

# Building Tennessee's Tomorrow: Anticipating the State's Infrastructure Needs *July 2011 through June 2016*

## Executive Summary

This report is the eleventh in a series on infrastructure that began in the late 1990s. These reports to the General Assembly present Tennessee's public infrastructure needs as reported by local officials, those compiled by the Tennessee Department of Transportation, and those submitted by other state departments and agencies as part of their budget requests to the Governor. The information presented in this report, collected during fiscal year 2011-12 and covering the five-year period of July 2011 through June 2016, provides two types of information: (1) needed infrastructure improvements and (2) the condition of existing elementary and secondary public schools. Needs fall into six broad categories. See table 1.

**Table 1. Summary of Reported Infrastructure Improvement Needs  
Five-year Period July 2011 through June 2016\***

Category**	Number of Projects or Schools Reported		Five-year Reported Estimated Cost	
Transportation and Utilities	4,284	46.8%	\$ 20,220,785,127	54.6%
Education	1,911	20.9%	7,214,810,655	19.5%
Health, Safety and Welfare	1,788	19.5%	6,198,429,638	16.7%
Recreation and Culture	814	8.9%	1,710,475,475	4.6%
Economic Development	134	1.5%	1,218,490,633	3.3%
General Government	222	2.4%	488,910,400	1.3%
<b>Grand Total</b>	<b>9,153</b>	<b>100.0%</b>	<b>\$ 37,051,901,928</b>	<b>100.0%</b>

\*For a complete listing of all reported needs by county and by public school system, see appendixes D and E.

\*\*A list of the types of projects included in the six general categories is shown in table 4. Descriptions of the project types are included in the Glossary of Terms at the end of this report.

\*\*\*Includes improvement needs at existing schools. Number of projects includes the 1,756 schools for which needs were reported.

A number of conclusions may be drawn from the information compiled in the inventory:

- The total need for public infrastructure improvements is estimated at \$37.1 billion for 2011 through 2016. This total is \$82.5 million less than the estimate in last year's report, a decrease of 0.2%. See table 2. Though relatively small, this is the first decrease in inventory history.

The Tennessee General Assembly charged the Tennessee Advisory Commission on Intergovernmental Relations (TACIR) with developing and maintaining an inventory of infrastructure needs "in order for the state, municipal, and county governments of Tennessee to develop goals, strategies, and programs that would

- improve the quality of life of its citizens,
- support livable communities, and
- enhance and encourage the overall economic development of the state."

*[Public Chapter 817  
Acts of 1996]*

**Table 2. Comparison of Estimated Cost of Infrastructure Improvement Needs  
July 2010 Inventory vs. July 2011 Inventory**

Category	Reported Cost			Percent Change
	July 2010 through June 2015	July 2011 through June 2016	Difference	
Transportation and Utilities	\$ 19,005,989,502	\$ 20,220,785,127	\$ 1,214,795,625	6.4%
Education	7,409,143,671	7,214,810,655	(194,333,016)	-2.6%
Health, Safety and Welfare	7,092,042,404	6,198,429,638	(893,612,766)	-12.6%
Recreation and Culture	1,924,629,355	1,710,475,475	(214,153,880)	-11.1%
Economic Development	1,240,582,735	1,218,490,633	(22,092,102)	-1.8%
General Government	462,026,062	488,910,400	26,884,338	5.8%
<b>Grand Total</b>	<b>\$ 37,134,413,729</b>	<b>\$ 37,051,901,928</b>	<b>\$ (82,511,801)</b>	<b>-0.2%</b>

- Transportation and Utilities has always been and remains the single largest category in the inventory. Transportation and utilities increased \$1.2 billion, but the increase was not enough to offset decreases in other categories. Equaling 54.1% of all estimated costs for infrastructure improvements, transportation dwarfs all other types of infrastructure needs and increased by \$1.3 billion (6.8%). At the other end of the spectrum, telecommunication also increased by \$2.5 million (14.9%) while other utilities decreased by \$71.4 million (29.3%).
- Education, the second largest category of infrastructure needs, tends to fluctuate from year to year, exhibiting no clear upward or downward trend. The need for new public schools decreased by \$94.5 million (5.6%) in this inventory after increasing by \$188 million in the last published inventory. The need for improvements at existing schools increased by \$9.3 million, while post-secondary education and preschool needs decreased by \$95.9 million.
  - School infrastructure improvements decreased by \$91.7 million (2.5%) overall in the current inventory, driven primarily by a reduced need to build new schools and additions.
  - The number of schools rated good or excellent remains high at 93%, but local officials estimate the costs to renovate or replace schools or parts of schools at nearly \$2 billion.
- Health, Safety, and Welfare, the third largest category in the inventory, decreased the most (\$893.6 million). All seven types of infrastructure in this category decreased: water and wastewater, law enforcement, public health facilities, storm water, fire protection, solid waste, and housing. That does not necessarily mean that needs reported in past inventories have been met. Much of this year's decrease can be attributed to cancelation or postponement rather than completion of projects.
- The Recreation and Culture category as a whole decreased by 11.1% (\$214.2 million). This category includes three infrastructure type: recreation; community development; and libraries, museums, and historic sites. Since the last inventory, recreation needs decreased by 14.3% or \$157.2 million, the third largest dollar decrease in this year's inventory. Several large recreation projects were completed, the largest of which was a \$138 million stadium improvement project at the University of Tennessee in Knox County.
- The Economic Development Category decreased by 1.8% (\$22.1 million). Estimated costs decreased for both types of infrastructure in this category—industrial sites and parks and business district

development—but most of the decrease (\$14.1 million) stemmed from canceled or completed industrial sites and parks projects.

- General Government is the smallest category and includes only two types of infrastructure: public buildings and other facilities. The estimated cost of public building improvements increased by 15% or \$51.4 million. A new veterans' living center in Montgomery County accounts for \$24.4 million or nearly half (47.5%) of that increase.
- Infrastructure needs and the ability to meet them vary across the state. To understand the variation in county-level infrastructure needs and local governments' ability to meet them, TACIR staff looked at infrastructure needs relative to total population, population gain, and financial resources, including local revenue sources and personal income as a measure of residents' ability to pay taxes. Both the need for infrastructure improvements and improvements that have been completed are closely related to financial resources and population. Infrastructure that is still needed is also highly correlated with population gain, but completed infrastructure is only weakly correlated with that factor. Both needed and completed infrastructure are weakly correlated with population growth rate.
- Local officials are confident in obtaining funding for only \$11.2 billion of the \$30.1 billion identified as local needs. (These figures do not include needs at existing schools or those in state agencies' capital budget requests.) Most of that amount, \$10.8 billion, is for needs that are fully funded; another \$415 million is for needs that are partially funded. That leaves another \$18.8 billion of needs for which funding is not yet available. While state revenue sources for fully funded infrastructure increased since last year, local sources, which consist of city, county, and special district revenues, remained about the same as last year and continue to be the principal source of funding for fully funded infrastructure.
- Infrastructure is built for many reasons, including community enhancement, population growth, public health and safety, economic development, and government mandates. Around two-thirds (67%) of improvements in this inventory are needed for public health and safety, 29% is needed for population growth, and 22% is needed for community enhancement. These figures add to more than 100% because there may be more than one reason for any particular project. These percentages are comparable to those for projects completed since 2007: public health and safety (66%), population growth (29%), and community enhancement (22%).
- The government that owns infrastructure typically funds the bulk of its cost. For example, local officials report that 91% of the funding for county-owned projects will come from county sources. The same is true of improvements reported in the 2007 inventory that have since been completed—counties paid 88% of the cost of meeting their infrastructure needs. Likewise, cities provided 67% of the funds necessary for improvements they needed in 2007 and have completed since then and expect to provide 76% of the funds for current and future improvements. Special districts paid 83% of the cost of meeting their 2007 infrastructure needs and expect to fund 64% of their current and future costs.