69-19 K-7290-01

# The Study of US-69

What can be done to help US-69 in Crawford and Cherokee Counties safely and efficiently handle traffic in the 21st century?

Searching for Options with an Advance Preliminary Engineering Study

K-7290-01

**Kansas Department of Transportation**

MARCH 2001

Kansas Department of Transportation, Docking State Office Building, 915 SW Harrison St., Topeka, KS 66612-1568

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*To be treated with courtesy, respect and honesty*

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*To have a safe and well-maintained transportation system*

**Kansas Department of Transportation**

*Providing a statewide transportation system to meet the needs of Kansans*

Information in this booklet is available in alternative accessible formats
For more information, please contact:

**Kansas Department of Transportation, Office of Transportation Information, 7th Floor, Docking State Office Bldg, Topeka, KS 66612-1568**

**Or call: 785-296-3585**
**(TTY) 785-296-3585**

## Non-discrimination in Federally Assisted and State Programs

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A pamphlet is available from KDOT and at all KDOT public meetings which outlines prohibited discrimination in Federally Assisted Programs of the Kansas Department of Transportation.

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# The US-69 Corridor

*The Kansas Department of Transportation studied options to improve the US-69 corridor from north of the City of Arma to south of the City of Pittsburg. KDOT prefers the route for the new US-69 that uses as much of the existing bypasses as possible.*

The Advanced Preliminary Engineering Study of US-69 began in 1998 to determine feasible strategies for ensuring that the corridor could safely and efficiently handle increasing traffic. The study was prompted by increasing traffic and congestion, the presence of numerous intersections, vigorous development along the existing route, and the importance of US-69 as a travel corridor for eastern Kansas.

Selecting an improvement strategy would help area residents, businesses, and governments develop land-use policies that would work in partnership with any future improvements.

## The Goals of the Improvement

The goals of the improvement are to develop a freeway alignment for US-69 through the Pittsburg, Arma, and Frontenac areas which:

- Serves through highway traffic without disruption to local traffic,
- Meets the desirable criteria for a modern, high-speed freeway as suggested by the American Association of State Highway Transportation Officials (AASHTO),
- Minimizes the social and environmental impacts, construction costs, utility impacts, and right-of-way requirements, and
- Provides an alignment that could be segmented into two or more smaller projects that could be constructed in phases compatible with the ultimate corridor, and that could be utilized immediately upon completion of each segment.

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# Guiding Principles

*Several principles are guiding the planning for the future US-69.*

### 1. A four-lane divided highway is needed for safety and to minimize congestion.

The average traffic volume on US-69 in the 1950s and early 1960s ranged from 3,200 to 3,750 vehicles per day. Today, the volumes range from 5,000 to more than 16,000 vehicles per day depending on location. The numbers are expected to increase to 8,000 and 23,000 vehicles per day, respectively, by 2025. Four lanes would provide enough capacity for the projected traffic volume and would reduce risks associated with limited passing opportunities.

### 2. Limiting access is necessary to enhance driver safety.

There are more than 200 access points (intersections, driveways, etc.) along the current road. Some have traffic signals that stop traffic on the highway altogether. Each access point creates a situation where vehicles could collide. Reducing the number of access points and traffic signals eases congestion and may reduce accident rates. A **freeway** is a multilane, divided highway with access permitted only at widely spaced **interchanges**. Overpasses or underpasses separate cross traffic from the freeway traffic. An **expressway** is a four-lane divided highway with **intersections** joining the road at about one mile intervals, usually at major crossroads. **A freeway is preferred for US-69 from north of Arma to south of Pittsburg.**

### 3. The road must be designed to accommodate long-range goals for US-69.

US-69 is a major component of the National Highway System and will eventually become a freeway through most of Kansas. KDOT must look ahead to make sure the segment in this part of Crawford County and northern Cherokee County would be a logical addition to the continuous freeway concept.

### 4. Opportunities must be preserved for businesses and development.

Widening the existing road to four lanes, installing a wide median for safety, and making it a controlled access highway would be detrimental to many of the existing businesses and homes clustered along certain portions of the highway. It would also limit the potential for further development in those areas. Constructing parts of the highway away from the existing road avoids highly developed areas and preserves the development opportunities in those areas.

### 5. The road must be constructable in segments, since funding could be limited.

The issue of segmenting the construction is important and severely limits the feasibility of other corridors that bypass the area in a wide arc. Any segment that is constructed would have to be useful upon completion and would have to tie-in conveniently to the existing portions of road.

## Corridor Preservation

Since no funds are available at this time to purchase right-of-way or to construct the bypass, it will be important to preserve the corridor for future use. Preservation activities are the primary responsibility of local governments using local zoning and platting processes. There are several advantages to limiting the development that could occur in the path of a future highway:

- Reduces the number of additional residents or businesses that would be displaced by future construction.
- Cities can plan for orderly growth and leverage the benefits that would come from an improved transportation system
- Reduces the need for public investment in new utilities and streets which, if installed in the path of a future high way, would have a short life
- Businesses and developers can plan their investments knowing location of a highway and access points.

## What About My Property?

No funds are identified at this time for KDOT to purchase right-of-way for this project. This creates several disadvantages for owners of property within the preferred corridor:

- Some property owners could experience difficulty in selling their property
- Property and business owners have little control over the future right-of-way purchase schedules and real estate market conditions
- It could be difficult to decide whether to invest in improvements to a property.

Information about KDOT's right-of-way policies and procedures is available free of charge by calling toll-free 1-877-461-6817. Ask for the booklets titled *Real Property Acquisition for Kansas Highways, Roads, Streets, and Bridges* and/or *Your Rights and Benefits as a Displaced Person Under the Federal Relocation Assistance Program.*

## Interchanges and Overpasses

Drivers would be able to **cross** the freeway at either an overpass or an interchange. Getting **onto or off** the freeway would be allowed only at the interchanges. An overpass or interchange is tentatively planned to occur at section-line roads in more developed areas. At this time, nine overpasses and seven interchanges are being considered. School buses and emergency vehicles would be able to plan their routes to choose the most efficient way to their destinations. Interchanges are proposed at the following locations: US-400, between Centennial Drive and Country Club Road, 4th Street, Atkinson Road, US-160, K-57, and between E 645th Ave. and E650th Avenue.

## Environmental Considerations

Environmental reviews were conducted by the KDOT Environmental Services Section, the KDOT Geology Section, and the Kansas State Historical Society. The purpose of the reviews was to identify potential impacts not to give project clearance. Because of its preliminary nature, this study did not include or thoroughly examine some environmental issues. Other issues that may need to be evaluated include, but are not limited to: public lands, farmland, environmental justice, water quality/water resources, upland vegetation and habitat, air quality, and noise quality. Further evaluation will be done in the design phase to determine the significance of the environmental impacts. KDOT will obtain all the necessary permits that might be required by state and federal agencies.

## Since the Last Meeting

KDOT hosted a public involvement open house in August, 1999 where guests could learn about the study, ask questions, view maps and displays, and offer comments and ideas. At that time, KDOT was studying two corridors to determine the most feasible location for a future bypass. Based in part on some suggestions received during and after the public meeting, a third corridor was added to the study which utilized as much of the existing bypasses as possible.

Concurrently, a number of requests for System Enhancement projects were being reviewed. Three requests from Crawford County ultimately were not funded. It is reasonable to assume that any future funding might not be sufficient to build the entire proposed bypass. As a result, it was determined that a corridor that could be "segmented" into individual projects would be the most desirable. The preferred corridor was selected in December 2000 and a draft report was made available to media and public officials at the end of 2000.

## What Happens Next?

The next step is to prepare detailed highway designs based on the concept outlined by this study. When the design phase is complete, KDOT will know more precisely where and how much right-of-way would be needed. It will be important for county and city officials to help preserve the highway right-of-way through local zoning and platting activities. KDOT does not plan to buy right-of-way or construct any part of the new bypass at this time because no funds have been identified to do so. If future funding would become available, right-of-way could be purchased and construction could occur to the extent that funding would allow.

## Are the Improvements Really Needed?

The portion of US-69 being studied is congested with heavy traffic, numerous intersections, and vigorous roadside development. The existing road is inadequate for current and expected traffic demands in terms of safety, capacity, and speed. Highway design criteria and the vehicles using our highways have changed since US-69 was built in the late 1950s and early 1960s, so some design features also need to be modernized.

Improvements would upgrade the safety, service, comfort, condition, and capacity of US-69. It is an important traffic corridor and one of the major highways serving the cities of Arma, Frontenac, Franklin, and Pittsburg. US-69 has been designated a part of the National Highway System and is critical for interstate trips from Kansas City south to Tulsa, Oklahoma.

## The No-funding Situation

No funds were earmarked for right-of-way purchase or construction for this project in the ten-year Comprehensive Transportation Program (CTP) that will be completed in 2009.

One aspect of the CTP was the System Enhancement Program that provided one billion dollars over the life of the CTP. Through this program, local governments could apply for locally important enhancements to the State Highway System that would substantially improve safety, relieve congestion, improve access, or enhance economic development. Three categories of funding were available: corridor improvements, bypass construction, and interchange/ grade separation improvements.

The competition for the funds was fierce. One hundred and thirty -seven projects were evaluated which totaled five billion dollars in requests for the one billion dollars of available funding. Included in the System Enhancement requests was one from Pittsburg/Crawford County for a 21.3 mile bypass, one from Arma to widen the existing bypass, and one from Frontenac to add center turn lanes to US-69. Twenty-nine projects were ultimately selected and announced in August 2000. The list did not include any of the projects requested by Arma, Frontenac, or Pittsburg.

## What About the Old Road?

The portions of US-69 not used for the new bypass will become local streets or roads for access and development. A highway that has been converted to local use is usually turned over to local jurisdictions for continued care. KDOT would leave the road in good condition. With a reduced volume of traffic, it would continue to serve well for many years with only routine maintenance. The preferred corridor would involve turning about 7 miles of existing highway over to local care. The west and east corridors would have resulted in about 21.5 miles (each) being handed over to local care.

State assistance augments local governments' transportation budgets. The Local Transportation Program, a portion of the Comprehensive Transportation Program, includes a category called the Special City and County Highway Fund (SCCHF). Under the SCCHF, local governments receive some of the state motor fuels tax revenue for local use. Those funds are distributed directly from the state treasurer. $160 million is provided annually to Kansas counties through this fund. Local Federal-Aid Projects, funded by federal legislation, is a program which provides another source of local transportation assistance. The funds are administered by KDOT to assist local governments with specific projects.

●

## The Options

Four options were originally studied. A fifth option, which ultimately became the preferred corridor, was added after the public involvement meeting in August 1999. The five options were:

- Do Nothing
- Expand the existing road to a freeway along its entire route
- Build an all new freeway west of the existing route
- Build an all new freeway east of the existing route
- Build a freeway using the existing bypasses as much as possible

The "Do Nothing" option wasn't chosen because congestion would increase, delays and frustration would increase, more traffic signals would have to be installed, and there would probably be an increase in accident rates and maintenance costs. Expanding the existing road to a freeway along its entire length would have caused the unacceptable impact of displacing approximately 150-170 residences and 40-60 businesses along the route.

The remaining three corridors are detailed in charts elsewhere in this booklet.

# US-69 Study Team Members

*Studying and designing a highway or bridge improvement project is the responsibiltiy of the Bureau of Design in the Division of Engineering and Design. Here are the dedicated and talented people responsible for the study of this highway project.*

**James O. Brewer, P.E.**
Engineering Manager
State Road Office

**Richard Adams, P.E.**
Road Design Engineer
State Road Office

**Rex Fleming, P.E.**
Road Design Leader
State Road Office
US-69 Study Manager

You can contact **Carolyn Jordan**, Public Involvement Liaison at 785-296-3585 or call ***KDOT Connection*** at 1-877-550-5368 (toll-free) if you'd like to talk about the corridor. Or, you can write to us at the address shown below.

The design engineers are assisted by other staff who handle environmental assessments, utilities, contracts, mapping, scheduling, public information and involvement, and clerical support.

The lowest responsible and qualified bidder would be selected for construction, when and if the project progresses that far. The District and Area Engineers would oversee the construction.

KDOT sometimes uses private consulting firms to help with the study and design of highway and bridge projects. The company that helped conduct the study for US-59 is **Professional Engineering Consultants, P.A.** from Wichita.

# Comparing the Corridors

| | West Corridor<br>19.7 miles long | Preferred Corridor<br>18.1 miles long | East Corridor<br>20.5 miles long |
|---|---|---|---|
| **Total Cost (yr. 2000)** | $146,300,000 | $143,400,000 | $143,200,000 |
| **Potential Right-of-Way Total Tracts** | 97 | 265 | 78 |
| **Potential Relocations** | 31 Residences<br>0 Businesses | 107 Residences<br>6 Businesses | 11 Residences<br>1 Businesses |
| **Service to Through Traffic** | Short, direct route with 1.1 miles of adverse travel | Shortest, most direct route with .56 miles of adverse travel, more local traffic | Longest, least direct route with 1.9 miles of adverse travel |
| **Traffic Service to Community** | Provides a new but redundant corridor | Will improve service along existing corridor | Added service to some industrial & growth areas and the City of Frontenac |
| **Handling Traffic During Construction** | Least inconvenience from construction work | Highest need for temporary widenings, shoo-flys, and use of local streets during construction | Shoo-fly needed at K-126 for bridge replacement, little other inconvenience expected |
| **Potential to be Segmented** | Not feasible to segment if funding is limited | Could easily be divided into several segments for construction | Not feasible to segment if funding is limited |
| **Detours** | No detour required | Detours needed for US-69, US-160, K-57. K-7 is possible for US-69 & K-57; US-160 would likely be detoured on local roads | No detour required |
| **State Highway System Mileage Considerations** | All of existing US-69 & 1.5 mi. of K-57 would be removed from the system, 1.5 mi. of US-160 would be added, **about 21.5 mi.** would be turned over to local jurisdiction after rehabilitation | US-69 from K-103 to Monmouth (2 mi.) and Atkinson to K-57 (5 mi.) would be removed from the system, **about 7.0 mi.** would be turned over to local jurisdiction after rehabilitation | All of existing US-69 & 1.5 mi. of US-160 would be removed from the system, 1 mi. of K-57 would be added, **about 21.5 mi.** would be turned over to local jurisdiction after rehabilitation |
| **Underground Mine Potential** | About 5.2 miles of mitigation may be needed between Monmouth and 20th Streets | About 2.8 miles of mitigation may be required between Quincy and Atkinson Streets | About 1.7 miles of mitigation may be required between 20th and McKay Streets |
| **Strip Mine Involvement** | 1.3 miles | .43 miles | 2.1 miles |

Numerous adjustments or relocations of utilities are anticipated for each corridor. Design elements for each corridor would meet current American Association of State Highway Transportation Officials (AASHTO) criteria.

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# US–69 ADVANCE PRELIMINARY ENGINEERING STUDY FIGURE 1

This illustration depicts the concept on which the design of US–69 will be based. The exact highway location, width of the right–of–way, and construction limits will be determined during the design phase and could differ from those shown on this drawing. No funds have been identified at this time for KDOT to purchase any property for this project.

Current as of March 6, 2001

US–69 in Crawford and Cherokee Counties
Project No. 69–106 K–7290–01

Professional Engineering Consultants, P.A.
WICHITA, KANSAS

DEPARTMENT OF TRANSPORTATION · KANSAS ·

BEULAH
GIRARD
CHEROKEE
CHEROKEE CO.
CRAWFORD CO.
FLEMING
WEIR
KLONDIKE
SOUTHEAST KANSAS RR.
CHICOPEE
LONE STAR ROAD
RADLEY
SOUTH RADLEY
WEST CONCEPT
CAMP 60
WEST CONCEPT
KIRKWOOD
Outcrop Line (Weir–Pittsburg Coal)
ABANDONED RR.
CAPALDO
PREFERRED CONCEPT
EXISTING ALIGNMENT
STATE PARK
FRANKLIN
ARMA
BEGIN BYPASS CONCEPTS
EAST CONCEPT
PITTSBURG
FRONTENAC
ROUSE AVE.
END BYPASS CONCEPTS
CROWEBURG
EAST CONCEPT
FREE KING HWY.
KANSAS CITY SOUTHERN RY.
IRONWOOD ROAD
COUNTRY CLUB ROAD
CENTENNIAL DRIVE
QUINCY AVENUE
20TH STREET
ATHINSON ROAD
McKAY STREET
SCALE
0 1/2 1 2 Miles
0 1 2 3 km
MULBERRY
OPOLIS
KANSAS
MISSOURI

# Potential Environmental Impacts

These results are based on a preliminary review. More detailed studies will be done as needed during the project design phase and all necessary permits will be obtained.

| | West Corridor | Preferred Corridor | East Corridor |
|---|---|---|---|
| **Wetlands** | Minimal involvement expected | Minimal involvement expected | Minimal involvement expected |
| **Floodplains** (distance along proposed route) | 1.7 miles | 3.6 miles | 2.8 miles |
| **Threatened and Endangered Species*** | 3 federally listed, 5 state Listed | 3 federally listed, 5 state Listed | 3 federally listed, 5 state Listed |
| **Designated Critical Habitat** (distance along proposed route) | | | |
| Northern Spring Peeper (frog) | 0 miles | 0 miles | 2 miles |
| Gray Myotis (bat) | 12.4 miles | 12.4 miles | 13.6 miles |
| Broadhead Skink (lizard) | 1.7 miles | 15miles | 3.5 miles |
| **Woodlands** | 130.9 acres | 170.4 acres | 200 acres |
| **Archeological** (distance along proposed route) | | | |
| High Potential Area | 1.2 miles | 4.3 miles | 6.2 miles |
| Moderate Potential Area | 4.3 miles | 2.5 miles | 1.9 miles |
| **Public Parks** 4f Lands | None | Parts of Robb Prairie, Lincoln Park, Wilderness Park | None |
| **Hazardous Waste Sites** as labeled on maps | None in right-of-way, site H-4 is very close | Sites H-5 and H-6 | Site H-3 |
| **Cultural/Historic Resources** as labeled on maps | | | |
| Direct Impact | Site W59 | Site M52 | Site E1 |
| Property Only Impact | | Site M86 | Site E28 |

*Federally listed species: bald eagle, gray myotis, Mead's milkweed. State listed species: broadhead skink, central newt, eastern spotted skunk, green frog, northern spring peeper.

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# Typical Project Sequence

**FIVE TO EIGHT YEARS OR MORE**

☆ Transportation planners identify a problem situation and a need to modify or enhance a travel route

**Advance Preliminary Engineering Study** — Design engineers research the situation and develop one or more options to resolve it

Study the Problem, Develop Option(s)

($?)

Study the Options

▲ Select "Preferred Alternative"

⬡ Field Survey

**Preliminary Design**

($?)

**Final Design**

($?)

Buy Right-of-Way

Move Utilities

**Construction**

($?)

($?) Is there funding for this step? If not, the process stops until funds are available.

▲ If two or more options are studied, one is chosen that designates the general route of the project.

⬡ Surveyors locate, measure and record features along a broad corridor to get data needed for design. *This is not a pre-construction survey.*

# Comments, Questions, and Concerns

Kansas Department of Transportation 915 SW Harrison, Topeka, KS 66612-1568 (785) 296-3566

Visit the KDOT web site at www.ink.org/public/kdot

**Road Condition Hotline**
**1-800-585-7623 (toll-free)**
Driving conditions for state, U.S., and interstate highways in Kansas (does not include the turnpike)

**Division of Public Affairs**
(785) 296-3585
Transportation and media information
Citizen comments, concerns, inquiries

**Bureau of Right-of-Way**
1-877-461-6817 (toll-free)
Property appraising and buying
Relocating residents and businesses
Billboard and junkyard regulation

**Bureau of Traffic Engineering**
(785) 296-3618
Road signs, signals, speed limits
Oversize and overweight permits
Travel attraction signs

**Bureau of Traffic Safety**
(785) 296-3756
Statewide safety education programs

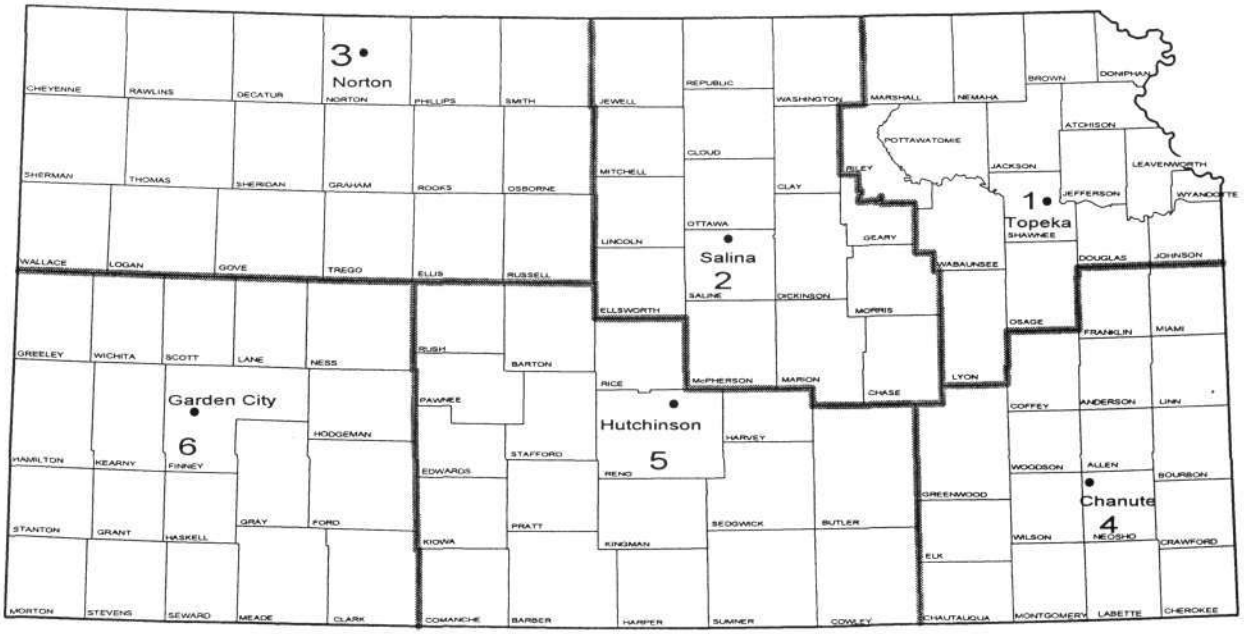
## CALL

Your District Office using
***KDOT Connection***
**1-877-550-KDOT (toll-free)**
**(5368)**

## If You Want To:

- Ask about a future project in your area
- Report damaged pavement or signs
- Request property access to highway
- Ask about Adopt-a-Highway Program
- Work in the highway right-of-way
- Request intersection or speed study
- Ask about construction in your area

## District Offices and Engineers




*KDOT divides the state into 6 districts managed by District Engineers. Each district includes several areas managed by Area Engineers. Each district has a Public Involvement Liaison (PI Liaison) ready to help you with questions and concerns.*

| DISTRICT 1 | DISTRICT 2 | DISTRICT 3 | DISTRICT 4 | DISTRICT 5 | DISTRICT 6 |
|---|---|---|---|---|---|
| Roy Rissky | Don Drickey | Chriss McDiffett | Roger Alexander | Chuck Luedders | Larry Thompson |
| **(785) 296-3881** | **(785) 823-3754** | **(785) 877-3315** | **(620) 431-1000** | **(620) 663-3361** | **(620) 276-3241** |
| John Swihart, PI Liaison | David Greiser, PI Liaison | | Priscilla Petersen, PI Liaison | Martin Miller, PI Liaison | Kirk Hutchison PI Liaison |

Kansas has a large transportation infrastructure with a small population base to support it. Vehicle miles of travel are increasing faster than the population, licensed drivers, or registered vehicles. Nationally, Kansas ranks **fourth** in public road miles, **third** in number of bridges, **fourth** in miles of rail line, **eighteenth** in the number of airports, but **thirty-second** in population.

The State Highway System has about 9,600 miles of roadway, not including city connecting links. This represents only 8 percent of public road miles, but it carries over 50 percent of the state's total travel. The System includes the Interstates, U.S. highways, and State highways. The System does not include the Kansas Turnpike, which is under the jurisdiction of the Kansas Turnpike Authority.


# *Buckle Up!*

*Safety Belts Save Lives*

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