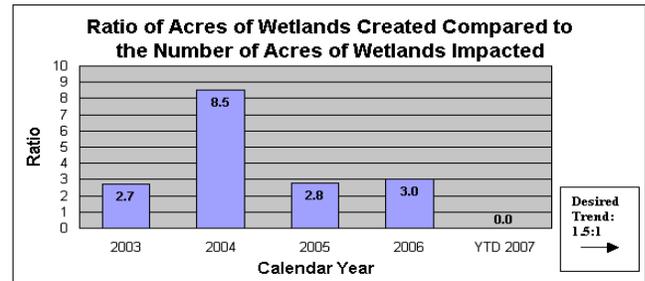
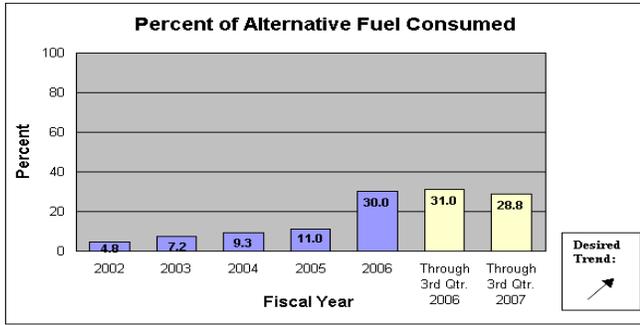


Figure 7.6-7



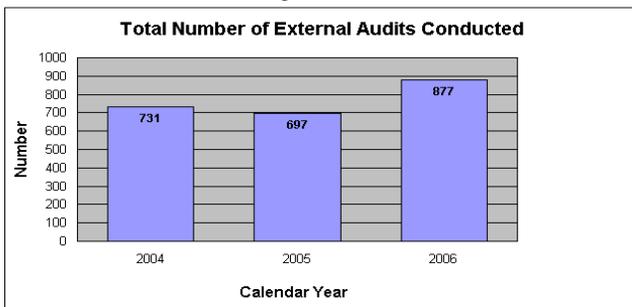
Figure 7.6-8



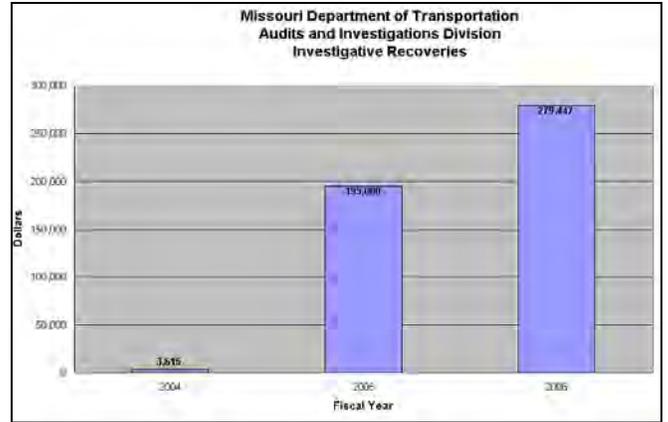
**Figure 7.6-9**  
 Figure 7.6-10 indicates a decreasing number of grievances filed by MoDOT employees.



**Figure 7.6-10**  
 These measures 7.6-11 and 7.6-12 indicate MoDOT's commitment to ensure integrity and accountability with businesses partnering with MoDOT. Over the past three years, MoDOT has recovered almost \$500,000 due to external audits and investigations.



**Figure 7.6-11**



**Figure 7.6-12**

Figure 7.6-13 shows MoDOT has received the best possible audit result, an unqualified opinion, for the last seven years. These audits are conducted by an independent auditing firm.

Fiscal Year	Independent Auditor's Opinion	
	Unqualified Opinion*	Qualified Opinion
FY 2000	X	
FY 2001	X	
FY 2002	X	
FY 2003	X	
FY 2004	X	
FY 2005	X	
FY 2006	X	

\* An Unqualified Opinion is the best possible audit result

**Figure 7.6-13**