Building Tennessee's Tomorrow:Anticipating the State's Infrastructure Needs

July 2016 through June 2021

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State of Tennessee



Tennessee Advisory Commission on Intergovernmental Relations



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January 26, 2018

The Honorable Randy McNally Lt. Governor and Speaker of the Senate

The Honorable Beth Harwell Speaker of the House of Representatives

Members of the General Assembly

State Capitol Nashville, TN 37243

Ladies and Gentlemen:

Transmitted herewith is the sixteenth in a series of reports on Tennessee's infrastructure needs by the Tennessee Advisory Commission on Intergovernmental Relations pursuant to Public Chapter 817, Acts of 1996. That act requires the Commission to compile and maintain an inventory of infrastructure needed in Tennessee and present these needs and associated costs to the General Assembly during its regular legislative session. The inventory, by law, is designed to support the development by state and local officials of goals, strategies, and programs to

- improve the quality of life of all Tennesseans,
- support livable communities, and
- enhance and encourage the overall economic development of the state through the provision of adequate and essential public infrastructure.

This years' report includes one-page summaries for each county-area that lists the estimated cost for all types of infrastructure by stage of development. The summaries also highlight the top three types of infrastructure improvements needed in each county based on total estimated cost and provide comparisons of the infrastructure needed at public school systems to student enrollment.

Respectfully yours,

Senator Mark Norris Chairman Cliff Lippard Executive Director





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MEMORANDUM

TO: Commission Members

FROM: Cliff Lippard (

Executive Director

DATE: 26 January 2018

SUBJECT: Annual Report on Tennessee's Public Infrastructure Needs—Final Report

for Approval

The Tennessee General Assembly charged the Commission in 1996 with developing and maintaining an inventory of public infrastructure needs "in order for the state, municipal and county governments of Tennessee to develop goals, strategies, and programs which would

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

Each year since this mandate was created for the Commission, we have worked with the state's nine development districts to gather information from state and local officials for an inventory of Tennessee's public infrastructure needs. The information they provide is analyzed by commission staff, and an annual report is prepared for the General Assembly.

The current report is submitted for your approval. It is the sixteenth in the series and presents \$45.0 billion of infrastructure improvements reported in the inventory by state and local officials. This most recent inventory includes projects that need to be in some stage of development during the five-year period July 2016 through June 2021.

The report includes a single statewide overview chapter that provides information by type of infrastructure, the condition and needs of our public school facilities, the

availability of funding to meet reported needs, and a comparison of county-area needs. Following that section, one-page summaries for each county-area lists the estimated cost for all types of infrastructure by stage of development. The summaries also highlight the top three types of infrastructure improvements needed in each county based on total estimated cost and provide comparisons of the infrastructure needed at public school systems to student enrollment. Further detailed county-area information about each type of infrastructure in the inventory, along with relevant legislation, inventory forms, and a glossary of terms, can be found in the appendixes to the report.

Building Tennessee's Tomorrow:

Anticipating the State's Infrastructure Needs

July 2016 through June 2021

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Building Tennessee's Tomorrow:Anticipating the State's Infrastructure Needs

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INTRODUCTION

One of the greatest fiscal challenges facing our elected officials is dealing with aging infrastructure. As the population grows and shifts, new classrooms must be built and equipped to meet our children's needs. As roads and bridges wear out, they must be repaired or replaced to ensure our safety. And as outdated water lines begin to crack and fail, they must be upgraded to carry clean drinking water safely and efficiently. These examples are just a few of the demands confronting government officials as they struggle with the daunting task of matching limited funds to seemingly unlimited needs.

Why do we rely on the public sector for roads, bridges, water lines, and schoolhouses? Certain goods and services—such as clean drinking water and roads to access employment, education, and commerce—must be provided in the interest of general health and safety. Excluding users from clean water and roads is not desirable, and profit may not always be possible. Public infrastructure is the answer when the service supported is essential to the common good and the private sector cannot profitably provide it at a price that makes it accessible to all. Therefore, we look to those who represent us in our public institutions to set priorities and find ways to fund them.

Why inventory public infrastructure needs?

The Tennessee General Assembly affirmed the value of public infrastructure in legislation enacted in 1996 when it deemed an inventory of those needs necessary "in order for the state, municipal, and county governments of Tennessee to develop goals, strategies, and programs which would

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

through the provision of adequate and essential public infrastructure."

The public infrastructure needs inventory on which this report is based

"The condition of roads, bridges, schools, water treatment plants, and other physical assets greatly influences the economy's ability to function and grow."

Elizabeth McNichol, Center on Budget and Policy Priorities, It's Time for States to Invest in Infrastructure, August 10, 2017

 $^{^{1}}$ Public Chapter 817, Acts of 1996. For more information about the enabling legislation, see appendix A.

was derived from surveys of local officials by staff of the state's nine development districts,² the capital budget requests submitted to the Governor by state officials as part of the annual budget process, needed capital projects provided by the Tennessee Board of Regents (TBR), and bridge and road needs from project listings provided by state transportation officials. The Commission relies entirely on state and local officials to evaluate the infrastructure needs of Tennessee's citizens as envisioned by the enabling legislation.

What infrastructure is included in the inventory?

For purposes of this report, and based on the direction provided in the public act and common usage, public infrastructure is defined as capital facilities and land assets under public ownership or operated or maintained for public benefit. To be included in the inventory, infrastructure projects must not be considered normal or routine maintenance and must involve a capital cost of at least \$50,000.³

Local officials were asked to describe anticipated needs for the period July 1, 2016, through June 30, 2036, classifying those needs by type of project. State-level needs were derived from capital budget requests. Both state and local officials were also asked to identify the stage of development—conceptual, planning and design, or under construction—as of July 1, 2016. The period covered by each inventory was expanded to 20 years in 2000 because of legislation requiring its use by the Commission to monitor implementation of Tennessee's Growth Policy Act.⁴ Plans developed pursuant to that act established growth boundaries for annexation by the state's municipalities. This report focuses on the first five years of the period covered by the inventory and the following types of public infrastructure (see the glossary for definitions of project types):

- Transportation and Utilities
 - Transportation
 - Broadband
 - Other Utilities
- Education
 - Post-secondary Education
 - School Renovations
 - New Public Schools and Additions

 $^{^2}$ For more information on the importance of the inventory to the development districts and local officials, see appendix B.

³ School technology infrastructure is included for existing schools regardless of cost in order to provide information related to the technology component of the state's education funding formula

⁴ Public Chapter 672, Acts of 2000.

- School System-wide
- Other Education
- Health, Safety, and Welfare
 - Water and Wastewater
 - Law Enforcement
 - Public Health
 - Storm Water
 - Fire Protection
 - Solid Waste
 - Housing
- Recreation and Culture
 - Recreation
 - Libraries, Museums, and Historic Sites
 - Community Development
- General Government
 - Public Buildings
 - Other Facilities
- Economic Development
 - Industrial Sites and Parks
 - Business District Development

Within these parameters, local officials are asked to report their needs as they relate to developing goals, strategies, and programs to improve their communities. They are limited by only the very broad purposes for public infrastructure as prescribed by law. No independent assessment of need constrains their reporting. In addition, the inventory includes bridge and road needs from project listings provided by the Tennessee Department of Transportation (TDOT), capital projects from TBR, and capital needs identified by state officials and submitted to the governor as part of the annual budget process.

How is the inventory accomplished?

The public infrastructure needs inventory is developed using two separate, but related, inventory forms⁵ to gather information from local officials about needed infrastructure improvements. The Existing School Facility Needs Inventory Form is used to gather information about the condition of existing public school buildings, as well as the cost to meet all facilities mandates at

Ryan McCauley,
FutureStructure, Infrastructure
Week: Should Cities be at
the Center of Infrastructure
Discourse? May 19, 2017

[&]quot;Although there is a lot of focus on what's happening at the federal level, it is important to keep in mind the role local and state governments play in not only financing transportation projects, but also operating expenses."

⁵ Both forms are included in appendix C.

the schools, put them in good condition, and provide adequate technology infrastructure. The General Public Infrastructure Needs Inventory Form is used to gather information about all other types of infrastructure including the need for new public school buildings and for school system-wide infrastructure improvements not gathered on the school inventory form. TACIR staff provide local officials with supplemental information from the state highway department about transportation needs, many of which originate with local officials. This information helps ensure that all known needs are captured in the inventory.

In addition to gathering information from local officials, TACIR staff incorporate capital improvement requests submitted by state officials to the Governor's Budget Office, bridge and road needs from project listings provided by TDOT, and needed capital projects from TBR. While TACIR staff spend considerable time reviewing all the information in the inventory to ensure accuracy and consistency, the information reported in the inventory is based on the judgment of state and local officials. In many cases, information about local needs is limited to those included in the capital improvements programs of local governments, which means the inventory may not fully capture all local needs.

As discussed above, projects included in the report are only those in the conceptual, planning and design, or construction stage at some point during the five-year period July 2016 through June 2021. Estimated costs for the projects may include amounts spent before July 2016 for projects started before the five-year period or amounts after June 2021 for projects that won't be completed during the five-year period. Because the source of information from state agencies (other than TDOT and TBR) is their capital budget requests, all of those projects are initially recorded as conceptual.

In the context of the public infrastructure needs inventory, the term "mandate" is defined as *any rule, regulation, or law originating from the federal or state government that affects the cost of a project.* The mandates most commonly reported are the Americans with Disabilities Act (ADA), asbestos, lead, underground storage tanks, and the Education Improvement Act (EIA). The EIA mandate was to reduce the number of students in each K-12 public school classroom by fall 2001. Tennessee public schools began working toward that goal after the passage of the EIA in 1992 and met it by hiring a sufficient number of teachers and adding classroom space. However, some schools continue to use portable classrooms because they still do not have sufficient traditional classroom space to accommodate the classes and teachers required.

Except in the case of existing public schools, the inventory does not include estimates of the cost to comply with mandates. Even in the case of public

⁶ See the Glossary of Terms at the end of the report.

⁷ Tennessee Comptroller of the Treasury 2004. "The Education Improvement Act: A Progress Report." http://comptroller.tn.gov/repository/RE/educimproveact.pdf

schools, with the exception of the EIA, the cost reported to the Commission as part of the public infrastructure needs inventory is relatively small—accounting for less than 1% of the total reported public school infrastructure needs. See Appendix E-9.

How is the inventory used?

The Public Infrastructure Needs Inventory is both a product and a continuous process, one that has been useful in

- short-term and long-range planning,
- providing a framework for funding decisions,
- increasing public awareness of infrastructure needs, and
- fostering better communication and collaboration among agencies and decision makers.

The inventory promotes planning and setting priorities.

The Public Infrastructure Needs Inventory has become a tool for setting priorities and making informed decisions by all stakeholders. Many decision makers have noted that in a time of tight budgets and crisis-based, reactive decisions, the annual inventory process is the one opportunity they have to set funding issues aside for a moment and think proactively and broadly about their very real infrastructure needs. For most officials in rural areas and in smaller cities, the inventory is the closest thing they have to a capital improvements program (CIP). Without the inventory, they would have little opportunity or incentive to consider their infrastructure needs. Because the inventory is not limited to needs that can be funded in the short term, it may be the only formal opportunity they have to consider the long-range benefits of infrastructure.

The inventory helps match critical needs to limited funding opportunities.

The Public Infrastructure Needs Inventory provides the basic information that helps state and local officials match needs with funding, especially in the absence of a formal CIP. At the same time, the inventory provides information needed by the development districts to update their respective *Comprehensive Economic Development Strategy Reports* required annually by the US Economic Development Administration.⁸ Unless a project is listed in that document, it will not be considered for funding by that agency. Information from the inventory has been used to develop lists of projects suitable for other types of state and federal grants as well. For example, many projects that have received Community Development Block Grants were originally discovered in discussions of infrastructure needs with local

Andrew Soergel's interview of Robert Puentes, Director of Metropolitan Infrastructure Initiative at the Brookings Institution, U.S. News, Is Infrastructure Destined to Crumble?, March 15, 2016

[&]quot;Water is the biggest hidden challenge we have now. I can tell you, nine times out of 10, when people are talking about infrastructure, they're talking about roads and bridges. But water is literally hidden—it's underground, in most cases—and we don't think about it until something happens. We expect water to come out of the tap."

⁸ US Economic Development Administration. "CEDS Content Guidelines." https://www.eda.gov/ceds/.

government officials. And it has also helped state decision makers identify gaps between critical needs and available state, local, and federal funding, including an assessment of whether various communities can afford to meet their infrastructure needs or whether some additional planning needs to be done at the state level about how to help them.

The inventory provides an annual review of conditions and needs of public school facilities.

Local officials are asked to report the condition of all schools, not just those in need of repair or replacement, on the Existing School Facility Needs Inventory Form. Data can be retrieved from the database and analyzed to identify particular needs, such as technology. This information is useful in pinpointing pressing needs for particular schools and school systems, as well as providing an overview of patterns and trends across the state. This unique statewide database provides information about the condition and needs of Tennessee's public school facilities.

The inventory increases public awareness, communication, and collaboration among decision makers.

The state's infrastructure needs have been reported to a broader public audience, and the process has fostered better communication between the development districts, local and state officials, and decision makers. The resulting report has become a working document used at the local, regional, and state levels. It gives voice to the small towns and rural communities with limited planning resources. Each update of the report provides an opportunity for re-evaluation and re-examination of projects and for improvements in the quality of the inventory and the report itself. This report is unique regarding its broad scope and comprehensive nature. Through the inventory process, development districts have expanded their contact, communication, and collaboration with agencies not traditionally sought after (e.g., local boards of education, utility districts, and TDOT) and strengthened personal relationships and trust with their more traditional local and state contacts. Infrastructure needs are being identified, assessed, and addressed locally and documented for the Tennessee General Assembly, various state agencies, and decision makers for further assessment and consideration.

What improvements have been made to the inventory?

As each inventory cycle comes to a close, TACIR staff review the collection and analysis process to identify ways to improve efficiency and accuracy. Staff continually work to improve methods for project tracking and quality control. Infrastructure related to broadband internet access is reported as a separate project type in this year's report. Staff continue to analyze the relationship between school-level enrollment and the need for improvements at individual schools, augmenting analyses using system-

level enrollment. Staff also continued to improve and enhance the online inventory application.

Staff also routinely evaluate methods to improve how the information collected in the surveys is shared with state and local officials and communicated to the general public. Toward those ends, one-page summaries for each county were introduced to the report last year. See page 8 for the statewide summary. The county summaries may be found beginning on page 23. The summaries highlight the top three types of infrastructure based on total estimated cost needed in the county, broken down by whether it's needed locally or at the regional level. The estimated costs for all types of infrastructure are divided between conceptual projects and those that have moved into the planning and design stage or have started construction. The infrastructure needed at public school systems is also compared to student enrollment.

What else needs to be done?

The data collection process continues to improve, and the current inventory is more complete and accurate than ever. The Commission has tried to strike a balance between requiring sufficient information to satisfy the intent of the law and not creating a burden on local officials reporting their needs. By law, the inventory is required of the Commission, but it is not required of state or local officials; they may decline to participate without penalty. Similarly, they may provide only partial information. This can make comparisons across jurisdictions and across time difficult. But with each annual inventory, participants have become more familiar with the process and more supportive of the program.

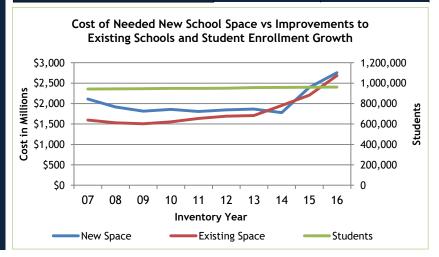
Improvements in the technological infrastructure of the inventory itself have set the stage for future efforts to make the inventory more accessible and useful to state and local policy makers and to researchers. Geographic coordinates are now required for every project in the inventory so staff and public officials can better analyze infrastructure needs using Geographic Information System (GIS) analysis. This information may be used by TACIR staff in the future to provide more detailed information to officials and the public.

State Total Total Estimated Cost* for Infrastructure Improvements \$45,021,441,887 **Transportation** (in billions) \$2.0 2 \$30 Cost of Needs \$25 \$1.5 **5** \$20 \$1.0 ह \$15 \$10 \$5 Inventory Year -Completed Post-secondary Education (in billions) \$6 \$1.2 letions Cost of Needs \$5 \$1.0 Comple \$4 \$0.8 \$3 \$0.6 \$2 \$0.4 ₹ \$1 \$0.2 Cost 00 00 00 11 12 14 14 15 Inventory Year Completed Water and Wastewater (in billions) \$5 \$0.5 of Completions Est. Cost of Needs \$4 \$0.4 \$3 \$0.3 \$2 \$0.2 \$1 \$0.1 Cost \$0 \$0.0 00 00 00 11 11 13 14 15 Inventory Year Completed = Local

= Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for State Total Five-year period July 2016 through June 2021

Project Type	Conceptual	Planning & Design + Construction
Transportation	\$ 10,459,365,064	\$ 13,769,918,421
Post-secondary Education	1,547,269,000	3,303,879,419
Water and Wastewater	1,205,237,510	3,487,288,455
New Public Schools & Additions	1,935,659,634	820,255,612
School Renovations	1,894,779,648	790,413,283
Recreation	488,116,944	665,388,453
Law Enforcement	558,075,800	571,744,226
Public Buildings	335,167,841	313,288,308
Other Utilities	144,945,000	359,154,949
Libraries, Museums, & Historic Sites	63,728,760	343,928,249
Housing	201,355,000	172,994,195
Public Health Facilities	287,661,700	61,596,698
Industrial Sites and Parks	146,287,000	99,922,236
Community Development	91,000,426	114,457,621
Fire Protection	120,091,789	74,379,646
Storm Water	52,742,500	120,479,908
Other Facilities	48,886,300	70,055,800
Business District Development	26,550,000	87,253,192
Other Education	55,050,000	32,370,000
School-System-wide	11,302,000	48,439,000
Solid Waste	18,115,300	5,547,000
Broadband	8,295,000	9,005,000
Total	\$ 19,699,682,216	\$ 25,321,759,671



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

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INFRASTRUCTURE NEEDS OVERVIEW

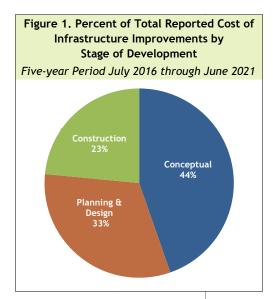
Public infrastructure is needed in every corner of the state from highly populated counties like Shelby and Davidson to rural counties like Humphreys and Pickett. In general, it has been the case throughout the history of this inventory that the more people a county has and the more its population grows, the more infrastructure it will need (see map 1). However, relative to their populations, counties with small populations need just as much or more infrastructure than counties with large populations (see map 2). Individual county summaries, starting on page 23, offer a breakdown of infrastructure needs by county.

Map 1. Total Estimated Cost of Infrastructure Improvement Needs Five-year Period July 2016 through June 2021



Map 2. Estimated Cost of Total Infrastructure Improvement Needs per Capita
Five-year Period July 2016 through June 2021





This overview highlights changes in reported needs for infrastructure improvements and tries to draw conclusions where possible based on the data reported by local and state officials. The estimated cost of all needed public infrastructure improvements in Tennessee increased for the second straight year. State and local officials report an increase of approximately \$2.0 billion (4.7%) in this year's inventory, which brings the estimated cost of public infrastructure improvements that need to be in some stage of development between July 1, 2016, and June 30, 2021, to \$45.0 billion (see figure 1 and table 1).9 Improvements needed for Transportation and Utilities, Education, and Health, Safety, and Welfare continue to account for most of the inventory, with Education and Health, Safety, and Welfare needs responsible for most of the reported increase this year. More than two-thirds of the estimated cost of the needed improvements reported in this year's inventory is not funded—a slight increase from previous years.

Public infrastructure needed for Education and Health, Safety, and Welfare accounts for 85% of the increase in this year's inventory.

Of the \$2.0 billion increase in infrastructure needs reported in this year's inventory, more than \$1.7 billion (84.6%) is attributable to increases in Education and Health, Safety, and Welfare needs-continuing a threeyear trend of driving the overall increase in the inventory. Needed improvements for Education infrastructure show the largest overall increase – \$935 million. Most of the increase in Education needs results from the \$481 million increase reported for renovations to existing schools and the \$359 million increase for new public schools and additions. Health, Safety, and Welfare infrastructure needs, which had the largest increases in each of the last two inventories, show the second largest increase in this year's inventory—\$792 million. The \$445 million increase reported for water and wastewater projects, including the addition of large projects in East Tennessee and cost increases in Davidson County, accounts for most of this increase in the Health, Safety, and Welfare category. Increases in needs reported for other categories in the inventory—Transportation and Utilities (\$230 million), General Government (\$128 million), and Recreation and Culture (\$8 million)—are relatively small in comparison. The only category where reported needs decreased is Economic Development, down \$52 million from last year. See table 1.

⁹ For complete listings of all needs reported in the July 2016 inventory by county and by public school system, see appendixes D and E.

Table 1. Comparison of Estimated Cost of Needed Infrastructure Improvements

July 2015 Inventory vs. July 2016 Inventory

Category and Type of Infrastructure	July 2015 Inventory	July 2016 Inventory	Difference	Percent Change
Transportation and Utilities	\$ 24,520,718,278	\$ 24,750,683,434	\$ 229,965,156	0.9%
Transportation	24,209,966,168	24,229,283,485	19,317,317	0.1%
Other Utilities	304,252,110	504,099,949	199,847,839	65.7%
Broadband	6,500,000	17,300,000	10,800,000	166.2%
Education	\$ 9,504,561,149	\$ 10,439,417,596	\$ 934,856,447	9.8%
Post-secondary Education	4,790,546,399	4,851,148,419	60,602,020	1.3%
New Public Schools and Additions	2,396,953,127	2,755,915,246	358,962,119	15.0%
School Renovations*	2,204,589,623	2,685,192,931	480,603,308	21.8%
Other Education**	83,530,000	87,420,000	3,890,000	4.7%
School-System-wide	28,942,000	59,741,000	30,799,000	106.4%
Health, Safety and Welfare	\$ 6,145,012,574	\$ 6,937,309,727	\$ 792,297,153	12.9%
Water and Wastewater	4,247,351,338	4,692,525,965	445,174,627	10.5%
Law Enforcement	760,781,376	1,129,820,026	369,038,650	48.5%
Housing	304,008,235	374,349,195	70,340,960	23.1%
Public Health Facilities	451,458,805	349,258,398	(102,200,407)	-22.6%
Fire Protection	177,495,835	194,471,435	16,975,600	9.6%
Storm Water	182,404,685	173,222,408	(9,182,277)	-5.0%
Solid Waste	21,512,300	23,662,300	2,150,000	10.0%
Recreation and Culture	\$ 1,758,896,576	\$ 1,766,620,453	\$ 7,723,877	0.4%
Recreation	1,181,873,945	1,153,505,397	(28,368,548)	-2.4%
Libraries, Museums, and Historic Sites	380,651,079	407,657,009	27,005,930	7.1%
Community Development	196,371,552	205,458,047	9,086,495	4.6%
General Government	\$ 639,356,141	\$ 767,398,249	\$ 128,042,108	20.0%
Public Buildings	524,633,841	648,456,149	123,822,308	23.6%
Other Facilities	114,722,300	118,942,100	4,219,800	3.7%
Economic Development	\$ 412,464,681	\$ 360,012,428	\$ (52,452,253)	-12.7%
Industrial Sites and Parks	275,521,424	246,209,236	(29,312,188)	-10.6%
Business District Development	136,943,257	113,803,192	(23,140,065)	-16.9%
Grand Total	\$ 42,981,009,399	\$ 45,021,441,887	\$ 2,040,432,488	4.7%

^{*}School Renovations include school technology projects with estimated costs below the \$50,000 threshold used for other types of infrastructure included in the inventory. Individual technology projects under the threshold totaled \$4,494,931 in 2016 and \$3,341,937 in 2015.

The total estimated cost for Transportation continues to be the largest overall total in the inventory, though most of the increase in the Transportation and Utilities category is for needs classified as other utilities.

Transportation and Utilities is and always has been the largest category of infrastructure in the inventory and totals \$24.8 billion this year—55.0% of the inventory. Transportation alone, at \$24.2 billion, accounts for nearly all of this category and is larger than all other categories in the inventory—Education at \$10.4 billion

^{**}Other Education includes infrastructure improvements reported at state educational institutions not associated with institutes of higher education or at the county, city, or special school systems level. Examples include the Tennessee School for the Deaf and Alvin C. York Institute.

(23.2%), Health, Safety, and Welfare at \$6.9 billion (15.4%), Recreation and Culture at \$1.8 billion (3.9%), General Government at \$767 million (1.7%), and Economic Development at \$360 million (0.8%).

Transportation needs remain relatively flat.

The net increase in the total estimated cost of transportation needs is only \$19 million (0.1%) in this year's inventory, which includes \$1.1 billion in new projects and \$913 million in project cost increases. But these increases are partially offset by \$1.2 billion in completed projects, \$237 million in canceled projects, and \$49 million for postponed projects no longer considered needed within this report's five-year window. Moreover, state and local officials reported \$306 million in reduced costs for projects already in the inventory. Projects totaling \$185 million were removed from the inventory because improved methods of project tracking and quality control identified duplicates and invalid information.

In 2017, Governor Bill Haslam signed the Improve Act, 10 which raises taxes on gasoline and diesel fuel by 6 cents and 10 cents respectively, over a three-year period. Increases in the state's gasoline and diesel tax revenues will help pay for Tennessee's highly publicized \$10.5 billion transportation backlog—which includes only projects that have been approved by the General Assembly and are either in the planning and design or construction stage. The \$24.2 billion for transportation in TACIR's public infrastructure needs inventory reflects the total needed regardless of stage of development or available funds. It includes 6,788 conceptual bridge projects reported by state bridge inspectors that need \$7.4 billion in improvements to meet federal standards and another \$5.4 billion reported by local officials for 597 local transportation needs that are not included in the administration's transportation backlog. Moreover, the inventory includes needs as of July 2016, while the administration's backlog is current as of January 2017. As additional revenue becomes available, projects can progress past the planning and design stage of development; this will be reflected in future inventories, beginning with the July 2018 inventory.

Other utilities accounts for most of the increase in the Transportation and Utilities category.

Needs reported for other utilities increased by \$200 million (65.7%) in this year's inventory and now total \$504 million. Most of this increase is attributable to the addition of \$153 million needed to replace transmission lines throughout the Knoxville Utilities Board's service area. In response to the recommendations in the Commission's recently published report *Broadband Internet Deployment, Availability, and Adoption in Tennessee,* public infrastructure needed for broadband is now reported in the inventory as its own project type and totals \$17 million.

¹⁰ Public Chapter 181, Acts of 2017.

Increases in needed renovations, enrollment growth, and the rising cost of construction materials appear to be driving the increase in Education needs.

School systems must comply with the Tennessee Constitution's guarantee of the right of access to public education,¹¹ as well as with the Tennessee Education Improvement Act of 1992,¹² which places limits on the number of students in classrooms. School systems with growing enrollment face the challenge of providing enough space for students while costs increase. Other school systems need to renovate or replace their schools because of age, condition, or other situations like consolidation or school restructuring.

In this year's inventory, the \$481 million (21.8%) increase in needed improvements to existing space accounts for most of the overall increase in the Education category and now totals \$2.7 billion. Among needed improvements to existing space, the \$500 million (25.8%) increase in school renovation needs are partially offset by the \$12 million (8.9%) decrease in technology needs and the \$7 million (6.7%) decrease in needs related to state or federal mandates. See table 2.

Table 2. Estimated Cost of School Infrastructure Improvements by Type of Need

July 2015 Inventory vs. July 2016 Inventory

	July 2015	July 2016		Percent
Type of Infrastructure	Inventory	Inventory	Difference	Change
New School Space	\$ 2,396,953,127	\$ 2,755,915,246	\$ 358,962,119	15.0%
New Schools	1,869,398,638	2,242,204,362	372,805,724	19.9%
Additions	527,554,489	513,710,884	(13,843,605)	-2.6%
Improvements to Existing Schools	\$ 2,204,589,623	\$ 2,685,192,931	\$ 480,603,308	21.8%
Renovations	1,964,495,886	2,464,281,023	499,785,137	25.4%
Technology*	140,261,469	127,786,971	(12,474,498)	-8.9%
Mandates	99,832,268	93,124,937	(6,707,331)	-6.7%
System-wide Needs	\$ 28,942,000	\$ 59,741,000	\$ 30,799,000	106.4%
Statewide Total	\$ 4,630,484,750	\$ 5,500,849,177	\$ 870,364,427	18.8%

^{*}Technology includes school projects with estimated costs below the \$50,000 threshold used for other types of infrastructure included in the inventory. Individual technology projects under the threshold totaled \$4,494,931 in 2016 and \$3,341,937 in 2015.

Some of the needed improvements to existing space are caused by the condition of the school. Although just over 8.1% of public schools (140) in Tennessee were rated by their local school officials in fair or poor condition, 135 of those schools need improvements to existing space and account for 29.1% of total estimated existing space needs. See figure 2, table 3, and appendix E.

¹¹ Article XI, Section 12, Constitution of the State of Tennessee.

¹² State of Tennessee Comptroller of the Treasury. 2004. "The Education Improvement Act: A Progress Report." http://comptroller.tn.gov/repository/RE/educimproveact.pdf.

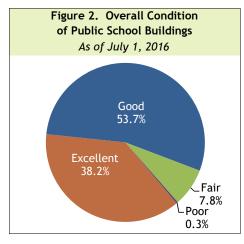


Table 3. Renovation Costs by School Condition Five-year Period July 2016 through June 2021

School Condition	Number of Schools	Estimated Cost to Renovate	verage Cost Per School
Good or Excellent	915	\$ 1,747,843,293	\$ 1,910,211
Fair or Poor	135	716,437,730	5,306,946
Total	1,050	\$ 2,464,281,023	\$ 2,346,934

Note: Does not include facility upgrades captured in the school system-wide category used for the total renovation cost in Table 2.

The need for new school space also continues to increase in this year's inventory—\$359 million (15.0%) to a new total of \$2.8 billion. Although local officials reported a \$14 million (2.6%) decrease in the need for additions to existing schools, this is more than offset by the \$373 million (19.9%) increase in reported needs for new schools (see table 2). Of the \$2.8 billion total needed to build new school space, \$553 million is for 19 new school projects added to the inventory this year by eight school systems. Of these 19 new school projects, ten are needed in Williamson County.

Over half of all school systems reporting a need for new schools have growing enrollments (see table 4 on the next page). Of the eight systems with newly reported needs for a new school, six—Lebanon, Murfreesboro, and the Gibson County Special School District, along with the counties of Montgomery, Robertson, and Williamson—reported needing an additional school, instead of a replacement school where the old building is either demolished or repurposed. All six of these systems experienced enrollment growth from 2011 to 2016.

Another reason for the increase in the cost of needed education infrastructure could be the rising cost of construction materials and labor. The US Bureau of Labor Statistics' new school construction price index rose more than 18 points (13.9%) from July 2010 to July 2016, and RSMeans data by Gordian, an industry-leading construction cost estimating company, shows growth in square foot costs for schools increasing similarly. In 2010, the average cost of a completed new school was \$16 million in Tennessee. Seven schools were completed since last year's report for a total cost of \$173 million, averaging \$25 million per school. Over the next five years, local officials report needing 81 more schools at an average of \$28 million.

¹³ Davidson County, Gibson County SSD, Lebanon SSD, Montgomery County, Murfreesboro, Robertson County, Sullivan County, and Williamson County.

¹⁴ US Bureau of Labor Statistics. 2017. https://data.bls.gov/timeseries/PCU236222236222.

¹⁵ RSMeans data by Gordian. 2017. "Square Foot Costs With RSMeans Data."

Table 4. Change in Student Enrollment 2011 to 2016 for School Systems that Need New Schools

Five-year Period July 2016 through June 2021

	Change in Student Enrollment	Estimated Cost of July 20	·
School System	2011 to 2016	Total	Per Student
Davidson County	7,217	\$ 258,000,000	\$3,185
Williamson County	5,028	461,240,000	\$13,182
Rutherford County	4,528	154,110,000	\$3,720
Montgomery County	2,681	117,672,362	\$3,749
Knox County	2,343	58,295,000	\$1,012
Wilson County	1,798	234,000,000	\$13,957
Hamilton County	1,487	50,000,000	\$1,172
Sumner County	1,388	55,000,000	\$1,940
Murfreesboro	1,144	21,750,000	\$2,889
Bedford County	623	31,850,000	\$3,821
Maury County	573	45,000,000	\$3,838
Cleveland	445	14,000,000	\$2,654
Johnson City	381	14,000,000	\$1,811
Gibson County SSD	315	17,000,000	\$4,383
Lebanon SSD	227	21,200,000	\$5,844
Hamblen County	201	10,000,000	\$995
Collierville	161	95,000,000	\$12,097
Bristol	90	52,000,000	\$13,033
Lakeland	60	17,678,000	\$20,934
Robertson County	20	70,000,000	\$6,282
DeKalb County	(6)	42,000,000	\$14,636
Macon County	(31)	24,000,000	\$6,523
Sevier County	(50)	45,250,000	\$3,175
Dickson County	(109)	21,000,000	\$2,550
Oak Ridge	(113)	10,500,000	\$2,385
Bradley County	(127)	16,000,000	\$1,602
Cumberland County	(128)	12,000,000	\$1,678
Benton County	(155)	200,000	\$93
Marion County	(195)	30,000,000	\$7,358
Millington	(229)	6,659,000	\$2,510
Clairborne County	(374)	1,800,000	\$411
Cheatham County	(453)	30,000,000	\$4,741
Washington County	(453)	70,000,000	\$8,076
Roane County	(562)	50,000,000	\$7,454
Sullivan County	(1,155)	85,000,000	\$8,434
Total	26,570	\$ 2,242,204,362	\$11,671

Source: Tennessee Department of Education, Annual Statistical Report,

https://www.tn.gov/content/tn/education/data/department-reports.html.

"Although subsequent rains wiped the worst of the drought conditions, they did not erase the story of exceptional measures by state agencies and local municipalities in conjunction with numerous different water professionals to ensure that Tennesseans in Bledsoe County and its environs were supplied with adequate drinking water."

Mike Bernard and Lindsay Bryant, Tennessee Public Works Magazine, *East Bound, Down, and Out of Water,* March/April 2017

The need for both clean water and jails accounts for most of the increase in the Health, Safety, and Welfare category.

Tennessee's water and wastewater infrastructure is aging—some water and sewer mains are now over a century old.¹6 And as the state's population grows—especially around major cities such as Memphis, Nashville, Knoxville, and Chattanooga—additional capacity is needed. In this year's inventory, the estimated cost of needed water and wastewater infrastructure increased \$445 million (10.5%) and now totals \$4.7 billion. This increase is mainly caused by the addition of large projects in East Tennessee (Anderson, Hamilton, Knox, and Sevier counties). Davidson County now needs \$820 million, up \$290 million from last year's inventory, to rehabilitate their sewer system to comply with a 2009 US Environmental Protection Agency consent decree to ensure clean water for their citizens.¹7

This year's inventory also includes a large increase in the estimated cost of law enforcement infrastructure—\$369 million (48.5%) to a new total of \$1.1 billion. Most of this increase is caused by the addition of new projects located in Davidson County. Metro Nashville continues to need new law enforcement infrastructure in addition to major expansions completed in recent years. Nashville's needs include a new \$113 million downtown Criminal Justice Center Plaza on the old jail site, a \$28 million police headquarters on Murfreesboro Pike southeast of downtown, and a new \$20 million sheriff administrative office in East Nashville. The State of Tennessee also needs \$62 million for a new headquarters for the Department of Correction and \$20 million for a law enforcement executive training and conference facility—both in Davidson County.

Needs reported for projects that support public buildings, recreation and cultural assets, and efforts to develop the economy continue to fluctuate.

The estimated cost of needed infrastructure for public buildings increased \$124 million (23.6%) and now totals \$648 million. The addition of the \$50 million War Memorial Building renovation project accounts for most of this increase. The cost for infrastructure needed for other facilities—structures that are publicly owned but not typically open to the public, like maintenance facilities and salt bins—increased \$4 million (3.7%) to a total of \$119 million.

Among needs reported for recreation and cultural assets, the estimated cost for libraries, museums, and historic sites increased by \$27 million (7.1%) to

 $\underline{FY2017/20161011} \underline{MetroWaterServiceCleanWaterNashvilleOverflowAbatementProgram.pdf}.$

¹⁶ Nashville Public Radio. 2008. "Nashville Struggles with Water, Sewer Systems." https://www.npr.org/templates/story/story.php?storyId=91041009.

¹⁷ Metropolitan Government of Nashville and Davidson County. 2016.

[&]quot;Metropolitan Government of Nashville and Davidson County - Metro Water Services Performance Audit of Clean Water Nashville Overflow Abatement Program." https://www.nashville.gov/Portals/0/SiteContent/InternalAudit/docs/

a total of \$408 million. The estimated cost for community development infrastructure increased \$9 million (4.6%) and now totals \$205 million. But these increases are partially offset by the \$28 million (2.4%) decrease in needs reported for recreational infrastructure, which now totals \$1.2 billion.

Lastly, the estimated cost for needed infrastructure at industrial sites and parks decreased \$29 million (10.6%) to a new total of \$246 million, while the estimated cost of infrastructure supporting business districts decreased \$23 million (16.9%) and now totals \$114 million.

More than two-thirds of the estimated cost of the needed improvements reported in this year's inventory is not funded.

Information about funding for public infrastructure needs reported by officials indicates that 68.9% of the funds required to meet those needs was not available at the time the inventory was conducted, up slightly from last year's 63.4%. Excluding improvements needed at existing schools and those drawn from capital budget requests submitted by state agencies, neither of which includes funding information, only \$10.9 billion in funding is available for the remaining \$34.9 billion in needs (see table 5). Typically, as a project evolves, funding sources are identified and pursued. Regarding the infrastructure inventory process, planning and design can't take place without acquiring some funds. Of course, a lack of funding will prevent some projects from ever being completed. In fact, most of the infrastructure needs reported in the July 2011 inventory that were not already fully funded were still needed five years later. As in prior years, funding for needs reported in the inventory comes from federal, state, and local sources.

Table 5. Public Infrastructure Needs Summary of Funding Availability*
Five-year Period July 2016 through June 2021

	Ava	nding ailable oillions]	N	unding eeded billions]	N	Total eeded billions]
Fully Funded Improvements	\$	10.5	\$	0.0	\$	10.5
Partially Funded Improvements		0.4		2.7		3.1
Unfunded Improvements		0.0		21.4		21.4
Total	\$	10.9	\$	24.1	\$	34.9

*Excludes infrastructure improvements for which funding availability is not known.

Note: Totals may not equal 100% because of rounding.

The government that owns infrastructure typically funds the bulk of its cost, and a variety of revenue sources are used. For example, the state collects taxes and appropriates funds to its own projects but also provides grants to local governments through programs in various state agencies. Even so, cities and counties fund most of their infrastructure improvements with their own property and sales tax revenues, while utility districts fund

their improvements primarily with dedicated revenue sources in the form of user fees.

Because most of the state's infrastructure needs are not included in this analysis, local government sources-mainly counties and citiesprovide the majority of funding for all fully funded needs presented here. Exceptions include transportation, which is funded primarily by the federal and state governments. Broadband, recreation, housing, public health facilities, storm water, community development, and industrial sites and parks also rely on the federal government for significant portions of their reported funding (see table 6). It may appear that the state does not help pay for school buildings even though it does—although counties report funding 90.6% of new public school construction, the state provides an equivalent amount through its Basic Education Program (BEP) funding formula. The formula includes funds for capital outlay, an amount that topped \$750 million for fiscal year 2016-17.18 The state's share accounts for half of that amount, but those funds are not earmarked for that specific purpose; therefore, school systems have the flexibility to use those funds to meet various school needs, 19 and some systems use them for operating costs rather than capital outlay.²⁰

 $^{^{18}}$ Tennessee Department of Education. 2016. "Capital" worksheet in "FY17 July Final.xlsm" workbook.

 ¹⁹ Tennessee Comptroller of the Treasury. 2017. "Basic Education Program: A Funding Formula Not A Spending Plan." http://www.comptroller.tn.gov/orea/Files/FUNDING%20BEP.pdf.
 ²⁰ Testimony by Maryanne Durski, Executive Director Office of Local Finance, Tennessee Department of Education, at the TACIR August 30, 2017 meeting.

Table 6. Funding Source by Category and Type of Infrastructure for Fully Funded Improvement Needs [in millions]

Five-year Period July 2016 through June 2021

	St	State	Federal	ral	Other	er	City		County	ty	Special District	District	Total
Category and Project Type	Amount	Percent	Amount	Percent	Percent Amount Percent	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount
Transportation and Utilities	\$ 941.9	16.2%	\$ 3,973.1	68.1%	\$ 10.1	0.2%	\$ 752.8	12.9%	\$ 133.8	2.3%	\$ 18.4	0.3%	\$ 5,830.1
Transportation	939.2	17.0%	3,973.1	72.0%	8.1	0.1%	454.7	8.2%	133.1	2.4%	11.7	0.2%	5,519.9
Other Utilities	2.7	%6.0	0.0	0.0%	2.0	%9.0	298.1	96.1%	0.7	0.2%	9.9	2.1%	310.2
Broadband	0.0	0.0%	4.0	44.4%	0.0	%0.0	5.0	55.6%	0.0	0.0%	0.0	%0.0	0.6
Health, Safety and Welfare	\$ 9.7	0.3%	\$ 141.7	4.1%	\$ 10.3	0.3%	\$ 1,663.0	47.9%	\$ 1,436.0	41.4%	\$ 207.9	%0.9	\$ 3,468.6
Water and Wastewater	7.7	0.2%	101.8	3.3%	9.5	0.3%	1,509.0	48.9%	1,259.3	40.8%	199.4	6.5%	3,086.2
Law Enforcement	0.0	0.3%	3.8	1.7%	0.3	0.1%	55.3	25.4%	157.6	72.4%	0.0	0.0%	217.5
Housing	1.2	1.1%	28.3	26.5%	0.1	0.1%	66.5	62.3%	2.2	2.0%	8.5	7.9%	106.7
Fire Protection	0.0	0.0%	1.6	4.9%	0.0	0.0%	20.5	63.6%	10.1	31.5%	0.0	0.0%	32.2
Storm Water	0.4	1 2.4%	5.1	27.8%	0.7	3.8%	11.4	61.5%	0.8	4.4%	0.0	0.2%	18.5
Public Health Facilities	0.0	0.0%	1.1	22.5%	0.0	0.0%	0.1	1.8%	3.8	75.8%	0.0	0.0%	5.0
Solid Waste	0.0	0.0%	0.0	0.0%	0.0	%0.0	0.3	13.1%	2.1	86.9%	0.0	0.0%	2.4
Recreation and Culture	\$ 16.5	3.5%	\$ 147.2	31.0%	\$ 17.4	3.7%	\$ 159.5	33.5%	\$ 135.0	28.4%	\$ 0.0	%0.0	\$ 475.6
Recreation	13.4	3.7%	125.1	34.4%	7.1	2.0%	126.9	34.9%	91.0	25.0%	0.0	0.0%	363.4
Libraries, Museums, and Historic Sites	0.1	0.2%	8.0	13.4%	10.1	17.0%	12.0	20.2%	29.4	49.3%	0.0	0.0%	9.69
Community Development	3.0	5.8%	14.2	27.0%	0.2	0.4%	20.6	39.1%	14.6	27.8%	0.0	0.0%	52.6
Education	\$ 0.0	%0.0	\$ 0.0	0.0%	\$ 0.0	0.0%	24.9	%0.9	\$ 365.0	87.8%	25.8	6.2%	\$ 415.6
New Public Schools	0.0	0.0%	0.0	0.0%	0.0	0.0%	17.7	4.8%	334.0	%9.06	17.0	4.6%	368.7
School-System-wide	0.0	0.0%	0.0	0.0%	0.0	%0.0	7.2	15.3%	31.0	%0.99	8.8	18.7%	46.9
Economic Development	\$ 4.0	2.6%	\$ 16.3	10.8%	\$ 5.6	3.7%	\$ 52.1	34.7%	\$ 70.5	47.0%	\$ 1.7	1.1%	\$ 150.1
Business District Development	0.	0.1%	2.2	2.7%	2.6	3.2%	31.4	39.4%	43.2	54.2%	0.3	0.4%	7.67
Industrial Sites and Parks	3.9	5.5%	14.1	20.0%	3.0	4.2%	20.7	29.4%	27.3	38.8%	1.4	2.0%	70.4
General Government	\$ 0.6	0.5%	\$ 0.6	0.5%	\$ 0.0	0.0%	\$ 102.7	83.9%	\$ 18.6	15.2%	\$ 0.0	%0.0	\$ 122.5
Public Buildings	9.0	0.7%	9.0	0.7%	0.0	%0.0	70.2	80.2%	16.1	18.4%	0.0	0.0%	87.5
Other Facilities	0.0	0.0%	0.0	0.0%	0.0	%0.0	32.5	92.9%	2.5	7.1%	0.0	0.0%	35.0
Grand Total	\$ 972.6	6 9.3%	\$ 4,278.9	40.9%	\$ 43.4	0.4%	\$ 2,754.9	26.3%	\$ 2,158.9	\$ 89.07	\$ 253.8	2.4%	2.4% \$ 10,462.5

Building Tennessee's Tomorrow:Anticipating the State's Infrastructure Needs

July 2016 through June 2021

COUNTY SUMMARIES

The county summaries highlight the top three types of infrastructure based on total estimated cost needed in the county, broken down by whether it's needed locally or at the regional level. The estimated costs for all types of infrastructure are divided between conceptual projects and those that have moved into the planning and design stage or have started construction. The infrastructure needed at public school systems is also compared to student enrollment.

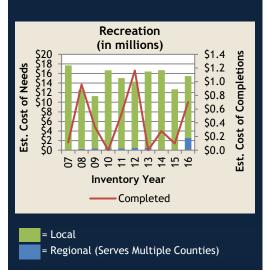
Anderson County

Total Estimated Cost* for Infrastructure Improvements \$203,616,898

TOP 3

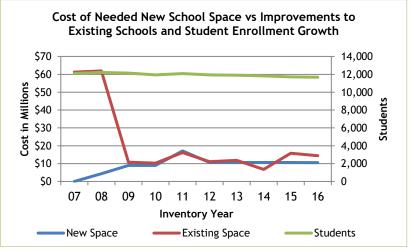






Estimated Cost of Needed Infrastructure for Anderson County Five-year period July 2016 through June 2021

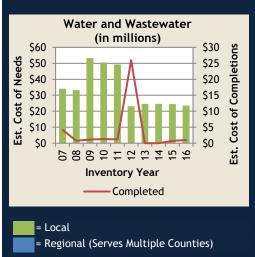
-		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 58,889,000	\$ 35,616,670
Water and Wastewater	44,900,000	10,829,465
Recreation	8,145,000	7,293,000
School Renovations	3,975,590	10,418,608
New Public Schools & Additions	10,500,000	-
Community Development	4,474,000	998,359
Law Enforcement	800,000	1,040,000
Post-secondary Education	-	1,767,206
Public Health Facilities	1,250,000	-
Solid Waste	-	565,000
Industrial Sites and Parks	500,000	-
Other Facilities	500,000	-
Other Utilities	-	480,000
Public Buildings	-	425,000
Fire Protection	250,000	-
Broadband	-	-
Business District Development	-	-
Housing	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
School-System-wide	-	-
Storm Water	-	-
Total	\$ 134,183,590	\$ 69,433,308



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

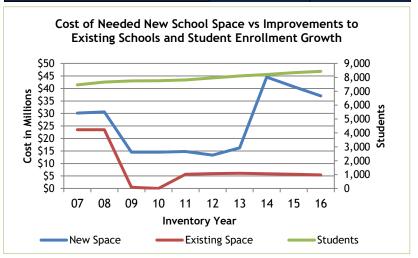
Bedford County Total Estimated Cost* for Infrastructure Improvements \$267,275,054 **Transportation** (in millions) \$200 \$50 Cost of Completions Est. Cost of Needs \$40 \$150 \$30 \$100 \$20 \$50 \$0 0 1 2 2 4 5 4 5 4 Est. 8 Inventory Year Completed





Estimated Cost of Needed Infrastructure for Bedford County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 71,805,000	\$ 117,722,862
New Public Schools & Additions	17,997,192	19,000,000
Water and Wastewater	20,800,000	2,700,000
School Renovations	5,420,000	-
Law Enforcement	4,900,000	-
Fire Protection	1,200,000	1,740,000
Other Utilities	-	2,500,000
Recreation	440,000	1,050,000
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Housing	-	-
Industrial Sites and Parks	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Facilities	-	-
Post-secondary Education	-	-
Public Buildings	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 122,562,192	\$ 144,712,862



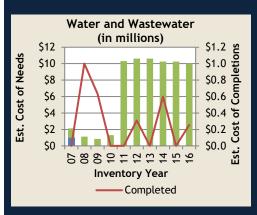
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

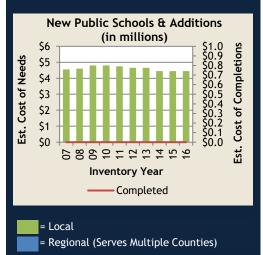
Benton County

Total Estimated Cost* for Infrastructure Improvements \$94,533,516

TOP 3

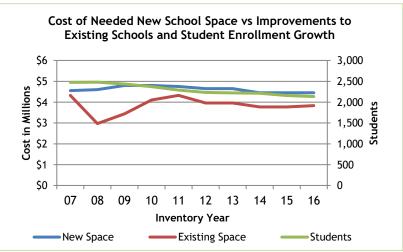






Estimated Cost of Needed Infrastructure for Benton County Five-year period July 2016 through June 2021

Project Type	Conceptual	Planning & Design + Construction
Transportation	\$ 14,982,000	\$ 59,028,316
Water and Wastewater	10,000,000	-
New Public Schools & Additions	4,450,000	-
School Renovations	3,337,000	494,200
Recreation	815,000	752,000
Public Buildings	575,000	-
Other Facilities	100,000	-
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Fire Protection	-	-
Housing	-	-
Industrial Sites and Parks	-	-
Law Enforcement	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Utilities	-	-
Post-secondary Education	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 34,259,000	\$ 60,274,516



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

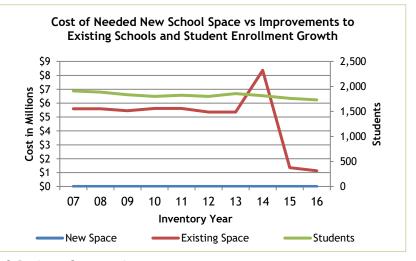
Bledsoe County Total Estimated Cost* for Infrastructure Improvements \$81,495,457 Law Enforcement (in millions) \$60 \$6 Cost of Completions Est. Cost of Needs \$5 \$50 \$40 \$30 \$20 \$10 \$0 Est. 0 1 2 2 4 5 5 8 Inventory Year Completed **Transportation** Est. Cost of Completions Co.00 (in millions) \$25 Est. Cost of Needs \$20 \$15 \$10 \$5 \$0 00 00 01 11 12 14 15 15 15 Inventory Year Completed **Public Health Facilities** (in millions)

Project Type Project Type Conceptual Conceptual Conceptual

Estimated Cost of Needed Infrastructure for Bledsoe County

Project Type	Conceptual	Planning & Design + Construction
Law Enforcement	\$ 1,000,000	\$ 39,000,000
Transportation	21,738,000	257,000
Public Health Facilities	8,000,000	1,387,657
Water and Wastewater	6,000,000	600,000
Public Buildings	-	1,877,800
School Renovations	745,000	390,000
Recreation	500,000	-
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Fire Protection	-	-
Housing	-	-
Industrial Sites and Parks	-	-
Libraries, Museums, & Historic Sites	-	-
New Public Schools & Additions	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 37,983,000	\$ 43,512,457





^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

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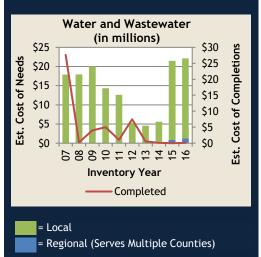
Blount County

Total Estimated Cost* for Infrastructure Improvements \$816,350,897

TOP 3

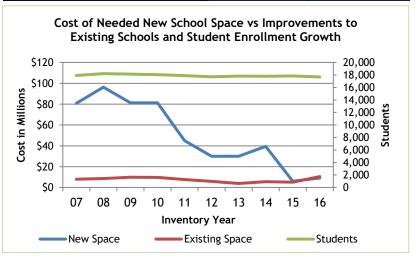






Estimated Cost of Needed Infrastructure for Blount County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 311,603,076	\$ 420,174,134
Recreation	22,050,000	5,929,717
Water and Wastewater	20,050,000	2,043,300
Post-secondary Education	10,300,000	1,400,000
School Renovations	3,855,000	6,648,870
New Public Schools & Additions	8,000,000	1,100,000
Public Buildings	-	2,671,000
Other Facilities	-	338,800
Law Enforcement	-	120,000
Fire Protection	67,000	-
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Housing	-	-
Industrial Sites and Parks	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Utilities	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 375,925,076	\$ 440,425,821

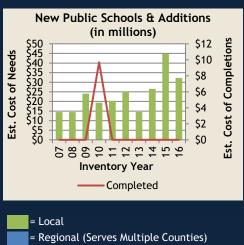


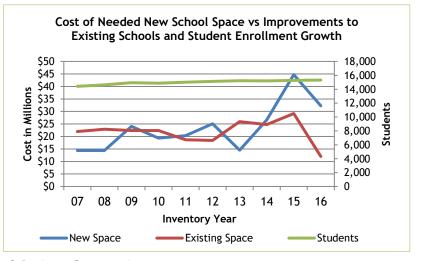
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Bradley County Total Estimated Cost* for Infrastructure Improvements \$320,579,414 **Transportation** (in millions) \$80 \$70 \$60 \$250 Cost of Completions Est. Cost of Needs \$200 \$50 \$40 \$150 \$100 \$30 \$20 \$50 \$0 Est. 07 08 09 11 12 14 15 15 Inventory Year Completed **Public Health Facilities** (in millions) \$50 \$1.0 Est. Cost of Completions Cost of Needs \$0.8 \$40 \$30 \$0.6 \$20 \$0.4 \$0.2 \$10 \$0.0 \$0 **Inventory Year** Completed New Public Schools & Additions

Estimated Cost of Needed Infrastructure for Bradley County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 69,867,898	\$ 108,561,263
Public Health Facilities	-	40,500,000
New Public Schools & Additions	15,875,000	16,384,500
Water and Wastewater	5,614,000	14,650,000
School-System-wide	-	16,000,000
School Renovations	4,039,000	8,010,500
Industrial Sites and Parks	-	6,000,000
Law Enforcement	-	3,000,000
Other Facilities	3,000,000	-
Community Development	2,500,000	152,280
Recreation	-	2,354,973
Post-secondary Education	-	2,090,000
Fire Protection	1,200,000	-
Libraries, Museums, & Historic Sites	780,000	-
Broadband	-	-
Business District Development	-	-
Housing	-	-
Other Education	-	-
Other Utilities	-	-
Public Buildings	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 102,875,898	\$ 217,703,516





^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

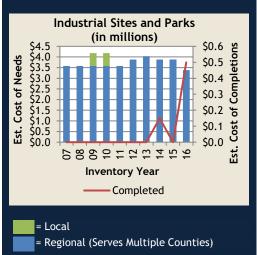
Campbell County

Total Estimated Cost* for Infrastructure Improvements \$179,972,774

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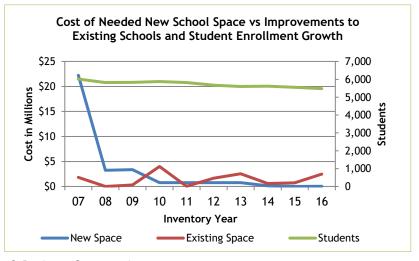






Estimated Cost of Needed Infrastructure for Campbell County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 51,075,000	\$ 108,274,774
Water and Wastewater	4,375,000	5,933,000
Industrial Sites and Parks	2,700,000	680,000
Recreation	2,480,000	170,000
School Renovations	1,160,000	1,315,000
Fire Protection	700,000	-
Other Utilities	-	600,000
Storm Water	-	360,000
Community Development	100,000	-
New Public Schools & Additions	-	50,000
Broadband	-	-
Business District Development	-	-
Housing	-	-
Law Enforcement	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Facilities	-	-
Post-secondary Education	-	-
Public Buildings	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Total	\$ 62,590,000	\$ 117,382,774

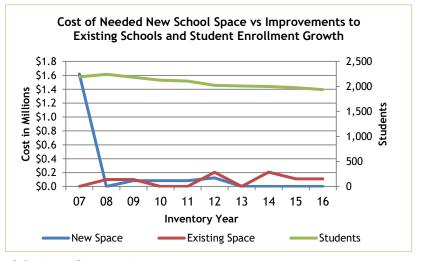


^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Cannon County Total Estimated Cost* for Infrastructure Improvements \$93,033,341 **Transportation** (in millions) \$100 \$6 Cost of Completions Est. Cost of Needs \$5 \$80 \$4 \$60 \$3 \$40 \$20 \$0 Est. 8 Inventory Year Completed Water and Wastewater (in millions) \$0.6 of Completions Est. Cost of Needs \$6 \$0.5 \$5 \$4 \$0.4 \$0.3 \$3 \$0.2 \$2 Cost \$1 \$0.1 \$0.0 00 00 11 12 13 14 15 15 **Inventory Year** Completed **Industrial Sites and Parks** (in millions) \$3.5 1.0 0.9 0.8 0.7 0.6 0.5 0.4 0.3 0.2 Cost of Completions \$3.0 Cost of Needs \$2.5 \$2.0 \$1.5 \$1.0 \$0.5 \$0.0 Est. 00 00 00 00 11 11 11 11 15 15 Inventory Year Completed = Local = Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for Cannon County Five-year period July 2016 through June 2021

Project Type	C	onceptual	Planning Design + Constructi	•
Transportation	\$	83,433,000	\$ 490	,310
Water and Wastewater		6,000,000		-
Industrial Sites and Parks		3,000,000		-
School Renovations		-	110	,031
Broadband		-		-
Business District Development		-		-
Community Development		-		-
Fire Protection		-		-
Housing		-		-
Law Enforcement		-		-
Libraries, Museums, & Historic Sites		-		-
New Public Schools & Additions		-		-
Other Education		-		-
Other Facilities		-		-
Other Utilities		-		-
Post-secondary Education		-		-
Public Buildings		-		-
Public Health Facilities		-		-
Recreation		-		-
School-System-wide		-		-
Solid Waste		-		-
Storm Water		-		-
Total	\$	92,433,000	\$ 600	,341



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

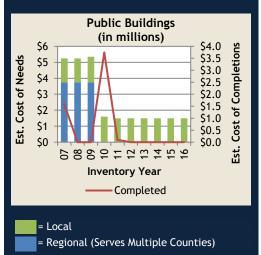
Carroll County

Total Estimated Cost* for Infrastructure Improvements \$114,564,026

TOP 3

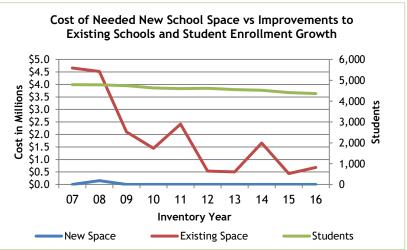






Estimated Cost of Needed Infrastructure for Carroll County Five-year period July 2016 through June 2021

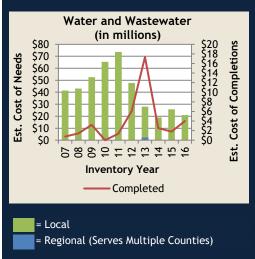
		Planning & Design +	
Project Type	Conceptual	Construction	
Transportation	\$ 44,303,000	\$ 62,245,026	
Water and Wastewater	2,933,000	-	
Public Buildings	1,500,000	-	
Recreation	1,225,000	76,000	
School Renovations	578,000	105,000	
Storm Water	500,000	-	
Fire Protection	400,000	-	
Other Facilities	375,000	-	
Law Enforcement	-	324,000	
Broadband	-	-	
Business District Development	-	-	
Community Development	-	-	
Housing	-	-	
Industrial Sites and Parks	-	-	
Libraries, Museums, & Historic Sites	-	-	
New Public Schools & Additions	-	-	
Other Education	-	-	
Other Utilities	-	-	
Post-secondary Education	-	-	
Public Health Facilities	-	-	
School-System-wide	-	-	
Solid Waste	-	-	
Total	\$ 51,814,000	\$ 62,750,026	



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

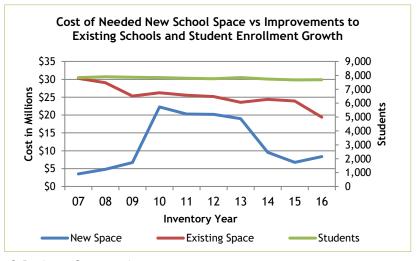
Carter County Total Estimated Cost* for Infrastructure Improvements \$201,710,909 **Transportation** (in millions) \$200 \$80 Cost of Completions \$70 \$60 Est. Cost of Needs \$150 \$50 \$40 \$100 \$50 \$0 Est. 5 1 2 2 4 5 5 8 Inventory Year Completed





Estimated Cost of Needed Infrastructure for Carter County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 84,201,000	\$ 28,651,481
Recreation	6,575,000	21,224,800
Water and Wastewater	19,654,566	1,261,364
School Renovations	16,809,214	2,613,784
New Public Schools & Additions	6,795,000	1,566,000
Law Enforcement	-	2,700,000
Housing	2,550,000	-
Fire Protection	2,250,000	-
Libraries, Museums, & Historic Sites	1,400,000	111,700
Public Health Facilities	1,000,000	-
Solid Waste	950,000	-
Industrial Sites and Parks	697,000	-
Business District Development	-	500,000
Public Buildings	200,000	-
Broadband	-	-
Community Development	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
School-System-wide	-	-
Storm Water	-	-
Total	\$ 143,081,780	\$ 58,629,129



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

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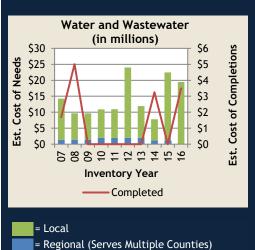
Cheatham County

Total Estimated Cost* for Infrastructure Improvements \$199,011,788

TOP 3

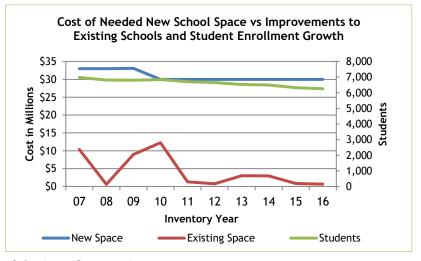






Estimated Cost of Needed Infrastructure for Cheatham County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 42,838,000	\$ 67,653,434
New Public Schools & Additions	30,000,000	-
Water and Wastewater	17,250,000	2,207,000
Public Buildings	13,600,000	-
Law Enforcement	-	12,000,000
Recreation	6,145,295	2,498,059
Industrial Sites and Parks	2,100,000	-
Libraries, Museums, & Historic Sites	1,000,000	-
School Renovations	300,000	370,000
Business District Development	500,000	-
Fire Protection	300,000	-
Storm Water	200,000	-
Other Facilities	50,000	-
Broadband	-	-
Community Development	-	-
Housing	-	-
Other Education	-	-
Other Utilities	-	-
Post-secondary Education	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Total	\$ 114,283,295	\$ 84,728,493

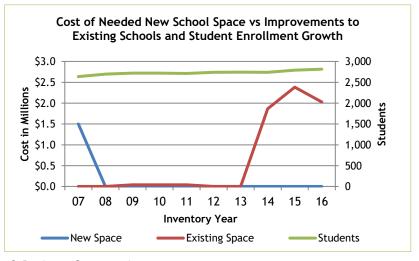


^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Chester County Total Estimated Cost* for Infrastructure Improvements \$46,198,542 Transportation (in millions) \$35 Est. Cost of Needs \$30 \$25 \$20 \$15 \$10 \$5 00 0 1 1 2 1 2 1 5 1 5 1 5 1 5 1 Est. 8 Inventory Year Completed Water and Wastewater (in millions) \$14 \$0.5 of Completions Est. Cost of Needs \$12 \$0.4 \$10 \$0.3 \$8 \$6 \$0.2 \$4 \$0.1 \$2 \$0.0 00 00 01 11 12 14 15 15 **Inventory Year** Completed Recreation (in millions) \$7 \$1.2 Est. Cost of Completions \$6 Est. Cost of Needs \$1.0 \$5 \$4 \$3 \$2 \$1 \$0.8 \$0.6 \$0.4 \$0.2 \$0.0 00 00 00 11 11 11 15 15 16 17 Inventory Year Completed = Local = Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for Chester County Five-year period July 2016 through June 2021

				anning & esign +	
Project Type	(Conceptual		Construction	
Transportation	\$	27,047,000	\$	3,282,942	
Water and Wastewater		6,900,000		250,000	
Recreation		1,510,000		3,845,000	
School Renovations		1,768,600		260,000	
Other Facilities		1,335,000		-	
Broadband		-		-	
Business District Development		-		-	
Community Development		-		-	
Fire Protection		-		-	
Housing		-		-	
Industrial Sites and Parks		-		-	
Law Enforcement		-		-	
Libraries, Museums, & Historic Sites		-		-	
New Public Schools & Additions		-		-	
Other Education		-		-	
Other Utilities		-		-	
Post-secondary Education		-		-	
Public Buildings		-		-	
Public Health Facilities		-		-	
School-System-wide		-		-	
Solid Waste		-		-	
Storm Water		-		-	
Total	\$	38,560,600	\$	7,637,942	



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

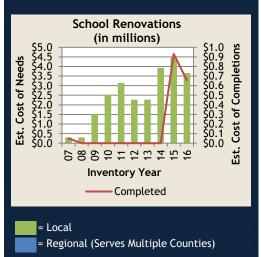
Claiborne County

Total Estimated Cost* for Infrastructure Improvements \$96,350,357

TOP 3

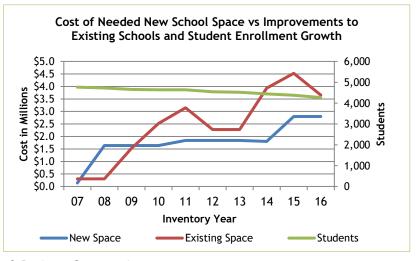






Estimated Cost of Needed Infrastructure for Claiborne County Five-year period July 2016 through June 2021

			Planning & Design +	
Project Type	С	onceptual		uction
Transportation	\$	27,911,000	\$ 43	,024,530
Water and Wastewater		10,903,365	2	,321,386
School Renovations		2,976,000		683,000
Recreation		-	3	,257,821
New Public Schools & Additions		2,800,000		-
Post-secondary Education		780,000		-
Law Enforcement		610,000		-
Business District Development		-		583,255
Public Buildings		500,000		-
Broadband		-		-
Community Development		-		-
Fire Protection		-		-
Housing		-		-
Industrial Sites and Parks		-		-
Libraries, Museums, & Historic Sites		-		-
Other Education		-		-
Other Facilities		-		-
Other Utilities		-		-
Public Health Facilities		-		-
School-System-wide		-		-
Solid Waste		-		-
Storm Water		-		-
Total	\$	46,480,365	\$ 49	,869,992

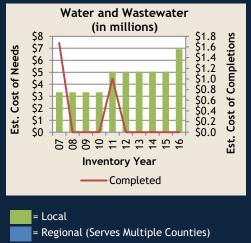


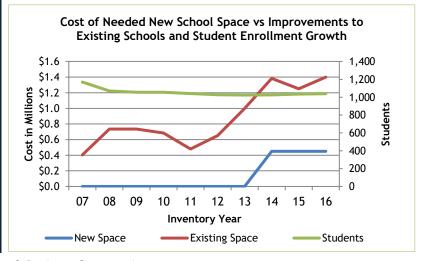
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Clay County Total Estimated Cost* for Infrastructure Improvements \$47,190,702 Other Utilities (in millions) \$1.0 \$25 Cost of Completions Est. Cost of Needs \$0.8 \$20 \$15 \$0.6 \$0.4 \$10 \$0.2 \$5 \$0 \$0.0 00 00 00 11 11 12 14 15 15 Est. Inventory Year Completed Transportation (in millions) \$120 \$60 Est. Cost of Completions Est. Cost of Needs \$100 \$50 \$80 \$40 \$30 \$60 \$40 \$20 \$20 \$0 \$0 00 00 01 11 12 14 15 15 **Inventory Year** Completed Water and Wastewater (in millions)

Estimated Cost of Needed Infrastructure for Clay County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Other Utilities	\$ 20,000,000	\$ -
Transportation	7,388,000	3,832,338
Water and Wastewater	2,300,000	4,620,364
Law Enforcement	5,000,000	-
Industrial Sites and Parks	1,700,000	-
School Renovations	1,400,000	-
Solid Waste	500,000	-
New Public Schools & Additions	400,000	50,000
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Fire Protection	-	-
Housing	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Facilities	-	-
Post-secondary Education	-	-
Public Buildings	-	-
Public Health Facilities	-	-
Recreation	-	-
School-System-wide	-	-
Storm Water	-	-
Total	\$ 38,688,000	\$ 8,502,702





^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

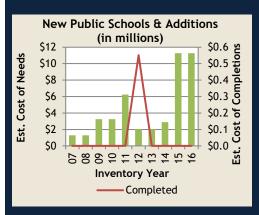
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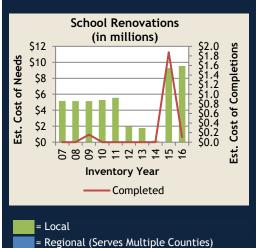
Cocke County

Total Estimated Cost* for Infrastructure Improvements \$317,328,050

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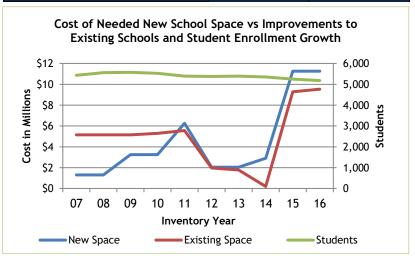






Estimated Cost of Needed Infrastructure for Cocke County Five-year period July 2016 through June 2021

		Planning & Design +	
Project Type	Conceptual	Construction	
Transportation	\$ 69,594,000	\$ 202,500,374	
New Public Schools & Additions	7,676,000	3,590,000	
School Renovations	8,176,000	1,361,607	
Broadband	-	7,000,000	
Other Utilities	2,900,000	4,100,000	
Water and Wastewater	2,290,000	4,518,509	
Law Enforcement	3,000,000	-	
Recreation	-	621,560	
Business District Development	-	-	
Community Development	-	-	
Fire Protection	-	-	
Housing	-	-	
Industrial Sites and Parks	-	-	
Libraries, Museums, & Historic Sites	-	-	
Other Education	-	-	
Other Facilities	-	-	
Post-secondary Education	-	-	
Public Buildings	-	-	
Public Health Facilities	-	-	
School-System-wide	-	-	
Solid Waste	-	-	
Storm Water	-	-	
Total	\$ 93,636,000	\$ 223,692,050	

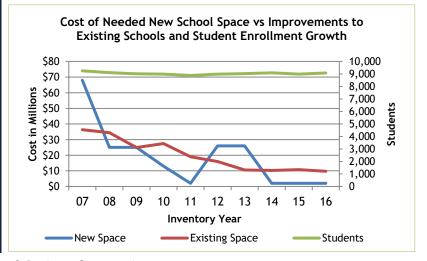


^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Coffee County Total Estimated Cost* for Infrastructure Improvements \$161,797,716 **Transportation** (in millions) \$20 \$140 Cost of Completions Est. Cost of Needs \$120 \$15 \$100 \$80 \$10 \$60 \$40 \$20 Est. 8 Inventory Year Completed Law Enforcement (in millions) \$25 \$80 Est. Cost of Completions \$70 Est. Cost of Needs \$20 \$60 \$50 \$40 \$15 \$30 \$20 \$10 \$10 00 00 01 11 12 14 15 15 **Inventory Year** Completed Water and Wastewater (in millions) \$2.5 \$35 Cost of Completions \$30 \$25 Cost of Needs \$2.0 \$1.5 \$20 \$15 \$1.0 \$10 \$0.5 \$5 \$0 \$0.0 Est. 00 00 00 11 11 12 14 14 15 Inventory Year Completed = Local = Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for Coffee County Five-year period July 2016 through June 2021

		Planning & Design +	
Project Type	Conceptual	Construction	
Transportation	\$ 71,606,000	\$ 23,823,716	
Law Enforcement	37,500,000	590,000	
Water and Wastewater	4,000,000	9,000,000	
School Renovations	3,800,000	5,978,000	
Public Buildings	3,000,000	-	
New Public Schools & Additions	-	2,000,000	
Industrial Sites and Parks	500,000	-	
Broadband	-	-	
Business District Development	-	-	
Community Development	-	-	
Fire Protection	-	-	
Housing	-	-	
Libraries, Museums, & Historic Sites	-	-	
Other Education	-	-	
Other Facilities	-	-	
Other Utilities	-	-	
Post-secondary Education	-	-	
Public Health Facilities	-	-	
Recreation	-	-	
School-System-wide	-	-	
Solid Waste	-	-	
Storm Water	-	-	
Total	\$ 120,406,000	\$ 41,391,716	



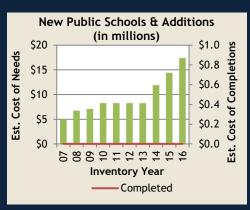
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

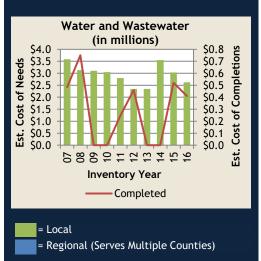
Crockett County

Total Estimated Cost* for Infrastructure Improvements \$54,267,492

TOP 3

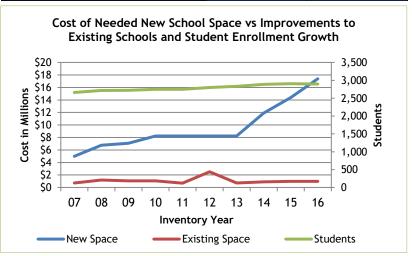






Estimated Cost of Needed Infrastructure for Crockett County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 27,619,000	\$ 2,505,766
New Public Schools & Additions	17,400,000	-
Water and Wastewater	2,622,726	-
Law Enforcement	-	1,350,000
Recreation	1,100,000	-
School Renovations	740,000	230,000
Community Development	500,000	-
Public Buildings	200,000	-
Broadband	-	-
Business District Development	-	-
Fire Protection	-	-
Housing	-	-
Industrial Sites and Parks	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 50,181,726	\$ 4,085,766



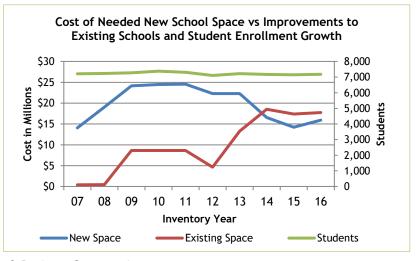
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Cumberland County Total Estimated Cost* for Infrastructure Improvements \$471,285,932 **Transportation** (in millions) \$500 \$30 Cost of Completions Cost of Needs \$25 \$400 \$20 \$300 \$15 \$200 \$100 \$0 12 2 2 4 2 5 4 Est. 8 Inventory Year Completed Water and Wastewater (in millions) \$120 \$8 \$7 \$6 \$5 \$4 \$3 \$2 \$1 \$0 Est. Cost of Completions Est. Cost of Needs \$100 \$80 \$60 \$40 \$20 \$0 00 00 01 12 13 15 15 15 **Inventory Year** Completed **Industrial Sites and Parks** (in millions) \$25 Cost of Completions Cost of Needs \$20 \$15 \$10 \$5 Est. \$0 Est. 00 00 00 11 11 11 14 14 15 Inventory Year Completed = Local

= Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for Cumberland County Five-year period July 2016 through June 2021

		Planning & Design + Construction
Project Type	onceptual	
Transportation	\$ 36,646,000	\$ 298,344,932
Water and Wastewater	-	70,050,000
Industrial Sites and Parks	-	18,500,000
School Renovations	10,740,000	6,985,000
New Public Schools & Additions	15,000,000	900,000
Business District Development	-	6,000,000
Recreation	3,760,000	1,270,000
Other Utilities	-	1,500,000
Post-secondary Education	1,100,000	190,000
Storm Water	300,000	-
Broadband	-	-
Community Development	-	-
Fire Protection	-	-
Housing	-	-
Law Enforcement	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Facilities	-	-
Public Buildings	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Total	\$ 67,546,000	\$ 403,739,932



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

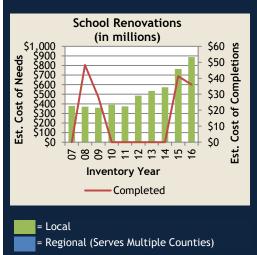
Davidson County

Total Estimated Cost* for Infrastructure Improvements \$5,666,002,619

TOP 3

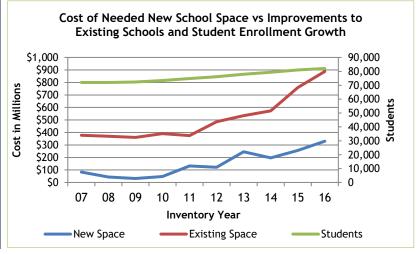






Estimated Cost of Needed Infrastructure for Davidson County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 667,562,273	\$ 795,259,780
Water and Wastewater	59,674,000	1,220,870,500
School Renovations	690,933,067	197,354,200
Law Enforcement	283,830,000	106,256,300
Public Buildings	209,560,000	176,841,108
New Public Schools & Additions	297,850,000	32,681,000
Libraries, Museums, & Historic Sites	9,060,000	301,682,600
Post-secondary Education	151,890,000	95,445,596
Storm Water	-	100,000,000
Public Health Facilities	62,422,000	6,968,000
Recreation	16,929,500	48,920,000
Business District Development	12,000,000	35,500,000
Other Facilities	21,515,000	6,130,000
Housing	-	21,507,695
Community Development	-	19,150,000
Other Education	16,000,000	2,210,000
Broadband	-	-
Fire Protection	-	-
Industrial Sites and Parks	-	-
Other Utilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Total	\$ 2,499,225,840	\$ 3,166,776,779



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Decatur County Total Estimated Cost* for Infrastructure Improvements \$89,277,270 **Transportation** (in millions) \$100 \$30 Cost of Completions Est. Cost of Needs \$25 \$80 \$20 \$60 \$15 \$40 \$20 \$5 \$0 Est. 9 0 1 1 2 1 5 4 5 4 8 Inventory Year Completed School Renovations (in millions) \$1.2 \$0.7 Est. Cost of Completions \$1.0 \$0.8 \$0.6 \$0.5 \$0.4 ₹ \$0.6 \$0.3 Cost \$0.4 \$0.2 \$0.2 \$0.1 \$0.0 \$0.0 **Inventory Year** Completed Storm Water (in millions)

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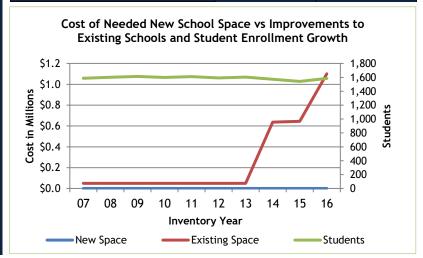
Completed

Inventory Year

= Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for Decatur County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 84,484,000	\$ 2,943,270
School Renovations	1,100,000	-
Storm Water	750,000	-
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Fire Protection	-	-
Housing	-	-
Industrial Sites and Parks	-	-
Law Enforcement	-	-
Libraries, Museums, & Historic Sites	-	-
New Public Schools & Additions	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
Public Buildings	-	-
Public Health Facilities	-	-
Recreation	-	-
School-System-wide	-	-
Solid Waste	-	-
Water and Wastewater	-	-
Total	\$ 86,334,000	\$ 2,943,270



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

\$1.0 \$0.9 \$0.8 \$0.7 \$0.6 \$0.5 \$0.3 \$0.2 \$0.1 \$0.0

Cost of Completions

\$0.8

Cost of Needs 50.7 \$0.6 \$0.5 \$0.5 \$0.4 \$0.3 \$0.3 \$0.2

\$0.1 \$0.0

= Local

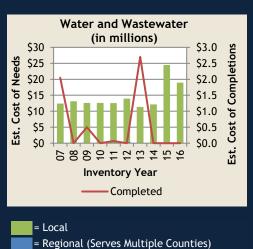
DeKalb County

Total Estimated Cost* for Infrastructure Improvements \$199,380,980

TOP 3

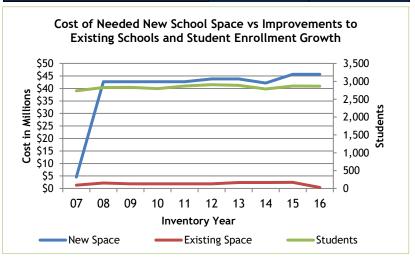






Estimated Cost of Needed Infrastructure for DeKalb County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 16,428,000	\$ 111,880,980
New Public Schools & Additions	45,660,000	-
Water and Wastewater	2,475,000	16,450,000
Industrial Sites and Parks	3,250,000	-
Recreation	2,530,000	-
School Renovations	428,000	4,000
School-System-wide	200,000	-
Fire Protection	-	75,000
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Housing	-	-
Law Enforcement	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
Public Buildings	-	-
Public Health Facilities	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 70,971,000	\$ 128,409,980

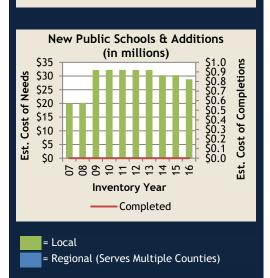


^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Dickson County Total Estimated Cost* for Infrastructure Improvements \$221,016,749 **Transportation** (in millions) \$300 \$6 Cost of Completions Cost of Needs \$5 \$250 \$200 \$4 \$150 \$3 \$2 \$100 Est. (\$50 \$0 Est. 90 11 12 13 14 15 15 07 Inventory Year Completed **Public Buildings** (in millions) \$50 \$3.5 Cost of Completions Cost of Needs \$3.0 \$40 \$2.5 \$30 \$2.0 \$1.5 \$20 \$1.0 \$10 \$0.5 \$0 \$0.0 00 00 01 11 12 14 15 15 15

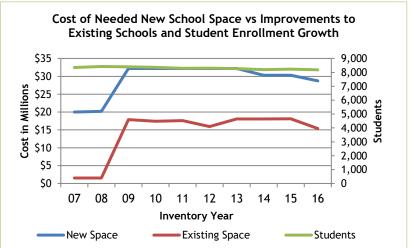
Estimated Cost of Needed Infrastructure for Dickson County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 47,166,000	\$ 54,499,310
Public Buildings	40,500,000	-
New Public Schools & Additions	2,189,620	26,561,050
Recreation	14,660,000	3,750,000
School Renovations	11,559,948	3,847,000
Water and Wastewater	-	8,000,000
Solid Waste	3,000,000	-
Business District Development	-	2,648,821
Fire Protection	1,000,000	500,000
Law Enforcement	585,000	-
Post-secondary Education	-	550,000
Broadband	-	-
Community Development	-	-
Housing	-	-
Industrial Sites and Parks	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Storm Water	-	-
Total	\$ 120,660,568	\$ 100,356,181



Inventory Year

Completed



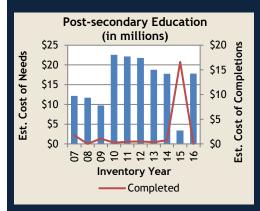
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

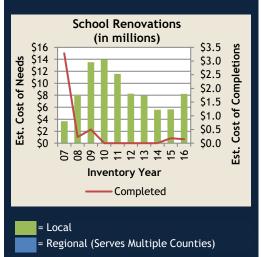
Dyer County

Total Estimated Cost* for Infrastructure Improvements \$1,005,321,499

TOP 3

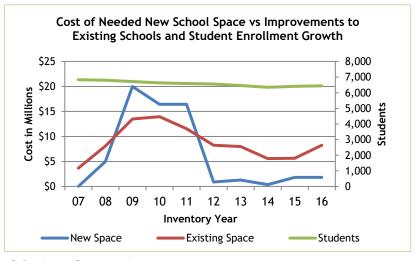






Estimated Cost of Needed Infrastructure for Dyer County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 763,093,00	0 \$ 195,326,074
Post-secondary Education	220,00	0 17,565,648
School Renovations	2,760,00	0 5,477,599
Water and Wastewater	4,950,00	0 3,000,000
Recreation	150,00	0 4,750,000
Public Buildings	2,006,00	0 -
New Public Schools & Additions	380,00	0 1,443,178
Fire Protection	1,250,00	0 -
Other Facilities	1,100,00	0 -
Law Enforcement	1,000,00	0 -
Community Development	800,00	0 -
Solid Waste	50,00	0 -
Broadband	-	-
Business District Development	-	-
Housing	-	-
Industrial Sites and Parks	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Utilities	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Storm Water	-	-
Total	\$ 777,759,00	0 \$ 227,562,499

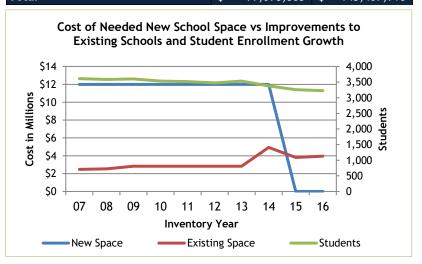


^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Fayette County Total Estimated Cost* for Infrastructure Improvements \$245,106,781 **Transportation** (in millions) \$350 \$40 \$35 \$30 \$25 \$20 \$15 \$10 \$5 Cost of Completions \$300 \$250 ₽ \$200 Cost \$150 \$100 \$50 \$0 0 1 2 2 4 5 5 Est. 8 Inventory Year Completed Water and Wastewater (in millions) \$30 \$3.0 Completions Cost of Needs \$25 \$2.5 \$20 \$2.0 \$15 \$1.5 \$10 \$1.0 ð Cost \$5 \$0.5 \$0 \$0.0 00 00 01 11 12 14 15 15 15 Inventory Year Completed Law Enforcement (in millions) \$7 \$16 Est. Cost of Completions \$6 \$14 \$12 \$10 \$8 \$6 \$4 \$2 \$0 Est. Cost of Needs \$5 \$4 \$3 \$2 \$1 \$0 07 08 09 09 11 11 11 14 14 15 16 **Inventory Year** Completed = Local = Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for Fayette County Five-year period July 2016 through June 2021

				Planning & Design +
Project Type	(Conceptual		onstruction
Transportation	\$	80,383,500	\$	133,211,669
Water and Wastewater		13,380,365		3,556,247
Law Enforcement		500,000		5,410,000
School Renovations		3,960,000		-
Post-secondary Education		-		2,500,000
Other Utilities		500,000		500,000
Recreation		725,000		-
Housing		200,000		230,000
Fire Protection		50,000		-
Broadband		-		-
Business District Development		-		-
Community Development		-		-
Industrial Sites and Parks		-		-
Libraries, Museums, & Historic Sites		-		-
New Public Schools & Additions		-		-
Other Education		-		-
Other Facilities		-		-
Public Buildings		-		-
Public Health Facilities		-		-
School-System-wide		-		-
Solid Waste		-		-
Storm Water		-		-
Total	\$	99,698,865	\$	145,407,916



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

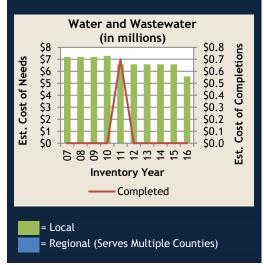
Fentress County

Total Estimated Cost* for Infrastructure Improvements \$147,364,696

TOP 3

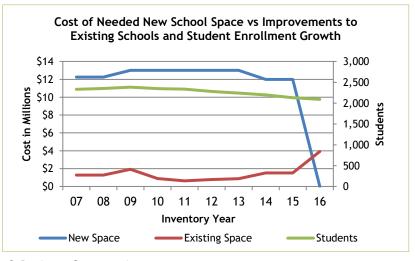




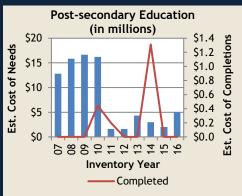


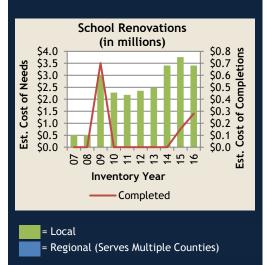
Estimated Cost of Needed Infrastructure for Fentress County Five-year period July 2016 through June 2021

				lanning & Design +
Project Type	С	Conceptual		nstruction
Transportation	\$	31,705,000	\$	77,579,696
Other Education		16,920,000		
Water and Wastewater		-		5,575,000
Recreation		5,400,000		-
Industrial Sites and Parks		-		5,000,000
School Renovations		815,000		3,100,000
Libraries, Museums, & Historic Sites		970,000		-
Community Development		300,000		-
Broadband		-		-
Business District Development		-		-
Fire Protection		-		-
Housing		-		-
Law Enforcement		-		-
New Public Schools & Additions		-		-
Other Facilities		-		-
Other Utilities		-		-
Post-secondary Education		-		-
Public Buildings		-		-
Public Health Facilities		-		-
School-System-wide		-		-
Solid Waste		-		-
Storm Water		-		-
Total	\$	56,110,000	\$	91,254,696



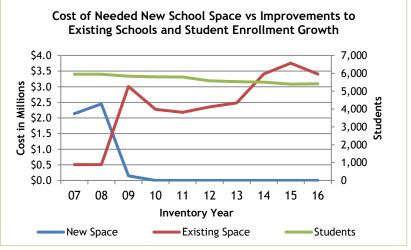
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction





Estimated Cost of Needed Infrastructure for Franklin County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 39,236,000	\$ 35,375,830
Post-secondary Education	3,000,000	2,000,000
School Renovations	3,405,000	-
Water and Wastewater	600,000	2,500,000
Recreation	2,650,000	-
Law Enforcement	-	750,000
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Fire Protection	-	-
Housing	-	-
Industrial Sites and Parks	-	-
Libraries, Museums, & Historic Sites	-	-
New Public Schools & Additions	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Public Buildings	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 48,891,000	\$ 40,625,830



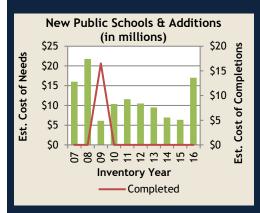
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

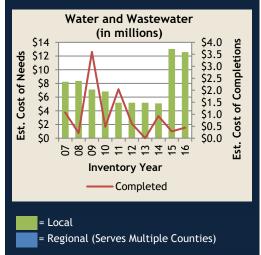
Gibson County

Total Estimated Cost* for Infrastructure Improvements \$152,536,314

TOP 3

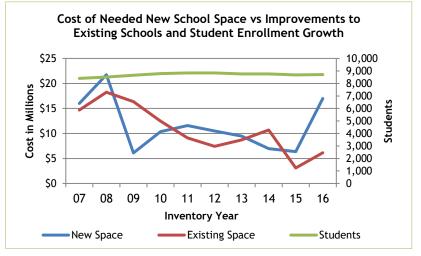






Estimated Cost of Needed Infrastructure for Gibson County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 79,215,000	\$ 25,316,889
New Public Schools & Additions	-	17,000,000
Water and Wastewater	4,352,025	8,220,000
School Renovations	2,800,000	3,345,000
Other Utilities	5,000,000	-
Public Buildings	-	1,760,000
Recreation	1,131,000	500,000
Fire Protection	1,300,000	-
Law Enforcement	150,000	740,000
Community Development	500,000	-
Libraries, Museums, & Historic Sites	400,000	-
Industrial Sites and Parks	-	356,400
Storm Water	300,000	-
Other Facilities	100,000	-
Solid Waste	50,000	-
Broadband	-	-
Business District Development	-	-
Housing	-	-
Other Education	-	-
Post-secondary Education	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Total	\$ 95,298,025	\$ 57,238,289

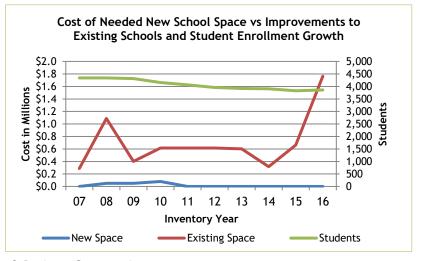


^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Giles County Total Estimated Cost* for Infrastructure Improvements \$87,613,915 **Transportation** (in millions) \$100 \$40 Cost of Completions \$35 \$30 \$25 \$20 Est. Cost of Needs \$80 \$60 \$40 \$20 \$0 Est. 8 Inventory Year Completed Water and Wastewater (in millions) \$12 \$70 Cost of Completions Cost of Needs \$60 \$10 \$50 \$8 \$40 \$6 \$30 \$4 \$20 \$2 \$10 \$0 Est. 00 00 11 13 15 15 15 Inventory Year Completed Recreation (in millions) \$25 \$3.5 Cost of Completions \$3.0 Cost of Needs \$20 \$2.5 \$15 \$2.0 \$1.5 \$10 \$1.0 \$5 \$0.5 \$0 \$0.0 Est. 00 00 00 11 11 11 15 15 16 **Inventory Year** Completed = Local = Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for Giles County Five-year period July 2016 through June 2021

			Planning & Design +	
Project Type	Conceptual		Construction	
Transportation	\$	48,740,000	\$	27,652,901
Water and Wastewater		400,000		4,539,014
Recreation		3,510,000		-
School Renovations		290,000		1,472,000
Public Buildings		250,000		250,000
Community Development		-		350,000
Post-secondary Education		160,000		-
Broadband		-		-
Business District Development		-		-
Fire Protection		-		-
Housing		-		-
Industrial Sites and Parks		-		-
Law Enforcement		-		-
Libraries, Museums, & Historic Sites		-		-
New Public Schools & Additions		-		-
Other Education		-		-
Other Facilities		-		-
Other Utilities		-		-
Public Health Facilities		-		-
School-System-wide		-		-
Solid Waste		-		-
Storm Water		-		-
Total	\$	53,350,000	\$	34,263,915



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

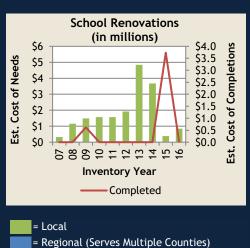
Grainger County

Total Estimated Cost* for Infrastructure Improvements \$110,271,464

TOP 3

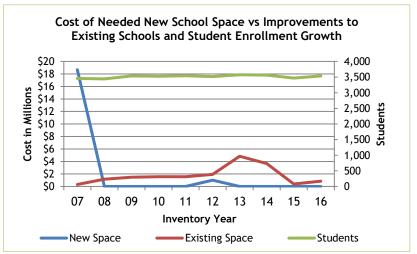






Estimated Cost of Needed Infrastructure for Grainger County Five-year period July 2016 through June 2021

			Planning & Design +
Project Type	c	Conceptual	Construction
Transportation	\$	22,213,000	\$ 74,951,023
Water and Wastewater		10,920,700	-
School Renovations		210,000	643,237
Recreation		675,000	50,000
Libraries, Museums, & Historic Sites		500,000	-
Community Development		-	108,504
Broadband		-	-
Business District Development		-	-
Fire Protection		-	-
Housing		-	-
Industrial Sites and Parks		-	-
Law Enforcement		-	-
New Public Schools & Additions		-	-
Other Education		-	-
Other Facilities		-	-
Other Utilities		-	-
Post-secondary Education		-	-
Public Buildings		-	-
Public Health Facilities		-	-
School-System-wide		-	-
Solid Waste		-	-
Storm Water		-	-
Total	\$	34,518,700	\$ 75,752,764

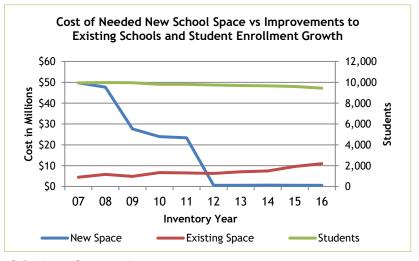


^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Greene County Total Estimated Cost* for Infrastructure Improvements \$394,189,830 Transportation (in millions) \$250 Cost of Completions Est. Cost of Needs \$6 \$5 \$200 \$150 \$100 \$2 \$50 \$0 0 1 2 2 4 5 5 Est. 8 Inventory Year Completed Water and Wastewater (in millions) \$160 \$6 Est. Cost of Completions \$140 Est. Cost of Needs \$5 \$120 \$100 \$4 \$3 \$80 \$60 \$40 \$2 \$1 \$20 00 00 01 12 13 15 15 15 **Inventory Year** Completed Post-secondary Education (in millions) \$8 \$7 \$6 \$5 \$4 \$3 \$2 \$1 \$0 Est. Cost of Completions \$35 \$30 \$25 \$20 \$15 \$10 Est. Cost of Needs \$5 \$0 00 00 00 11 11 11 15 15 16 17 Inventory Year Completed = Local = Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for Greene County Five-year period July 2016 through June 2021

		Planning & Design +	
Project Type	Conceptual	Construction	
Transportation	\$ 114,635,000	\$ 81,986,244	
Water and Wastewater	60,947,990	13,590,423	
Post-secondary Education	6,615,000	27,250,000	
Storm Water	25,600,000	-	
Other Utilities	8,800,000	5,800,000	
Law Enforcement	13,800,000	-	
School Renovations	7,937,000	2,971,673	
Fire Protection	6,250,000	1,500,000	
Industrial Sites and Parks	6,000,000	-	
Recreation	970,000	1,964,500	
Libraries, Museums, & Historic Sites	-	2,540,000	
Community Development	1,500,000	500,000	
Public Buildings	1,029,000	-	
Housing	-	800,000	
New Public Schools & Additions	600,000	-	
Other Facilities	550,000	-	
Broadband	-	53,000	
Business District Development	-	-	
Other Education	-	-	
Public Health Facilities	-	-	
School-System-wide	-	-	
Solid Waste	-	-	
Total	\$ 255,233,990	\$ 138,955,840	



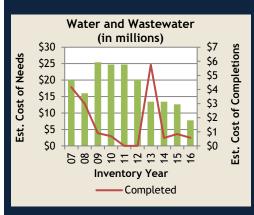
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

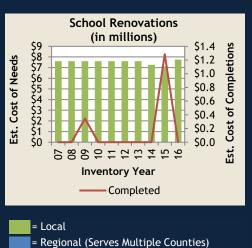
Grundy County

Total Estimated Cost* for Infrastructure Improvements \$29,761,036

TOP 3

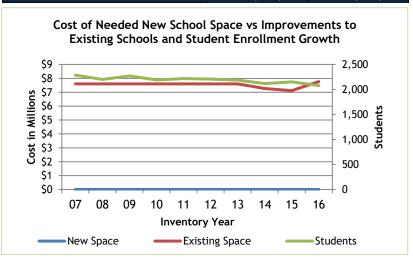






Estimated Cost of Needed Infrastructure for Grundy County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 8,065,000	\$ 2,342,361
Water and Wastewater	7,075,000	706,100
School Renovations	6,150,000	1,613,000
Community Development	200,000	840,000
Recreation	400,000	475,975
Law Enforcement	-	660,000
Fire Protection	533,600	-
Industrial Sites and Parks	500,000	-
Housing	-	200,000
Broadband	-	-
Business District Development	-	-
Libraries, Museums, & Historic Sites	-	-
New Public Schools & Additions	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
Public Buildings	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 22,923,600	\$ 6,837,436



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

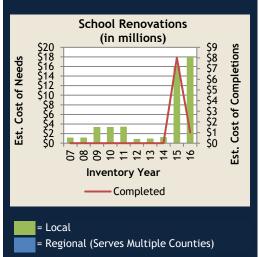
Hamblen County

Total Estimated Cost* for Infrastructure Improvements \$402,402,292

TOP 3

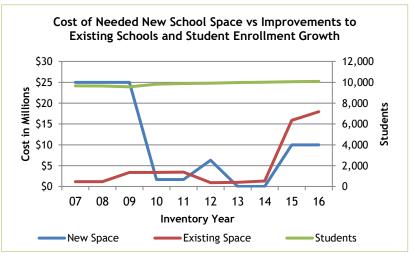






Estimated Cost of Needed Infrastructure for Hamblen County Five-year period July 2016 through June 2021

				Planning & Design +	
Project Type	(Conceptual		Construction	
Transportation	\$	90,922,000	\$	198,339,457	
Water and Wastewater		-		37,322,000	
School Renovations		11,580,000		6,364,800	
Recreation		9,780,000		2,401,035	
Community Development		-		12,000,000	
Law Enforcement		10,000,000		130,000	
New Public Schools & Additions		10,000,000		-	
Other Facilities		-		4,500,000	
Other Utilities		-		3,000,000	
Post-secondary Education		-		2,950,000	
Fire Protection		-		2,200,000	
Business District Development		-		913,000	
Broadband		-		-	
Housing		-		-	
Industrial Sites and Parks		-		-	
Libraries, Museums, & Historic Sites		-		-	
Other Education		-		-	
Public Buildings		-		-	
Public Health Facilities		-		-	
School-System-wide		-		-	
Solid Waste		-		-	
Storm Water		-		-	
Total	\$	132,282,000	\$	270,120,292	



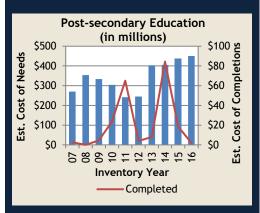
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

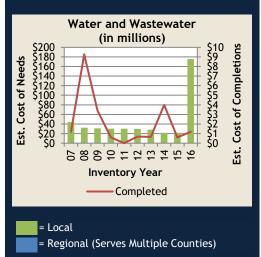
Hamilton County

Total Estimated Cost* for Infrastructure Improvements \$2,590,010,414

TOP 3

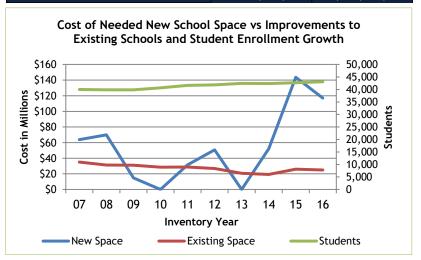






Estimated Cost of Needed Infrastructure for Hamilton County Five-year period July 2016 through June 2021

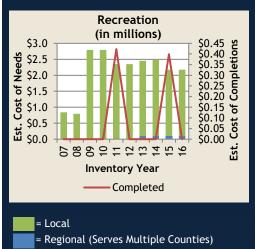
		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 433,039,992	\$ 1,324,565,449
Post-secondary Education	189,500,000	261,202,840
Water and Wastewater	28,621,350	146,669,567
New Public Schools & Additions	95,000,000	21,999,000
School Renovations	19,380,000	5,613,000
Community Development	3,200,000	14,411,513
Recreation	9,587,856	6,924,541
Law Enforcement	8,600,000	-
Public Health Facilities	7,220,000	700,000
Fire Protection	4,000,000	3,750,000
Public Buildings	-	2,360,000
Storm Water	450,000	1,710,006
Solid Waste	1,255,300	-
Industrial Sites and Parks	-	250,000
Broadband	-	-
Business District Development	-	-
Housing	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
School-System-wide	-	-
Total	\$ 799,854,498	\$ 1,790,155,916



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

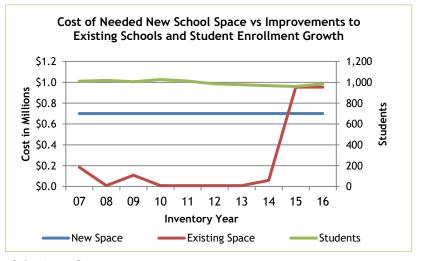
Hancock County Total Estimated Cost* for Infrastructure Improvements \$38,762,525 Transportation (in millions) \$35 Cost of Completions Est. Cost of Needs \$6 \$5 \$30 \$25 \$20 \$3 \$15 \$2 \$10 \$5 \$1 Est.





Estimated Cost of Needed Infrastructure for Hancock County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 24,915,000	\$ 874,000
Water and Wastewater	5,082,000	1,878,555
Recreation	2,175,000	-
Industrial Sites and Parks	979,000	-
School Renovations	895,271	58,400
Public Buildings	750,000	122,000
New Public Schools & Additions	-	700,000
Other Utilities	-	333,299
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Fire Protection	-	-
Housing	-	-
Law Enforcement	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Facilities	-	-
Post-secondary Education	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 34,796,271	\$ 3,966,254



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

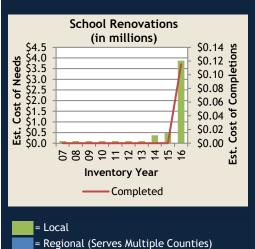
Hardeman County

Total Estimated Cost* for Infrastructure Improvements \$146,842,508

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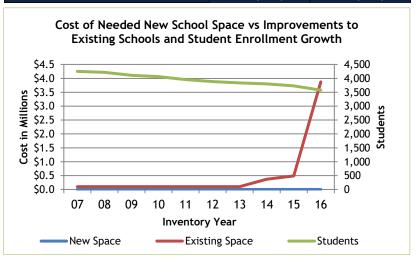






Estimated Cost of Needed Infrastructure for Hardeman County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 63,480,000	\$ 56,542,508
Public Health Facilities	19,000,000	-
School Renovations	3,650,000	220,000
Law Enforcement	1,000,000	-
Fire Protection	950,000	-
Water and Wastewater	950,000	-
Public Buildings	-	750,000
Recreation	300,000	-
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Housing	-	-
Industrial Sites and Parks	-	-
Libraries, Museums, & Historic Sites	-	-
New Public Schools & Additions	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 89,330,000	\$ 57,512,508

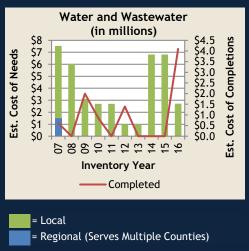


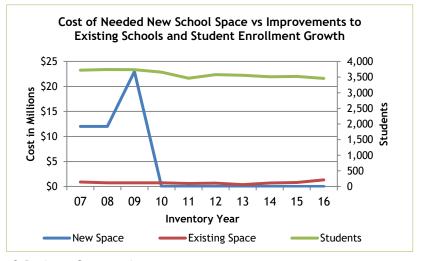
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Hardin County Total Estimated Cost* for Infrastructure Improvements \$289,814,971 **Transportation** (in millions) \$300 \$60 Cost of Completions Cost of Needs \$250 \$50 \$200 \$40 \$150 \$30 \$100 \$20 \$50 Est. \$0 Est. 8 Inventory Year Completed Recreation (in millions) \$30 \$5 Est. Cost of Completions Est. Cost of Needs \$25 \$4 \$20 \$3 \$15 \$2 \$10 \$5 \$0 00 00 01 12 13 15 15 15 **Inventory Year** Completed Water and Wastewater (in millions)

Estimated Cost of Needed Infrastructure for Hardin County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 152,841,000	\$ 125,122,676
Recreation	5,035,000	400,000
Water and Wastewater	605,000	2,104,423
School Renovations	335,000	985,454
Industrial Sites and Parks	1,000,000	-
Business District Development	500,000	150,000
Fire Protection	350,000	-
Post-secondary Education	230,000	-
Libraries, Museums, & Historic Sites	100,000	-
Community Development	-	56,418
Broadband	-	-
Housing	-	-
Law Enforcement	-	-
New Public Schools & Additions	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Public Buildings	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 160,996,000	\$ 128,818,971





^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

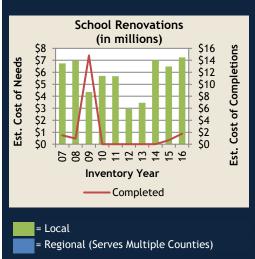
Hawkins County

Total Estimated Cost* for Infrastructure Improvements \$215,711,908

TOP 3

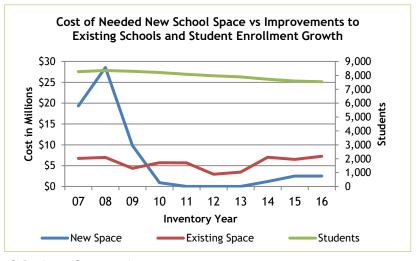






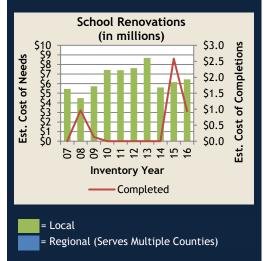
Estimated Cost of Needed Infrastructure for Hawkins County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 109,444,000	\$ 43,584,047
Water and Wastewater	24,376,672	12,452,778
School Renovations	3,925,000	3,310,411
Community Development	6,000,000	350,000
Recreation	1,261,000	1,583,000
New Public Schools & Additions	2,500,000	-
Other Utilities	1,750,000	500,000
Public Buildings	1,800,000	-
Fire Protection	875,000	-
Housing	100,000	500,000
Other Facilities	550,000	-
Law Enforcement	450,000	-
Libraries, Museums, & Historic Sites	400,000	-
Broadband	-	-
Business District Development	-	-
Industrial Sites and Parks	-	-
Other Education	-	-
Post-secondary Education	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 153,431,672	\$ 62,280,236



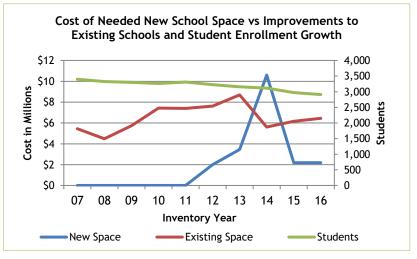
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Haywood County Total Estimated Cost* for Infrastructure Improvements \$206,735,699 **Transportation** \$25 \$20 \$15 \$10 \$10 \$5 \$5 \$0 (in millions) \$250 Est. Cost of Needs \$200 \$150 \$100 \$50 \$0 Est. 0 1 2 2 4 5 5 8 Inventory Year Completed Post-secondary Education (in millions) \$40 \$1.0 \$35 \$0.8



Estimated Cost of Needed Infrastructure for Haywood County Five-year period July 2016 through June 2021

Project Type	Cor	nceptual	ı	lanning & Design + nstruction
Transportation	\$	80,324,000	\$	74,101,456
Post-secondary Education		36,000,000		-
School Renovations		5,353,000		1,092,243
Community Development		-		4,000,000
Water and Wastewater		3,500,000		-
New Public Schools & Additions		2,190,000		-
Recreation		175,000		-
Broadband		-		-
Business District Development		-		-
Fire Protection		-		-
Housing		-		-
Industrial Sites and Parks		-		-
Law Enforcement		-		-
Libraries, Museums, & Historic Sites		-		-
Other Education		-		-
Other Facilities		-		-
Other Utilities		-		-
Public Buildings		-		-
Public Health Facilities		-		-
School-System-wide		-		-
Solid Waste		-		-
Storm Water		-		-
Total	\$ 1	27,542,000	\$	79,193,699



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Henderson County

Total Estimated Cost* for Infrastructure Improvements \$130,547,960

TOP 3

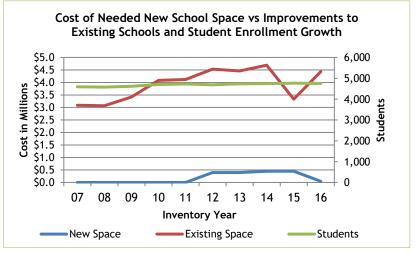






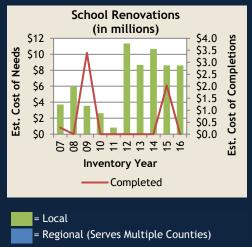
Estimated Cost of Needed Infrastructure for Henderson County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 39,857,000	\$ 75,379,715
Community Development	5,000,000	-
Recreation	4,500,000	-
School Renovations	575,000	3,857,495
Law Enforcement	-	710,000
Libraries, Museums, & Historic Sites	-	318,750
Industrial Sites and Parks	150,000	-
Water and Wastewater	150,000	-
New Public Schools & Additions	50,000	-
Broadband	-	-
Business District Development	-	-
Fire Protection	-	-
Housing	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
Public Buildings	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 50,282,000	\$ 80,265,960



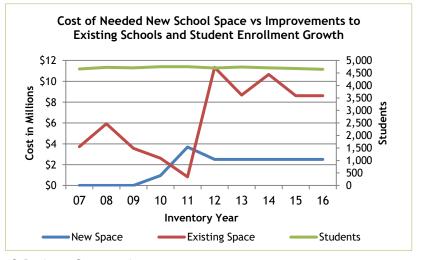
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Henry County Total Estimated Cost* for Infrastructure Improvements \$128,521,353 **Transportation** (in millions) \$100 \$14 Cost of Completions Est. Cost of Needs \$12 \$80 \$10 \$60 \$8 \$6 \$40 \$20 \$2 \$0 Est. 8 Inventory Year Completed Recreation (in millions) \$30 Est. Cost of Completions \$3.5 \$3.0 \$2.5 \$2.0 Cost of Needs \$25 \$20 \$15 \$1.5 \$1.0 \$0.5 \$10 \$5 \$0.0 \$0 00 00 11 12 13 14 15 15 Inventory Year Completed



Estimated Cost of Needed Infrastructure for Henry County Five-year period July 2016 through June 2021

			Planning & Design +	
Project Type	c	Conceptual	Construction	
Transportation	\$	31,871,000	\$ 54,134,733	
Recreation		27,300,000	-	
School Renovations		8,000,000	611,654	
New Public Schools & Additions		-	2,500,000	
School-System-wide		2,400,000	-	
Water and Wastewater		337,966	781,000	
Industrial Sites and Parks		-	500,000	
Fire Protection		85,000	-	
Broadband		-	-	
Business District Development		-	-	
Community Development		-	-	
Housing		-	-	
Law Enforcement		-	-	
Libraries, Museums, & Historic Sites		-	-	
Other Education		-	-	
Other Facilities		-	-	
Other Utilities		-	-	
Post-secondary Education		-	-	
Public Buildings		-	-	
Public Health Facilities		-	-	
Solid Waste		-	-	
Storm Water		-	-	
Total	\$	69,993,966	\$ 58,527,387	



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

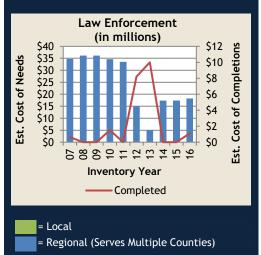
Hickman County

Total Estimated Cost* for Infrastructure Improvements \$189,760,072

TOP 3

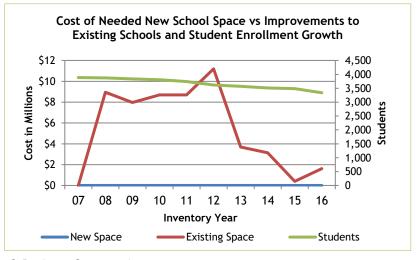






Estimated Cost of Needed Infrastructure for Hickman County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 82,621,000	\$ 37,364,072
Water and Wastewater	48,900,000	-
Law Enforcement	-	18,250,000
School Renovations	1,100,000	525,000
Industrial Sites and Parks	1,000,000	-
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Fire Protection	-	-
Housing	-	-
Libraries, Museums, & Historic Sites	-	-
New Public Schools & Additions	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
Public Buildings	-	-
Public Health Facilities	-	-
Recreation	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 133,621,000	\$ 56,139,072



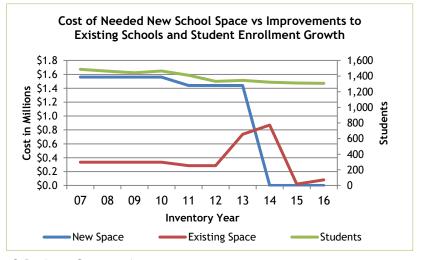
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Houston County Total Estimated Cost* for Infrastructure Improvements \$37,075,750 **Transportation** (in millions) \$50 Cost of Needs \$40 \$30 \$20 \$10 \$0 Est. Inventory Year Completed Water and Wastewater (in millions) \$12 \$2.5 of Completions Est. Cost of Needs \$10 \$2.0 \$8 \$1.5 \$6 \$1.0 \$4 \$2 \$0 \$0.0 00 00 01 11 12 14 15 15 15 Inventory Year Completed **Community Development** (in millions) \$2.5 \$1.0 \$0.9 \$0.8 \$0.7 \$0.6 \$0.5 \$0.3 \$0.2 \$0.1 \$0.0 Cost of Completions Cost of Needs \$2.0 \$1.5 \$1.0 \$0.5 \$0.0 00 00 11 12 13 15 15 Inventory Year Completed = Local

= Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for Houston County Five-year period July 2016 through June 2021

Project Type	Conceptual	Planning & Design + Construction
Transportation	\$ 20,380,000	\$ 1,120,750
Water and Wastewater	3,200,000	6,600,000
Community Development	2,000,000	-
Libraries, Museums, & Historic Sites	-	1,500,000
Recreation	700,000	500,000
Fire Protection	350,000	-
Public Health Facilities	350,000	-
Public Buildings	120,000	-
Solid Waste	-	100,000
School Renovations	80,000	-
Other Facilities	-	75,000
Broadband	-	-
Business District Development	-	-
Housing	-	-
Industrial Sites and Parks	-	-
Law Enforcement	-	-
New Public Schools & Additions	-	-
Other Education	-	-
Other Utilities	-	-
Post-secondary Education	-	-
School-System-wide	-	-
Storm Water	-	-
Total	\$ 27,180,000	\$ 9,895,750



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

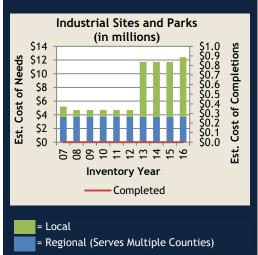
Humphreys County

Total Estimated Cost* for Infrastructure Improvements \$234,139,266

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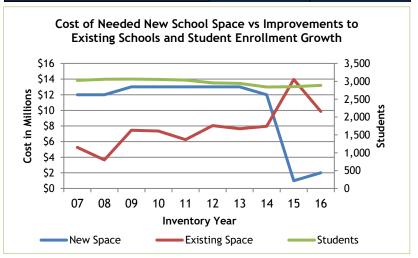






Estimated Cost of Needed Infrastructure for Humphreys County Five-year period July 2016 through June 2021

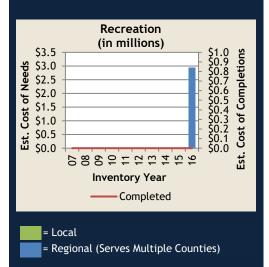
		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 151,127,000	\$ 36,522,869
Water and Wastewater	11,000,000	8,817,900
Industrial Sites and Parks	2,700,000	9,700,000
School Renovations	9,250,000	610,000
New Public Schools & Additions	2,000,000	-
Public Buildings	1,076,000	-
Recreation	250,000	585,497
Fire Protection	500,000	-
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Housing	-	-
Law Enforcement	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 177,903,000	\$ 56,236,266



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

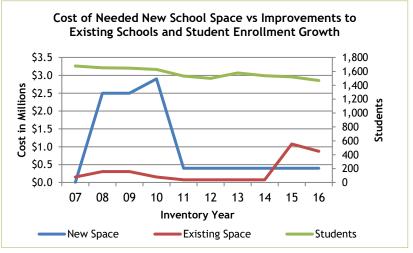
Jackson County Total Estimated Cost* for Infrastructure Improvements \$68,367,086 **Transportation** (in millions) \$3.5 \$3.0 \$2.5 \$2.5 \$1.5 \$1.5 \$120 Est. Cost of Needs \$100 \$80 \$60 \$40 \$1.0 6 \$0.5 50.0 \$20 0 1 2 2 4 5 5 8 Est Inventory Year Completed





Estimated Cost of Needed Infrastructure for Jackson County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 43,276,000	\$ 1,006,086
Industrial Sites and Parks	1,250,000	15,000,000
Recreation	-	2,950,000
Water and Wastewater	1,660,000	-
Community Development	1,250,000	-
School Renovations	-	875,000
Fire Protection	-	700,000
New Public Schools & Additions	400,000	-
Broadband	-	-
Business District Development	-	-
Housing	-	-
Law Enforcement	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
Public Buildings	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 47,836,000	\$ 20,531,086



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

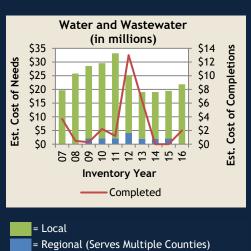
Jefferson County

Total Estimated Cost* for Infrastructure Improvements \$340,000,487

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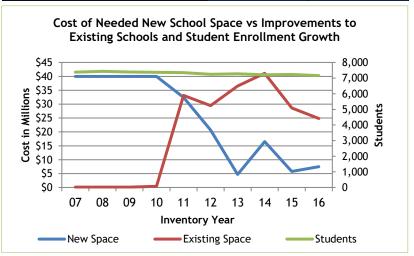






Estimated Cost of Needed Infrastructure for Jefferson County Five-year period July 2016 through June 2021

			F	Planning & Design +
Project Type	Concept	ual	C	onstruction
Transportation	\$ 60,19	2,000	\$	222,754,776
School Renovations	23,38	8,000		1,430,000
Water and Wastewater	4,89	5,800		16,954,911
New Public Schools & Additions	5,50	0,000		2,000,000
Law Enforcement		-		1,665,000
Recreation	1,02	0,000		-
Other Facilities	15	0,000		-
Storm Water		-		50,000
Broadband		-		-
Business District Development		-		-
Community Development		-		-
Fire Protection		-		-
Housing		-		-
Industrial Sites and Parks		-		-
Libraries, Museums, & Historic Sites		-		-
Other Education		-		-
Other Utilities		-		-
Post-secondary Education		-		-
Public Buildings		-		-
Public Health Facilities		-		-
School-System-wide		-		-
Solid Waste		-		-
Total	\$ 95,14	5,800	\$	244,854,687

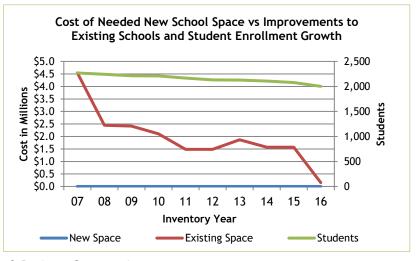


^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Johnson County Total Estimated Cost* for Infrastructure Improvements \$123,623,854 Transportation \$25 \$20 \$15 \$10 \$10 \$5 \$5 \$0 (in millions) \$120 Est. Cost of Needs \$100 \$80 \$60 \$40 \$20 00 00 01 11 12 14 15 15 Est. Inventory Year Completed Water and Wastewater (in millions) \$35 \$4.0 Est. Cost of Completions \$3.5 \$3.0 \$2.5 \$2.0 Cost of Needs \$30 \$25 \$20 \$15 \$1.5 \$1.0 \$10 \$5 \$0.5 \$0.0 \$0 00 00 11 12 13 14 15 Inventory Year Completed Recreation (in millions) \$0.25 **5** \$0.20 **5** \$109 \$587 \$555 \$554 \$555 \$50 \$0 Est. Cost of Needs \$0.15 \$0.10 \$0.05 \$0.00 00 00 11 12 13 14 15 15 Inventory Year

Estimated Cost of Needed Infrastructure for Johnson County Five-year period July 2016 through June 2021

			Planning & Design +	
Project Type	C	Conceptual		nstruction
Transportation	\$	21,725,000	\$	80,810,618
Water and Wastewater		7,399,460		1,025,607
Recreation		6,375,000		1,149,019
Industrial Sites and Parks		2,000,000		-
Storm Water		1,000,000		-
Law Enforcement		-		800,000
Fire Protection		500,000		-
Other Facilities		300,000		-
Solid Waste		250,000		-
School Renovations		50,000		105,150
Libraries, Museums, & Historic Sites		-		134,000
Broadband		-		-
Business District Development		-		-
Community Development		-		-
Housing		-		-
New Public Schools & Additions		-		-
Other Education		-		-
Other Utilities		-		-
Post-secondary Education		-		-
Public Buildings		-		-
Public Health Facilities		-		-
School-System-wide		-		-
Total	\$	39,599,460	\$	84,024,394



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Completed

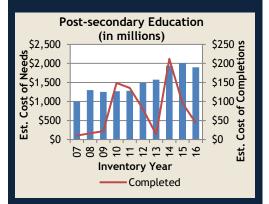
= Regional (Serves Multiple Counties)

= Local

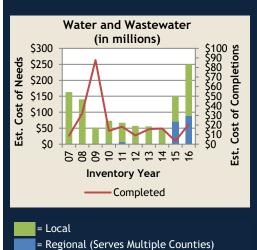
Knox County

Total Estimated Cost* for Infrastructure Improvements \$3,593,546,322

TOP 3

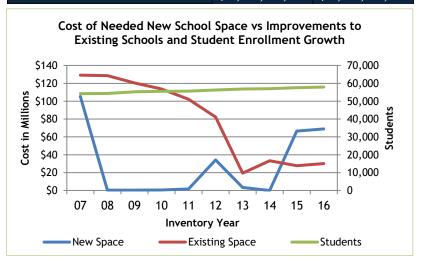






Estimated Cost of Needed Infrastructure for Knox County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Post-secondary Education	\$ 640,510,000	\$ 1,258,396,000
Transportation	460,116,000	617,100,754
Water and Wastewater	47,625,000	202,830,000
New Public Schools & Additions	-	68,985,000
Housing	-	66,000,000
Other Education	21,220,000	30,160,000
Recreation	5,080,000	26,829,876
School Renovations	4,055,332	26,071,244
Other Utilities	10,670,000	17,700,000
Business District Development	-	22,685,116
Public Health Facilities	22,190,000	-
Other Facilities	550,000	20,412,000
Law Enforcement	6,520,000	5,510,000
Industrial Sites and Parks	-	9,800,000
Libraries, Museums, & Historic Sites	2,230,000	300,000
Broadband	-	-
Community Development	-	-
Fire Protection	-	-
Public Buildings	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 1,220,766,332	\$ 2,372,779,990

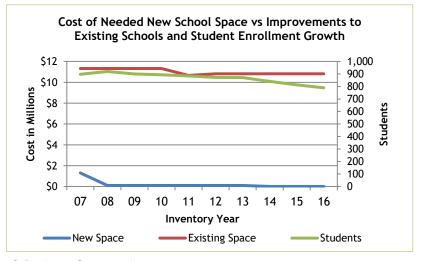


^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Lake County Total Estimated Cost* for Infrastructure Improvements \$34,342,852 **Transportation** (in millions) \$30 \$70 Cost of Completions Est. Cost of Needs \$60 \$25 \$50 \$20 \$40 \$15 \$30 \$10 \$20 \$5 \$10 \$0 00 00 10 11 11 11 15 15 Est. Inventory Year Completed School Renovations (in millions) \$12 \$5 Est. Cost of Completions Est. Cost of Needs \$10 \$4 \$8 \$3 \$6 \$2 \$4 \$2 \$0 00 00 01 11 12 14 15 15 Inventory Year Completed Recreation (in millions) \$0.6 \$6 Cost of Completions Est. Cost of Needs \$5 \$0.5 \$4 \$0.4 \$3 \$0.3 \$2 \$0.2 \$1 \$0.1 \$0 \$0.0 Est. 00 00 01 11 12 14 15 15 Inventory Year Completed = Local = Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for Lake County Five-year period July 2016 through June 2021

		Planning & Design +	
Project Type	Conceptual	Construction	
Transportation	\$ 1,593,000	\$ 10,263,487	
School Renovations	10,660,000	150,000	
Recreation	-	3,491,365	
Public Buildings	3,200,000	-	
Law Enforcement	-	2,650,000	
Water and Wastewater	320,000	915,000	
Community Development	700,000	-	
Other Facilities	200,000	-	
Storm Water	150,000	-	
Fire Protection	50,000	-	
Broadband	-	-	
Business District Development	-	-	
Housing	-	-	
Industrial Sites and Parks	-	-	
Libraries, Museums, & Historic Sites	-	-	
New Public Schools & Additions	-	-	
Other Education	-	-	
Other Utilities	-	-	
Post-secondary Education	-	-	
Public Health Facilities	-	-	
School-System-wide	-	-	
Solid Waste	-	-	
Total	\$ 16,873,000	\$ 17,469,852	



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

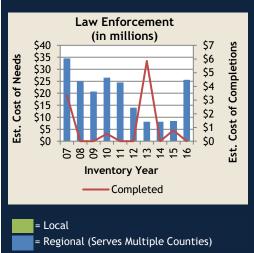
Lauderdale County

Total Estimated Cost* for Infrastructure Improvements \$444,690,115

TOP 3

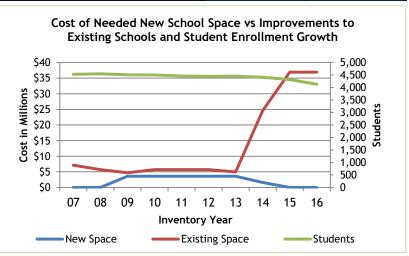






Estimated Cost of Needed Infrastructure for Lauderdale County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 40,160,000	\$ 337,184,054
School Renovations	36,480,000	397,500
Law Enforcement	-	25,630,000
Housing	2,500,000	50,000
Storm Water	-	906,000
Water and Wastewater	-	522,561
Libraries, Museums, & Historic Sites	450,000	-
Post-secondary Education	410,000	-
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Fire Protection	-	-
Industrial Sites and Parks	-	-
New Public Schools & Additions	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Public Buildings	-	-
Public Health Facilities	-	-
Recreation	-	-
School-System-wide	-	-
Solid Waste	-	-
Total	\$ 80,000,000	\$ 364,690,115

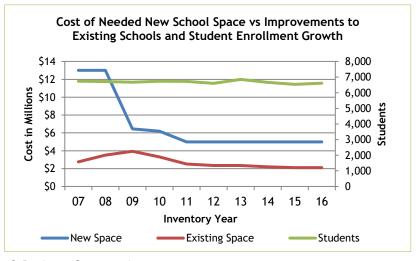


^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Lawrence County Total Estimated Cost* for Infrastructure Improvements \$45,613,337 **Transportation** (in millions) \$60 \$140 Cost of Completions Est. Cost of Needs \$120 \$50 \$100 \$40 \$80 \$30 \$60 \$20 \$40 \$20 5 1 2 2 4 5 5 Est. 8 Inventory Year Completed Law Enforcement (in millions) \$30 \$20 Est. Cost of Completions Est. Cost of Needs \$25 \$15 \$20 \$10 \$15 \$10 \$5 \$5 \$0 00 00 01 11 12 14 15 15 **Inventory Year** Completed New Public Schools & Additions (in millions) \$14 .09.8.7.6.5.4.3.2.1 Cost of Completions \$12 Est. Cost of Needs \$10 \$8 \$6 \$4 \$2 \$0 Est. 07 08 09 11 12 14 15 15 Inventory Year Completed = Local = Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for Lawrence County Five-year period July 2016 through June 2021

			anning & esign +
Project Type	(Conceptual	struction
Transportation	\$	23,135,000	\$ 2,891,488
Law Enforcement		5,800,000	
New Public Schools & Additions		5,000,000	
Recreation		3,070,000	970,000
School Renovations		1,400,000	716,849
Water and Wastewater		1,000,000	460,000
Fire Protection		850,000	-
Solid Waste		-	320,000
Broadband		-	-
Business District Development		-	-
Community Development		-	-
Housing		-	-
Industrial Sites and Parks		-	-
Libraries, Museums, & Historic Sites		-	-
Other Education		-	-
Other Facilities		-	-
Other Utilities		-	-
Post-secondary Education		-	-
Public Buildings		-	-
Public Health Facilities		-	-
School-System-wide		-	-
Storm Water		-	-
Total	\$	40,255,000	\$ 5,358,337



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

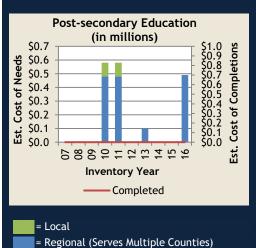
Lewis County

Total Estimated Cost* for Infrastructure Improvements \$63,568,566

TOP 3

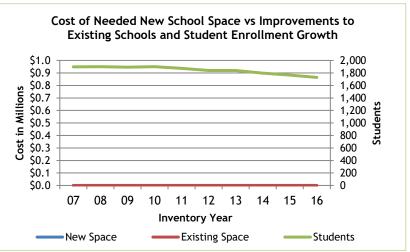






Estimated Cost of Needed Infrastructure for Lewis County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 27,517,000	\$ 27,831,566
Law Enforcement	2,000,000	5,000,000
Post-secondary Education	490,000	-
Community Development	400,000	-
Industrial Sites and Parks	250,000	-
Libraries, Museums, & Historic Sites	-	80,000
Broadband	-	-
Business District Development	-	-
Fire Protection	-	-
Housing	-	-
New Public Schools & Additions	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Public Buildings	-	-
Public Health Facilities	-	-
Recreation	-	-
School Renovations	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Water and Wastewater	-	-
Total	\$ 30,657,000	\$ 32,911,566

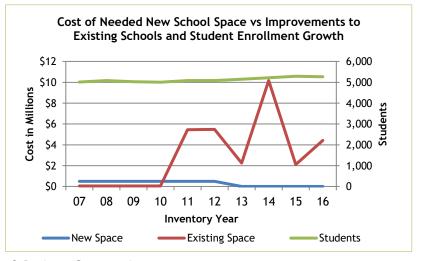


^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Lincoln County Total Estimated Cost* for Infrastructure Improvements \$69,050,135 **Transportation** (in millions) \$100 \$40 \$35 \$30 \$25 \$20 \$15 \$10 \$5 \$0 Cost of Completions Est. Cost of Needs \$80 \$60 \$40 \$20 \$0 Est. 07 08 09 11 12 14 15 15 Inventory Year Completed Water and Wastewater (in millions) \$16 \$14 \$12 \$10 \$3.0 Completions Est. Cost of Needs \$2.5 \$2.0 \$8 \$6 \$4 \$2 \$0 \$1.5 \$1.0 ð Cost \$0.5 \$0.0 00 00 00 11 11 11 11 15 **Inventory Year** Completed Recreation (in millions) \$10987 \$5554 \$5555 \$510 \$0 \$1.2 Cost of Completions Est. Cost of Needs \$1.0 \$0.8 \$0.6 \$0.4 \$0.2 \$0.0 Est. 00 00 01 11 12 14 15 15 15 Inventory Year Completed = Local = Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for Lincoln County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 34,453,000	\$ 3,136,335
Water and Wastewater	15,090,800	-
Recreation	9,300,000	-
School Renovations	2,100,000	2,315,000
Libraries, Museums, & Historic Sites	-	1,500,000
Storm Water	350,000	805,000
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Fire Protection	-	-
Housing	-	-
Industrial Sites and Parks	-	-
Law Enforcement	-	-
New Public Schools & Additions	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
Public Buildings	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Total	\$ 61,293,800	\$ 7,756,335



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

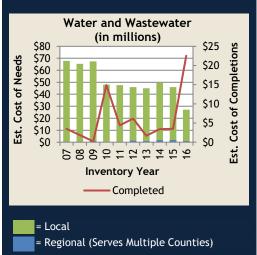
Loudon County

Total Estimated Cost* for Infrastructure Improvements \$324,531,982

TOP 3

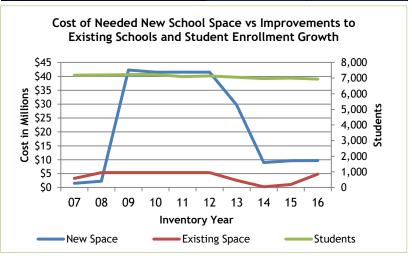






Estimated Cost of Needed Infrastructure for Loudon County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 51,112,000	\$ 144,245,956
Public Buildings	-	54,200,000
Water and Wastewater	2,750,000	24,360,000
Recreation	25,332,000	-
New Public Schools & Additions	600,000	9,100,000
Other Utilities	1,800,000	3,200,000
School Renovations	1,160,000	3,676,600
Industrial Sites and Parks	1,760,000	-
Law Enforcement	750,000	-
Community Development	485,426	-
Broadband	-	-
Business District Development	-	-
Fire Protection	-	-
Housing	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Facilities	-	-
Post-secondary Education	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 85,749,426	\$ 238,782,556



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

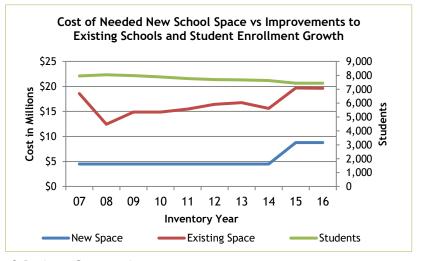
McMinn County Total Estimated Cost* for Infrastructure Improvements \$156,954,498 **Transportation** (in millions) \$300 \$60 Cost of Completions Cost of Needs \$250 \$50 \$200 \$40 \$30 \$150 \$100 \$20 \$50 Est. \$0 Est. 8 Inventory Year Completed **School Renovations** (in millions) \$25 \$7 Est. Cost of Completions Est. Cost of Needs \$6 \$20 \$5 \$15 \$4 \$3 \$10 \$2 \$5 \$1 \$0 00 00 01 11 12 14 15 15 **Inventory Year** Completed Storm Water (in millions) \$12 \$10

\$0.12 \$0.10 \$0.08 \$0.06 \$0.06 Est. Cost of Needs \$8 \$6 \$0.04 \$4 ₽ \$2 \$0.02 \$0 \$0.00 Est. 00 00 00 00 11 11 11 11 15 15 **Inventory Year** Completed = Local

= Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for McMinn County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 36,191,000	\$ 37,869,381
School Renovations	14,256,340	5,387,348
Storm Water	10,000,000	-
Recreation	7,505,950	2,032,000
New Public Schools & Additions	3,280,000	5,500,000
Post-secondary Education	160,000	6,500,000
Business District Development	6,600,000	-
Broadband	6,500,000	-
Community Development	4,250,000	443,340
Water and Wastewater	4,003,710	575,000
Fire Protection	4,000,000	-
Other Utilities	1,500,000	-
Libraries, Museums, & Historic Sites	-	214,429
Law Enforcement	-	186,000
Housing	-	-
Industrial Sites and Parks	-	-
Other Education	-	-
Other Facilities	-	-
Public Buildings	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Total	\$ 98,247,000	\$ 58,707,498



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

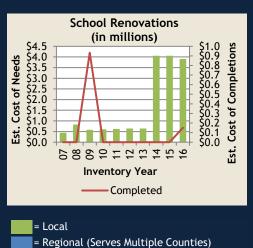
McNairy County

Total Estimated Cost* for Infrastructure Improvements \$71,892,780

TOP 3

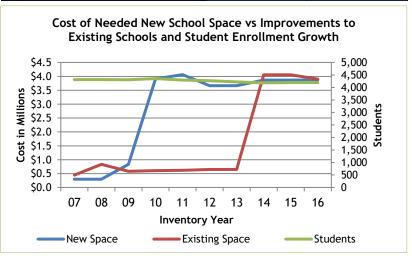






Estimated Cost of Needed Infrastructure for McNairy County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 37,900,000	\$ 3,669,756
Water and Wastewater	9,720,000	8,849,124
School Renovations	3,702,900	201,000
New Public Schools & Additions	3,865,000	-
Other Utilities	1,500,000	-
Recreation	1,330,000	-
Storm Water	800,000	-
Libraries, Museums, & Historic Sites	200,000	-
Fire Protection	80,000	75,000
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Housing	-	-
Industrial Sites and Parks	-	-
Law Enforcement	-	-
Other Education	-	-
Other Facilities	-	-
Post-secondary Education	-	-
Public Buildings	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Total	\$ 59,097,900	\$ 12,794,880



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Macon County Total Estimated Cost* for Infrastructure Improvements \$139,935,421 **Transportation** (in millions) \$2.5 supplemental \$2.5 \$120 Est. Cost of Needs \$100 \$80 \$1.5 \$60 \$1.0 \$40 Cost of \$20 \$0.0 0 1 2 2 4 5 5 Est, 8 Inventory Year Completed New Public Schools & Additions (in millions) \$1.0 \$35 of Completions Cost of Needs \$30 \$0.8 \$25 \$0.6 \$20 \$15 \$0.4 \$10 \$0.2 Est. Cost \$5 \$0 \$0.0 00 00 11 12 13 14 15 **Inventory Year** Completed Water and Wastewater (in millions) \$30 \$6 Est. Cost of Completions Est. Cost of Needs \$5 \$25 \$20 \$4 \$15 \$3

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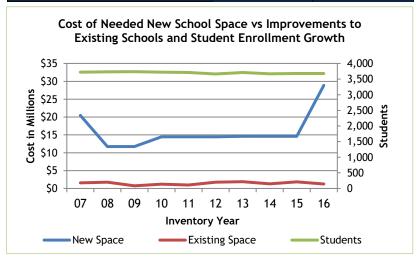
Completed

Inventory Year

= Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for Macon County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 35,191,000	\$ 31,748,921
New Public Schools & Additions	27,050,000	1,800,000
Water and Wastewater	17,405,000	5,000,000
Community Development	8,000,000	-
Law Enforcement	5,640,000	-
Recreation	3,060,000	-
Post-secondary Education	3,000,000	-
School Renovations	-	1,240,500
School-System-wide	500,000	-
Public Health Facilities	300,000	-
Broadband	-	-
Business District Development	-	-
Fire Protection	-	-
Housing	-	-
Industrial Sites and Parks	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Public Buildings	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 100,146,000	\$ 39,789,421



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

\$2

\$1

\$10

\$5 \$0

= Local

Madison County

Total Estimated Cost* for Infrastructure Improvements \$573,698,824

TOP 3

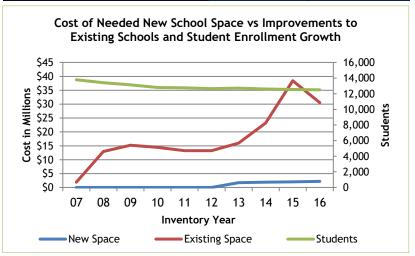






Estimated Cost of Needed Infrastructure for Madison County Five-year period July 2016 through June 2021

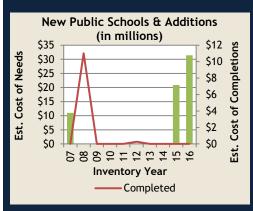
		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 134,252,000	\$ 250,930,091
Water and Wastewater	18,962,533	23,475,000
Public Health Facilities	34,330,000	790,000
Law Enforcement	-	34,480,000
School Renovations	22,673,800	7,830,400
Post-secondary Education	4,090,000	25,440,000
Other Facilities	-	7,900,000
Public Buildings	2,840,000	1,000,000
New Public Schools & Additions	2,135,000	75,000
Industrial Sites and Parks	-	1,000,000
Other Education	910,000	-
Recreation	585,000	-
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Fire Protection	-	-
Housing	-	-
Libraries, Museums, & Historic Sites	-	-
Other Utilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 220,778,333	\$ 352,920,491

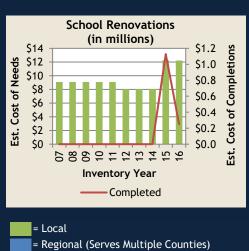


^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Marion County Total Estimated Cost* for Infrastructure Improvements \$253,654,744 TOP 3 Transportation (in millions) \$300

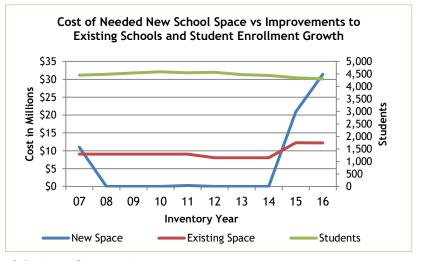






Estimated Cost of Needed Infrastructure for Marion County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 136,518,000	\$ 55,874,355
New Public Schools & Additions	31,427,460	-
School Renovations	10,108,225	2,105,000
Water and Wastewater	5,779,200	85,000
Industrial Sites and Parks	2,150,000	2,100,000
Post-secondary Education	-	3,301,499
Recreation	1,435,000	486,005
Housing	-	1,785,000
Libraries, Museums, & Historic Sites	500,000	-
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Fire Protection	-	-
Law Enforcement	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Public Buildings	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 187,917,885	\$ 65,736,859



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

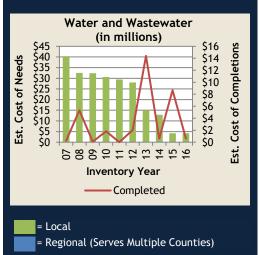
Marshall County

Total Estimated Cost* for Infrastructure Improvements \$92,066,743

TOP 3

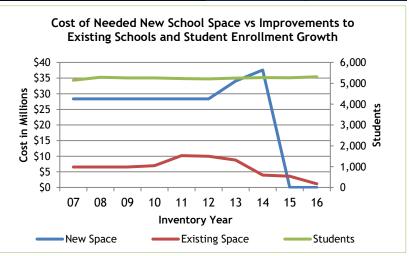






Estimated Cost of Needed Infrastructure for Marshall County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 40,075,000	\$ 32,659,540
Industrial Sites and Parks	-	5,000,000
Water and Wastewater	2,525,000	1,700,000
Recreation	270,000	3,820,000
Fire Protection	2,000,000	-
Libraries, Museums, & Historic Sites	1,500,000	-
School Renovations	116,382	1,030,821
Community Development	970,000	-
Public Health Facilities	300,000	-
Storm Water	-	100,000
Broadband	-	-
Business District Development	-	-
Housing	-	-
Law Enforcement	-	-
New Public Schools & Additions	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
Public Buildings	-	-
School-System-wide	-	-
Solid Waste	-	-
Total	\$ 47,756,382	\$ 44,310,361



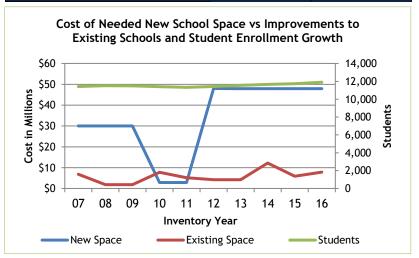
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Maury County Total Estimated Cost* for Infrastructure Improvements \$357,417,006 **Transportation** (in millions) \$300 \$250 \$200 Cost of \$150 \$100 \$50 Est. \$0 Est. 00 00 10 11 11 11 15 15 Inventory Year Completed **New Public Schools & Additions** (in millions) \$60 \$35 Cost of Completions Cost of Needs \$30 \$50 \$25 \$40 \$20 \$30 \$15 \$20 \$10 \$10 \$5 \$0 \$0 Est. 00 00 00 11 11 11 11 15 **Inventory Year** Completed

Law Enforcement (in millions) \$30 \$6 Cost of Completions Cost of Needs \$25 \$5 \$4 \$20 \$15 \$3 \$10 \$2 \$1 \$5 \$0 Est. 07 08 09 11 12 13 15 15 **Inventory Year** Completed = Local = Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for Maury County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 131,801,000	\$ 123,087,130
New Public Schools & Additions	1,387,500	46,486,000
Law Enforcement	-	19,919,676
Public Health Facilities	12,081,700	-
Post-secondary Education	6,150,000	2,986,000
School Renovations	3,640,000	4,203,000
Water and Wastewater	-	3,600,000
Industrial Sites and Parks	-	1,200,000
Recreation	515,000	-
Storm Water	-	360,000
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Fire Protection	-	-
Housing	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Public Buildings	-	-
School-System-wide	-	-
Solid Waste	-	-
Total	\$ 155,575,200	\$ 201,841,806



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

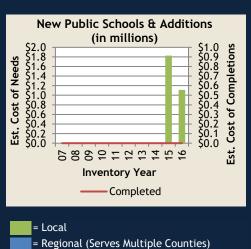
Meigs County

Total Estimated Cost* for Infrastructure Improvements \$21,909,126

TOP 3

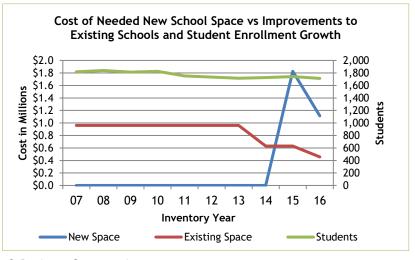






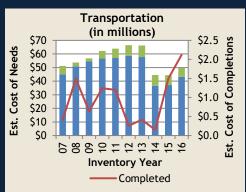
Estimated Cost of Needed Infrastructure for Meigs County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 10,851,000	\$ 117,100
Water and Wastewater	3,650,000	4,395,100
New Public Schools & Additions	1,113,000	-
Other Facilities	550,000	-
School Renovations	456,000	-
Recreation	-	326,926
Other Utilities	250,000	-
School-System-wide	150,000	-
Fire Protection	50,000	-
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Housing	-	-
Industrial Sites and Parks	-	-
Law Enforcement	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Post-secondary Education	-	-
Public Buildings	-	-
Public Health Facilities	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 17,070,000	\$ 4,839,126

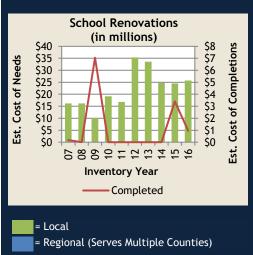


^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Monroe County Total Estimated Cost* for Infrastructure Improvements \$139,780,857 TOP 3

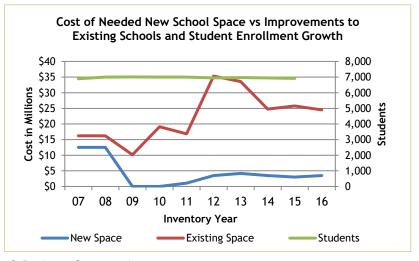






Estimated Cost of Needed Infrastructure for Monroe County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 13,631,000	\$ 36,238,030
Law Enforcement	30,375,000	-
School Renovations	23,410,853	2,349,000
Water and Wastewater	22,384,308	1,630,000
New Public Schools & Additions	3,020,000	-
Recreation	1,500,000	950,000
Libraries, Museums, & Historic Sites	1,500,000	492,666
Industrial Sites and Parks	300,000	1,000,000
Fire Protection	500,000	-
Public Buildings	-	500,000
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Housing	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 96,621,161	\$ 43,159,696



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

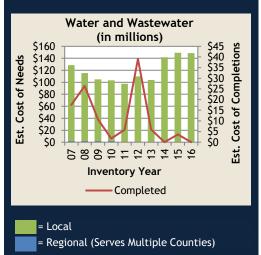
Montgomery County

Total Estimated Cost* for Infrastructure Improvements \$1,153,134,395

TOP 3

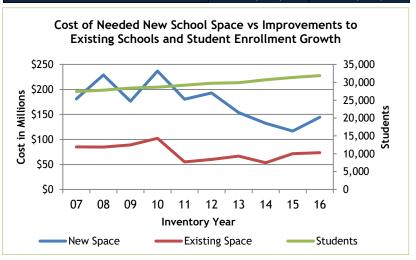






Estimated Cost of Needed Infrastructure for Montgomery County Five-year period July 2016 through June 2021

		Planning & Design +	
Project Type	Conceptual	Construction	
Transportation	\$ 125,254,000	\$ 313,174,236	
Recreation	40,038,000	120,058,933	
Water and Wastewater	2,147,000	146,481,597	
New Public Schools & Additions	140,442,362	4,200,000	
School Renovations	65,984,000	7,505,000	
Post-secondary Education	7,580,000	53,447,700	
Other Utilities	-	33,000,000	
Community Development	-	31,072,982	
Fire Protection	13,700,000	6,600,000	
Public Buildings	6,500,000	7,730,000	
Libraries, Museums, & Historic Sites	10,000,000	-	
Public Health Facilities	120,000	6,585,195	
Law Enforcement	3,285,000	2,037,390	
Other Facilities	100,000	3,746,000	
Industrial Sites and Parks	2,345,000	-	
Broadband	-	-	
Business District Development	-	-	
Housing	-	-	
Other Education	-	-	
School-System-wide	-	-	
Solid Waste	-	-	
Storm Water	-	-	
Total	\$ 417,495,362	\$ 735,639,033	



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

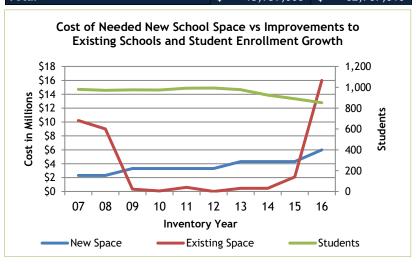
Moore County Total Estimated Cost* for Infrastructure Improvements \$76,706,010 **Post-secondary Education** (in millions) \$35 \$16 \$14 \$12 \$10 \$8 \$6 \$4 \$2 \$0 Cost of Completions Est. Cost of Needs \$30 \$25 \$20 \$15 \$10 \$5 Est. 8 Inventory Year Completed **School Renovations** (in millions) \$20 \$0.30 Completions Est. Cost of Needs \$0.25 \$15 \$0.20 \$10 \$0.15 \$0.10 ð \$5 Cost \$0.05 \$0 \$0.00 00 00 01 11 12 14 15 15 15 Inventory Year Completed Transportation

Completed Transportation (in millions) \$40 \$51.6 \$535 \$535 \$51.6 \$520 \$51.6 \$51.2 \$

= Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for Moore County Five-year period July 2016 through June 2021

		F	Planning & Design +
Project Type	Conceptual	C	onstruction
Post-secondary Education	\$ 1,160,000	\$	29,103,000
School Renovations	2,800,000		13,200,000
Transportation	6,229,000		6,964,010
Water and Wastewater	-		10,500,000
New Public Schools & Additions	3,000,000		3,000,000
Public Buildings	750,000		-
Broadband	-		-
Business District Development	-		-
Community Development	-		-
Fire Protection	-		-
Housing	-		-
Industrial Sites and Parks	-		-
Law Enforcement	-		-
Libraries, Museums, & Historic Sites	-		-
Other Education	-		-
Other Facilities	-		-
Other Utilities	-		-
Public Health Facilities	-		-
Recreation	-		-
School-System-wide	-		-
Solid Waste	-		-
Storm Water	-		-
Total	\$ 13,939,000	\$	62,767,010



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

= Local

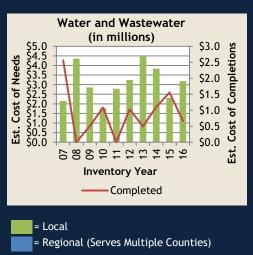
Morgan County

Total Estimated Cost* for Infrastructure Improvements \$192,333,126

TOP 3

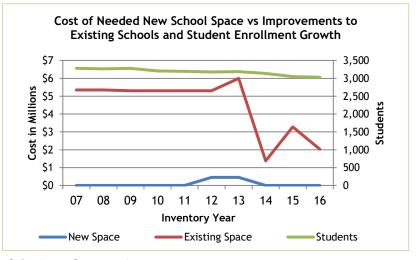






Estimated Cost of Needed Infrastructure for Morgan County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 25,811,950	\$ 154,533,873
Law Enforcement	-	5,310,000
Water and Wastewater	862,803	2,320,000
School Renovations	82,250	1,948,250
Recreation	1,464,000	-
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Fire Protection	-	-
Housing	-	-
Industrial Sites and Parks	-	-
Libraries, Museums, & Historic Sites	-	-
New Public Schools & Additions	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
Public Buildings	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 28,221,003	\$ 164,112,123

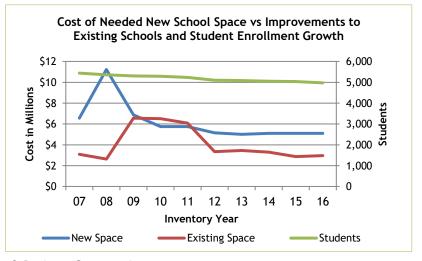


^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Obion County Total Estimated Cost* for Infrastructure Improvements \$422,740,065 **Transportation** (in millions) \$500 \$50 Cost of Completions Cost of Needs \$40 \$400 \$30 \$300 \$200 \$20 \$100 \$0 0 1 2 2 4 5 5 Est. Inventory Year Completed New Public Schools & Additions (in millions) \$20 \$12 Est. Cost of Completions Est. Cost of Needs \$10 \$15 \$8 \$10 \$6 \$4 \$5 \$2 \$0 00 00 01 11 12 14 15 15 **Inventory Year** Completed Water and Wastewater (in millions) \$7 \$3.5 Cost of Completions \$6 \$3.0 Est. Cost of Needs \$5 \$2.5 \$4 \$3 \$2 \$1 \$2.0 \$1.5 \$1.0 \$0.5 \$0.0 Est. 00 00 00 11 11 11 15 15 16 Inventory Year Completed

Estimated Cost of Needed Infrastructure for Obion County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 76,483,819	\$ 330,805,883
New Public Schools & Additions	4,999,000	100,000
Water and Wastewater	962,000	2,085,611
School Renovations	2,461,208	510,300
Recreation	50,000	1,250,000
Law Enforcement	1,200,000	-
Fire Protection	60,000	680,244
Industrial Sites and Parks	500,000	-
Public Buildings	200,000	-
Storm Water	200,000	-
School-System-wide	192,000	-
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Housing	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
Public Health Facilities	-	-
Solid Waste	-	-
Total	\$ 87,308,027	\$ 335,432,038



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

= Local

= Regional (Serves Multiple Counties)

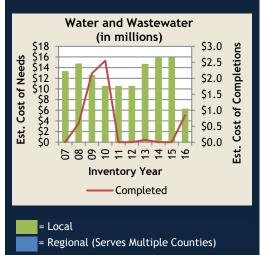
Overton County

Total Estimated Cost* for Infrastructure Improvements \$68,507,134

TOP 3

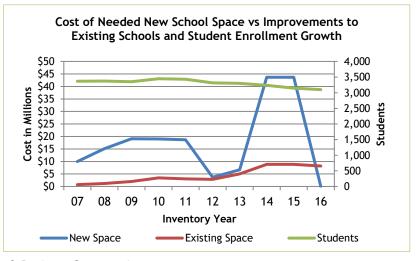






Estimated Cost of Needed Infrastructure for Overton County Five-year period July 2016 through <u>June 2021</u>

Drainat Time	Consentual	Planning & Design + Construction	
Project Type	Conceptual		
Transportation	\$ 11,156,000	\$ 38,342,134	
School Renovations	4,688,000	3,491,000	
Water and Wastewater	3,300,000	3,000,000	
Recreation	1,500,000	2,320,000	
Law Enforcement	200,000	-	
Post-secondary Education	200,000	-	
Public Buildings	-	200,000	
School-System-wide	110,000	-	
Broadband	-	-	
Business District Development	-	-	
Community Development	-	-	
Fire Protection	-	-	
Housing	-	-	
Industrial Sites and Parks	-	-	
Libraries, Museums, & Historic Sites	-	-	
New Public Schools & Additions	-	-	
Other Education	-	-	
Other Facilities	-	-	
Other Utilities	-	-	
Public Health Facilities	-	-	
Solid Waste	-	-	
Storm Water	-	-	
Total	\$ 21,154,000	\$ 47,353,134	



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Perry County

Total Estimated Cost* for Infrastructure Improvements \$80,889,087

TOP 3

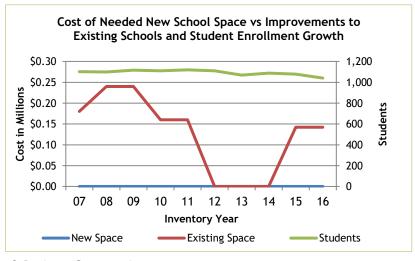




= Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for Perry County Five-year period July 2016 through June 2021

		Planning & Design + onstruction
Project Type	Conceptual	
Transportation	\$ 37,870,000	\$ 42,877,087
School Renovations	-	142,000
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Fire Protection	-	-
Housing	-	-
Industrial Sites and Parks	-	-
Law Enforcement	-	-
Libraries, Museums, & Historic Sites	-	-
New Public Schools & Additions	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
Public Buildings	-	-
Public Health Facilities	-	-
Recreation	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Water and Wastewater	-	-
Total	\$ 37,870,000	\$ 43,019,087



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

= Local

Pickett County

Total Estimated Cost* for Infrastructure Improvements \$16,492,430

TOP 3

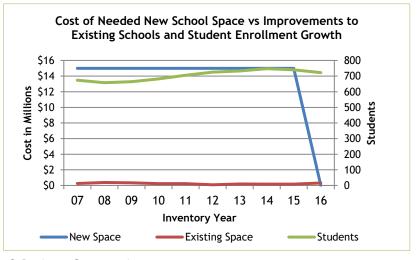






Estimated Cost of Needed Infrastructure for Pickett County Five-year period July 2016 through June 2021

		Planning & Design +	
Project Type	Conceptual	Construction	
Transportation	\$ 3,189,000	\$ 2,158,430	
Law Enforcement	-	5,000,000	
Libraries, Museums, & Historic Sites	-	3,150,000	
Industrial Sites and Parks	350,000	1,500,000	
Recreation	370,000	-	
School Renovations	330,000	-	
Community Development	-	250,000	
School-System-wide	100,000	-	
Fire Protection	-	95,000	
Broadband	-	-	
Business District Development	-	-	
Housing	-	-	
New Public Schools & Additions	-	-	
Other Education	-	-	
Other Facilities	-	-	
Other Utilities	-	-	
Post-secondary Education	-	-	
Public Buildings	-	-	
Public Health Facilities	-	-	
Solid Waste	-	-	
Storm Water	-	-	
Water and Wastewater	-	-	
Total	\$ 4,339,000	\$ 12,153,430	



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Polk County Total Estimated Cost* for Infrastructure Improvements \$71,543,392

TOP 3

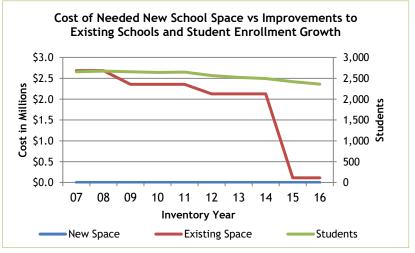






Estimated Cost of Needed Infrastructure for Polk County Five-year period July 2016 through June 2021

			Planning & Design +	
Project Type	(Conceptual	Construction	
Transportation	\$	45,415,000	\$ 16,088,961	
Water and Wastewater		3,519,870	2,980,000	
Recreation		1,650,000	-	
Community Development		-	801,715	
Public Health Facilities		-	403,846	
Industrial Sites and Parks		256,000	-	
Public Buildings		250,000	-	
School Renovations		110,000	-	
Storm Water		-	68,000	
Broadband		-	-	
Business District Development		-	-	
Fire Protection		-	-	
Housing		-	-	
Law Enforcement		-	-	
Libraries, Museums, & Historic Sites		-	-	
New Public Schools & Additions		-	-	
Other Education		-	-	
Other Facilities		-	-	
Other Utilities		-	-	
Post-secondary Education		-	-	
School-System-wide		-	-	
Solid Waste		-	-	
Total	\$	51,200,870	\$ 20,342,522	

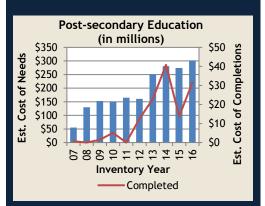


^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

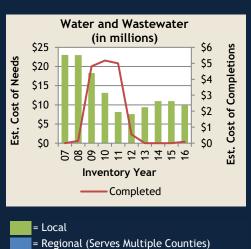
Putnam County

Total Estimated Cost* for Infrastructure Improvements \$482,740,736

TOP 3

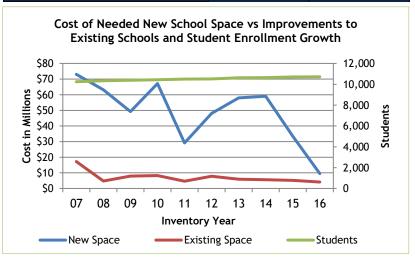






Estimated Cost of Needed Infrastructure for Putnam County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Post-secondary Education	\$ 82,390,000	\$ 219,736,992
Transportation	53,435,794	82,343,400
Water and Wastewater	-	9,855,313
New Public Schools & Additions	4,500,000	5,000,000
Recreation	2,850,000	3,719,237
Other Facilities	6,220,000	-
Law Enforcement	5,800,000	-
School Renovations	3,250,000	915,000
Public Buildings	2,000,000	-
Fire Protection	-	475,000
School-System-wide	250,000	-
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Housing	-	-
Industrial Sites and Parks	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Utilities	-	-
Public Health Facilities	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 160,695,794	\$ 322,044,942

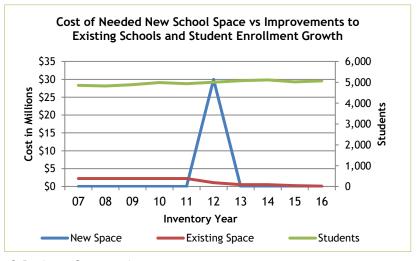


^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Rhea County Total Estimated Cost* for Infrastructure Improvements \$66,839,151 **Transportation** (in millions) \$50 \$80 \$70 \$60 \$50 \$40 \$30 \$20 \$10 Cost of Completions Est. Cost of Needs \$40 \$30 \$20 0 0 1 1 2 1 5 5 5 Est. 8 Inventory Year Completed Law Enforcement (in millions) \$0.5 \$6 of Completions Est. Cost of Needs \$5 \$0.4 \$4 \$0.3 \$3 \$0.2 \$2 \$0.1 Est. Cost \$1 \$0 \$0.0 00 00 11 12 13 14 15 Inventory Year Completed Water and Wastewater (in millions) \$25 \$16 Est. Cost of Completions \$14 \$12 \$10 \$8 \$6 \$4 \$2 Est. Cost of Needs \$20 \$15 \$10 \$5 \$0 00 00 00 11 11 11 15 15 16 Inventory Year Completed = Local = Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for Rhea County Five-year period July 2016 through June 2021

		Planning & Design +	
Project Type	Conceptual	Construction	
Transportation	\$ 48,955,000	\$ 2,328,973	
Law Enforcement	5,080,000	-	
Water and Wastewater	2,694,400	541,682	
Recreation	1,700,000	1,062,596	
Storm Water	1,100,000	650,000	
Industrial Sites and Parks	1,500,000	-	
Public Buildings	800,000	326,500	
School Renovations	100,000	-	
Broadband	-	-	
Business District Development	-	-	
Community Development	-	-	
Fire Protection	-	-	
Housing	-	-	
Libraries, Museums, & Historic Sites	-	-	
New Public Schools & Additions	-	-	
Other Education	-	-	
Other Facilities	-	-	
Other Utilities	-	-	
Post-secondary Education	-	-	
Public Health Facilities	-	-	
School-System-wide	-	-	
Solid Waste	-	-	
Total	\$ 61,929,400	\$ 4,909,751	



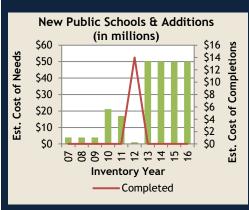
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

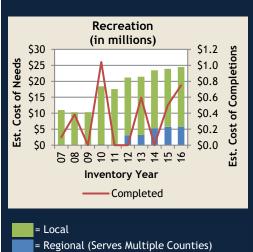
Roane County

Total Estimated Cost* for Infrastructure Improvements \$355,337,035

TOP 3

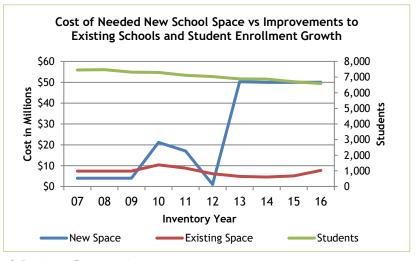






Estimated Cost of Needed Infrastructure for Roane County Five-year period July 2016 through June 2021

			Planning & Design +	
Project Type	Concep	tual	Construction	
Transportation	\$ 75,0	22,000	\$	136,611,246
New Public Schools & Additions	50,0	00,000		60,000
Recreation	15,0	40,000		9,425,896
Water and Wastewater	6,6	18,000		5,988,000
Community Development	10,0	00,000		-
School Renovations	5,5	00,000		2,174,993
Other Facilities		-		7,000,000
Industrial Sites and Parks	6,1	00,000		-
Post-secondary Education	2,1	20,000		3,259,000
Storm Water	5,0	00,000		-
Other Utilities		-		4,917,900
Public Buildings	3,30	00,000		1,000,000
Law Enforcement	4,0	00,000		-
Fire Protection	1,60	00,000		-
Business District Development		-		300,000
Solid Waste		-		300,000
Broadband		-		-
Housing		-		-
Libraries, Museums, & Historic Sites		-		-
Other Education		-		-
Public Health Facilities		-		-
School-System-wide		-		-
Total	\$ 184,30	00,000	\$	171,037,035

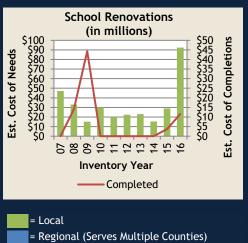


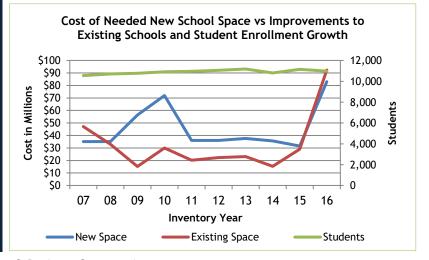
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Robertson County Total Estimated Cost* for Infrastructure Improvements \$525,874,232 Transportation (in millions) \$300 Cost of Completions Cost of Needs \$6 \$5 \$250 \$200 \$150 \$100 \$50 Est. \$0 0 1 2 2 4 5 5 Est. 8 Inventory Year Completed Water and Wastewater (in millions) \$120 \$8 \$7 \$6 \$5 \$4 \$3 \$2 \$1 \$0 Est. Cost of Completions Est. Cost of Needs \$100 \$80 \$60 \$40 \$20 \$0 07 08 09 09 11 11 14 14 15 15 **Inventory Year** Completed **School Renovations** (in millions)

Estimated Cost of Needed Infrastructure for Robertson County Five-year period July 2016 through June 2021

		Planning & Design +	
Project Type	Conceptual	Construction	
Transportation	\$ 83,185,000	\$ 150,726,542	
Water and Wastewater	28,200,000	70,982,500	
School Renovations	72,764,000	19,681,000	
New Public Schools & Additions	48,000,000	35,000,000	
Recreation	4,817,600	2,193,590	
Business District Development	2,700,000	-	
Fire Protection	2,550,000	-	
School-System-wide	-	1,500,000	
Community Development	1,300,000	-	
Storm Water	-	1,199,000	
Industrial Sites and Parks	-	500,000	
Other Utilities	175,000	280,000	
Public Buildings	-	120,000	
Broadband	-	-	
Housing	-	-	
Law Enforcement	-	-	
Libraries, Museums, & Historic Sites	-	-	
Other Education	-	-	
Other Facilities	-	-	
Post-secondary Education	-	-	
Public Health Facilities	-	-	
Solid Waste	-	-	
Total	\$ 243,691,600	\$ 282,182,632	





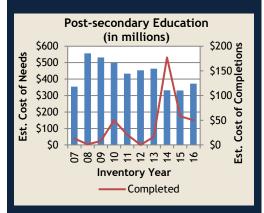
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

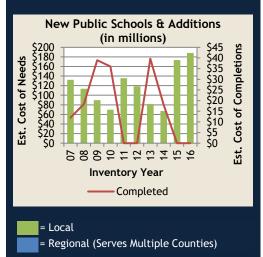
Rutherford County

Total Estimated Cost* for Infrastructure Improvements \$1,418,096,370

TOP 3

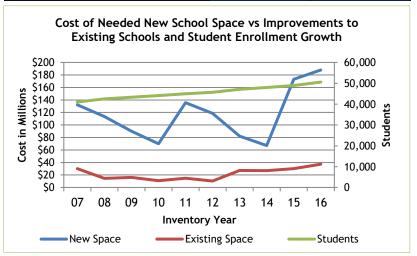






Estimated Cost of Needed Infrastructure for Rutherford County Five-year period July 2016 through June 2021

		Planning & Design +	
Project Type	Conceptual	Construction	
Transportation	\$ 139,135,000	\$ 310,858,282	
Post-secondary Education	26,440,000	345,773,200	
New Public Schools & Additions	127,182,000	60,840,000	
Water and Wastewater	6,700,000	140,000,000	
Law Enforcement	-	118,470,000	
Recreation	2,220,000	65,305,512	
School Renovations	3,955,000	33,424,376	
Public Health Facilities	15,628,000	2,640,000	
Business District Development	-	7,700,000	
Fire Protection	4,200,000	2,700,000	
School-System-wide	2,500,000	-	
Other Utilities	-	1,225,000	
Public Buildings	-	1,200,000	
Broadband	-	-	
Community Development	-	-	
Housing	-	-	
Industrial Sites and Parks	-	-	
Libraries, Museums, & Historic Sites	-	-	
Other Education	-	-	
Other Facilities	-	-	
Solid Waste	-	-	
Storm Water	-	-	
Total	\$ 327,960,000	\$ 1,090,136,370	



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Scott County Total Estimated Cost* for Infrastructure Improvements \$103,025,316 **Transportation** (in millions) \$160 \$140 \$120 \$100 \$5 Cost of Completions Est. Cost of Needs \$4 \$3 \$80 \$60 \$40 \$20 Est. 00 00 00 11 12 14 14 15 Inventory Year Completed **New Public Schools & Additions** (in millions) \$25 Est. Cost of Needs \$20 \$15 \$10 \$5 \$0 00 00 01 11 12 14 15 15 **Inventory Year** Completed Water and Wastewater (in millions) \$6 \$4.5 \$4.0 \$3.5 \$3.0 \$2.5 \$2.0 \$1.5 \$1.0 \$0.5 \$0.0 Cost of Completions Est. Cost of Needs \$5 \$4 \$3 \$2 \$1 \$0

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Inventory Year

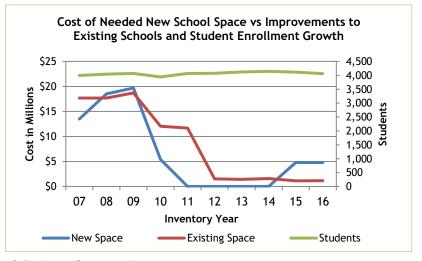
= Regional (Serves Multiple Counties)

= Local

Completed

Estimated Cost of Needed Infrastructure for Scott County Five-year period July 2016 through June 2021

			Planning & Design +	
Project Type	Conceptual		C	onstruction
Transportation	\$	42,409,000	\$	50,251,316
New Public Schools & Additions		4,800,000		-
Water and Wastewater		525,000		2,350,000
School Renovations		1,060,000		100,000
Recreation		-		620,000
Solid Waste		500,000		-
Post-secondary Education		-		210,000
Public Buildings		200,000		-
Broadband		-		-
Business District Development		-		-
Community Development		-		-
Fire Protection		-		-
Housing		-		-
Industrial Sites and Parks		-		-
Law Enforcement		-		-
Libraries, Museums, & Historic Sites		-		-
Other Education		-		-
Other Facilities		-		-
Other Utilities		-		-
Public Health Facilities		-		-
School-System-wide		-		-
Storm Water		-		-
Total	\$	49,494,000	\$	53,531,316



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Est.

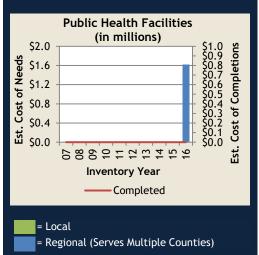
Sequatchie County

Total Estimated Cost* for Infrastructure Improvements \$18,506,930

TOP 3

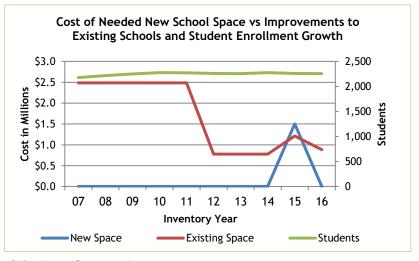






Estimated Cost of Needed Infrastructure for Sequatchie County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 8,904,000	0 \$ 1,397,266
Water and Wastewater	2,600,000	
Public Health Facilities	-	1,622,000
Recreation	591,14	924,687
School-System-wide	600,000	500,000
School Renovations	505,000	380,000
Industrial Sites and Parks	-	482,836
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Fire Protection	-	-
Housing	-	-
Law Enforcement	-	-
Libraries, Museums, & Historic Sites	-	-
New Public Schools & Additions	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
Public Buildings	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 13,200,14	1 \$ 5,306,789

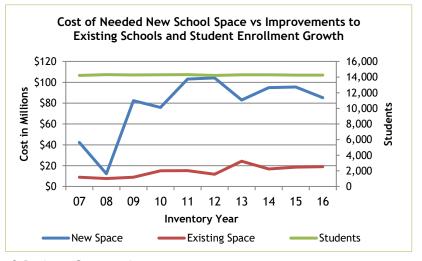


^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Sevier County Total Estimated Cost* for Infrastructure Improvements \$659,405,512 **Transportation** (in millions) \$80 \$70 \$60 \$500 Cost of Completions Cost of Needs \$400 \$50 \$40 \$300 \$200 \$30 \$20 \$100 \$0 Est. 9 0 1 1 2 1 5 4 5 4 8 Inventory Year Completed Water and Wastewater (in millions) \$140 \$30 Est. Cost of Completions Est. Cost of Needs \$120 \$25 \$100 \$20 \$80 \$15 \$60 \$10 \$40 \$5 \$20 \$0 00 00 01 11 12 14 15 15 **Inventory Year** Completed New Public Schools & Additions (in millions) \$120 \$35 Cost of Completions \$30 \$100 Cost of Needs \$25 \$80 \$20 \$60 \$15 \$40 \$10 \$20 \$5 \$0 \$0 Est. 07 08 09 11 12 13 15 15 Inventory Year Completed = Local

Estimated Cost of Needed Infrastructure for Sevier County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 93,902,000	\$ 238,287,525
Water and Wastewater	12,599,985	92,081,600
New Public Schools & Additions	54,630,000	30,558,000
Other Utilities	-	57,622,750
Recreation	440,000	22,885,341
School Renovations	12,436,866	6,512,019
Public Buildings	15,256,841	-
Industrial Sites and Parks	-	10,000,000
Fire Protection	350,000	6,000,000
Community Development	770,000	4,000,000
Post-secondary Education	400,000	-
Storm Water	-	386,285
Other Facilities	91,300	140,000
Law Enforcement	55,000	-
Broadband	-	-
Business District Development	-	-
Housing	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Total	\$ 190,931,992	\$ 468,473,520



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

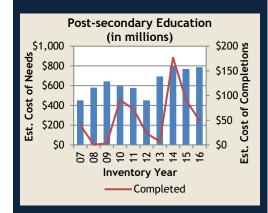
= Regional (Serves Multiple Counties)

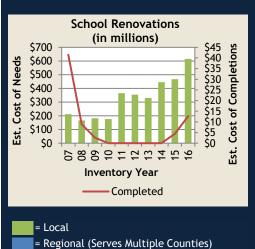
Shelby County

Total Estimated Cost* for Infrastructure Improvements \$5,787,277,033

TOP 3

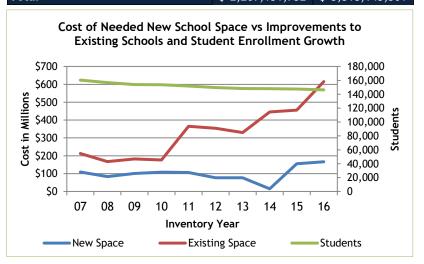






Estimated Cost of Needed Infrastructure for Shelby County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 934,730,940	\$ 2,174,230,436
Post-secondary Education	174,730,000	613,218,020
School Renovations	488,500,497	126,954,613
Water and Wastewater	210,323,306	266,300,000
Housing	171,000,000	-
New Public Schools & Additions	39,489,000	126,876,884
Recreation	14,665,000	95,504,409
Law Enforcement	70,875,800	31,546,855
Public Health Facilities	92,700,000	-
Fire Protection	22,093,189	18,134,038
Libraries, Museums, & Historic Sites	11,868,000	26,667,019
Public Buildings	11,980,000	11,537,000
Other Facilities	8,750,000	11,754,000
Storm Water	3,132,500	6,315,517
Community Development	6,043,500	2,738,510
Solid Waste	8,000,000	-
Business District Development	250,000	6,368,000
Broadband	-	-
Industrial Sites and Parks	-	-
Other Education	-	-
Other Utilities	-	-
School-System-wide	-	-
Total	\$ 2,269,131,732	\$ 3,518,145,301



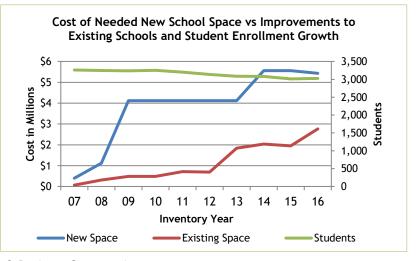
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Smith County Total Estimated Cost* for Infrastructure Improvements \$127,848,692 **Transportation** (in millions) \$120 Cost of Completions Est. Cost of Needs \$100 \$10 \$80 \$8 \$60 \$40 \$20 \$0 0 1 2 2 4 5 4 5 4 Est. 8 Inventory Year Completed Water and Wastewater (in millions) \$20 \$3.5 Cost of Completions Est. Cost of Needs \$3.0 \$15 \$2.5 \$2.0 \$10 \$1.5 \$1.0 \$5 \$0.5 \$0 \$0.0 00 00 11 13 15 15 15 Inventory Year Completed **New Public Schools & Additions** (in millions) \$6 09.8.7.6.5.4.3.2.1 Cost of Completions Cost of Needs \$5 \$4 \$3 \$2 \$1 \$0 Est. 00 00 00 11 11 11 15 15 16 Inventory Year Completed = Local

= Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for Smith County Five-year period July 2016 through June 2021

			anning & Design +
Project Type	C	onceptual	nstruction
Transportation	\$	77,208,256	\$ 34,486,236
Water and Wastewater		3,000,000	3,100,000
New Public Schools & Additions		5,436,000	-
School Renovations		2,663,200	100,000
Solid Waste		1,000,000	-
Recreation		235,000	620,000
Broadband		-	-
Business District Development		-	-
Community Development		-	-
Fire Protection		-	-
Housing		-	-
Industrial Sites and Parks		-	-
Law Enforcement		-	-
Libraries, Museums, & Historic Sites		-	-
Other Education		-	-
Other Facilities		-	-
Other Utilities		-	-
Post-secondary Education		-	-
Public Buildings		-	-
Public Health Facilities		-	-
School-System-wide		-	-
Storm Water		-	-
Total	\$	89,542,456	\$ 38,306,236



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

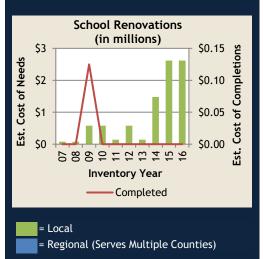
Stewart County

Total Estimated Cost* for Infrastructure Improvements \$35,768,540

TOP 3

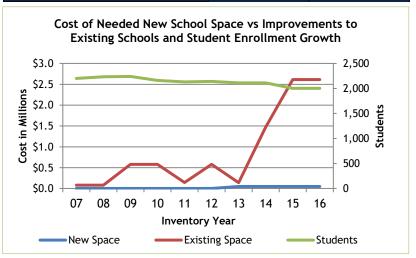






Estimated Cost of Needed Infrastructure for Stewart County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 18,909,000	\$ 529,000
Other Utilities	-	11,000,000
School Renovations	1,825,000	790,000
Water and Wastewater	500,000	690,540
Public Buildings	150,000	600,000
Recreation	725,000	-
New Public Schools & Additions	-	50,000
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Fire Protection	-	-
Housing	-	-
Industrial Sites and Parks	-	-
Law Enforcement	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Facilities	-	-
Post-secondary Education	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 22,109,000	\$ 13,659,540



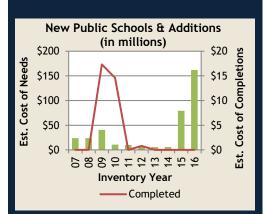
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Est.

Sullivan County Total Estimated Cost* for Infrastructure Improvements \$1,026,649,105 **Transportation** (in millions) \$600 Cost of Completions \$35 \$30 \$500 \$400 \$25 \$20

ð \$300

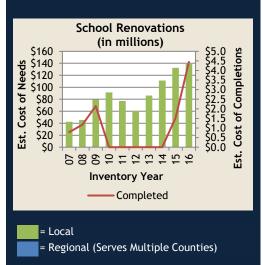
Cost \$200 \$100 \$0



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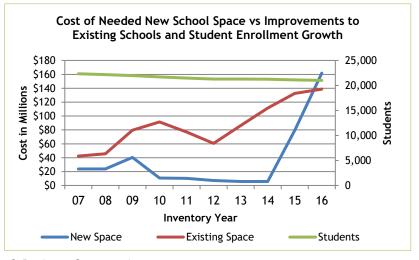
Inventory Year Completed

8



Estimated Cost of Needed Infrastructure for Sullivan County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 355,897,881	\$ 150,184,777
New Public Schools & Additions	126,180,000	35,500,000
School Renovations	88,402,000	50,294,549
Water and Wastewater	22,530,000	64,698,366
Housing	6,875,000	49,525,000
Post-secondary Education	820,000	44,115,000
Recreation	4,150,000	10,663,321
Industrial Sites and Parks	2,000,000	3,967,000
Fire Protection	300,000	4,440,000
Storm Water	500,000	3,300,000
Other Facilities	1,500,000	60,000
Libraries, Museums, & Historic Sites	300,000	75,211
Business District Development	-	156,000
Public Buildings	-	150,000
Community Development	65,000	-
Broadband	-	-
Law Enforcement	-	-
Other Education	-	-
Other Utilities	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Total	\$ 609,519,881	\$ 417,129,224



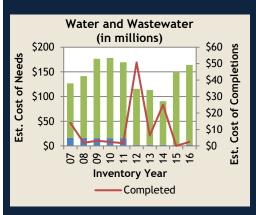
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

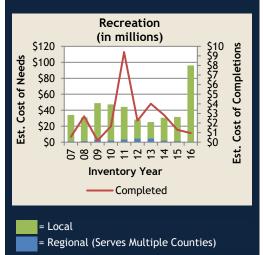
Sumner County

Total Estimated Cost* for Infrastructure Improvements \$825,577,384

TOP 3

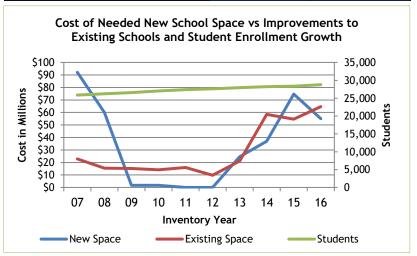






Estimated Cost of Needed Infrastructure for Sumner County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 142,195,358	\$ 205,900,577
Water and Wastewater	40,539,000	123,620,000
Recreation	74,886,531	21,067,189
School Renovations	2,549,000	62,070,729
New Public Schools & Additions	55,000,000	-
Post-secondary Education	1,660,000	33,290,000
Fire Protection	8,200,000	4,464,000
Community Development	5,100,000	6,000,000
Law Enforcement	3,000,000	4,800,000
Other Utilities	-	7,500,000
Public Buildings	2,175,000	5,250,000
Libraries, Museums, & Historic Sites	6,310,000	865,000
Storm Water	1,410,000	3,675,000
Business District Development	2,000,000	-
Other Facilities	1,300,000	-
Industrial Sites and Parks	-	750,000
Broadband	-	-
Housing	-	-
Other Education	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Total	\$ 346,324,889	\$ 479,252,495

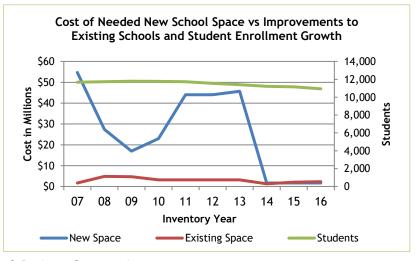


^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Tipton County Total Estimated Cost* for Infrastructure Improvements \$425,812,162 **Transportation** (in millions) \$500 \$35 Cost of Completions Cost of Needs \$30 \$400 \$25 \$300 \$20 \$200 \$15 \$100 \$5 \$0 00 00 10 11 11 11 15 16 Est, Inventory Year Completed Water and Wastewater (in millions) \$30 \$6 Est. Cost of Completions Est. Cost of Needs \$5 \$25 \$20 \$4 \$15 \$3 \$10 \$2 \$5 \$1 \$0 00 00 01 11 12 14 15 15 **Inventory Year** Completed Recreation (in millions) \$5 .0.8.6.4.2.0.8.6.4.2.0 Cost of Completions Est. Cost of Needs \$4 \$3 \$2 \$1 \$0 Est. 00 00 00 11 11 11 15 15 16 17 Inventory Year Completed

Estimated Cost of Needed Infrastructure for Tipton County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 106,205,000	\$ 295,267,778
Water and Wastewater	7,200,000	1,300,000
Recreation	3,155,000	1,145,384
Law Enforcement	-	3,500,000
Post-secondary Education	410,000	3,020,000
School Renovations	2,209,000	100,000
New Public Schools & Additions	-	1,700,000
Housing	-	600,000
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Fire Protection	-	-
Industrial Sites and Parks	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Public Buildings	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 119,179,000	\$ 306,633,162



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

= Local

= Regional (Serves Multiple Counties)

Trousdale County

Total Estimated Cost* for Infrastructure Improvements \$108,900,527

TOP 3

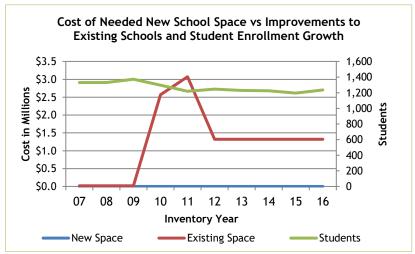






Estimated Cost of Needed Infrastructure for Trousdale County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 24,858,000	\$ 53,244,399
Water and Wastewater	-	18,102,128
Industrial Sites and Parks	1,000,000	5,736,000
Business District Development	-	2,890,000
Law Enforcement	-	1,750,000
School Renovations	800,000	520,000
Broadband	-	-
Community Development	-	-
Fire Protection	-	-
Housing	-	-
Libraries, Museums, & Historic Sites	-	-
New Public Schools & Additions	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
Public Buildings	-	-
Public Health Facilities	-	-
Recreation	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 26,658,000	\$ 82,242,527

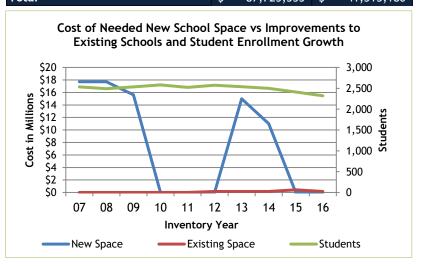


^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Unicoi County Total Estimated Cost* for Infrastructure Improvements \$129,038,735 **Transportation** (in millions) \$70 \$5 Cost of Completions Est. Cost of Needs \$60 \$4 \$50 \$3 \$40 \$30 \$2 \$20 \$10 Est. 90 11 12 14 15 15 16 17 8 Inventory Year Completed Recreation (in millions) \$30 Cost of Completions \$1.4 \$1.2 \$1.0 \$0.8 \$0.6 \$0.4 \$0.2 \$0.0 Cost of Needs \$25 \$20 \$15 \$10 \$5 \$0 00 00 11 13 14 15 15 **Inventory Year** Completed **Community Development** (in millions) \$3.0 \$45 \$40 \$35 \$30 \$25 \$15 \$10 \$5 \$0 Cost of Completions Est. Cost of Needs \$2.5 \$2.0 \$1.5 \$1.0 \$0.5 \$0.0 Est. 00 00 00 11 11 11 14 14 15 Inventory Year Completed = Local = Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for Unicoi County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 41,781,000	\$ 22,492,446
Recreation	13,357,355	14,479,734
Community Development	17,500,000	-
Water and Wastewater	12,342,200	1,705,000
Broadband	1,795,000	1,952,000
Business District Development	-	684,000
Industrial Sites and Parks	650,000	-
Housing	150,000	-
School Renovations	150,000	-
Fire Protection	-	-
Law Enforcement	-	-
Libraries, Museums, & Historic Sites	-	-
New Public Schools & Additions	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
Public Buildings	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 87,725,555	\$ 41,313,180



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

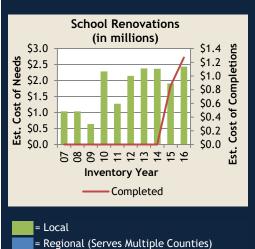
Union County

Total Estimated Cost* for Infrastructure Improvements \$124,161,161

TOP 3

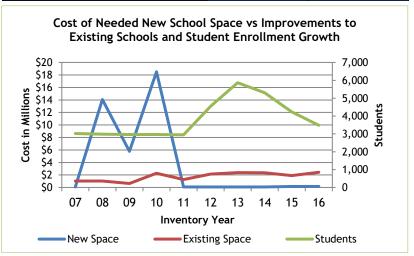






Estimated Cost of Needed Infrastructure for Union County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 10,325,000	\$ 104,876,796
Recreation	4,200,000	-
School Renovations	2,093,065	341,300
Industrial Sites and Parks	1,200,000	-
Water and Wastewater	-	400,000
Community Development	300,000	-
Public Health Facilities	250,000	-
New Public Schools & Additions	175,000	-
Broadband	-	-
Business District Development	-	-
Fire Protection	-	-
Housing	-	-
Law Enforcement	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
Public Buildings	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 18,543,065	\$ 105,618,096



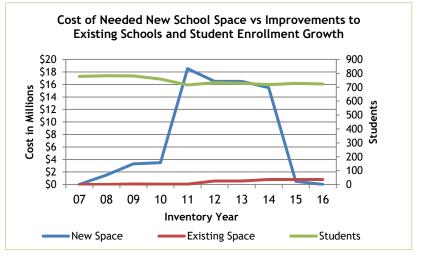
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Van Buren County **Total Estimated Cost* for** Infrastructure Improvements \$81,759,340 **Transportation** (in millions) \$100 \$80 \$70 \$60 \$50 \$40 \$30 \$20 \$10 Cost of Completions Est. Cost of Needs \$80 \$60 \$40 \$20 \$0 0 0 1 1 2 1 5 5 5 Est. 8 Inventory Year Completed Water and Wastewater (in millions) \$5 \$70 Est. Cost of Completions Est. Cost of Needs \$60 \$4 \$50 \$3 \$40 \$30 \$2 \$20 \$1 \$10 \$0 00 00 01 11 12 14 15 15 **Inventory Year** Completed **Industrial Sites and Parks** (in millions) \$12

Estimated Cost of Needed Infrastructure for Van Buren County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 614,000	\$ 26,244,340
Water and Wastewater	10,300,000	-
Industrial Sites and Parks	10,000,000	-
Recreation	1,330,000	6,800,000
Community Development	-	8,050,000
Law Enforcement	-	7,000,000
Public Health Facilities	6,000,000	-
Public Buildings	-	4,000,000
School Renovations	290,000	500,000
Other Utilities	-	631,000
Broadband	-	-
Business District Development	-	-
Fire Protection	-	-
Housing	-	-
Libraries, Museums, & Historic Sites	-	-
New Public Schools & Additions	-	-
Other Education	-	-
Other Facilities	-	-
Post-secondary Education	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 28,534,000	\$ 53,225,340





^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Est. Cost of Needs

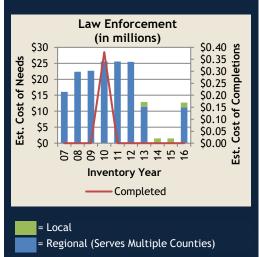
Warren County

Total Estimated Cost* for Infrastructure Improvements \$127,985,288

TOP 3

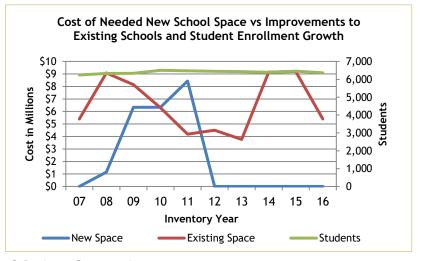






Estimated Cost of Needed Infrastructure for Warren County Five-year period July 2016 through June 2021

			Planning & Design +
Project Type	C	Conceptual	Construction
Transportation	\$	30,861,000	\$ 55,810,188
Water and Wastewater		4,500,000	12,115,000
Law Enforcement		12,700,000	-
School Renovations		3,963,100	1,436,000
Recreation		-	5,000,000
Public Buildings		1,000,000	300,000
Fire Protection		300,000	-
Broadband		-	-
Business District Development		-	-
Community Development		-	-
Housing		-	-
Industrial Sites and Parks		-	-
Libraries, Museums, & Historic Sites		-	-
New Public Schools & Additions		-	-
Other Education		-	-
Other Facilities		-	-
Other Utilities		-	-
Post-secondary Education		-	-
Public Health Facilities		-	-
School-System-wide		-	-
Solid Waste		-	-
Storm Water		-	-
Total	\$	53,324,100	\$ 74,661,188



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Washington County Total Estimated Cost* for Infrastructure Improvements \$813,182,654 **Transportation** (in millions) \$300 \$30 Cost of Completions \$250 \$25 \$200 \$20 Cost of \$150 \$100 \$50 Est. \$0 0 1 2 2 4 5 5 Est. 8 Inventory Year Completed Post-secondary Education (in millions) \$300 \$50 Est. Cost of Completions of Needs \$250 \$40 \$200 \$30 \$150 Cost \$20 \$100 \$50 Est. \$0 00 00 01 11 12 14 15 15 **Inventory Year** Completed Water and Wastewater (in millions) \$250 \$60 Cost of Completions Cost of Needs \$50 \$200 \$40 \$150 \$30 \$100 \$20 \$50 \$10 Est. \$0 \$0 Est. 00 00 00 11 11 11 15 15 16

Inventory Year

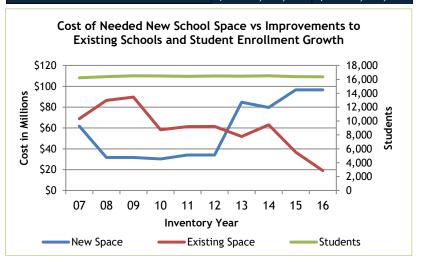
= Regional (Serves Multiple Counties)

= Local

Completed

Estimated Cost of Needed Infrastructure for Washington County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 113,876,000	\$ 117,268,464
Post-secondary Education	27,000,000	139,066,179
Water and Wastewater	77,220,000	66,804,000
New Public Schools & Additions	96,175,500	500,000
Recreation	12,825,000	47,976,006
Housing	17,980,000	31,796,500
School Renovations	13,421,000	5,581,000
School-System-wide	4,300,000	7,174,000
Law Enforcement	7,800,000	2,029,005
Other Facilities	-	8,000,000
Libraries, Museums, & Historic Sites	1,940,000	2,700,000
Industrial Sites and Parks	2,000,000	900,000
Public Health Facilities	2,800,000	-
Business District Development	2,000,000	-
Public Buildings	-	2,000,000
Fire Protection	1,990,000	-
Solid Waste	60,000	-
Broadband	-	-
Community Development	-	-
Other Education	-	-
Other Utilities	-	-
Storm Water	-	-
Total	\$ 381,387,500	\$ 431,795,154



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Wayne County

Total Estimated Cost* for Infrastructure Improvements \$118,595,607

TOP 3

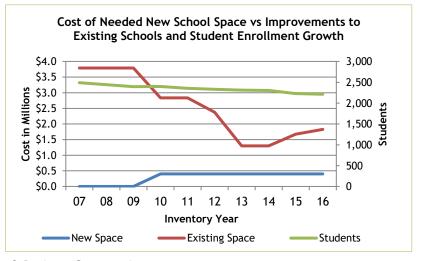






Estimated Cost of Needed Infrastructure for Wayne County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 45,076,000	\$ 45,594,607
Law Enforcement	-	22,200,000
Industrial Sites and Parks	2,000,000	-
School Renovations	1,675,000	150,000
Community Development	1,500,000	-
New Public Schools & Additions	400,000	-
Broadband	-	-
Business District Development	-	-
Fire Protection	-	-
Housing	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Post-secondary Education	-	-
Public Buildings	-	-
Public Health Facilities	-	-
Recreation	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Water and Wastewater	-	-
Total	\$ 50,651,000	\$ 67,944,607

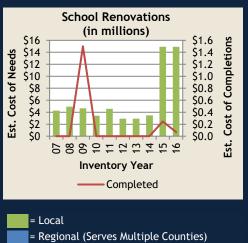


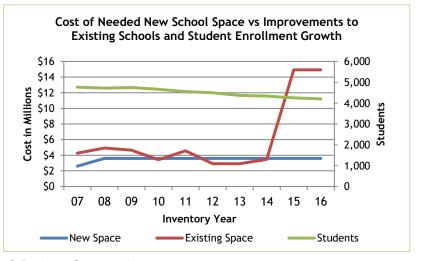
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Weakley County Total Estimated Cost* for Infrastructure Improvements \$269,925,551 **Post-secondary Education** (in millions) \$200 Cost of Completions \$35 \$30 Est. Cost of Needs \$150 \$100 \$50 \$0 Est. 0 1 2 2 4 5 4 5 4 8 Inventory Year Completed Transportation (in millions) \$50 \$6 Est. Cost of Completions Est. Cost of Needs \$5 \$40 \$30 \$3 \$20 \$2 \$10 \$0 00 00 00 11 11 12 14 14 15 **Inventory Year** Completed **School Renovations** (in millions)

Estimated Cost of Needed Infrastructure for Weakley County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Post-secondary Education	\$ 140,934,000	\$ 44,710,000
Transportation	36,956,000	7,922,022
School Renovations	1,725,000	13,194,976
Libraries, Museums, & Historic Sites	5,500,000	-
Law Enforcement	-	4,500,000
New Public Schools & Additions	3,600,000	-
Water and Wastewater	2,500,000	498,920
Recreation	850,000	1,284,633
Industrial Sites and Parks	1,900,000	-
Public Buildings	1,400,000	150,000
Fire Protection	300,000	1,000,000
Storm Water	1,000,000	-
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Housing	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Solid Waste	-	-
Total	\$ 196,665,000	\$ 73,260,551





^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

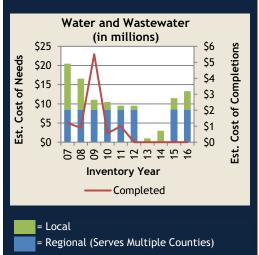
White County

Total Estimated Cost* for Infrastructure Improvements \$134,363,824

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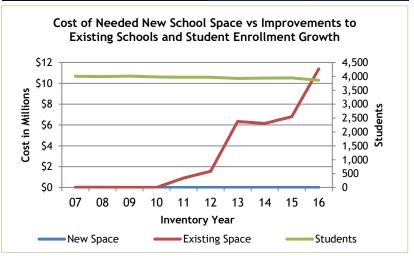






Estimated Cost of Needed Infrastructure for White County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 45,822,000	\$ 11,890,855
Industrial Sites and Parks	40,000,000	-
Water and Wastewater	9,500,000	3,800,000
School Renovations	2,200,000	9,185,000
Public Buildings	4,000,000	-
Law Enforcement	3,000,000	-
Solid Waste	-	3,000,000
Other Utilities	900,000	-
Recreation	-	490,000
Fire Protection	-	428,380
Libraries, Museums, & Historic Sites	-	147,589
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Housing	-	-
New Public Schools & Additions	-	-
Other Education	-	-
Other Facilities	-	-
Post-secondary Education	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Storm Water	-	-
Total	\$ 105,422,000	\$ 28,941,824



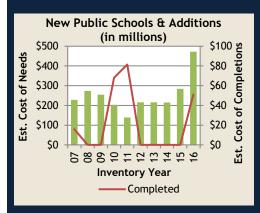
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

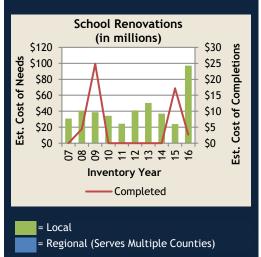
Williamson County

Total Estimated Cost* for Infrastructure Improvements \$1,609,112,674

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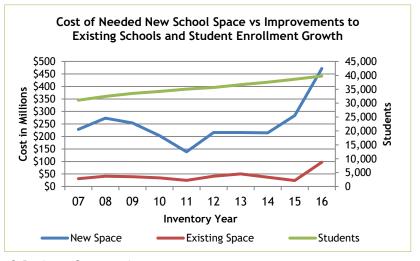






Estimated Cost of Needed Infrastructure for Williamson County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 219,877,327	\$ 510,316,344
New Public Schools & Additions	306,360,000	165,400,000
School Renovations	65,708,000	31,402,000
Water and Wastewater	39,916,000	54,554,000
Recreation	43,407,500	24,206,359
Post-secondary Education	-	52,760,000
Fire Protection	30,400,000	15,247,984
Public Buildings	-	26,500,000
Community Development	5,292,500	7,584,000
Libraries, Museums, & Historic Sites	6,820,760	1,327,800
Solid Waste	-	1,262,000
Storm Water	-	595,100
Business District Development	-	175,000
Broadband	-	-
Housing	-	-
Industrial Sites and Parks	-	-
Law Enforcement	-	-
Other Education	-	-
Other Facilities	-	-
Other Utilities	-	-
Public Health Facilities	-	-
School-System-wide	-	-
Total	\$ 717,782,087	\$ 891,330,587



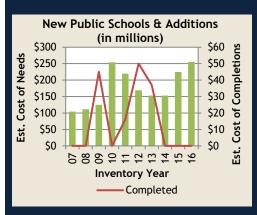
^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

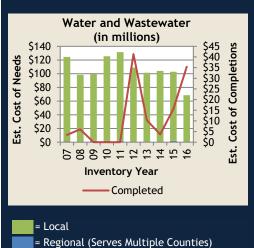
Wilson County

Total Estimated Cost* for Infrastructure Improvements \$1,063,317,930

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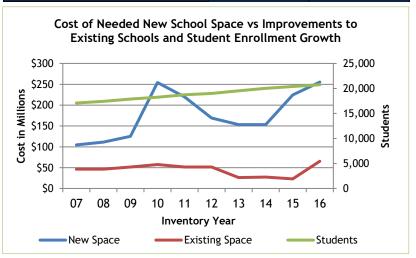






Estimated Cost of Needed Infrastructure for Wilson County Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 330,111,000	\$ 211,055,817
New Public Schools & Additions	185,200,000	70,000,000
Water and Wastewater	26,770,000	41,895,000
School Renovations	16,630,940	48,675,000
Industrial Sites and Parks	40,000,000	-
Recreation	3,897,216	25,232,957
School-System-wide	-	23,265,000
Other Utilities	-	15,750,000
Law Enforcement	11,840,000	-
Fire Protection	2,000,000	3,575,000
Public Buildings	2,500,000	100,000
Solid Waste	2,500,000	-
Public Health Facilities	1,720,000	-
Community Development	-	600,000
Broadband	-	-
Business District Development	-	-
Housing	-	-
Libraries, Museums, & Historic Sites	-	-
Other Education	-	-
Other Facilities	-	-
Post-secondary Education	-	-
Storm Water	-	-
Total	\$ 623,169,156	\$ 440,148,774



^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction

Multi-county Total Estimated Cost* for Infrastructure Improvements \$2,771,102,458 **Transportation** (in millions) \$200 \$150 \$150 \$100 \$100 \$100 \$2,500 \$2,000 \$1,000 Est. Cost of \$0 07 08 09 11 12 14 15 15 **Inventory Year** Completed Water and Wastewater (in millions) \$500 Est. Cost of Needs \$400 \$300 \$200 \$100 \$0.0 \$0 00 00 01 11 12 13 14 15 Inventory Year Completed Other Utilities (in millions) \$300 Est. Cost of Completions \$6 \$5 \$4 \$3 \$2 \$1 Cost of Needs \$250 \$200 \$150 \$100 \$50 Est. \$0 07 08 09 11 11 13 15 15 **Inventory Year** Completed = Local

Estimated Cost of Needed Infrastructure for Multi-county Five-year period July 2016 through June 2021

		Planning & Design +
Project Type	Conceptual	Construction
Transportation	\$ 1,301,722,000	\$ 613,467,124
Water and Wastewater	24,106,410	407,544,000
Other Utilities	89,200,000	187,015,000
Law Enforcement	5,430,000	74,730,000
Post-secondary Education	26,820,000	10,635,539
Recreation	5,785,000	15,000,000
Public Buildings	-	9,367,900
Fire Protection	158,000	-
Libraries, Museums, & Historic Sites	-	121,485
Broadband	-	-
Business District Development	-	-
Community Development	-	-
Housing	-	-
Industrial Sites and Parks	-	-
New Public Schools & Additions	-	-
Other Education	-	-
Other Facilities	-	-
Public Health Facilities	-	-
School Renovations	-	-
School-System-wide	-	-
Solid Waste	-	-
Storm Water	-	-
Total	\$ 1,453,221,410	\$ 1,317,881,048

= Regional (Serves Multiple Counties)

^{*}Total Estimated Cost = Conceptual + Planning & Design + Construction