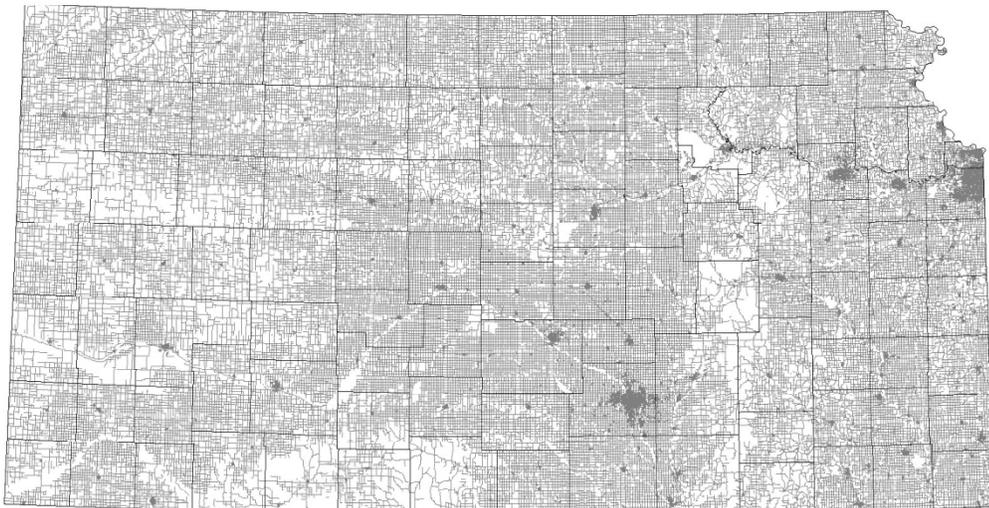


The Local Road Network

Traveling around the Earth at the equator requires you to cover nearly 25,000 miles. Traveling all the local roads of Kansas – those paved and unpaved routes that fall under the jurisdiction of cities, counties and townships – takes you more than five times farther: 129,772 miles. Everything but the state highway system is the responsibility of local jurisdictions and for the purpose of this report will be referred to as “local roads.” These roads vary from gravel roads to paved urban arterials (see Figure 3.1). More than 20,500 bridges complete the local system.

In addition, there are some state highways that fall within city boundaries and, as such, serve as both local roads and state highways. By law, jurisdiction and responsibility for these City Connecting Links (CCLs) is shared by the city and the state. The needs of these miles were included in the state highway system discussion in Chapter 2. CCLs are often the most important and heavily traveled streets within a city. Therefore they possess tremendous significance for local governments, as well as present them with great concerns and financial challenges.

Figure 3.1 - Local Roads in Kansas



All 129,772 miles shown here are local roads.

Local Roads Needs

Definition: Roadways that fall under the jurisdiction of cities, counties and townships. These include everything from city streets to gravel roads.

Projected Annual Need: \$1 billion in constant 2006 dollars. This includes maintenance and expansion of all local roads statewide. After the technical analysis, this need estimate was modified by discussions with local public works staff. Because of the inherent difficulty in analyzing local roads needs on a statewide level, and so as not to overstate the accuracy of the estimate, the needs estimate was rounded to an even \$1 billion for the purposes of this document.

Most local roads outside of urbanized areas carry significantly less traffic than Kansas state highways. Local roads account for 82 percent of the state’s road miles, yet they carry only 45 percent of its traffic. The traffic they bear makes them crucial to the Kansas economy. In rural areas, local roads carry farm equipment and agricultural products and are a connection to the rest of the state and the nation. In small towns and urban areas alike, local roads and state highways allow residents to work, shop and socialize, while enabling manufacturers and businesses to receive and ship goods.

Given the importance of the local road system to the economy and to quality of life, professional staff should oversee the system. Unfortunately, upwards of 75 percent of counties do not have a county engineer on staff to provide essential engineering services. Some counties have addressed this problem by sharing a county engineer position with more than one county or by hiring a consulting engineer on a retainer basis.

A road and bridge system so central to the social and economic well-being of Kansas – and yet so massive – raises this question: How do we finance its construction and maintenance across urban and rural areas?

**ANNUAL NEEDS
\$2.9 BILLION**



STATE HIGHWAY NEEDS - \$1.5 BILLION



3.1 Rural Local Roads

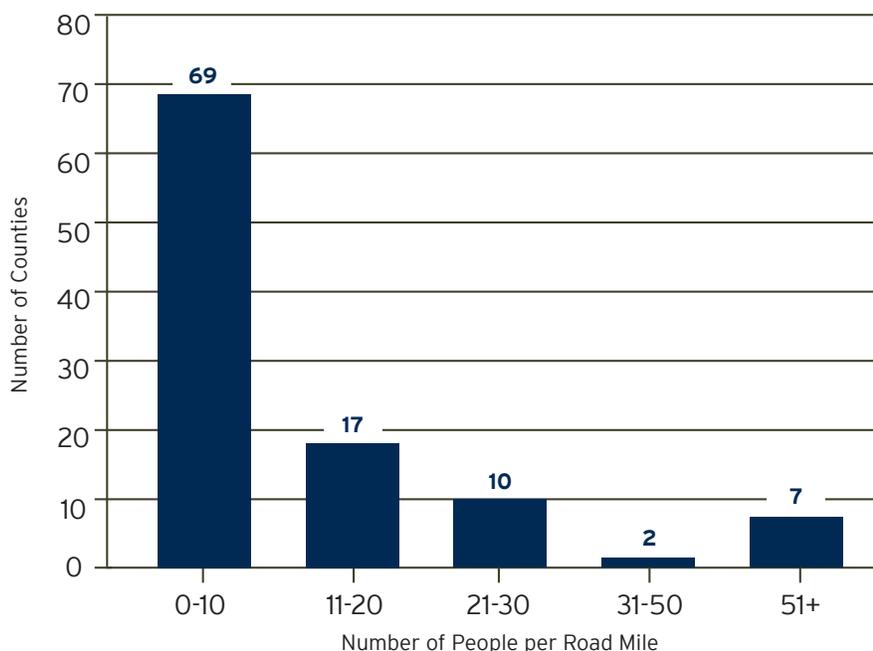
Kansas ranks fourth among states in road miles, 13th in land area and 34th in population. A significant proportion of those road miles are local roads in rural areas that have been, and still are, experiencing decreasing population. The combination of a shrinking tax base and increasing maintenance costs due to inflation and heavier loads presents a real dilemma for rural Kansas.

In one county, 1,000 miles of road serve just 1,400 residents. Figure 3.2 shows that two-thirds of Kansas counties have 10 or fewer people to support the maintenance cost of each mile of public road. Projections for 2010 to 2030 indicate that 50 percent of the funding for the local road system will have to be generated at the local level

with most of that funding coming from property taxes. State sources will provide 40 percent of the funding and federal sources 10 percent.

Some Kansas counties, struggling with a large inventory of lightly traveled roads and a limited tax base, have begun to close local roads and bridges. In October 2007, for example, Saline County closed 22 bridges to save \$12.3 million in renovation costs. Prior to that time, due to the high cost of maintenance and repairs, Saline County had begun investigating the feasibility of going to an approximate two-mile road grid system rather than the existing one-mile system. It's a hard decision for local residents and one that involves many options, including increased investment, deferred maintenance or road closings.

**Figure 3.2 - Kansas Counties
Number of Counties by Population per Road Mile**



Rural local roads carry more than cars. They also carry commercially valuable crops and other products. Their impact on the state's agricultural economy makes their maintenance important. However, rural local roads today are carrying heavier agricultural loads than they once did – and in many cases, much heavier than they were designed for. New industries also are adding heavy traffic to local roads. Ethanol plants, for example, are increasing truck movements of corn in the state. A 100-million-gallon-per-year ethanol plant requires an average of 160 trucks to deliver corn each day, or more than 41,000 loads per year. Outbound shipments of manufacturing byproducts, which are used in livestock feed, add to the traffic.

Rural County Road and Bridge Program Facts

In 2006, rural Kansas counties on average had a budget of \$2.3 million and 25 employees to maintain:

- 112 miles of paved roads
- 830 miles of unpaved roads
- 170 bridges



This Marsh arch bridge is just one of the many bridges maintained by Bourbon County.

To maintain existing farm operations and to capitalize on ethanol and other emerging opportunities, rural areas will need to address added maintenance and construction demands incurred by the volume and weight of this traffic.

3.2 Urban Local Roads

Large- and medium-sized urban areas struggle to maintain aging infrastructure while building new roads to support growth and development. Officials from many urban areas indicated they have the budget to meet only 60 to 75 percent of their annual preservation needs. Deteriorated pavement adds to the personal cost of travel by increasing vehicle wear and tear. It detracts from community quality of life and the ability to attract new development. Ultimately, streets cost more to replace than to rehabilitate.

While local governments in urban areas struggle to meet preservation needs, their greatest concern is how to find the combination of local, state and federal funding for major capacity projects on the state system and on City Connecting Links. These capacity projects are needed to help the state highway system and the urban local road network function together. In Overland Park, for example, a 19-mile stretch of US-69 is the city's spine. Congestion on this critical route has been getting worse, and traffic will soon be severely inhibited, but it will cost more than \$500 million to improve. In Wichita, major improvements are needed to I-235 and its connections to the arterial



street network. US-54/400 (Kellogg) needs to be extended farther east and west. Major improvements to the arterial street system are needed to handle the anticipated growth in traffic.

These improvements will be expensive. Local communities realize that they need a seamless system of local city streets and state highways to help sustain and support economic growth. But finding the funds to create that seamless system is a challenge. Funding these projects will require partnerships among local governments and state and federal transportation agencies. It may be necessary to create coalitions that cross jurisdictional boundaries and that develop multiple funding sources including local, state, federal and private support.



Aging pavement and growing demand strain many urban roadways such as Rock Road in Wichita.

3.3 Local Bridges

Bridges on the local road network that are structurally deficient or functionally obsolete are of particular concern. In Kansas, there are 2,877 local bridges classified as structurally deficient and 1,740 classified as functionally obsolete. Many of these bridges carry little traffic but are economically important because of the access they provide to homes, businesses, and farms. They are not necessarily unsafe nor do they all require special posting for vehicle speed or weight. They do, however, need maintenance, significant rehabilitation or replacement. Some bridges with an expected lifespan of 50 years are already more than 100 years old.

Rehabilitating or replacing the backlog of deficient and obsolete bridges would be nearly impossible to accomplish with today's revenue sources. The current level of federal funding is sufficient to replace or rehabilitate only about 40 local bridges a year. With nearly 3,000 bridges qualifying for federal bridge replacement funds, it would take nearly 75 years to replace all of these bridges at existing funding levels – assuming no new bridge needs developed during that time. Another issue facing local governments is the timely submittal of bridge inspection reports. These reports are required to be filed with KDOT, but are often late. Currently, more than 3,500 local bridges do not have current inspections filed with KDOT. As a result, Kansas has one of the highest percentages of local bridges in the nation that are behind on inspections.

Working in cooperation with the Kansas Association of Counties and the League of Kansas Municipalities, KDOT will establish a task force early in 2008 to identify and evaluate options that it and local governments could pursue to improve the timeliness of inspections and conditions of local bridges. There's no quick fix for addressing Kansas bridge needs.

A **structurally deficient** bridge or restricted to light vehicles or closed because of structural deterioration. Although not necessarily unsafe, these bridges must have limits for speed and weight.

A **functionally obsolete** bridge has older design features and, although it is not unsafe for all vehicles, it cannot safely accommodate current traffic volumes or vehicles of certain sizes and weights.

striping and light pavement repair represent the remaining 60 percent. These estimates are based on a technical analysis which was modified through discussions with local public works staff. Details about the methodology used to develop the cost and revenue projections are described in Appendix B.

One strategy that has helped to provide additional funding for local transportation needs is the Transportation Revolving Fund (TRF). The TRF provides low-cost, flexible financial assistance to local governments for qualified transportation projects. Financial assistance can be for loans or credit enhancements such as loan guarantees. Loan repayments are used to provide additional loans. Since the first loan in December 2003, the fund has provided 52 loans to 41 cities and counties. The fund has \$68.2 million in executed loans with interest rates ranging from 3.55 percent to 4.19 percent.

3.4 Local Roads Funding Gap

The combined construction and maintenance cost for urban and rural portions of the Kansas local road and bridge system are estimated to be \$1 billion annually over 20 years. The combined revenue (including federal, state and local sources) to cover these costs is estimated to be \$455 million annually. Pavement reconstruction, road modernization, bridge replacement and capacity additions account for 40 percent of the needs. Maintenance, including activities such as mowing, plowing snow, roadway lighting, signs,



LOCAL ROADS RECOMMENDATIONS

Increase current funding for local roads and bridges

Because local roads play an important role in the economy and quality of life in Kansas, additional funds are needed to preserve and upgrade portions of the local system to carry heavier freight loads, address urban congestion and meet system-wide maintenance and preservation needs as the system ages. Without this increased funding, rural areas will fall farther behind with few resources available to address their needs, and urban areas will be challenged to keep up with demands for growth and expansion.

Improve resource sharing and communication

Resource sharing, coordination and collaboration are needed to ensure transportation dollars stretch as far as possible. State and local cooperation is important because many counties and cities lack the funding, equipment or staff resources to maintain or improve their transportation systems. KDOT, in cooperation with cities and counties, should explore opportunities to foster collaboration and improve efficiency through mechanisms such as the Kansas Collaborative. This initiative was established in 2005 as a joint effort of the state, the Kansas Association of Counties and the League of Kansas Municipalities to solve common problems across jurisdictions. One way that KDOT has collaborated with counties was to partially fund an engineering position at the Kansas Association of Counties to provide tech-

nical assistance to counties statewide. While not a substitute for professional engineering staff in each county, this position has provided valuable assistance.

Make federal funds easier for local governments to use

Kansas local governments, especially smaller communities, often encounter problems using federal funds. The cost of the required local match may be prohibitive, administrative and engineering requirements may seem excessive, many communities lack the technical staff to manage federal requirements, and smaller communities may receive funding in such small increments that they have to accumulate funds for years before beginning a project.

As a result of these and other issues, more than half of local projects with federal aid aren't let for bid on time. New approaches should be explored for distributing state and federal funding to local governments. For example, local governments could be allowed to exchange their federal funds for another agency's local or state dollars. Or state dollars might be allocated to local jurisdictions, and federal dollars kept for use on state highway projects, so long as federal "pass-through" minimums are met.

Finally, state statutes could be modified to allow KDOT to offer federal funding on a first-come-first-served basis or allow local officials to develop a pool of projects that could absorb unused federal funding at the end of each fiscal year.

The Kansas Collaborative: Government Working Together for Better Results

A joint effort between the State of Kansas, the Kansas Association of Counties, the League of Kansas Municipalities, and the Kansas Collaborative has formalized sharing between local and state government. From administrative functions to service delivery, the Kansas Collaborative has helped government solve problems, save money, and network leaders.

Transportation Breakthrough Team

The “Transportation Breakthrough Team” is one of four teams within the Kansas Collaborative. This team helps local counties and cities use state contracts to save local taxpayer dollars, broker cooperative state-local purchasing for resurfacing projects, and helped create the local engineer position within the Kansas Association of Counties to assist local governments with transportation issues. Some examples of cost savings include:

Coffey County saved over \$160,000 in resurfacing costs.

Counties can see a real benefit when contractors bid on county resurfacing projects while working on nearby state resurfacing projects. Cost savings are realized when contractors don’t have to mobilize twice and resources are used more efficiently. For example, Coffey County saved a little over \$161,000 on just two overlay projects in 2007. There’s potential to save a sizeable amount of local tax dollars considering that KDOT conducts approximately 90 resurfacing projects each year.

Seward County saves using the State contract.

There are over 100 different state contracts that can be used to save Kansas counties and cities money. For example, Seward County contacted the state contract holder for vehicles and received the state pricing for a pick-up truck. After going through the regular bid process, the state bid was the low bid. The county then contacted the second best bid, their local dealership, and asked if they could meet the state bid price. The local dealership reviewed the bid and readjusted their pricing to below the state contract price. Seward County saw it as a win-win situation. Since they received a more competitive price and were able to buy from a local dealership.