Report of the Tennessee Advisory Commission on Intergovernmental Relations

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

July 2017 through June 2022

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Legislative Members

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Bristol

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State of Tennessee

Tennessee Advisory Commission on Intergovernmental Relations 226 Anne Dallas Dudley Boulevard, Suite 508 Nashville, Tennessee 37243



February 1, 2019

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

The Honorable Glen Casada Speaker, House of Representatives

Members of the General Assembly

State Capitol Nashville, TN 37243

Ladies and Gentlemen:

Transmitted herewith is the seventeenth 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,

Mayor Larry Waters Acting Chairman

Cliff Lippard Executive Director

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MEMORANDUM

TO: Commission Members

FROM: Cliff Lippard

DATE: 1 February 2019

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, the Commission staff has 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 provided is analyzed, and an annual report is prepared for the General Assembly.

The current report is submitted for Commission approval. It is the seventeenth in the series and presents \$49.8 billion of needed 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 2017 through June 2022.

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.

One-page summaries for each county area are also included that list 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 glossary of terms, can be found in the appendixes to the report.

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

July 2017 through June 2022

CONTENTS

| | 1 |
|--|-------|
| Why inventory public infrastructure needs? | 1 |
| What infrastructure is included in the inventory? | 2 |
| How is the inventory accomplished? | 3 |
| How is the inventory used? | 5 |
| What improvements have been made to the inventory? | 6 |
| What else needs to be done? | 7 |
| INFRASTRUCTURE NEEDS OVERVIEW | 9 |
| Public infrastructure needed for education and transportation and utilities accounts for 88% of the increase in this year's inventory. | 11 |
| The total estimated cost for transportation continues to be the largest in the Inventory | 12 |
| Increases in needed renovations, enrollment growth, and the rising cost of construction materials appear to be driving the increase in education needs | 13 |
| The need for upgrades at state correctional facilities, new law enforcement space, and public health facilities accounts for most of the increase in the Health, Safety, and Welfare category. | 16 |
| Needs reported for projects that support public buildings, recreation and cultural assets, and efforts to develop the economy, continue to fluctuate | 16 |
| In this year's inventory, funding is lacking for more than two-thirds of the estimated cost of the needed improvements | 17 |
| COUNTY SUMMARIES | 21 |
| APPENDIXES | 119 |
| Appendix A: Enabling Legislation | 121 |
| Appendix B: Project History | 131 |
| Appendix C: Inventory Forms | 133 |
| Appendix D: Public Infrastructure Needs by County | 143 |
| Appendix E: School System Infrastructure Needs by County | 221 |
| GLOSSARY OF TERMS | . 259 |
| TENNESSEE DEVELOPMENT DISTRICT MAP | 265 |

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

July 2017 through June 2022

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 public 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. Public infrastructure is the answer when the service support 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?

In 1996, the Tennessee General Assembly enacted legislation that affirmed the value of public infrastructure. An inventory of necessary infrastructure was laid out "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."¹ The "Public Infrastructure Needs Inventory," on which this report is based, was derived from surveys of local officials by staff of the state's

"America relies on a vast network of infrastructure—airports, roads, bridges, freight rail, ports and electric grids—to keep the \$18 trillion economy humming."

Scott Cohn, CNBC, America in Crisis: The 10 states with the worst infrastructure. July 10, 2018.

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

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 from 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 the 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 of July 1, 2017, through June 30, 2037, 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, 2017. Because of legislation requiring the inventory's use by the Commission to monitor implementation of Tennessee's Growth Policy Act, in 2000, the period covered by each inventory was expanded to 20 years.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
 - School System-wide

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.

- 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 necessary 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 facility mandates at the schools, put them in good condition, and provide adequate technology infrastructure. The General Public

"To stem overflows, municipalities can replace old corroded sewer lines, seal manholes and expand or build new sewer treatment plants. A 2016 scorecard by the American Society of **Civil Engineers gave** Tennessee's wastewater infrastructure a D-plus and identified a total of \$2.6 billion in projects needed to rehabilitate aging sewer systems."

Mike Reicher, *The Tennessean*, "Sewage, storms and public health: How aging infrastructure hurts small Tennessee towns." October 10, 2018.

⁵ Both forms are included in appendix C.

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 from 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 incorporates 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 spends 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 of July 2017 through June 2022. Estimated costs for the projects may include amounts spent before July 2017 for projects started before the five-year period, or amounts after June 2022 for projects that won't be completed during the five-year period. All of those projects are initially recorded as conceptual, because capital budget requests generally serve as the source of information from state agencies (TDOT and TBR, excepted).

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.*⁶ 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 adding classroom space and hiring a sufficient number of teachers.⁷ However, some schools continue to use portable classrooms because they still do not have sufficient traditional classroom space to accommodate both teachers and students.

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." https://www.comptroller.tn.gov/content/dam/cot/orea/documents/orea-reports-2004/2004_OREA_EdImpAct.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 offers the one opportunity they have to set funding issues aside for a moment and think proactively and broadly about 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 officials have to consider the long-range benefits of infrastructure.

The inventory helps match critical needs to limited funding opportunities.

In the absence of a formal CIP, the Public Infrastructure Needs Inventory provides basic information to state and local officials to match needs with funding. 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

"Insufficient or inadequate infrastructure—and the resulting congestion, power outages, and lack of access to safe water and roads—is a global concern...Just keeping pace with projected global gross domestic product growth will require an estimated \$57 trillion in infrastructure investment between now and 2030."

Richard Dobbs et al., McKinsey Global Institute, Infrastructure productivity: How to save \$1 trillion a year. January 2013.

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

local government officials. The inventory 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.

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.

As a result of the inventory, 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 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 Through the inventory process, development districts have nature. 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 among 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 members review the collection and analysis process to identify ways to improve efficiency and accuracy. Staff members continually work to improve methods for project tracking and quality control by improving and enhancing the online inventory application. 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 members in the future to provide more detailed information to officials and the public. Staff members also continue to analyze the relationship between schoollevel enrollment and the need for improvements at individual schools, augmenting analyses using system-level enrollment. And staff members 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.

What else needs to be done?

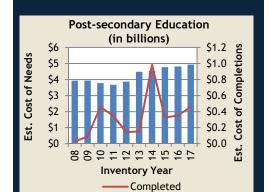
The data collection process continues to improve, and the current inventory is more complete and accurate than ever. The Commission has tried to strike a balance between requiring sufficient information to satisfy the intent of the law and creating a burden on local officials reporting their needs. By 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 policymakers and researchers.

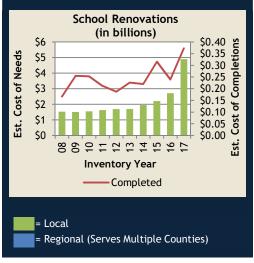
"Williamson County residents have become familiar with the orange barrels and twisted lanes of traffic that come with road construction. During the next few years, the IMPROVE Act will enable crews to finish both large and small projects around the county."

Emily West and Elaina Sauber, *The Tennessean*, "Top 5 road projects you need to know about in Williamson in 2019." January 2, 2019. State Total Total Estimated Cost* for Infrastructure Improvements \$49,836,976,983

TOP 3



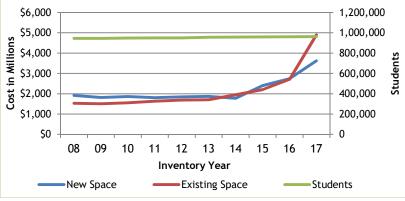




| Estimated Cost of Needed Infrastructure for State Total Five-year period July 2017 through June 2022 | | | | | |
|--|------------------|-------------------------------------|--|--|--|
| Project Type | Conceptual | Planning & Design + Construction | | | |
| ortation | \$ 9,690,325,537 | \$ 15,690,040,019 | | | |
| condary Education | 1,626,770,000 | 3,308,169,501 | | | |

| Transportation | \$ 9,690,325,537 | \$ 15,690,040,019 |
|--------------------------------------|------------------|-------------------|
| Post-secondary Education | 1,626,770,000 | 3,308,169,501 |
| School Renovations | 4,177,415,332 | 719,368,840 |
| Water and Wastewater | 1,141,933,518 | 3,455,130,391 |
| New Public Schools & Additions | 2,474,932,272 | 1,139,884,626 |
| Law Enforcement | 736,720,800 | 779,503,131 |
| Recreation | 557,040,641 | 695,274,283 |
| Public Buildings | 210,091,841 | 371,363,837 |
| Other Utilities | 116,695,000 | 372,363,284 |
| Public Health Facilities | 389,810,000 | 76,563,203 |
| Libraries, Museums, & Historic Sites | 94,316,760 | 356,077,499 |
| Housing | 203,875,000 | 199,402,878 |
| Industrial Sites and Parks | 121,831,900 | 129,603,050 |
| Fire Protection | 123,679,144 | 78,309,937 |
| Community Development | 93,530,426 | 90,282,870 |
| Storm Water | 56,661,500 | 118,110,985 |
| Other Facilities | 67,386,300 | 49,536,795 |
| Business District Development | 27,350,000 | 87,547,866 |
| Other Education | 49,620,000 | 60,710,000 |
| School-System-wide | 8,952,000 | 40,985,717 |
| Solid Waste | 12,260,000 | 18,757,300 |
| Broadband | 8,600,000 | 10,193,000 |
| Total | \$21,989,797,971 | \$ 27,847,179,012 |





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

July 2017 through June 2022

INFRASTRUCTURE NEEDS OVERVIEW

The estimated cost of all needed public infrastructure improvements in Tennessee increased for the third straight year. State and local officials report an increase of approximately \$5.0 billion (11.1%) 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, 2017, and June 30, 2022, to \$49.8 billion (see figure 1 and table 1).⁹

| Category and Type of Infrastructure | July 2016 Inventory | July 2017 Inventory | Difference | Percent Change |
|--|------------------------|------------------------|---------------------|-------------------|
| Transportation and Utilities | \$ 24,705,650,122 | \$ 25,888,216,840 | \$ 1,182,566,718 | 4.8% |
| Transportation | 24,183,250,173 | 25,380,365,556 | 1,197,115,383 | 5.0% |
| Other Utilities | 505,099,949 | 489,058,284 | (16,041,665) | -3.2% |
| Broadband | 17,300,000 | 18,793,000 | 1,493,000 | 8.6% |
| Education | \$ 10,406,180,439 | \$ 13,606,808,288 | \$ 3,200,627,849 | 30.8% |
| Post-secondary Education | 4,810,942,880 | 4,934,939,501 | 123,996,621 | 2.6% |
| School Renovations* | 2,711,722,313 | 4,896,784,172 | 2,185,061,859 | 80.6% |
| New Public Schools & Additions | 2,736,354,246 | 3,614,816,898 | 878,462,652 | 32.1% |
| Other Education** | 87,420,000 | 110,330,000 | 22,910,000 | 26.2% |
| School System-wide | 59,741,000 | 49,937,717 | (9,803,283) | -16.4% |
| Health, Safety and Welfare | \$ 6,890,811,727 | \$ 7,390,717,787 | \$ 499,906,060 | 7.3% |
| Water and Wastewater | 4,664,793,965 | 4,597,063,909 | (67,730,056) | -1.5% |
| Law Enforcement | 1,113,335,026 | 1,516,223,931 | 402,888,905 | 36.2% |
| Public Health Facilities | 345,518,398 | 466,373,203 | 120,854,805 | 35.0% |
| Housing | 374,149,195 | 403,277,878 | 29,128,683 | 7.8% |
| Fire Protection | 194,246,435 | 201,989,081 | 7,742,646 | 4.0% |
| Storm Water | 175,106,408 | 174,772,485 | (333,923) | -0.2% |
| Solid Waste | 23,662,300 | 31,017,300 | 7,355,000 | 31.1% |
| Recreation and Culture | \$ 1,765,252,702 | \$ 1,886,522,479 | \$ 121,269,777 | 6.9% |
| Recreation | 1,154,464,256 | 1,252,314,924 | 97,850,668 | 8.5% |
| Libraries, Museums, and Historic Sites | 407,657,009 | 450,394,259 | 42,737,250 | 10.5% |
| Community Development | 203,131,437 | 183,813,296 | (19,318,141) | -9.5% |
| General Government | \$ 699,218,249 | \$ 698,378,773 | \$ (839,476) | -0.1% |
| Public Buildings | 581,776,149 | 581,455,678 | (320,471) | -0.1% |
| Other Facilities | 117,442,100 | 116,923,095 | (519,005) | -0.4% |
| Economic Development | \$ 377,684,972 | \$ 366,332,816 | \$ (11,352,156) | -3.0% |
| Industrial Sites and Parks | 263,881,780 | 251,434,950 | (12,446,830) | -4.7% |
| Business District Development | 113,803,192 | 114,897,866 | 1,094,674 | 1.0% |
| Grand Total | \$ 44,844,798,211 | \$ 49,836,976,983 | \$ 4,992,178,772 | 11.1% |

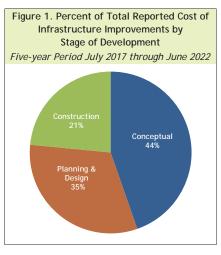
| Table 1. Comparison of Estimated Cost of Needed Infrastructure Improvements |
|---|
| July 2016 Inventory vs. July 2017 Inventory |

*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 \$4,092,464 in 2017 and \$4,603,298 in 2016.

**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.

⁹ For complete listings of all needs reported in the July 2017 inventory by county and by public school system, see appendixes D and E.

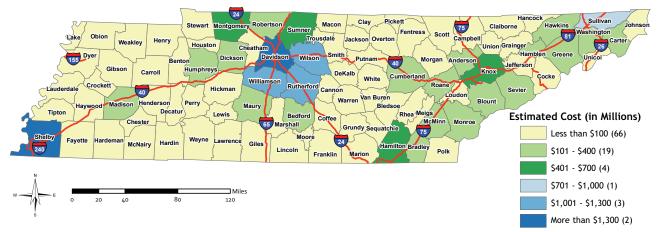
Building Tennessee's Tomorrow: Anticipating the State's Infrastructure Needs



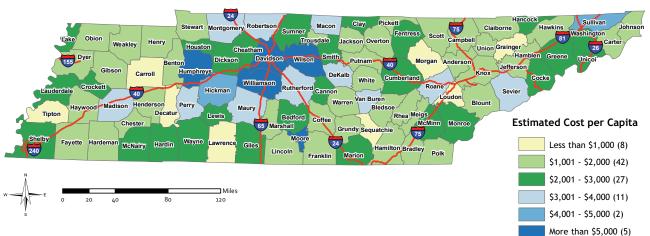
Improvements needed for the following categories continue to account for most of the inventory: Transportation and Utilities; Education; and Health, Safety, and Welfare. This year, the categories most responsible for the reported increase are Education and Transportation and Utilities. More than two-thirds of the estimated cost of the needed improvements reported in this year's inventory is not funded—unchanged from last year.

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 21, offer a breakdown of infrastructure needs by county.

Map 1. Total Estimated Cost of Infrastructure Improvement Needs Five-year Period July 2017 through June 2022



Note: County totals include the total estimated cost of both regional and local infrastructure needs, but do not include the \$3,688,566,915 for infrastructure improvements that cross county lines. Maps in past reports only included the estimated cost for local infrastructure needs.



Map 2. Estimated Cost of Total Infrastructure Needs Per Capita Five-year Period July 2017 through June 2022

Several recent policy changes have directly caused changes in the infrastructure needs reported in this year's inventory. At the state level, the Improve Act of 2017, which will raise revenue for transportation infrastructure, increased \$1.9 billion worth of needs in the inventory this year and is expected to increase an additional \$5 billion worth of needs beginning with next year's inventory. Similarly, at the local level, newly adopted design standards and improved estimating increased the estimated cost for needed renovations of Metro Nashville schools in 2017. In past years, federal programs, such as the Safe Routes to Schools program, which was created to fund sidewalk construction and safer street crossings near schools, have also led to an increase in reported infrastructure needs.

Public infrastructure needed for education and transportation and utilities accounts for 88% of the increase in this year's inventory.

Of the \$5.0 billion increase in infrastructure needs reported in this year's inventory, almost \$4.4 billion (87.8%) is attributable to increases in the estimated cost for education and in transportation and utilities. Needed improvements for education infrastructure show the largest overall increase – \$3.2 billion. Most of the increase in the estimated cost of education needs results from the \$2.2 billion increase reported for renovations to existing schools and the \$878 million increase for new public schools and additions. The spike in needed school renovations is mainly from Metro Nashville Public Schools (MNPS), which added over \$2 billion alone. MNPS' increase resulted from rising construction costs in the Nashville Metro Area coupled with a policy change MNPS adopted in the spring of 2016 that included new design guidelines, education specifications, and better estimating practices for school renovations and construction.

Infrastructure needs for transportation and utilities, which had remained relatively unchanged during the last two inventories, show the second largest increase in this year's inventory—\$1.2 billion. Most of this increase is attributable to needed transportation infrastructure, mainly new road projects, including some¹⁰ of the projects that will be developed as part of the Improve Act. Increases in needs reported for other categories in the inventory—Health, Safety and Welfare (\$500 million) and Recreation and Culture (\$121 million)—are relatively small in comparison. Reported needs decreased in two categories: Economic Development (\$11 million decrease) and General Government (\$839,000 decrease). See table 1.

"Buildings, classrooms, laboratories, and equipment- education infrastructure—are crucial elements of learning environments in schools and universities. There is strong evidence that high-quality infrastructure facilitates better instruction, improves student outcomes, and reduces dropout rates, among other benefits."

Janssen Teixeira, The World Bank, *Why education infrastructure matters for learning*. October 3, 2017.

¹⁰ \$5,611,644,803 of the total \$10,554,499,096 in the Improve Act matched existing projects in the Public Infrastructure Needs Inventory as of July 1, 2017. The remaining Improve Act projects were added to the inventory after the July 1, 2017, cutoff for this year's report and will be reflected in next year's report. See table 2.

The total estimated cost for transportation continues to be the largest in the inventory.

Transportation and Utilities is and always has been the largest category of infrastructure in the inventory and totals \$25.9 billion this year—51.9% of the inventory. Transportation alone, at \$25.4 billion, accounts for nearly all of this category and is larger than all other categories in the inventory— Education at \$13.6 billion (27.3%), Health, Safety, and Welfare at \$7.4 billion (14.8%), Recreation and Culture at \$1.9 billion (3.8%), General Government at \$698 million (1.4%), and Economic Development at \$366 million (0.7%).

Improve Act partially increases the estimated cost for needed transportation infrastructure.

The net increase in the total estimated cost of transportation needs is \$1.2 billion (5.0%) in this year's inventory, which includes \$2.8 billion in new projects (Improve Act accounts for \$1.6 billion) and \$1.0 billion in project cost increases (Improve Act accounts for \$277 million). But these increases are partially offset by \$968 million in completed projects, \$261 million in canceled projects, and \$146 million for postponed projects no longer deemed necessary within this report's five-year window. Moreover, state and local officials reported \$451 million in reduced costs for projects already in the inventory. Projects totaling \$851 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,¹¹ 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 \$10.6 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 \$25.4 billion for transportation in TACIR's Public Infrastructure Needs Inventory reflects the total needed regardless of the stage of development or available funds. Of the 966 projects totaling \$10.6 billion in the Improve Act, 189 projects totaling \$5.6 billion are in TACIR's inventory this year. See table 2.

| Five-year Period July 2017 through June 2022 | | | | | | |
|--|-------------------------------|----|--------------------|------------------------------------|--|--|
| Project Type | Number of Matched Projects | To | tal Estimated Cost | Percent of Total Estimated Cost | | |
| Road | 176 | \$ | 5,528,800,721 | 52.4% | | |
| Bridge | 8 | | 71,528,012 | 70.0% | | |
| ITS* | 4 | | 10,616,000 | 10.0% | | |
| Navigation | 1 | | 700,000 | 0.0% | | |
| Matched Projects | 189 | \$ | 5,611,644,803 | 53.2% | | |
| Total | 966 | \$ | 10,554,499,096 | 100.0% | | |

 Table 2. Estimated Cost of Improve Act Projects by Type of Need
 Five-year Period July 2017 through June 2022

* Intelligent Transportation System

"The Volunteer State overhauled its tax system in 2017 with an eye toward infrastructure, and the plan is already bearing fruit. The Tennessee IMPROVE Act, signed into law by Gov. Bill Haslam, is replacing hundreds of millions of dollars in individual and business taxes with user fees to fund nearly 1,000 road and bridge projects statewide."

> Scott Cohn, CNBC, Top 10 states with the best infrastructure in America. July 10, 2018.

¹¹ Public Chapter 181, Acts of 2017.

The need for other utilities decreased slightly, while the need for broadband infrastructure continues to grow.

Needs reported for other utilities decreased by \$16 million (3.2%) in this year's inventory and now total \$489 million. In just the second year of reporting, local officials report the need for \$19 million in broadband infrastructure, an increase of about \$1.5 million from last year.

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,¹² as well as with the Tennessee Education Improvement Act of 1992,¹³ 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 issues concerning school restructuring or consolidation.

In this year's inventory, most of the overall increase in the Education category is attributable to the \$2.2 billion (80.6%) increase in needed improvements to existing space, which now totals \$4.9 billion. This increase in needed improvements to existing space results almost entirely from the \$2.2 billion increase in school renovations—which itself is primarily attributable to a \$2.0 billion increase reported for MNPS discussed above— and is only partially offset by the \$4 million decrease in needs reported for technology infrastructure and the \$3 million decrease in needs related to federal mandates. See table 3.

| Suly 2010 intentory vs. Suly 2017 intentory | | | | | | |
|---|------------------|------------------|------------------|---------|--|--|
| | July 2016 | July 2017 | | Percent | | |
| Type of Infrastructure | Inventory | Inventory | Difference | Change | | |
| New School Space | \$ 2,736,354,246 | \$ 3,614,816,898 | \$ 878,462,652 | 32.1% | | |
| New Schools | 2,220,804,362 | 2,982,145,000 | 761,340,638 | 34.3% | | |
| Additions | 515,549,884 | 632,671,898 | 117,122,014 | 22.7% | | |
| Improvements to Existing Schools | \$ 2,711,722,313 | \$ 4,896,784,172 | \$ 2,185,061,859 | 80.6% | | |
| Renovations | 2,488,997,147 | 4,680,833,348 | 2,191,836,201 | 88.1% | | |
| Technology* | 129,600,229 | 125,380,212 | (4,220,017) | -3.3% | | |
| Mandates | 93,124,937 | 90,570,612 | (2,554,325) | -2.7% | | |
| System-wide Needs | \$ 59,741,000 | \$ 49,937,717 | \$ (9,803,283) | -16.4% | | |
| Statewide Total | \$ 5,507,817,559 | \$ 8,561,538,787 | \$ 3,053,721,228 | 55.4% | | |

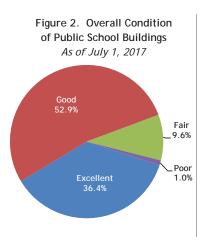
| Table 3. | Estimated Cost of School Infrastructure Improvements by Type of Need |
|----------|--|
| | July 2016 Inventory vs. July 2017 Inventory |

*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 \$4,092,464 in 2017 and \$4,603,298 in 2016.

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

¹³ State of Tennessee Comptroller of the Treasury. 2004. "The Education Improvement Act: A Progress Report." https://www.comptroller.tn.gov/content/dam/cot/orea/documents/orea-reports-2004/2004 OREA EdImpAct.pdf .

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



"The \$89 million renovation of Hillsboro's 28-acre campus will completely transform the campus over the next several years. The project is expected to be completed in 2020, according to the district."

Jason Gonzales, *The Tennessean*, "See plans for Nashville schools' Hillsboro High School renovation." August 23, 2017 Because of the conditions of many Tennessee schools, improvements to existing space are necessary. Although just under 10.7% of public schools (185) in Tennessee were rated by their local school officials in fair or poor condition, 169 of those schools need improvements to existing space and account for 40.2% of total estimated existing space needs. See figure 2, table 4, and appendix E.

| Table 4. | Renovation Costs by School Condition |
|----------|---------------------------------------|
| Five-yea | ar Period July 2017 through June 2022 |

| 1110 300 | | | | | | | |
|--|------------|----------------|---------------|----|-------------|--|--|
| | Number | Estimated Cost | | ٩ | verage Cost | | |
| School Condition | of Schools | | to Renovate | ł | Per School | | |
| Good or Excellent | 886 | \$ | 2,800,218,787 | \$ | 3,160,518 | | |
| Fair or Poor | 169 | | 1,880,614,561 | | 11,127,897 | | |
| Total 1,055 \$ 4,680,833,348 \$ 4,436,809 | | | | | | | |
| Note: Does not include facility upgrades captured in the school system-wide category | | | | | | | |

used for the total renovation cost in Table 3.

The need for new school space also continues to increase in this year's inventory – \$878 million (32.1%) to a new total of \$3.6 billion. Local officials reported a \$117 million (22.7%) increase in the need for additions to existing schools, and a \$761 million (34.3%) increase in reported needs for new schools. See table 3. Of the \$3.0 billion total needed to build new schools, \$972 million is for 24 new school projects added to the inventory this year by 12 school systems.¹⁴ Of these 24 new school projects, almost half are needed in Rutherford and Wilson counties, which each need five new schools.

Over half of all school systems reporting a need for new schools have growing enrollments (see table 5 on the next page). Of the 12 systems with newly reported needs for a new school, nine—the county school systems of Bradley, Giles, Jefferson, Maury, Monroe, Montgomery, Rutherford, Wilson, and Williamson—reported needing an additional school instead of a replacement school where the old building is either demolished or repurposed. Only five of these 12 systems experienced enrollment growth from 2012 to 2017, but these five school systems, accounting for 64.0% of the total estimated cost for new schools, are located in the Metro Nashville area, which has been growing and attracting new people at a strong pace.¹⁵

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 almost 24 points (18.2%) from July 2010 to July 2017,¹⁶ and RSMeans data by Gordian, an industry-leading construction cost estimating company, shows growth in square foot costs for schools

¹⁴ Anderson County, Bradley County, Claiborne County, Davidson County, Giles County,

Jefferson County, Maury County, Monroe County, Montgomery County, Rutherford County, Wilson County, and Williamson County.

¹⁵ University of Tennessee, March 22, 2018. https://news.utk.edu/2018/03/22/census-nashville-continues-to-lead-states-population-growth/.

¹⁶ US Bureau of Labor Statistics. 2018. https://data.bls.gov/timeseries/PCU236222236222.

increasing similarly.¹⁷ In 2010, the average cost of a completed new school was \$16 million in Tennessee. Five schools were completed since last year's report for a total cost of \$140 million, averaging \$28 million per school. Over the next five years, local officials report needing 81 more schools at an average of \$37 million.

| Table 5. | Change in Student Enrollment 2012 to 2017 |
|----------|---|
| for | School Systems that Need New Schools |

| Five-year Period July 2017 through June 2022 | | | | | |
|--|----------------------------|--|----------|--|--|
| | Change in Student | Estimated Cost of New Schools July 2017 | | | |
| School System | Enrollment 2012 to 2017 | Total Per Studen | | | |
| Davidson County | 6,303 | \$ 368,800,000 | \$4,474 | | |
| Williamson County | 5,712 | 390,000,000 | \$10,356 | | |
| Rutherford County | 5,143 | 401,100,000 | \$9,160 | | |
| Montgomery County | 3,232 | 103,000,000 | \$3,125 | | |
| Wilson County | 2,055 | 646,000,000 | \$36,513 | | |
| Knox County | 1,891 | 58,295,000 | \$1,002 | | |
| Hamilton County | 1,367 | 50,000,000 | \$1,157 | | |
| Sumner County | 1,312 | 55,000,000 | \$1,902 | | |
| Murfreesboro | 946 | 25,000,000 | \$3,119 | | |
| Maury County | 829 | 110,000,000 | \$8,982 | | |
| Bedford County | 520 | 36,850,000 | \$4,343 | | |
| Collierville | 519 | 95,000,000 | \$11,460 | | |
| Cleveland | 407 | 15,691,000 | \$2,859 | | |
| Johnson City | 298 | 20,000,000 | \$2,590 | | |
| Gibson County SSD | 210 | 17,000,000 | \$4,323 | | |
| Lebanon SSD | 156 | 21,200,000 | \$5,994 | | |
| Macon County | 155 | 24,000,000 | \$6,285 | | |
| Bristol | 114 | 35,500,000 | \$8,974 | | |
| Sevier County | 94 | 43,250,000 | \$3,022 | | |
| Robertson County | 35 | 35,000,000 | \$3,157 | | |
| DeKalb County | (56) | 42,000,000 | \$14,744 | | |
| Dickson County | (60) | 32,600,000 | \$3,957 | | |
| Oak Ridge | (66) | 10,000,000 | \$2,278 | | |
| Monroe County | (102) | 30,000,000 | \$5,614 | | |
| Benton County | (112) | 200,000 | \$94 | | |
| Giles County | (145) | 32,000,000 | \$8,397 | | |
| Jefferson County | (157) | 20,000,000 | \$2,821 | | |
| Millington | (210) | 6,659,000 | \$2,617 | | |
| Marion County | (236) | 30,000,000 | \$7,516 | | |
| Anderson County | (237) | 10,000,000 | \$1,572 | | |
| Bradley County | (278) | 19,200,000 | \$1,964 | | |
| Claiborne County | (354) | 11,800,000 | \$2,815 | | |
| Roane County | (564) | 50,000,000 | \$7,725 | | |
| Washington County | (612) | 52,000,000 | \$6,156 | | |
| Sullivan County | (1,088) | 85,000,000 | \$8,809 | | |
| Total | 27,022 | \$ 2,982,145,000 | \$14,209 | | |

Source: Tennessee Department of Education, Annual Statistical Report, https://www.tn.gov/content/tn/education/data/department-reports.html.

¹⁷ RSMeans data by Gordian. 2017. "Square Foot Costs With RSMeans Data."

"Jails across East Tennessee have gone well above capacity. Officers said it's putting a strain on the inmates and the corrections officers."

David Ball, WVLT, Some East Tennessee jails at full capacity. February 13, 2018.

The need for upgrades at state correctional facilities, new law enforcement space, and public health facilities accounts for most of the increase in the Health, Safety, and Welfare category.

Law enforcement infrastructure is primarily made up of state prisons, local jails, justice centers, and police stations. As Tennessee's population grows and facilities age, new facilities need to be built, and old facilities need to be upgraded. Prison inmates spend most, if not all, of their time confined to their assigned correctional facility. As you can imagine, this puts considerable wear and tear on a building, and as the inmate population grows in Tennessee's correctional facilities,18 it's no surprise that they eventually need upgrades and improvements from time to time. This year's inventory includes a large increase in the estimated cost of law enforcement infrastructure-\$403 million (36.2%) to a new total of \$1.5 billion. Almost three-quarters of this increase results from necessary upgrades and improvements at existing state correctional facilities and needs for new law enforcement facilities. The State needs to build a new Tennessee Highway Patrol Headquarters in Nashville, at the cost of \$120 million. At the local level, governments mainly need new space. Rhea County needs \$28 million to renovate an old hospital for a new county courthouse and justice center; Brentwood needs \$21 million for a new police headquarters; Cookeville needs \$20 million for a new police department facility to accommodate increased staff and officers; and Hamilton County needs \$20 million for additional beds at the Silverdale Correctional Facility.

This year's inventory also includes a large increase in the estimated cost for public health facilities—\$121 million (35.0%) to a new total of \$466 million. Most of this increase is attributable to the addition of three projects: The state reports needing \$55 million for a new veterans nursing home in Bristol and a little over \$11 million for a new regional office at the Greene Valley Development Center. Furthermore, local officials in Sequatchie County report needing \$33 million for a new 25-bed critical access hospital in Dunlap. The rest of the needs reported are much smaller and scattered across the state.

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

Among needs reported for recreation and cultural assets, the estimated cost for recreational infrastructure increased by \$98 million (8.5%) to a total of \$1.3 billion. The estimated cost for libraries, museums, and historic sites increased \$43 million (10.5%) and now totals \$450 million. But these increases are partially offset by the \$19 million (9.5%) decrease in needs

¹⁸ Tennessee Department of Correction, Statistical Abstract, Fiscal Year 2017.

reported for community development infrastructure, which now totals \$184 million.

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—decreased \$519,000 (0.4%) to a total of \$117 million. After seeing increases in the past two reports, the estimated cost of needed infrastructure for public buildings decreased \$320,000 (0.1%) and now totals \$581 million.

Lastly, the estimated cost for needed infrastructure at industrial sites and parks decreased \$12 million (4.7%) to a new total of \$251 million, while the estimated cost of infrastructure supporting business districts increased \$1 million (1.0%) and now totals \$115 million.

In this year's inventory, funding is lacking for more than twothirds of the estimated cost of the needed improvements.

Information about funding for public infrastructure needs reported by officials indicates that 68.5% of the funds required to meet those needs was not available at the time the inventory was conducted, relatively unchanged from last year's 68.9%. Excluding improvements needed at existing schools and those drawn from capital budget requests submitted by state agencies, neither of which includes funding information, only \$11.6 billion in funding is available for the remaining \$37.0 billion in needs (see table 6). Typically, as a project evolves, funding sources are identified and pursued. Regarding the infrastructure inventory process, planning and design cannot 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 2012 inventory, and 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 6. Public Infrastructure Needs Summary of Funding Availability*

 Five-year Period July 2017 through June 2022

| | Av | inding ailable pillions] | N | unding eeded billions] | nl Needed billions] |
|-------------------------------|----|--------------------------------|----|------------------------------|----------------------------|
| Fully Funded Improvements | \$ | 11.1 | \$ | 0.0 | \$ 11.1 |
| Partially Funded Improvements | | 0.5 | | 2.7 | 3.3 |
| Unfunded Improvements | | 0.0 | | 22.6 | 22.6 |
| Total | \$ | 11.6 | \$ | 25.3 | \$ 37.0 |

*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.

"In order for rural Tennessee communities to prosper, they must have the proper infrastructure in place to meet the needs of their citizens," Mr. Tracy said. "I am excited that the United States Department of Agriculture is committed to assisting communities in making infrastructure a priority."

*The Chattanoogan, "*USDA Partners To Improve Community Infrastructure In 6 Rural Communities In Tennessee." October 9, 2018. 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. Industrial sites and parks also receive a substantial portion of funding from the federal and state governments. Broadband, recreation, storm water, housing, and libraries, museums, and historic sites also rely on the federal government for significant portions of their reported funding (see table 7). It may appear that the state does not help pay for school buildings even though it does-although counties report funding 80.9% 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 \$770 million for fiscal year 2017-18.19 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,²⁰ and some systems use them for operating costs rather than capital outlay.

¹⁹ Tennessee Comptroller of the Treasury, Office of Research and Education Accountability. 2017. BEP Calculator 2017-18.

²⁰ Tennessee Comptroller of the Treasury. 2017. "Basic Education Program: A Funding Formula, Not A Spending Plan." https://www.comptroller.tn.gov/office-functions/research-and-education-accountability/legislative-toolkit/bep.html.

Table 7. Funding Source by Category and Type of Infrastructure for Fully Funded Improvement Needs [in millions]

| | State | te | Federal | 'al | Other | er | City | , | County | ıty | Special District | District | Total |
|--|----------|---------|------------|---------|----------------|---------|------------|---------|------------|---------|------------------|----------|----------|
| Category and Project Type | Amount | Percent | Amount | Percent | Percent Amount | Percent | Amount | Percent | Amount | Percent | Amount | Percent | Amount |
| Transportation and Utilities | \$ 860.5 | 14.1% | \$ 3,928.2 | 64.1% | \$ 10.0 | 0.2% | \$ 746.9 | 12.2% | \$ 571.6 | 9.3% | \$ 6.3 | 0.1% \$ | 6,123.6 |
| Transportation | 859.2 | 14.8% | 3,928.2 | 67.7% | 5.0 | 0.1% | 438.3 | 7.6% | 570.9 | 9.8% | 0.0 | 0.0% | 5,801.5 |
| Other Utilities | 1.3 | 0.4% | 0.0 | 0.0% | 5.0 | 1.6% | 308.7 | 95.8% | 0.8 | 0.2% | 6.3 | 2.0% | 322.1 |
| Broadband | 0.0 | 0.0% | 4.4 | 43.2% | 0.0 | 0.0% | 3.4 | 33.3% | 2.4 | 23.5% | 0.0 | 0.0% | 10.2 |
| Health, Safety and Welfare | \$ 5.8 | 0.2% | \$ 124.1 | 3.5% | \$ 20.5 | 0.6% | \$ 1,566.1 | 44.6% | \$ 1,551.7 | 44.1% | \$ 246.8 | 7.0% \$ | 3,515.0 |
| Water and Wastewater | 4.0 | 0.1% | 98.2 | 3.3% | 19.3 | 0.6% | 1,395.6 | 47.0% | 1,249.9 | 42.1% | 201.2 | 6.8% | 2,968.1 |
| Law Enforcement | 0.0 | 0.0% | 0.3 | 0.1% | 0.0 | 0.0% | 66.6 | 20.2% | 262.3 | 79.7% | 0.0 | 0.0% | 329.2 |
| Housing | 0.5 | 0.4% | 15.3 | 11.8% | 0.0 | 0.0% | 60.5 | 46.6% | 8.7 | 6.7% | 44.9 | 34.5% | 129.9 |
| Fire Protection | 0.0 | 0.0% | 2.4 | 5.8% | 0.0 | 0.0% | 32.8 | 78.2% | 6.7 | 16.0% | 0.0 | 0.0% | 41.9 |
| Public Health Facilities | 0.8 | 3.7% | 1.4 | 6.6% | 0.0 | 0.0% | 0.1 | 0.4% | 19.4 | 89.3% | 0.0 | 0.0% | 21.8 |
| Storm Water | 0.6 | 3.5% | 5.7 | 34.2% | 1.2 | 7.4% | 8.3 | 50.0% | 0.8 | 4.9% | 0.0 | 0.0% | 16.5 |
| Solid Waste | 0.0 | 0.0% | 0.8 | 10.1% | 0.0 | 0.0% | 2.3 | 29.5% | 3.9 | 50.8% | 0.7 | 9.5% | 7.7 |
| Education | \$ 0.8 | 0.1% | \$ 0.0 | 0.0% | \$ 1.0 | 0.1% | \$ 110.9 | 15.5% | \$ 576.8 | 80.8% | \$ 24.0 | 3.4% \$ | 713.5 |
| New Public Schools | 0.0 | 0.0% | 0.0 | 0.0% | 1.0 | 0.1% | 110.7 | 16.4% | 546.3 | 80.9% | 17.0 | 2.5% | 675.0 |
| School System-wide | 0.8 | 2.0% | 0.0 | 0.0% | 0.0 | 0.0% | 0.2 | 0.5% | 30.5 | 79.3% | 7.0 | 18.3% | 38.5 |
| Recreation and Culture | \$ 13.7 | 2.9% | \$ 145.0 | 30.9% | \$ 17.4 | 3.7% | \$ 177.3 | 37.8% | \$ 115.9 | 24.7% | \$ 0.0 | 0.0% | 469.3 |
| Recreation | 13.0 | 3.6% | 134.6 | 37.2% | 6.2 | 1.7% | 137.6 | 38.1% | 70.1 | 19.4% | 0.0 | 0.0% | 361.6 |
| Libraries, Museums, and Historic Sites | 0.0 | 0.0% | 6.8 | 11.6% | 10.1 | 17.1% | 11.8 | 20.0% | 30.2 | 51.3% | 0.0 | 0.0% | 58.9 |
| Community Development | 0.6 | 1.3% | 3.5 | 7.2% | 1.1 | 2.3% | 27.9 | 57.3% | 15.6 | 32.0% | 0.0 | 0.0% | 48.8 |
| Economic Development | \$ 16.0 | 9.1% | \$ 18.6 | 10.6% | \$ 7.8 | 4.5% | \$ 54.6 | 31.1% | \$ 76.3 | 43.4% | \$ 2.6 | 1.5% \$ | 175.9 |
| Industrial Sites and Parks | 15.9 | 16.6% | 16.9 | 17.6% | 5.2 | 5.4% | 22.1 | 23.1% | 33.1 | 34.5% | 2.6 | 2.7% | 95.7 |
| Business District Development | 0.1 | 0.1% | 1.7 | 2.2% | 2.6 | 3.3% | 32.5 | 40.6% | 43.2 | 53.9% | 0.0 | 0.0% | 80.2 |
| General Government | \$ 1.0 | 1.5% | \$ 0.7 | 1.0% | \$ 0.0 | 0.0% | \$ 38.0 | 54.5% | \$ 30.1 | 43.1% | \$ 0.0 | \$ %0.0 | 69.8 |
| Public Buildings | 1.0 | 1.9% | 0.4 | 0.7% | 0.0 | 0.0% | 23.7 | 44.7% | 28.0 | 52.7% | 0.0 | 0.0% | 53.1 |
| Other Facilities | 0.0 | 0.0% | 0.3 | 1.9% | 0.0 | 0.0% | 14.3 | 85.4% | 2.1 | 12.8% | 0.0 | 0.0% | 16.7 |
| Grand Total | \$ 897.8 | 8.1% | \$ 4,216.5 | 38.1% | \$ 56.7 | 0.5% | \$ 2,693.8 | 24.3% | \$ 2,922.5 | 26.4% | \$ 279.7 | 2.5% \$ | 11,067.1 |

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

July 2017 through June 2022

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 is 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.

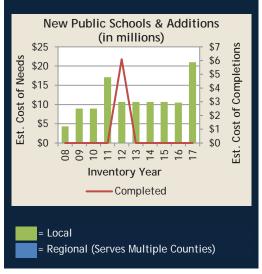
Anderson County

Total Estimated Cost* for Infrastructure Improvements \$221,162,423

TOP 3

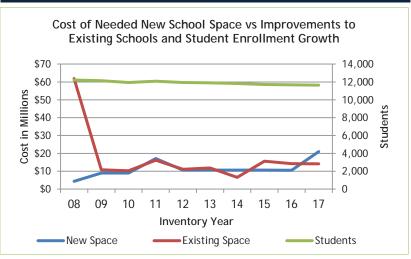


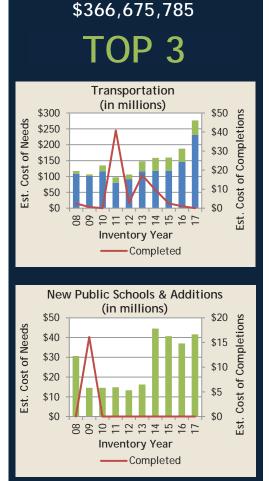




Estimated Cost of Needed Infrastructure for Anderson County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|----------------|-------------------------------------|
| Transportation | \$ 58,889,000 | \$ 37,720,631 |
| Water and Wastewater | 49,900,000 | 13,244,000 |
| New Public Schools & Additions | 11,000,000 | 10,000,000 |
| Recreation | 7,745,000 | 6,891,265 |
| School Renovations | 3,853,825 | 10,312,496 |
| Community Development | 3,474,000 | - |
| Post-secondary Education | - | 1,767,206 |
| Public Health Facilities | 1,250,000 | - |
| Other Facilities | 500,000 | 500,000 |
| School-System-wide | 1,000,000 | - |
| Law Enforcement | 800,000 | - |
| Public Buildings | - | 750,000 |
| Solid Waste | - | 565,000 |
| Industrial Sites and Parks | 500,000 | - |
| Fire Protection | 250,000 | - |
| Other Utilities | - | 250,000 |
| Broadband | - | - |
| Business District Development | - | - |
| Housing | - | - |
| Libraries, Museums, & Historic Sites | - | - |
| Other Education | - | - |
| Storm Water | - | - |
| Total | \$ 139,161,825 | \$ 82,000,598 |





Bedford County

Total Estimated Cost* for

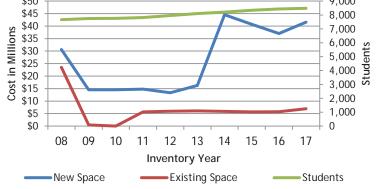
Infrastructure Improvements



Estimated Cost of Needed Infrastructure for Bedford County Five-year period July 2017 through June 2022

| | | Planning & Design + Construction |
|--------------------------------------|----------------|-------------------------------------|
| Project Type | Conceptual | |
| Transportation | \$ 71,465,000 | \$ 205,109,293 |
| New Public Schools & Additions | 16,197,192 | 25,400,000 |
| Water and Wastewater | 20,800,000 | 2,200,000 |
| School Renovations | 5,550,000 | 1,420,000 |
| Public Buildings | - | 6,110,000 |
| Law Enforcement | 5,710,000 | - |
| Recreation | 2,540,000 | 1,050,000 |
| Fire Protection | 1,200,000 | 424,300 |
| Other Utilities | - | 1,500,000 |
| Broadband | - | - |
| Business District Development | - | - |
| Community Development | - | - |
| Housing | - | - |
| Industrial Sites and Parks | - | - |
| Libraries, Museums, & Historic Sites | - | - |
| Other Education | - | - |
| Other Facilities | - | - |
| Post-secondary Education | - | - |
| Public Health Facilities | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Storm Water | - | - |
| Total | \$ 123,462,192 | \$ 243,213,593 |





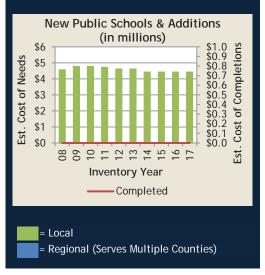
Benton County

Total Estimated Cost* for Infrastructure Improvements \$213,148,743

TOP 3

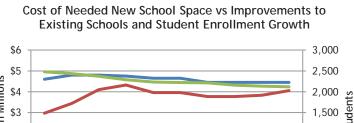


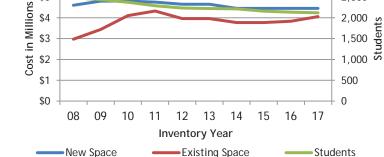




Estimated Cost of Needed Infrastructure for Benton County Five-year period July 2017 through June 2022

| | | Planning & Design |
|--------------------------------------|----------------|-------------------|
| Project Type | Conceptual | + Construction |
| Transportation | \$ 126,511,000 | \$ 66,165,455 |
| Water and Wastewater | 10,000,000 | - |
| New Public Schools & Additions | 4,450,000 | - |
| School Renovations | 3,262,000 | 793,288 |
| Recreation | 815,000 | 752,000 |
| Public Buildings | 75,000 | 325,000 |
| 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 Health Facilities | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Storm Water | - | - |
| Total | \$ 145,113,000 | \$ 68,035,743 |





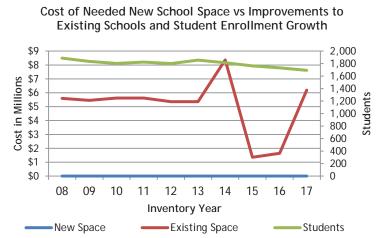


Bledsoe County

Total Estimated Cost* for

Estimated Cost of Needed Infrastructure for Bledsoe County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Law Enforcement | \$ 4,000,000 | \$ 41,500,000 |
| Transportation | 11,980,000 | 315,000 |
| Public Health Facilities | - | 9,387,657 |
| School Renovations | 5,615,000 | 580,000 |
| Public Buildings | - | 2,000,000 |
| Water and Wastewater | - | 600,000 |
| 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 | \$ 22,095,000 | \$ 54,382,657 |



*Total Estimated Cost = Conceptual + Planning & Design + Construction

= Regional (Serves Multiple Counties)

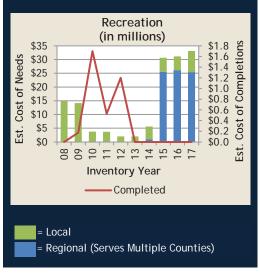
Blount County

Total Estimated Cost* for Infrastructure Improvements \$671,404,228

TOP 3



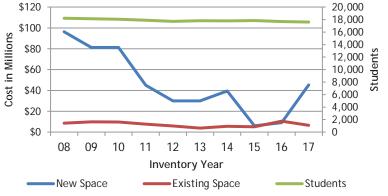




Estimated Cost of Needed Infrastructure for Blount County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|----------------|-------------------------------------|
| Transportation | \$ 96,456,780 | \$ 444,182,019 |
| New Public Schools & Additions | 33,000,000 | 12,300,999 |
| Recreation | 26,075,470 | 7,065,117 |
| Water and Wastewater | 18,800,000 | 5,459,080 |
| Post-secondary Education | 16,955,000 | 1,400,000 |
| School Renovations | 3,985,000 | 2,517,963 |
| Public Buildings | - | 2,561,000 |
| Other Facilities | - | 338,800 |
| Law Enforcement | - | 240,000 |
| 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 | \$ 195,339,250 | \$ 476,064,978 |



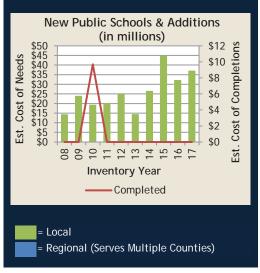


Bradley County Total Estimated Cost* for Infrastructure Improvements \$378,504,162

TOP 3



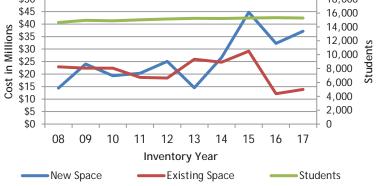




Estimated Cost of Needed Infrastructure for Bradley County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 75,561,898 | \$ 153,833,897 |
| Public Health Facilities | - | 40,500,000 |
| New Public Schools & Additions | 1,875,000 | 35,275,500 |
| Water and Wastewater | 6,614,000 | 10,455,000 |
| School-System-wide | - | 16,000,000 |
| School Renovations | 5,464,000 | 8,419,000 |
| Industrial Sites and Parks | - | 6,000,000 |
| Post-secondary Education | 750,000 | 2,788,167 |
| Recreation | 100,000 | 3,324,349 |
| Fire Protection | - | 3,111,071 |
| Other Facilities | 3,000,000 | - |
| Community Development | 2,500,000 | 152,280 |
| Public Buildings | - | 2,000,000 |
| Libraries, Museums, & Historic Sites | 780,000 | - |
| Broadband | - | - |
| Business District Development | - | - |
| Housing | - | - |
| Law Enforcement | - | - |
| Other Education | - | - |
| Other Utilities | - | - |
| Solid Waste | - | - |
| Storm Water | - | - |
| Total | \$ 96,644,898 | \$ 281,859,264 |





Campbell County

Total Estimated Cost* for Infrastructure Improvements \$183,126,871

TOP 3

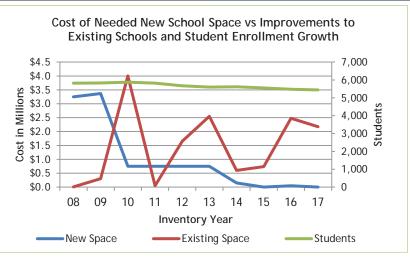


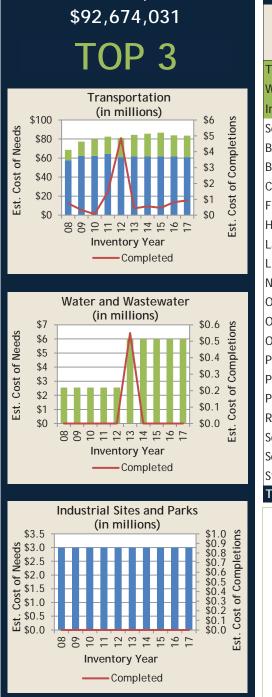




Estimated Cost of Needed Infrastructure for Campbell County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 49,420,000 | \$ 107,437,871 |
| Water and Wastewater | 3,950,000 | 6,014,000 |
| Industrial Sites and Parks | 1,500,000 | 3,180,000 |
| Broadband | 1,000,000 | 2,400,000 |
| Recreation | 2,480,000 | 170,000 |
| School Renovations | 65,000 | 2,110,000 |
| Public Buildings | 2,000,000 | - |
| Fire Protection | 700,000 | - |
| Other Utilities | - | 600,000 |
| Community Development | 100,000 | - |
| Business District Development | - | - |
| Housing | - | - |
| Law Enforcement | - | - |
| Libraries, Museums, & Historic Sites | - | - |
| New Public Schools & Additions | - | - |
| Other Education | - | - |
| Other Facilities | - | - |
| Post-secondary Education | - | - |
| Public Health Facilities | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Storm Water | - | - |
| Total | \$ 61,215,000 | \$ 121,911,871 |





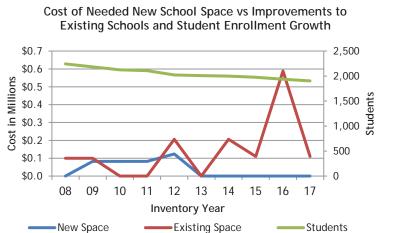
Cannon County

Total Estimated Cost* for

Infrastructure Improvements

Estimated Cost of Needed Infrastructure for Cannon County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 83,089,000 | \$ 475,000 |
| 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 | \$ 92,089,000 | \$ 585,031 |
| | | |



*Total Estimated Cost = Conceptual + Planning & Design + Construction

= Local

= Regional (Serves Multiple Counties)

Carroll County

Total Estimated Cost* for Infrastructure Improvements \$120,904,823

TOP 3

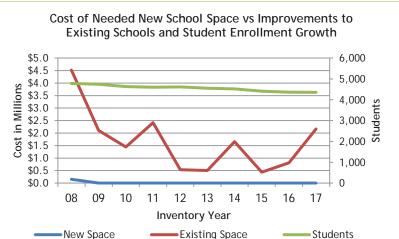






Estimated Cost of Needed Infrastructure for Carroll County Five-year period July 2017 through June 2022

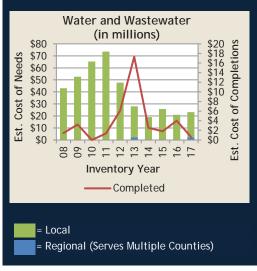
| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 44,572,000 | \$ 66,749,174 |
| Water and Wastewater | 1,933,000 | 583,333 |
| School Renovations | 2,000,000 | 167,316 |
| Recreation | 1,225,000 | 576,000 |
| Public Buildings | 1,500,000 | - |
| 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 | \$ 52,505,000 | \$ 68,399,823 |



Infrastructure Improvements \$212,187,932 R Transportation (in millions) \$200 \$80 Cost of Completions \$70 \$60 Est. Cost of Needs \$150 \$50 \$40 \$100 \$30 \$50 \$20 \$10 \$0 \$0 80 111 112 115 115 115 Est. 10 **Inventory Year** Completed Recreation (in millions) \$1.6 \$1.4 \$1.2 \$1.2 \$1.2 \$1.0 \$0.6 \$0.2 \$0.0 \$0.2 \$0.0 \$0.0 \$0.0 \$35 Cost of Needs \$30 \$25 \$20 \$15 \$10 Est. \$5 \$0 \$0.0 Est. **Inventory Year** - Completed

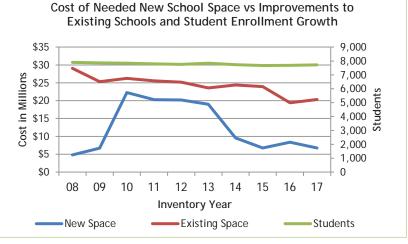
Carter County

Total Estimated Cost* for



Estimated Cost of Needed Infrastructure for Carter County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|----------------|-------------------------------------|
| Transportation | \$ 84,190,000 | \$ 29,524,634 |
| Recreation | 7,445,000 | 21,349,800 |
| Water and Wastewater | 22,354,566 | 801,364 |
| School Renovations | 17,749,650 | 2,598,869 |
| New Public Schools & Additions | 6,700,000 | 60,000 |
| Post-secondary Education | 2,050,000 | 3,637,049 |
| Law Enforcement | 570,000 | 2,700,000 |
| Housing | 1,200,000 | 1,750,000 |
| Fire Protection | 2,250,000 | - |
| Libraries, Museums, & Historic Sites | 1,910,000 | - |
| 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 | - | - |
| School-System-wide | - | - |
| Storm Water | - | - |
| Total | \$ 148,266,216 | \$ 63,921,716 |



Cheatham County

Total Estimated Cost* for Infrastructure Improvements \$151,288,959

TOP 3



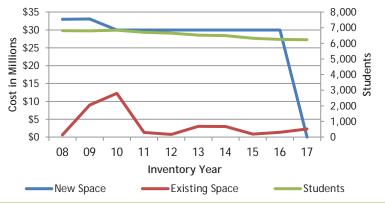




Estimated Cost of Needed Infrastructure for Cheatham County Five-year period July 2017 through June 2022

| | | Planning & Design |
|--------------------------------------|---------------|-------------------|
| Project Type | Conceptual | + Construction |
| Transportation | \$ 41,911,000 | \$ 45,905,895 |
| Water and Wastewater | 4,750,000 | 14,707,000 |
| Recreation | 12,665,295 | 2,548,059 |
| Law Enforcement | - | 12,000,000 |
| Public Buildings | 1,600,000 | 5,000,000 |
| Community Development | 3,000,000 | - |
| School Renovations | 1,162,000 | 1,109,000 |
| Industrial Sites and Parks | 2,100,000 | - |
| Fire Protection | 300,000 | 780,710 |
| Libraries, Museums, & Historic Sites | 1,000,000 | - |
| Business District Development | 500,000 | - |
| Storm Water | 200,000 | - |
| Other Facilities | 50,000 | - |
| Broadband | - | - |
| Housing | - | - |
| New Public Schools & Additions | - | - |
| Other Education | - | - |
| Other Utilities | - | - |
| Post-secondary Education | - | - |
| Public Health Facilities | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Total | \$ 69,238,295 | \$ 82,050,664 |





Total Estimated Cost* for Infrastructure Improvements \$50,210,615 ノス Transportation (in millions) \$35 \$25 Cost of Completions Cost of Needs \$30 \$20 \$25 \$15 \$20 \$15 \$10 \$10 \$5 Est. \$5 \$0 \$0 80 Est. **Inventory Year** Completed Water and Wastewater (in millions) \$14 \$0.5 of Completions Cost of Needs \$12 \$0.4 \$10 \$0.3 \$8 \$6 \$0.2 \$4 \$0.1 Est. Cost Est. \$2 \$0 \$0.0 08 09 111 112 115 115 115 115 115 115 **Inventory Year** -Completed Recreation (in millions) \$7 \$1.2 \$6 \$1.0 \$5 \$0.8

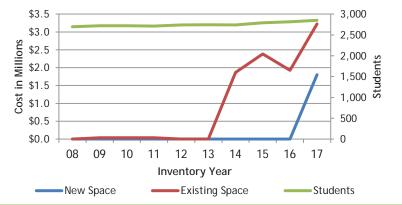
Chester County

Cost of Completions Cost of Needs \$4 \$0.6 \$3 \$2 \$0.4 \$1 \$0.2 Est. \$0 \$0.0 Est. 12 113 114 115 115 115 80] 60 0 **Inventory Year** Completed = Local = Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for Chester County Five-year period July 2017 through June 2022

| | | Planning & Design + Construction |
|--|---------------|-------------------------------------|
| Project Type | Conceptual | |
| Transportation | \$ 24,685,000 | \$ 5,150,865 |
| Water and Wastewater | 6,900,000 | 250,000 |
| Recreation | 1,900,000 | 3,845,000 |
| School Renovations | 3,094,750 | 130,000 |
| New Public Schools & Additions | - | 1,800,000 |
| Other Facilities | 1,335,000 | - |
| Law Enforcement | 1,120,000 | - |
| 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 | - | - |
| Storm Water | - | - |
| Total | \$ 39,034,750 | \$ 11,175,865 |
| Cost of Needed New School Space vs Improvements to | | |





Claiborne County

Total Estimated Cost* for Infrastructure Improvements \$106,495,380

TOP 3



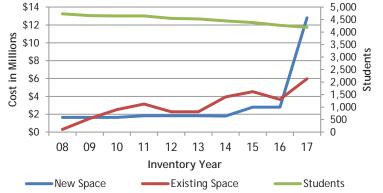




Estimated Cost of Needed Infrastructure for Claiborne County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 25,705,000 | \$ 43,443,844 |
| New Public Schools & Additions | 12,800,000 | - |
| Water and Wastewater | 9,949,720 | 1,220,000 |
| School Renovations | 5,118,740 | 847,000 |
| Recreation | - | 3,257,821 |
| Law Enforcement | 1,220,000 | - |
| Business District Development | 400,000 | 583,255 |
| Post-secondary Education | 950,000 | - |
| Fire Protection | 500,000 | - |
| Public Buildings | 500,000 | - |
| Broadband | - | - |
| Community Development | - | - |
| Housing | - | - |
| Industrial Sites and Parks | - | - |
| Libraries, Museums, & Historic Sites | - | - |
| Other Education | - | - |
| Other Facilities | - | - |
| Other Utilities | - | - |
| Public Health Facilities | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Storm Water | - | - |
| Total | \$ 57,143,460 | \$ 49,351,920 |

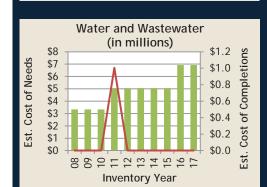




Clay County Total Estimated Cost* for Infrastructure Improvements \$30,162,659

TOP 3



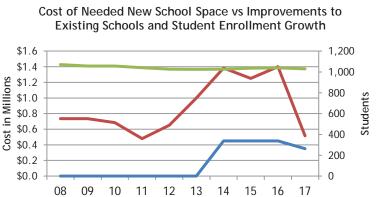


-Completed



Estimated Cost of Needed Infrastructure for Clay County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|-----------------|-------------------------------------|
| Transportation | \$ 6,787,000 | \$ 3,390,295 |
| Water and Wastewater | 300,000 | 6,620,364 |
| Law Enforcement | - | 5,000,000 |
| Other Utilities | 5,000,000 | - |
| Industrial Sites and Parks | 1,200,000 | 500,000 |
| School Renovations | 515,000 | - |
| Solid Waste | - | 500,000 |
| New Public Schools & Additions | 350,000 | - |
| 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 | \$ 14,152,000 | \$ 16,010,659 |
| Cost of Needed New Schoo | Space vs Improv | ements to |



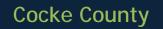
Inventory Year

Existing Space

New Space

*Total Estimated Cost = Conceptual + Planning & Design + Construction

Students

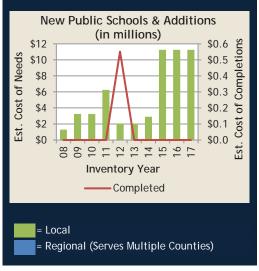


Total Estimated Cost* for Infrastructure Improvements \$333,330,057

TOP 3

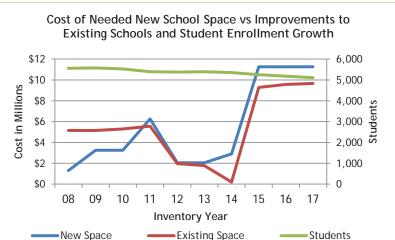






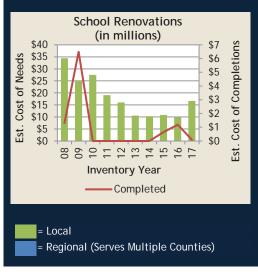
Estimated Cost of Needed Infrastructure for Cocke County Five-year period July 2017 through June 2022

| | | Planning & Design + Construction |
|--------------------------------------|----------------|-------------------------------------|
| Project Type | Conceptual | |
| Transportation | \$ 70,486,000 | \$ 201,917,690 |
| Water and Wastewater | 20,630,000 | 2,758,000 |
| New Public Schools & Additions | 7,676,000 | 3,590,000 |
| School Renovations | 8,456,000 | 1,208,807 |
| Broadband | - | 7,000,000 |
| Other Utilities | 2,900,000 | 3,200,000 |
| Law Enforcement | 3,000,000 | - |
| Recreation | - | 507,560 |
| 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 | \$ 113,148,000 | \$ 220,182,057 |



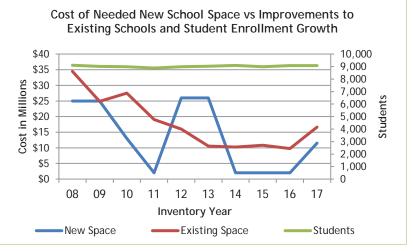
Coffee County





Estimated Cost of Needed Infrastructure for Coffee County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|----------------|-------------------------------------|
| Transportation | \$ 71,606,000 | \$ 37,443,188 |
| Law Enforcement | 37,500,000 | 590,000 |
| School Renovations | 10,500,000 | 6,150,000 |
| New Public Schools & Additions | 11,000,000 | 500,000 |
| Water and Wastewater | 4,500,000 | 5,790,000 |
| Public Buildings | 3,180,000 | - |
| Recreation | 2,460,000 | - |
| 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 | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Storm Water | - | - |
| Total | \$ 141,246,000 | \$ 50,473,188 |

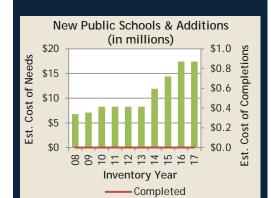


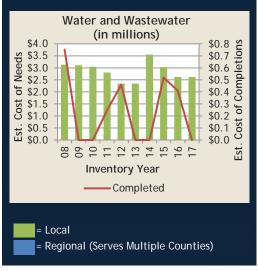
Crockett County

Total Estimated Cost* for Infrastructure Improvements \$53,427,941

TOP 3



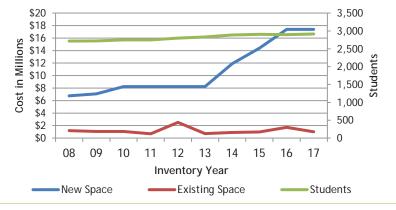




Estimated Cost of Needed Infrastructure for Crockett County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 26,843,000 | \$ 2,957,215 |
| New Public Schools & Additions | 17,400,000 | - |
| Water and Wastewater | 2,622,726 | - |
| Recreation | 1,100,000 | - |
| School Renovations | 740,000 | 265,000 |
| Public Buildings | 200,000 | 800,000 |
| Community Development | 500,000 | - |
| Broadband | - | - |
| Business District Development | - | - |
| Fire Protection | - | - |
| Housing | - | - |
| Industrial Sites and Parks | - | - |
| 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 | \$ 49,405,726 | \$ 4,022,215 |





Cumberland County Total Estimated Cost* for Infrastructure Improvements \$501,807,702

TOP 3

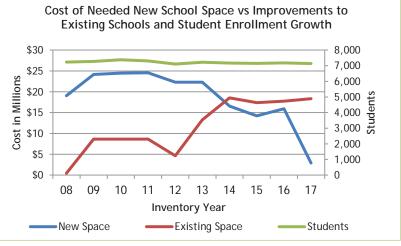






Estimated Cost of Needed Infrastructure for Cumberland County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 37,320,000 | \$ 337,192,702 |
| Water and Wastewater | - | 69,450,000 |
| Industrial Sites and Parks | - | 18,500,000 |
| School Renovations | 12,795,000 | 5,550,000 |
| Recreation | 6,510,000 | 1,270,000 |
| Business District Development | - | 6,000,000 |
| New Public Schools & Additions | 2,000,000 | 900,000 |
| Post-secondary Education | 2,520,000 | - |
| Other Utilities | - | 1,500,000 |
| 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 | \$ 61,145,000 | \$ 440,662,702 |



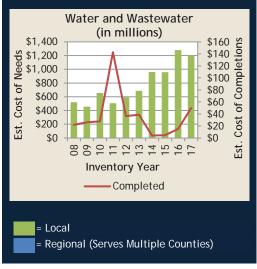
Davidson County

Total Estimated Cost* for Infrastructure Improvements \$8,230,033,464

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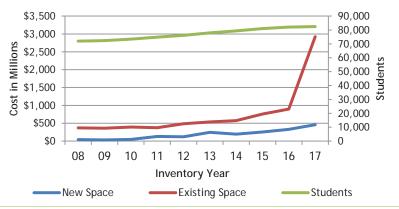




Estimated Cost of Needed Infrastructure for Davidson County Five-year period July 2017 through June 2022

| | | Planning & Design |
|--------------------------------------|------------------|-------------------|
| Project Type | Conceptual | + Construction |
| School Renovations | \$ 2,717,049,000 | \$ 207,281,200 |
| Transportation | 653,752,000 | 1,009,449,142 |
| Water and Wastewater | 7,624,000 | 1,197,471,300 |
| Law Enforcement | 319,540,000 | 241,090,000 |
| New Public Schools & Additions | 433,566,000 | 26,200,000 |
| Libraries, Museums, & Historic Sites | 40,783,000 | 311,265,000 |
| Public Buildings | 81,580,000 | 257,098,170 |
| Post-secondary Education | 266,320,000 | 69,040,399 |
| Storm Water | - | 100,000,000 |
| Public Health Facilities | 55,962,000 | 12,308,000 |
| Housing | - | 54,497,878 |
| Recreation | 2,130,000 | 46,900,000 |
| Business District Development | 12,000,000 | 35,500,000 |
| Other Facilities | 30,475,000 | 6,061,375 |
| Other Education | 14,870,000 | 5,420,000 |
| Community Development | - | 14,800,000 |
| Broadband | - | - |
| Fire Protection | - | - |
| Industrial Sites and Parks | - | - |
| Other Utilities | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Total | \$ 4,635,651,000 | \$ 3,594,382,464 |

Cost of Needed New School Space vs Improvements to Existing Schools and Student Enrollment Growth



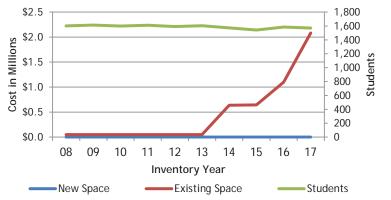


Decatur County

Total Estimated Cost* for Infrastructure Improvements

| Estimated Cost of Needed Infrastructure for Decatur County Five-year period July 2017 through June 2022 | | |
|---|---------------|-------------------------------------|
| Project Type | Conceptual | Planning & Design + Construction |
| ransportation | \$ 84,214,000 | \$ 3,254,900 |
| chool Renovations | 2,082,700 | - |
| torm Water | 750,000 | - |
| roadband | - | - |
| usiness District Development | - | - |
| community Development | - | - |
| ire Protection | - | - |
| lousing | - | - |
| ndustrial Sites and Parks | - | - |
| aw Enforcement | - | - |
| ibraries, Museums, & Historic Sites | - | - |
| lew Public Schools & Additions | - | - |
| Other Education | - | - |
| Other Facilities | - | - |
| Other Utilities | - | - |
| ost-secondary Education | - | - |
| ublic Buildings | - | - |
| ublic Health Facilities | - | - |
| ecreation | - | - |
| chool-System-wide | - | - |
| olid Waste | - | - |
| Vater and Wastewater | - | - |
| otal | \$ 87,046,700 | \$ 3,254,900 |

Cost of Needed New School Space vs Improvements to Existing Schools and Student Enrollment Growth



DeKalb County

Total Estimated Cost* for Infrastructure Improvements \$153,454,370

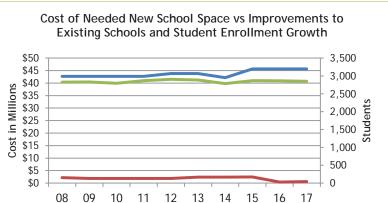






Estimated Cost of Needed Infrastructure for DeKalb County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 15,709,000 | \$ 83,301,080 |
| New Public Schools & Additions | 3,660,000 | 42,000,000 |
| Industrial Sites and Parks | 3,250,000 | - |
| Recreation | 330,000 | 2,200,000 |
| Water and Wastewater | 550,000 | 1,550,290 |
| School Renovations | 325,000 | 304,000 |
| 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 | \$ 24,024,000 | \$ 129,430,370 |



Inventory Year

Existing Space

11

New Space

*Total Estimated Cost = Conceptual + Planning & Design + Construction

Students



Dickson County

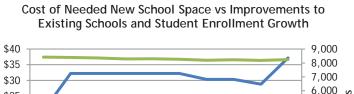


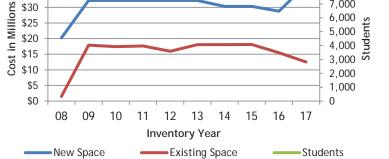
-Completed



Estimated Cost of Needed Infrastructure for Dickson County Five-year period July 2017 through June 2022

| | | Planning & Design |
|--------------------------------------|----------------|-------------------|
| Project Type | Conceptual | + Construction |
| Transportation | \$ 77,281,000 | \$ 43,425,614 |
| New Public Schools & Additions | 2,189,620 | 34,951,000 |
| Public Buildings | 31,000,000 | 3,550,000 |
| Recreation | 14,710,000 | 3,000,000 |
| School Renovations | 6,948,948 | 5,593,717 |
| Water and Wastewater | - | 6,400,000 |
| Solid Waste | 3,000,000 | - |
| Business District Development | - | 2,667,495 |
| Fire Protection | 1,000,000 | 685,000 |
| Post-secondary Education | - | 550,000 |
| Community Development | - | 450,000 |
| Broadband | - | - |
| 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 | \$ 136,129,568 | \$ 101,272,826 |
| | | |





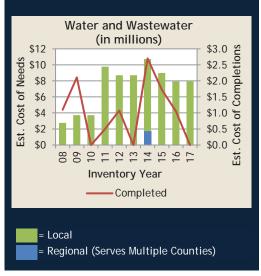


Total Estimated Cost* for Infrastructure Improvements \$326,408,676

TOP 3

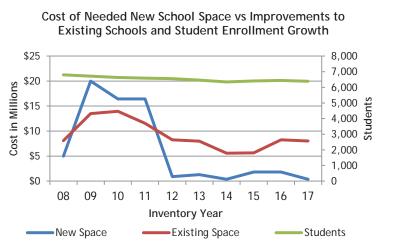


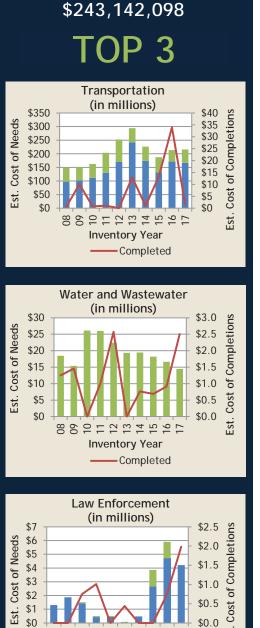




Estimated Cost of Needed Infrastructure for Dyer County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|----------------|-------------------------------------|
| Transportation | \$ 111,037,000 | \$ 185,597,028 |
| School Renovations | 2,560,000 | 5,446,000 |
| Water and Wastewater | 4,950,000 | 3,000,000 |
| Recreation | 150,000 | 4,200,000 |
| Post-secondary Education | - | 2,882,648 |
| Public Buildings | 2,006,000 | - |
| Fire Protection | 1,250,000 | - |
| Other Facilities | 1,100,000 | - |
| Law Enforcement | 1,000,000 | - |
| Community Development | 800,000 | - |
| New Public Schools & Additions | 380,000 | - |
| Solid Waste | 50,000 | - |
| 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 | \$ 125,283,000 | \$ 201,125,676 |





10 11

08 09

= Local

12 113 114 115 116 116

Inventory Year

= Regional (Serves Multiple Counties)

Completed

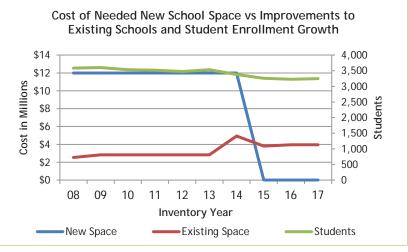
Fayette County

Total Estimated Cost* for

Infrastructure Improvements

Estimated Cost of Needed Infrastructure for Fayette County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|----------------|-------------------------------------|
| Transportation | \$ 98,586,500 | \$ 117,104,266 |
| Water and Wastewater | 13,080,365 | 1,369,839 |
| Law Enforcement | - | 4,210,000 |
| School Renovations | 3,960,000 | - |
| Post-secondary Education | - | 2,631,908 |
| Recreation | 725,000 | - |
| Other Utilities | - | 524,534 |
| Housing | 200,000 | 230,000 |
| Fire Protection | 300,000 | - |
| Community Development | - | 219,686 |
| Broadband | - | - |
| Business District 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 | \$ 116,851,865 | \$ 126,290,233 |



*Total Estimated Cost = Conceptual + Planning & Design + Construction

Est.

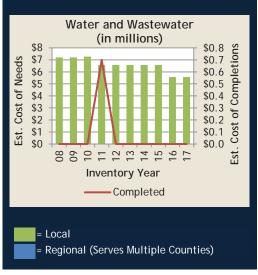
Fentress County

Total Estimated Cost* for Infrastructure Improvements \$139,581,355

TOP 3

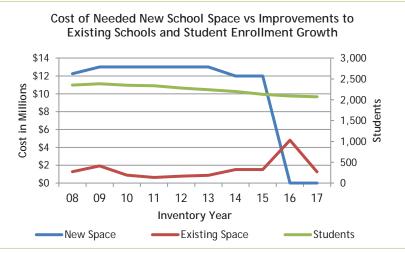






Estimated Cost of Needed Infrastructure for Fentress County Five-year period July 2017 through June 2022

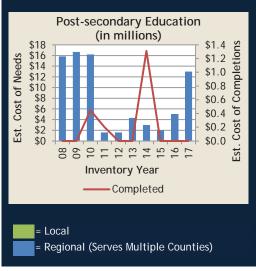
| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 31,705,000 | \$ 75,541,555 |
| Other Education | 14,680,000 | 1,890,000 |
| Water and Wastewater | - | 5,575,000 |
| Industrial Sites and Parks | - | 5,000,000 |
| Recreation | 2,380,000 | 492,000 |
| School Renovations | 815,000 | 450,000 |
| Libraries, Museums, & Historic Sites | 400,000 | - |
| Other Facilities | - | 352,800 |
| Community Development | 300,000 | - |
| Broadband | - | - |
| Business District Development | - | - |
| Fire Protection | - | - |
| Housing | - | - |
| Law Enforcement | - | - |
| New Public Schools & Additions | - | - |
| Other Utilities | - | - |
| Post-secondary Education | - | - |
| Public Buildings | - | - |
| Public Health Facilities | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Storm Water | - | - |
| Total | \$ 50,280,000 | \$ 89,301,355 |





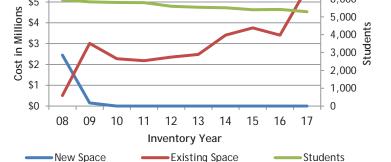


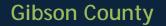
- Completed



Estimated Cost of Needed Infrastructure for Franklin County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--|---------------|-------------------------------------|
| Transportation | \$ 39,284,000 | \$ 38,941,993 |
| Water and Wastewater | 1,250,000 | 17,000,000 |
| Post-secondary Education | 8,000,000 | 5,000,000 |
| School Renovations | 5,668,500 | - |
| Recreation | 5,100,000 | - |
| Industrial Sites and Parks | - | 3,429,667 |
| Fire Protection | - | 262,000 |
| Broadband | - | - |
| Business District Development | - | - |
| Community Development | - | - |
| Housing | - | - |
| Law Enforcement | - | - |
| 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 | \$ 59,302,500 | \$ 64,633,660 |
| Cost of Needed New School Space vs Improvements to Existing Schools and Student Enrollment Growth | | |
| \$6 \$5 \$4 \$2 | | 7,000 6,000 5,000 4,000 ई |

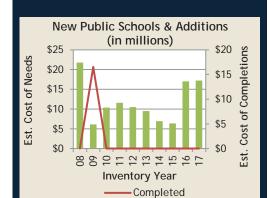


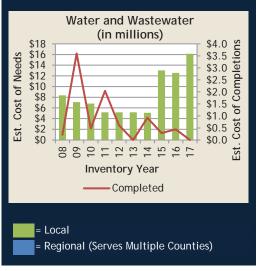


Total Estimated Cost* for Infrastructure Improvements \$149,497,817

TOP 3

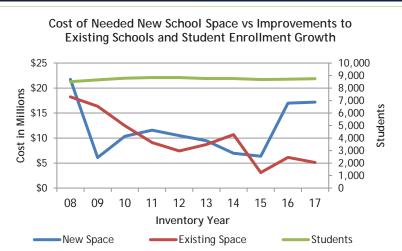






Estimated Cost of Needed Infrastructure for Gibson County Five-year period July 2017 through June 2022

| | | Planning & Design |
|--------------------------------------|---------------|-------------------|
| Project Type | Conceptual | + Construction |
| Transportation | \$ 78,771,000 | \$ 24,502,943 |
| New Public Schools & Additions | - | 17,200,000 |
| Water and Wastewater | 3,770,000 | 12,365,032 |
| School Renovations | 4,161,442 | 960,000 |
| Other Facilities | 2,040,000 | - |
| 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 |
| Public Buildings | 300,000 | - |
| Storm Water | 300,000 | - |
| Solid Waste | 50,000 | - |
| Broadband | - | - |
| Business District Development | - | - |
| Housing | - | - |
| Other Education | - | - |
| Other Utilities | - | - |
| Post-secondary Education | - | - |
| Public Health Facilities | - | - |
| School-System-wide | - | - |
| Total | \$ 92,873,442 | \$ 56,624,375 |



Giles County Total Estimated Cost* for Infrastructure Improvements \$127,053,985

TOP 3



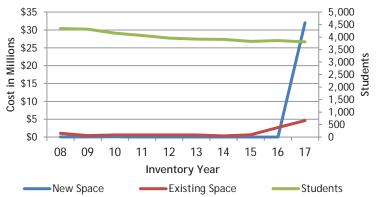


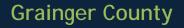


Estimated Cost of Needed Infrastructure for Giles County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 48,725,000 | \$ 27,830,385 |
| New Public Schools & Additions | 32,000,000 | - |
| School Renovations | 4,224,250 | 403,000 |
| Water and Wastewater | 400,000 | 3,710,000 |
| Recreation | 3,140,000 | 400,000 |
| Post-secondary Education | - | 3,171,350 |
| Law Enforcement | 2,000,000 | - |
| Public Buildings | 750,000 | 250,000 |
| Community Development | - | 50,000 |
| Broadband | - | - |
| Business District 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 | \$ 91,239,250 | \$ 35,814,735 |







Total Estimated Cost* for Infrastructure Improvements \$110,070,227

TOP 3



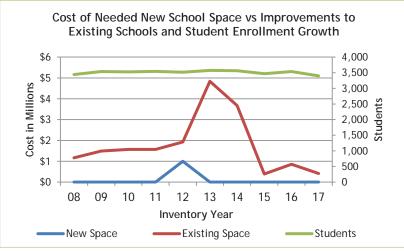


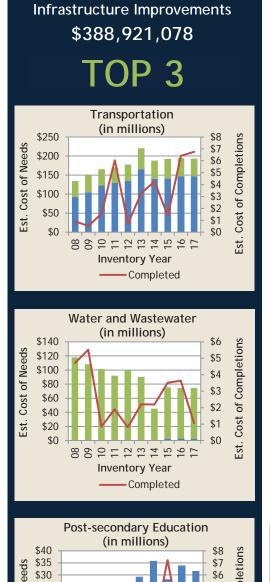
Completed



Estimated Cost of Needed Infrastructure for Grainger County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 22,213,000 | \$ 75,193,023 |
| Water and Wastewater | 10,920,700 | - |
| Recreation | 175,000 | 550,000 |
| Libraries, Museums, & Historic Sites | 500,000 | - |
| School Renovations | 210,000 | 200,000 |
| 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 | \$ 34,018,700 | \$ 76,051,527 |





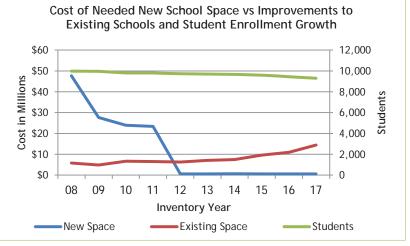
Greene County

Total Estimated Cost* for

Cost of Completions of Needs \$5 \$25 \$20 \$4 Cost \$3 \$15 \$2 \$10 \$5 \$0 \$1 Est. \$0 Est. **Inventory Year** Completed = Local = Regional (Serves Multiple Counties)

Estimated Cost of Needed Infrastructure for Greene County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|----------------|-------------------------------------|
| Transportation | \$ 110,669,000 | \$ 82,661,101 |
| Water and Wastewater | 62,170,340 | 12,390,423 |
| Post-secondary Education | 950,000 | 30,650,000 |
| Storm Water | 25,500,000 | 100,000 |
| School Renovations | 12,157,000 | 2,261,714 |
| Law Enforcement | 12,000,000 | 1,700,000 |
| Public Health Facilities | 11,300,000 | - |
| Other Utilities | 2,800,000 | 8,300,000 |
| Fire Protection | 2,000,000 | 1,500,000 |
| Recreation | 520,000 | 2,189,500 |
| Libraries, Museums, & Historic Sites | - | 2,320,000 |
| Community Development | 1,500,000 | 500,000 |
| Public Buildings | 679,000 | 150,000 |
| Other Facilities | 450,000 | 350,000 |
| New Public Schools & Additions | 600,000 | - |
| Housing | - | 500,000 |
| Broadband | - | 53,000 |
| Business District Development | - | - |
| Industrial Sites and Parks | - | - |
| Other Education | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Total | \$ 243,295,340 | \$ 145,625,738 |



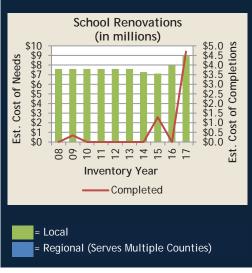
Grundy County

Total Estimated Cost* for Infrastructure Improvements \$46,218,226

TOP 3



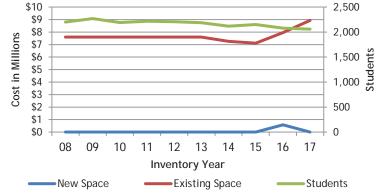




Estimated Cost of Needed Infrastructure for Grundy County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Recreation | \$ 15,950,000 | \$ 1,062,377 |
| Transportation | 8,065,000 | 1,069,461 |
| School Renovations | 7,950,000 | 985,000 |
| Water and Wastewater | 4,075,000 | 3,718,100 |
| Community Development | 250,000 | 840,000 |
| Law Enforcement | - | 850,000 |
| Industrial Sites and Parks | 600,000 | - |
| Fire Protection | 400,000 | - |
| Other Utilities | - | 170,000 |
| Libraries, Museums, & Historic Sites | 150,000 | - |
| Public Buildings | - | 83,288 |
| Broadband | - | - |
| Business District Development | - | - |
| Housing | - | - |
| New Public Schools & Additions | - | - |
| Other Education | - | - |
| Other Facilities | - | - |
| Post-secondary Education | - | - |
| Public Health Facilities | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Storm Water | - | - |
| Total | \$ 37,440,000 | \$ 8,778,226 |





Hamblen County Total Estimated Cost* for Infrastructure Improvements \$386,992,463

TOP 3

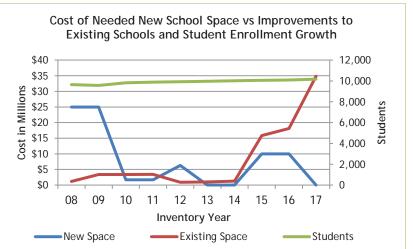






Estimated Cost of Needed Infrastructure for Hamblen County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|----------------|-------------------------------------|
| Transportation | \$ 90,412,000 | \$ 173,187,712 |
| School Renovations | 21,580,000 | 13,272,000 |
| Law Enforcement | 30,000,000 | 130,000 |
| Water and Wastewater | - | 19,910,000 |
| Recreation | 5,830,000 | 9,451,035 |
| Community Development | - | 12,000,000 |
| Other Facilities | - | 4,500,000 |
| Post-secondary Education | - | 4,069,716 |
| Fire Protection | - | 2,200,000 |
| Business District Development | - | 450,000 |
| Broadband | - | - |
| Housing | - | - |
| Industrial Sites and Parks | - | - |
| Libraries, Museums, & Historic Sites | - | - |
| New Public Schools & Additions | - | - |
| Other Education | - | - |
| Other Utilities | - | - |
| Public Buildings | - | - |
| Public Health Facilities | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Storm Water | - | - |
| Total | \$ 147,822,000 | \$ 239,170,463 |

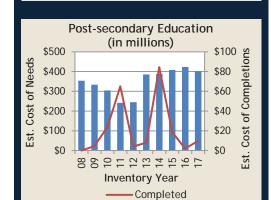


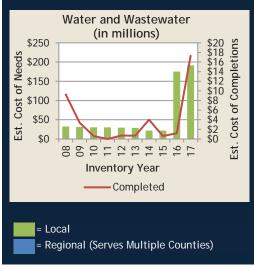
Hamilton County

Total Estimated Cost* for Infrastructure Improvements \$2,951,477,045

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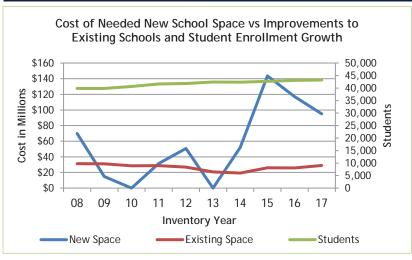






Estimated Cost of Needed Infrastructure for Hamilton County Five-year period July 2017 through June 2022

| | | Planning & Design + Construction | |
|--------------------------------------|----------------|-------------------------------------|--|
| Project Type | Conceptual | + Construction | |
| Transportation | \$ 417,154,000 | \$ 1,700,106,918 | |
| Post-secondary Education | 173,105,000 | 228,702,321 | |
| Water and Wastewater | 22,947,000 | 168,714,476 | |
| New Public Schools & Additions | 95,000,000 | - | |
| Law Enforcement | 26,550,000 | 6,212,600 | |
| School Renovations | 19,380,000 | 9,628,000 | |
| Recreation | 11,432,856 | 9,860,601 | |
| Community Development | 3,600,000 | 12,152,463 | |
| Public Health Facilities | 9,950,000 | 2,250,000 | |
| Fire Protection | 1,000,000 | 7,476,310 | |
| Public Buildings | 6,940,000 | 725,000 | |
| Storm Water | 6,264,000 | 1,350,200 | |
| Business District Development | - | 4,200,000 | |
| Solid Waste | - | 3,005,300 | |
| Other Facilities | - | 1,850,000 | |
| Libraries, Museums, & Historic Sites | 300,000 | 1,100,000 | |
| Industrial Sites and Parks | 520,000 | - | |
| Broadband | - | - | |
| Housing | - | - | |
| Other Education | - | - | |
| Other Utilities | - | - | |
| School-System-wide | - | - | |
| Total | \$ 794,142,856 | \$2,157,334,189 | |



Hancock County Total Estimated Cost* for Infrastructure Improvements \$40,585,851

TOP 3





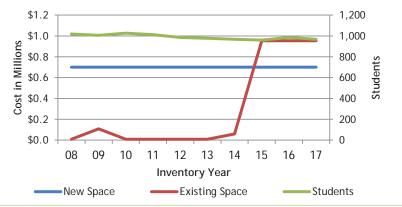
-Completed



Estimated Cost of Needed Infrastructure for Hancock County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 25,318,000 | \$ 731,000 |
| Water and Wastewater | 5,584,625 | 1,467,555 |
| Recreation | 2,075,000 | - |
| Industrial Sites and Parks | - | 2,059,000 |
| Public Buildings | 1,500,000 | 122,000 |
| School Renovations | 895,271 | 58,400 |
| New Public Schools & Additions | - | 700,000 |
| Other Utilities | 75,000 | - |
| 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 | \$ 35,447,896 | \$5,137,955 |



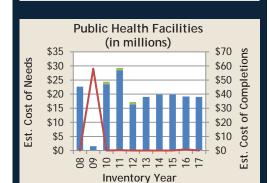


Hardeman County

Total Estimated Cost* for Infrastructure Improvements \$155,776,076

TOP 3





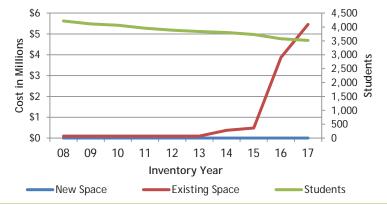
Completed



Estimated Cost of Needed Infrastructure for Hardeman County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 64,540,000 | \$ 62,460,316 |
| Public Health Facilities | 19,000,000 | - |
| School Renovations | 150,000 | 5,306,000 |
| Water and Wastewater | 950,000 | 249,760 |
| Law Enforcement | 1,000,000 | - |
| Fire Protection | 950,000 | - |
| Public Buildings | - | 750,000 |
| Recreation | 300,000 | - |
| Post-secondary Education | 120,000 | - |
| 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 | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Storm Water | - | - |
| Total | \$ 87,010,000 | \$ 68,766,076 |





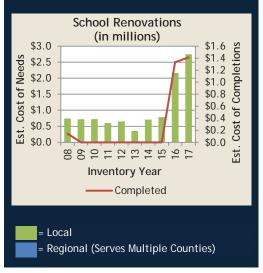
Hardin County Total Estimated Cost* for Infrastructure Improvements \$303,610,392

TOP 3



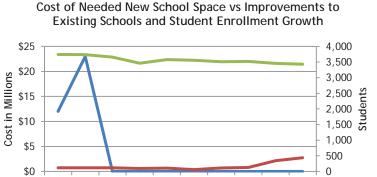


Completed



Estimated Cost of Needed Infrastructure for Hardin County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction | |
|--|----------------|-------------------------------------|--|
| Transportation | \$ 151,529,000 | \$ 127,016,583 | |
| Recreation | 16,995,000 | 400,000 | |
| School Renovations | 2,300,000 | 446,006 | |
| Water and Wastewater | 605,000 | 2,104,423 | |
| Industrial Sites and Parks | 1,000,000 | | |
| Business District Development | 500,000 | 150,000 | |
| Fire Protection | 350,000 | - | |
| Post-secondary Education | - | 114,380 | |
| Libraries, Museums, & Historic Sites | 100,000 | - | |
| Broadband | - | - | |
| Community Development | - | - | |
| 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 | \$ 173,379,000 | \$ 130,231,392 | |
| Cost of Needed New School Space vs Improvements to | | | |



13

Existing Space

14

15

12

Inventory Year

08 09

New Space

10

11

*Total Estimated Cost = Conceptual + Planning & Design + Construction

17

Students

16

Hawkins County

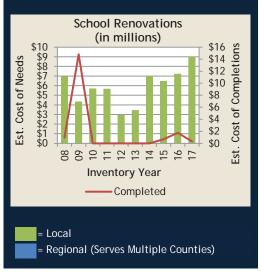
Total Estimated Cost* for Infrastructure Improvements \$207,113,134

TOP 3





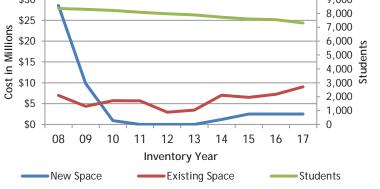
Completed



Estimated Cost of Needed Infrastructure for Hawkins County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|----------------|-------------------------------------|
| Transportation | \$ 102,807,000 | \$ 44,717,299 |
| Water and Wastewater | 26,798,200 | 9,800,050 |
| School Renovations | 5,838,000 | 3,194,585 |
| Community Development | 3,000,000 | 1,700,000 |
| New Public Schools & Additions | 2,500,000 | - |
| Other Utilities | 1,750,000 | 500,000 |
| Recreation | 600,000 | 1,233,000 |
| Fire Protection | 875,000 | 200,000 |
| Housing | 100,000 | 500,000 |
| Other Facilities | 550,000 | - |
| Law Enforcement | 450,000 | - |
| Broadband | - | - |
| Business District Development | - | - |
| Industrial Sites and Parks | - | - |
| Libraries, Museums, & Historic Sites | - | - |
| Other Education | - | - |
| Post-secondary Education | - | - |
| Public Buildings | - | - |
| Public Health Facilities | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Storm Water | - | - |
| Total | \$ 145,268,200 | \$ 61,844,934 |







Haywood County

Total Estimated Cost* for

Estimated Cost of Needed Infrastructure for Haywood County Five-year period July 2017 through June 2022

| Droject Type | Concentual | Planning & Design + Construction | |
|--|---------------|-------------------------------------|--|
| Project Type | Conceptual | | |
| Transportation | \$ 81,038,000 | \$ 74,651,866 | |
| School Renovations | 4,923,000 | 989,700 | |
| Water and Wastewater | 3,500,000 | - | |
| New Public Schools & Additions | 2,190,000 | - | |
| Recreation | 175,000 | - | |
| 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 | - | - | |
| Solid Waste | - | - | |
| Storm Water | - | - | |
| Total | \$ 91,826,000 | \$ 75,641,566 | |
| Cost of Needed New School Space vs Improvements to Existing Schools and Student Enrollment Growth | | | |
| \$12 | | 3,500 | |
| \$10 - 3,000 | | | |
| \$8 | \sim | - 2,500 | |
| ₩ \$6 | | | |
| store states state | / | - 1,500 D | |

*Total Estimated Cost = Conceptual + Planning & Design + Construction

\$2

\$0

80 09

New Space

10

11

12 13 14

Inventory Year

Existing Space

15

1,000

500

0

Students

17 16

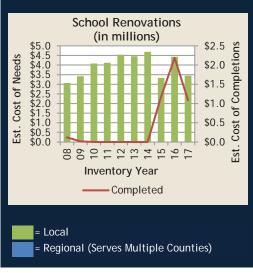
Henderson County

Total Estimated Cost* for Infrastructure Improvements \$140,682,775

TOP 3



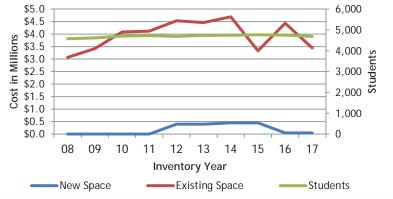




Estimated Cost of Needed Infrastructure for Henderson County Five-year period July 2017 through June 2022

| Project Type | C | Conceptual | ning & Design onstruction |
|--------------------------------------|----|------------|------------------------------|
| Transportation | \$ | 40,585,000 | \$ 86,874,030 |
| Community Development | | 5,000,000 | - |
| School Renovations | | 545,000 | 2,899,995 |
| Recreation | | 3,400,000 | - |
| 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 | \$ | 49,730,000 | \$ 90,952,775 |

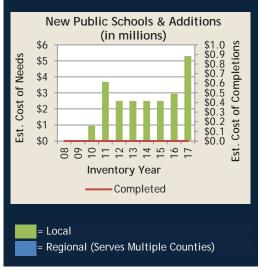




Henry County Total Estimated Cost* for Infrastructure Improvements \$122,690,450

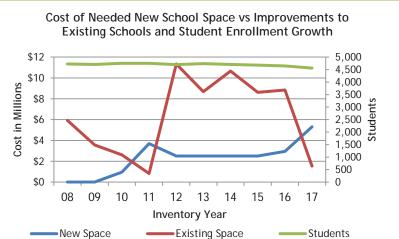






Estimated Cost of Needed Infrastructure for Henry County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 32,136,000 | \$ 44,494,830 |
| Recreation | 35,895,000 | - |
| New Public Schools & Additions | - | 5,300,000 |
| School-System-wide | 2,400,000 | - |
| School Renovations | - | 1,541,654 |
| Industrial Sites and Parks | - | 500,000 |
| Water and Wastewater | 337,966 | - |
| 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 | \$ 70,853,966 | \$ 51,836,484 |



Hickman County

Total Estimated Cost* for Infrastructure Improvements \$203,370,554

TOP 3



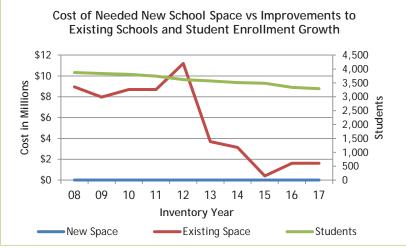


-Completed



Estimated Cost of Needed Infrastructure for Hickman County Five-year period July 2017 through June 2022

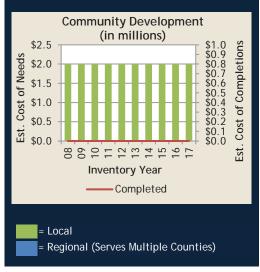
| Droject Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|-------------------|-------------------------------------|
| Project Type | · · | |
| Transportation | \$ 85,746,000 | \$ 29,708,554 |
| Water and Wastewater | 48,900,000 | 1,000,000 |
| Law Enforcement | 16,000,000 | 18,250,000 |
| Industrial Sites and Parks | - | 1,800,000 |
| School Renovations | 800,000 | 821,000 |
| Fire Protection | 185,000 | - |
| Solid Waste | 160,000 | - |
| Broadband | - | - |
| Business District Development | - | - |
| Community Development | - | - |
| 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 | - | - |
| Storm Water | - | - |
| Total | \$ 151,791,000 | \$ 51,579,554 |





Houston County

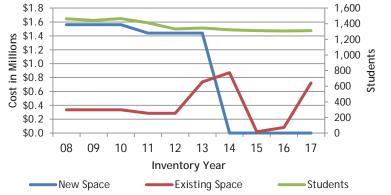




Estimated Cost of Needed Infrastructure for Houston County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 20,028,000 | \$ 1,081,300 |
| Water and Wastewater | 3,200,000 | 6,600,000 |
| Community Development | 2,000,000 | - |
| Libraries, Museums, & Historic Sites | - | 1,500,000 |
| Recreation | 845,000 | 500,000 |
| School Renovations | - | 722,000 |
| Fire Protection | 650,000 | - |
| Public Health Facilities | - | 350,000 |
| Other Facilities | - | 100,000 |
| Solid Waste | - | 100,000 |
| Public Buildings | - | 70,000 |
| 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 | \$ 26,723,000 | \$ 11,023,300 |





Humphreys County

Total Estimated Cost* for Infrastructure Improvements \$215,123,249

TOP 3

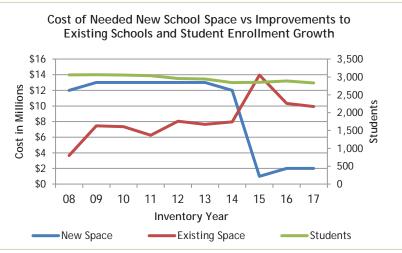






Estimated Cost of Needed Infrastructure for Humphreys County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|----------------|-------------------------------------|
| Transportation | \$ 142,197,000 | \$ 26,483,974 |
| Water and Wastewater | 11,000,000 | 9,291,275 |
| Industrial Sites and Parks | 2,700,000 | 9,700,000 |
| School Renovations | 9,675,000 | 250,000 |
| New Public Schools & Additions | 2,000,000 | - |
| Public Buildings | - | 1,076,000 |
| Fire Protection | 500,000 | - |
| Recreation | 250,000 | - |
| 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 | \$ 168,322,000 | \$ 46,801,249 |





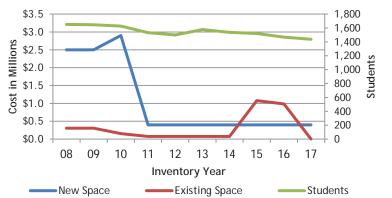
Jackson County

Total Estimated Cost* for

Infrastructure Improvements

Estimated Cost of Needed Infrastructure for Jackson County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction | |
|--|---------------|-------------------------------------|--|
| Transportation | \$ 43,923,000 | \$ 1,781,320 | |
| 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 | _ | |
| 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 Renovations | - | - | |
| School-System-wide | - | - | |
| Solid Waste | - | - | |
| Storm Water | - | - | |
| Total | \$ 48,483,000 | \$ 20,431,320 | |
| Cost of Needed New School Space vs Improvements to Existing Schools and Student Enrollment Growth | | | |



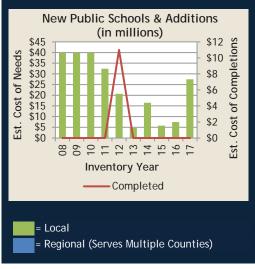
Jefferson County

Total Estimated Cost* for Infrastructure Improvements \$375,144,771

TOP 3

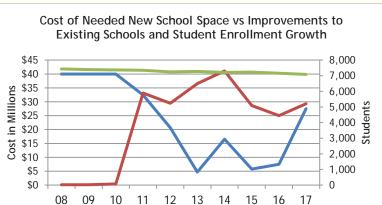






Estimated Cost of Needed Infrastructure for Jefferson County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|----------------|-------------------------------------|
| Transportation | \$ 63,946,000 | \$ 226,344,818 |
| School Renovations | 24,412,000 | 4,891,242 |
| New Public Schools & Additions | 25,500,000 | 2,000,000 |
| Water and Wastewater | 4,895,800 | 16,954,911 |
| Law Enforcement | 5,200,000 | - |
| Recreation | 800,000 | - |
| Other Facilities | 150,000 | - |
| 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 | \$ 124,903,800 | \$ 250,240,971 |



Inventory Year

Existing Space

New Space

*Total Estimated Cost = Conceptual + Planning & Design + Construction

Students



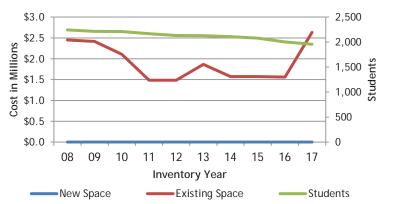
Johnson County

Total Estimated Cost* for

Infrastructure Improvements

for Johnson County Five-year period July 2017 through June 2022 Planning & Design + Construction Project Type Conceptual Transportation \$ 21,708,000 \$ 7,236,853 Law Enforcement 10,000,000 Recreation 6,375,000 1,131,167 Water and Wastewater 5,274,960 2,134,500 School Renovations 50,000 2,585,000 Industrial Sites and Parks 2,000,000 Other Facilities 300,000 Solid Waste 250,000 Libraries, Museums, & Historic Sites 227,000 Broadband **Business District Development Community Development Fire Protection** Housing New Public Schools & Additions Other Education Other Utilities Post-secondary Education Public Buildings **Public Health Facilities** School-System-wide Storm Water Total \$ 45,957,960 \$ 13,314,520 Cost of Needed New School Space vs Improvements to Existing Schools and Student Enrollment Growth

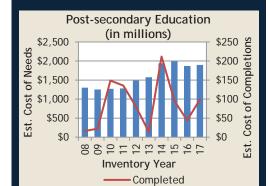
Estimated Cost of Needed Infrastructure



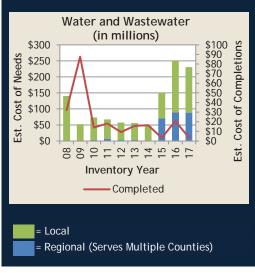
Knox County

Total Estimated Cost* for Infrastructure Improvements \$3,545,379,511

TOP 3

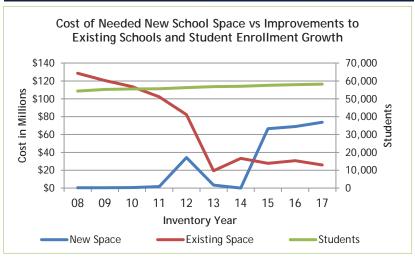


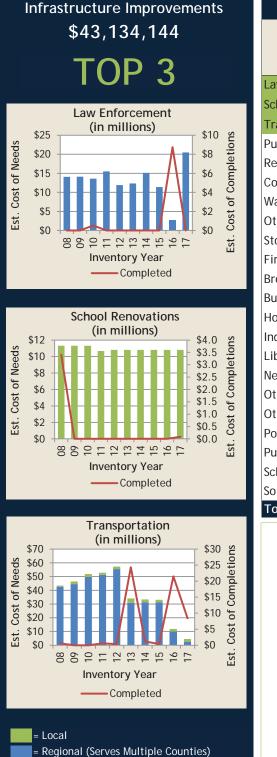




Estimated Cost of Needed Infrastructure for Knox County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|------------------|-------------------------------------|
| Post-secondary Education | \$ 697,530,000 | \$ 1,199,186,164 |
| Transportation | 458,535,000 | 593,004,714 |
| Water and Wastewater | 47,200,000 | 183,380,000 |
| Housing | 15,000,000 | 60,000,000 |
| New Public Schools & Additions | - | 73,785,000 |
| Other Education | 19,290,000 | 30,400,000 |
| Recreation | 6,630,000 | 31,132,491 |
| Other Utilities | 10,670,000 | 17,700,000 |
| School Renovations | 5,132,720 | 20,700,288 |
| Business District Development | - | 22,685,116 |
| Public Health Facilities | 22,000,000 | 190,000 |
| Law Enforcement | 8,500,000 | 5,510,000 |
| Industrial Sites and Parks | - | 9,800,000 |
| Other Facilities | 550,000 | 3,968,018 |
| Libraries, Museums, & Historic Sites | 2,200,000 | 300,000 |
| Public Buildings | 400,000 | - |
| Broadband | - | - |
| Community Development | - | - |
| Fire Protection | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Storm Water | - | - |
| Total | \$ 1,293,637,720 | \$ 2,251,741,791 |





Lake County

Total Estimated Cost* for

Estimated Cost of Needed Infrastructure for Lake County Five-year period July 2017 through June 2022

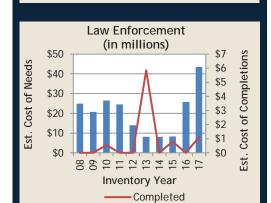
| Conceptual | Planning & Design + Construction | |
|--|--|--|
| \$ 9,500,000 | \$ 11,000,000 | |
| 10,660,000 | 150,000 | |
| 1,593,000 | 2,909,934 | |
| 3,200,000 | - | |
| - | 2,701,210 | |
| 700,000 | - | |
| 320,000 | - | |
| 200,000 | - | |
| 150,000 | - | |
| 50,000 | - | |
| - | - | |
| - | - | |
| - | - | |
| - | - | |
| s - | - | |
| - | - | |
| - | - | |
| - | - | |
| - | - | |
| - | - | |
| - | - | |
| - | - | |
| \$ 26,373,000 | \$ 16,761,144 | |
| Cost of Needed New School Space vs Improvements to Existing Schools and Student Enrollment Growth | | |
| | \$ 9,500,000 10,660,000 1,593,000 3,200,000 - 700,000 320,000 200,000 150,000 - - - - - - - - - - - - - | |

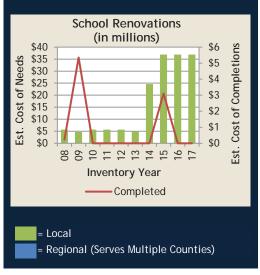
Lauderdale County

Total Estimated Cost* for Infrastructure Improvements \$460,479,354

TOP 3



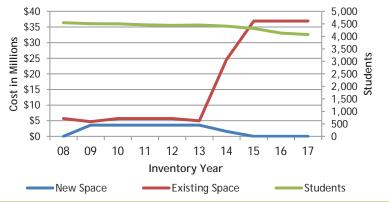




Estimated Cost of Needed Infrastructure for Lauderdale County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 40,160,000 | \$ 336,351,854 |
| Law Enforcement | 9,970,000 | 33,530,000 |
| School Renovations | 36,480,000 | 397,500 |
| Housing | 2,500,000 | - |
| Storm Water | - | 640,000 |
| Libraries, Museums, & Historic Sites | 450,000 | - |
| Broadband | - | - |
| Business District Development | - | - |
| Community Development | - | - |
| Fire Protection | - | - |
| Industrial Sites and Parks | - | - |
| 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 | \$ 89,560,000 | \$ 370,919,354 |





Lawrence County Total Estimated Cost* for Infrastructure Improvements \$55,364,047

TOP 3



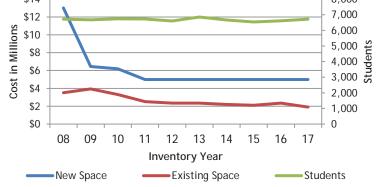




Estimated Cost of Needed Infrastructure for Lawrence County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction | |
|--|---------------|-------------------------------------|--|
| Transportation | \$ 23,135,000 | \$ 2,267,198 | |
| Post-secondary Education | - | 10,000,000 | |
| Law Enforcement | 5,800,000 | - | |
| New Public Schools & Additions | 5,000,000 | - | |
| Recreation | 3,990,000 | 970,000 | |
| School Renovations | 1,185,000 | 716,849 | |
| Water and Wastewater | 1,000,000 | - | |
| Fire Protection | 850,000 | - | |
| Solid Waste | - | 450,000 | |
| Broadband | - | - | |
| Business District Development | - | - | |
| Community Development | - | - | |
| Housing | - | - | |
| Industrial Sites and Parks | - | - | |
| Libraries, Museums, & Historic Sites | - | - | |
| Other Education | - | - | |
| Other Facilities | - | - | |
| Other Utilities | - | - | |
| Public Buildings | - | - | |
| Public Health Facilities | - | - | |
| School-System-wide | - | - | |
| Storm Water | - | - | |
| Total | \$ 40,960,000 | \$ 14,404,047 | |
| Cost of Needed New School Space vs Improvements to | | | |







Lewis County

Estimated Cost of Needed Infrastructure for Lewis County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--|---------------|-------------------------------------|
| Transportation | \$ 24,436,000 | \$ 21,949,806 |
| Law Enforcement | 2,000,000 | 5,000,000 |
| 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 | - | - |
| Post-secondary Education | - | - |
| Public Buildings | - | - |
| Public Health Facilities | - | - |
| Recreation | - | - |
| School Renovations | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Storm Water | - | - |
| Water and Wastewater | - | - |
| Total | \$ 27,086,000 | \$ 27,029,806 |
| Cost of Needed New School Existing Schools and Stu \$0.9 \$0.8 \$0.7 \$0.6 \$0.6 \$0.5 \$0.4 \$0.3 \$0.3 | | |



*Total Estimated Cost = Conceptual + Planning & Design + Construction

\$0.00

\$0.1

\$0.0

80 09

New Space

10 11 12 13 14

Inventory Year

Existing Space

15

16 17

Est.

200

0

Students

Lincoln County Total Estimated Cost* for Infrastructure Improvements \$68,400,948

TOP 3





Completed



Estimated Cost of Needed Infrastructure for Lincoln County Five-year period July 2017 through June 2022 Planning & Design + Construction Project Type Conceptual \$ Transportation \$ 34,515,000 2,568,588 Water and Wastewater 15,090,800 Recreation 9,975,260 School Renovations 2,203,000 10,000 Libraries, Museums, & Historic Sites 1,625,000 Storm Water 350,000 805,000 Post-secondary Education 610,000 Industrial Sites and Parks 398,300 **Public Buildings** 250,000 Broadband **Business District Development Community Development Fire Protection** Housing Law Enforcement New Public Schools & Additions Other Education Other Facilities Other Utilities **Public Health Facilities**

62,744,060 5,656,888 Total \$ \$ Cost of Needed New School Space vs Improvements to Existing Schools and Student Enrollment Growth \$12 6,000 \$10 5,000 Cost in Millions \$8 4,000 ts nden \$6 3,000 2,000 5 \$4 \$2 1,000 0 \$0 09 10 12 80 11 13 14 15 16 17 **Inventory Year** New Space Existing Space Students

*Total Estimated Cost = Conceptual + Planning & Design + Construction

School-System-wide

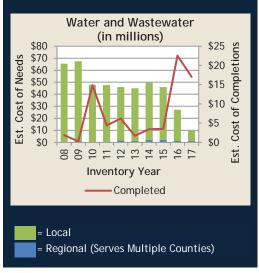
Loudon County

Total Estimated Cost* for Infrastructure Improvements \$258,263,418

TOP 3

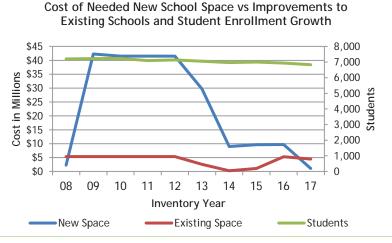






Estimated Cost of Needed Infrastructure for Loudon County Five-year period July 2017 through June 2022

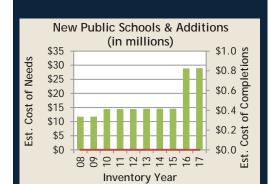
| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 53,400,000 | \$ 150,021,392 |
| Recreation | 28,000,000 | - |
| Water and Wastewater | 2,750,000 | 7,360,000 |
| Public Buildings | 500,000 | 5,000,000 |
| School Renovations | 1,160,000 | 3,276,600 |
| Other Utilities | - | 2,700,000 |
| Industrial Sites and Parks | 1,760,000 | - |
| New Public Schools & Additions | 600,000 | 500,000 |
| 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 | \$ 88,655,426 | \$ 169,607,992 |



Macon County Total Estimated Cost* for Infrastructure Improvements \$139,835,821

TOP 3



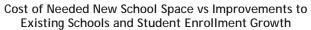


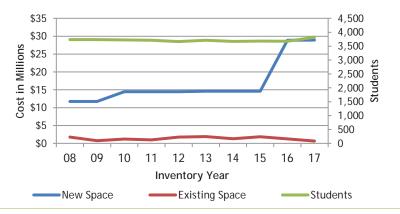
Completed



Estimated Cost of Needed Infrastructure for Macon County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction | |
|--|---------------|-------------------------------------|--|
| Transportation | \$ 35,396,994 | \$ 31,740,627 | |
| New Public Schools & Additions | 28,850,000 | 80,000 | |
| Water and Wastewater | 12,000,000 | 10,106,200 | |
| Community Development | 8,000,000 | - | |
| Law Enforcement | - | 5,640,000 | |
| Recreation | 3,060,000 | - | |
| Post-secondary Education | 3,000,000 | - | |
| School Renovations | - | 662,000 | |
| School-System-wide | 500,000 | - | |
| Solid Waste | 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 | - | - | |
| Storm Water | - | - | |
| Total | \$ 91,606,994 | \$ 48,228,827 | |
| Cast of Needed New School Space vs Improvements to | | | |





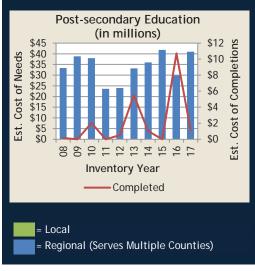
Madison County

Total Estimated Cost* for Infrastructure Improvements \$708,459,169

TOP 3

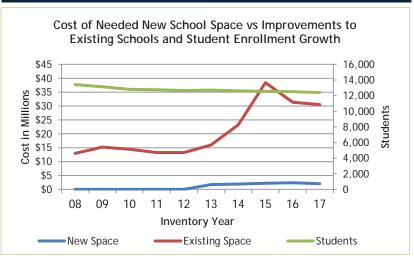






Estimated Cost of Needed Infrastructure for Madison County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|----------------|-------------------------------------|
| Transportation | \$ 133,923,000 | \$ 373,621,043 |
| Water and Wastewater | 18,962,533 | 22,725,000 |
| Post-secondary Education | 4,600,000 | 36,402,391 |
| Public Health Facilities | 34,330,000 | 260,000 |
| Law Enforcement | - | 34,480,000 |
| School Renovations | 20,904,100 | 9,643,300 |
| Public Buildings | 7,560,000 | 903,000 |
| Other Facilities | - | 5,754,802 |
| New Public Schools & Additions | 1,950,000 | 75,000 |
| Industrial Sites and Parks | - | 1,000,000 |
| Other Education | 780,000 | - |
| 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 | \$ 223,594,633 | \$ 484,864,536 |



Marion County Total Estimated Cost* for Infrastructure Improvements \$293,048,036

TOP 3



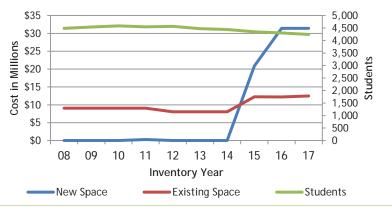




Estimated Cost of Needed Infrastructure for Marion County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|-------------------|-------------------------------------|
| Transportation | \$ 147,550,000 | \$ 84,316,311 |
| New Public Schools & Additions | 31,427,460 | - |
| School Renovations | 10,248,225 | 2,230,128 |
| Water and Wastewater | 3,969,200 | 708,000 |
| Industrial Sites and Parks | 2,150,000 | 2,100,000 |
| Post-secondary Education | - | 3,485,300 |
| Recreation | 1,770,000 | 419,205 |
| Public Buildings | 1,000,000 | 309,207 |
| Housing | - | 500,000 |
| Libraries, Museums, & Historic Sites | 500,000 | - |
| Community Development | 250,000 | - |
| Solid Waste | - | 65,000 |
| Storm Water | - | 50,000 |
| Broadband | - | - |
| Business District Development | - | - |
| Fire Protection | - | - |
| Law Enforcement | - | - |
| Other Education | - | - |
| Other Facilities | - | - |
| Other Utilities | - | - |
| Public Health Facilities | - | - |
| School-System-wide | _ | - |
| Total | \$ 198,864,885 | \$ 94,183,151 |





Marshall County

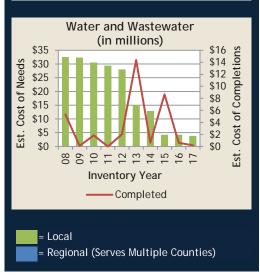
Total Estimated Cost* for Infrastructure Improvements \$116,453,136

TOP 3





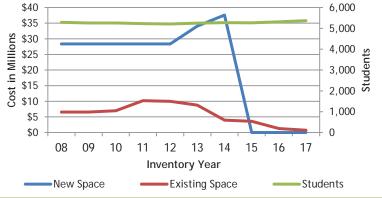
Completed



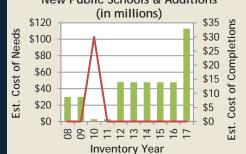
Estimated Cost of Needed Infrastructure for Marshall County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 40,119,000 | \$ 47,192,857 |
| Recreation | 270,000 | 17,360,000 |
| Water and Wastewater | 743,000 | 3,077,497 |
| Fire Protection | 2,650,000 | - |
| Public Health Facilities | - | 1,800,000 |
| Libraries, Museums, & Historic Sites | 1,500,000 | - |
| Community Development | 970,000 | - |
| School Renovations | 116,382 | 654,400 |
| Broadband | - | - |
| Business District Development | - | - |
| Housing | - | - |
| Industrial Sites and Parks | - | - |
| Law Enforcement | - | - |
| New Public Schools & Additions | - | - |
| Other Education | - | - |
| Other Facilities | - | - |
| Other Utilities | - | - |
| Post-secondary Education | - | - |
| Public Buildings | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Storm Water | - | - |
| Total | \$ 46,368,382 | \$ 70,084,754 |

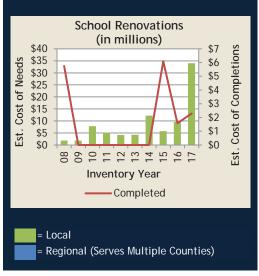






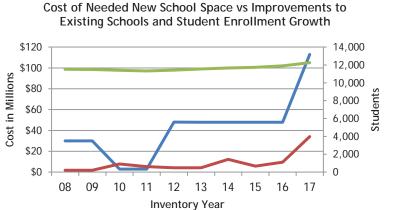


Completed



Estimated Cost of Needed Infrastructure for Maury County Five-year period July 2017 through June 2022

| | | Planning & Design |
|--------------------------------------|-------------------|-------------------|
| Project Type | Conceptual | + Construction |
| Transportation | \$ 131,791,000 | \$ 144,325,309 |
| New Public Schools & Additions | 1,387,500 | 111,486,000 |
| School Renovations | 19,840,000 | 14,171,634 |
| Law Enforcement | 13,560,000 | 20,269,676 |
| Post-secondary Education | 6,260,000 | 11,437,483 |
| Public Health Facilities | 11,750,000 | 331,700 |
| Recreation | 11,740,000 | - |
| Public Buildings | 7,150,000 | 2,500,000 |
| Water and Wastewater | 5,995,000 | - |
| Fire Protection | 1,500,000 | 200,000 |
| Solid Waste | - | 500,000 |
| Libraries, Museums, & Historic Sites | 175,000 | - |
| Broadband | - | - |
| Business District Development | - | - |
| Community Development | - | - |
| Housing | - | - |
| Industrial Sites and Parks | - | - |
| Other Education | - | - |
| Other Facilities | - | - |
| Other Utilities | - | - |
| School-System-wide | - | - |
| Storm Water | - | - |
| Total | \$ 211,148,500 | \$ 305,221,802 |
| Cost of Needed New Schoo | I Space vs Improv | ements to |



Existing Space

New Space

*Total Estimated Cost = Conceptual + Planning & Design + Construction

Students

McMinn County

Total Estimated Cost* for Infrastructure Improvements \$154,058,775

TOP 3

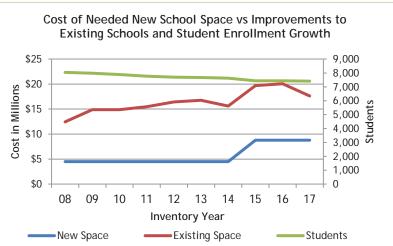






Estimated Cost of Needed Infrastructure for McMinn County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 35,476,000 | \$ 38,341,344 |
| School Renovations | 11,756,340 | 5,874,000 |
| Storm Water | 10,000,000 | - |
| New Public Schools & Additions | 3,280,000 | 5,500,000 |
| Recreation | 4,425,000 | 2,235,000 |
| Broadband | 6,500,000 | - |
| Post-secondary Education | - | 6,500,000 |
| Business District Development | 6,000,000 | - |
| Water and Wastewater | 1,974,000 | 2,759,322 |
| Community Development | 4,000,000 | 443,340 |
| Fire Protection | 4,000,000 | - |
| Industrial Sites and Parks | 2,000,000 | 1,001,000 |
| Other Utilities | 1,000,000 | - |
| Public Buildings | 125,000 | 340,000 |
| Libraries, Museums, & Historic Sites | 100,000 | 228,429 |
| Law Enforcement | 200,000 | - |
| Housing | - | - |
| Other Education | - | - |
| Other Facilities | - | - |
| Public Health Facilities | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Total | \$ 90,836,340 | \$ 63,222,435 |



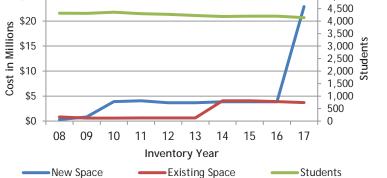


McNairy County

Total Estimated Cost* for

Estimated Cost of Needed Infrastructure for McNairy County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--|---------------|-------------------------------------|
| Transportation | \$ 36,353,000 | \$ 4,461,456 |
| New Public Schools & Additions | 4,215,000 | 18,700,000 |
| Water and Wastewater | 9,720,000 | 8,849,124 |
| School Renovations | 3,602,900 | 101,000 |
| Other Utilities | 1,500,000 | - |
| Recreation | 1,330,000 | - |
| Storm Water | 800,000 | - |
| Libraries, Museums, & Historic Sites | 200,000 | - |
| Fire Protection | 80,000 | - |
| 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 | \$ 57,800,900 | \$ 32,111,580 |
| Cost of Needed New School Space vs Improvements to Existing Schools and Student Enrollment Growth | | |
| \$25 | | 5,000 |
| g \$20 | | - 4,500 4,000 - 3,500 |



Meigs County

Total Estimated Cost* for Infrastructure Improvements \$18,662,126

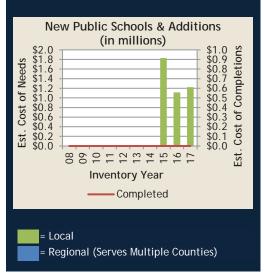
TOP 3

Trans

Water





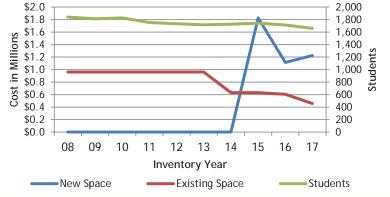


| for Meigs County Five-year period July 2017 through June 2022 | | | | | |
|--|----|------------|----|-----------|--|
| Project Type Conceptual Planning & Design + Construction | | | | | |
| portation | \$ | 10,477,000 | \$ | 432,100 | |
| r and Wastewater | | 3,200,000 | | 1,795,100 | |
| Public Schools & Additions | | - | | 1,225,000 | |
| Facilities | | 250,000 | | 300,000 | |
| I Renovations | | 456 000 | | - | |

Estimated Cost of Needed Infrastructure

| New Public Schools & Additions | - | 1,225,000 |
|--------------------------------------|---------------|--------------|
| Other Facilities | 250,000 | 300,000 |
| School Renovations | 456,000 | - |
| Recreation | - | 326,926 |
| 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 | - | - |
| Other Utilities | - | - |
| Post-secondary Education | - | - |
| Public Buildings | - | - |
| Public Health Facilities | - | - |
| Solid Waste | - | - |
| Storm Water | - | - |
| Total | \$ 14,583,000 | \$ 4,079,126 |





Monroe County Total Estimated Cost* for Infrastructure Improvements \$166,175,537

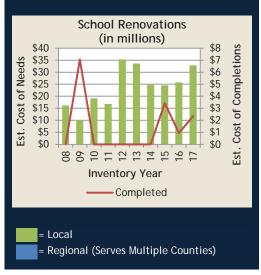
TOP 3



Completed

Completed

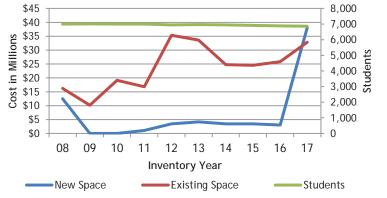




Estimated Cost of Needed Infrastructure for Monroe County Five-year period July 2017 through June 2022 Planning & Design + Construction Conceptual Project Type \$ 13,840,000 \$ 36,093,023 Transportation New Public Schools & Additions 8,100,000 30,000,000 **School Renovations** 32,743,853 117,000 Law Enforcement 300,000 30,075,000

| Total | \$ 96,232,366 | \$ 69,943,171 |
|--------------------------------------|---------------|---------------|
| Storm Water | - | - |
| Solid Waste | - | - |
| School-System-wide | - | - |
| Public Health Facilities | - | - |
| Post-secondary Education | - | - |
| Other Utilities | - | - |
| Other Facilities | - | - |
| Other Education | - | - |
| Housing | - | - |
| Community Development | - | - |
| Business District Development | - | - |
| Broadband | - | - |
| Public Buildings | - | 500,000 |
| Fire Protection | 500,000 | - |
| Libraries, Museums, & Historic Sites | 1,500,000 | - |
| Recreation | 1,000,000 | 700,000 |
| Industrial Sites and Parks | 855,000 | 1,000,000 |
| Water and Wastewater | 7,618,513 | 1,233,148 |
| Earr Emolociment | 00/0/0/000 | 000,000 |





Montgomery County

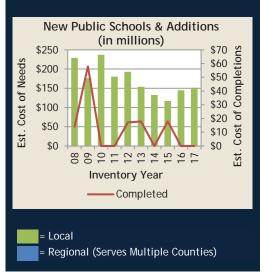
Total Estimated Cost* for Infrastructure Improvements

\$1,198,366,764

TOP 3

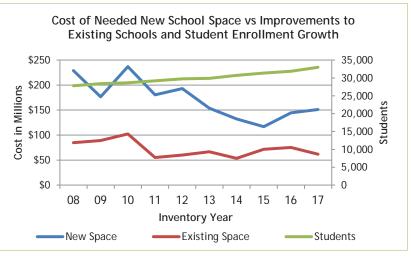






Estimated Cost of Needed Infrastructure for Montgomery County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|----------------|-------------------------------------|
| Transportation | \$ 156,615,000 | \$ 425,777,010 |
| Recreation | 45,583,000 | 106,413,250 |
| New Public Schools & Additions | 72,400,000 | 78,900,000 |
| Post-secondary Education | 11,350,000 | 63,566,000 |
| School Renovations | 56,181,350 | 5,495,000 |
| Water and Wastewater | 4,305,000 | 55,373,000 |
| Other Utilities | - | 48,625,000 |
| Public Buildings | 6,500,000 | 14,192,172 |
| Fire Protection | 13,700,000 | 3,800,000 |
| Libraries, Museums, & Historic Sites | 12,000,000 | - |
| Public Health Facilities | 120,000 | 4,000,000 |
| Law Enforcement | 3,285,000 | 810,000 |
| Community Development | - | 4,072,982 |
| Other Facilities | - | 2,958,000 |
| Industrial Sites and Parks | 2,345,000 | - |
| Broadband | - | - |
| Business District Development | - | - |
| Housing | - | - |
| Other Education | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Storm Water | - | - |
| Total | \$ 384,384,350 | \$ 813,982,414 |



Moore County Total Estimated Cost* for Infrastructure Improvements \$87,223,141







Estimated Cost of Needed Infrastructure for Moore County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction | |
|--|---------------|-------------------------------------|--|
| Post-secondary Education | \$ 1,590,000 | \$ 38,440,531 | |
| School Renovations | 2,800,000 | 13,400,000 | |
| Transportation | 5,987,000 | 7,755,610 | |
| Water and Wastewater | - | 10,500,000 | |
| New Public Schools & Additions | - | 6,000,000 | |
| 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 | \$ 11,127,000 | \$ 76,096,141 | |
| Cost of Needed New School Space vs Improvements to Existing Schools and Student Enrollment Growth | | | |
| \$18 | | 1,200 | |
| | | - 1,000 | |
| su \$14 iii \$12 iii \$10 iii \$8 ts \$6 c) \$4 | T | 900 st | |
| | | Stridents 008 | |
| ti \$6 | | ب ت ₄₀₀ | |
| Ŭ \$4 | | - 200 | |

*Total Estimated Cost = Conceptual + Planning & Design + Construction

\$2

\$0

80 09

New Space

10

11

12

Inventory Year

13 14

Existing Space

15

200

0

Students

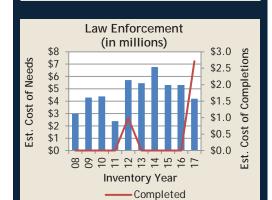
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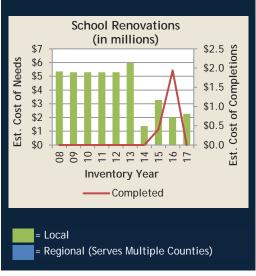
Morgan County

Total Estimated Cost* for Infrastructure Improvements \$216,083,349

TOP 3

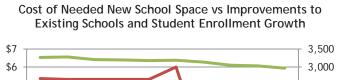


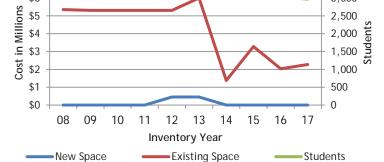




Estimated Cost of Needed Infrastructure for Morgan County Five-year period July 2017 through June 2022

| | a | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Project Type | Conceptual | |
| Transportation | \$ 25,811,950 | \$ 180,349,096 |
| Law Enforcement | 3,000,000 | 1,200,000 |
| School Renovations | 207,250 | 2,063,250 |
| Water and Wastewater | 330,880 | 1,656,923 |
| 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 | \$ 30,814,080 | \$ 185,269,269 |
| | | |





Obion County Total Estimated Cost* for Infrastructure Improvements \$381,877,153 TOP 3



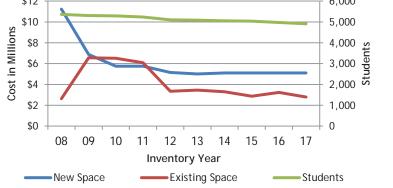


Completed



Estimated Cost of Needed Infrastructure for Obion County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--|---------------|-------------------------------------|
| Transportation | \$ 77,114,819 | \$ 289,714,655 |
| New Public Schools & Additions | 4,999,000 | 100,000 |
| School Renovations | 2,461,208 | 325,000 |
| Recreation | 50,000 | 2,250,000 |
| Water and Wastewater | 962,000 | 868,227 |
| 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 | \$ 86,739,027 | \$ 295,138,126 |
| Cost of Needed New School Space vs Improvements to Existing Schools and Student Enrollment Growth | | |
| \$10 | | 5,000 |



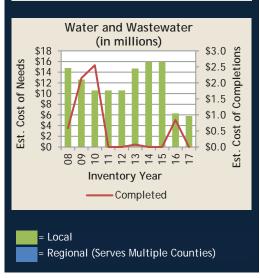


Total Estimated Cost* for Infrastructure Improvements \$66,365,534

TOP 3

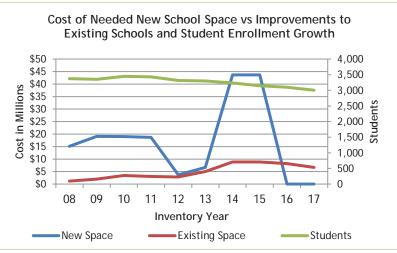






Estimated Cost of Needed Infrastructure for Overton County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 11,107,000 | \$ 38,116,534 |
| School Renovations | 4,788,000 | 1,914,000 |
| Water and Wastewater | 2,800,000 | 3,000,000 |
| Recreation | 1,500,000 | 2,630,000 |
| Law Enforcement | - | 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 | - | - |
| Post-secondary Education | - | - |
| Public Health Facilities | - | - |
| Solid Waste | - | - |
| Storm Water | - | - |
| Total | \$ 20,305,000 | \$ 46,060,534 |

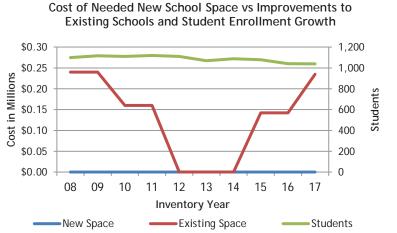


Infrastructure Improvements \$81,939,412 Transportation (in millions) \$100 \$20 Cost of Completions Cost of Needs \$80 \$15 \$60 \$10 \$40 \$5 \$20 Est. \$0 \$0 Est. 80 111 112 115 115 115 115 **Inventory Year** Completed School Renovations (in millions) etions 0.18 \$0.30 of Needs \$0.25 \$0.20 Compl \$0.6 \$0.15 Cost \$0.4 \$0.10 of \$0.2 Cost \$0.05 Est. \$0.0 \$0.00 Est. **Inventory Year** -Completed Total Recreation (in millions) \$1.0 \$0.9 \$0.8 \$0.7 \$0.6 \$0.5 \$0.4 \$0.3 \$0.2 \$0.1 \$0.0 Cost of Completions \$1.0 \$0.9 \$0.8 \$0.7 \$0.6 \$0.5 \$0.4 \$0.3 \$0.2 \$0.1 \$0.0 of Needs Cost Cost in Millions Est. Est. **Inventory Year** Completed = Local

Perry County

Total Estimated Cost* for

Estimated Cost of Needed Infrastructure for Perry County Five-year period July 2017 through June 2022 Planning & Design + Construction Project Type Conceptual Transportation \$ 37,441,000 \$ 44,153,412 School Renovations 235,000 Recreation 110,000 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** School-System-wide Solid Waste Storm Water Water and Wastewater \$ 37,551,000 \$ 44,388,412



*Total Estimated Cost = Conceptual + Planning & Design + Construction

= Regional (Serves Multiple Counties)

Pickett County

Total Estimated Cost* for Infrastructure Improvements \$21,130,630







| Five-year period July 2017 through June 2022 | | | |
|--|--------------|-------------------------------------|--|
| Project Type | Conceptual | Planning & Design + Construction | |
| Transportation | \$ 3,189,000 | \$ 2,616,630 | |
| Law Enforcement | - | 5,000,000 | |
| Recreation | 4,210,000 | - | |
| Libraries, Museums, & Historic Sites | - | 3,150,000 | |
| Industrial Sites and Parks | 350,000 | 1,500,000 | |
| New Public Schools & Additions | 600,000 | - | |
| School Renovations | 320,000 | - | |
| School-System-wide | 100,000 | - | |
| Fire Protection | - | 95,000 | |
| Broadband | - | - | |
| Business District Development | - | - | |
| Community Development | - | - | |
| Housing | - | - | |
| Other Education | - | - | |
| Other Facilities | - | - | |
| Other Utilities | - | - | |
| Post-secondary Education | - | - | |
| Public Buildings | - | - | |
| Public Health Facilities | - | - | |
| Solid Waste | - | - | |
| Storm Water | - | - | |
| Water and Wastewater | - | - | |
| Total | \$ 8,769,000 | \$ 12,361,630 | |

Estimated Cost of Needed Infrastructure for Pickett County





Polk County Total Estimated Cost* for Infrastructure Improvements \$270,191,234

TOP 3



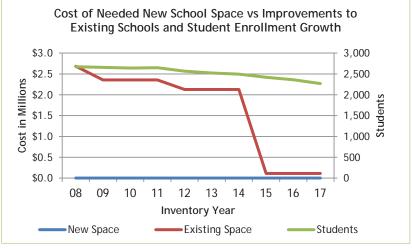


Completed



Estimated Cost of Needed Infrastructure for Polk County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction | |
|--------------------------------------|---------------|-------------------------------------|--|
| Transportation | \$ 44,171,000 | \$ 216,600,165 | |
| Water and Wastewater | 2,539,888 | 2,800,620 | |
| Recreation | 2,140,000 | - | |
| Community Development | - | 801,715 | |
| Public Health Facilities | - | 403,846 | |
| Public Buildings | 300,000 | - | |
| Industrial Sites and Parks | 256,000 | - | |
| 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 | \$ 49,516,888 | \$ 220,674,346 | |



Putnam County

Total Estimated Cost* for Infrastructure Improvements \$549,418,628

TOP 3







Estimated Cost of Needed Infrastructure for Putnam County Five-year period July 2017 through June 2022

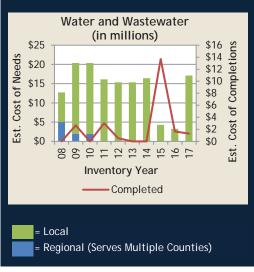
| | | Planning & Design | |
|--------------------------------------|----------------|-------------------|--|
| Project Type | Conceptual | + Construction | |
| Post-secondary Education | \$ 86,960,000 | \$ 253,376,387 | |
| Transportation | 54,569,000 | 81,046,405 | |
| Law Enforcement | 5,800,000 | 20,000,000 | |
| School Renovations | 6,900,000 | 4,065,000 | |
| Water and Wastewater | 1,000,000 | 8,974,313 | |
| New Public Schools & Additions | 4,830,000 | 5,000,000 | |
| Recreation | 2,830,000 | 5,122,523 | |
| Other Facilities | 6,220,000 | - | |
| 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 | \$ 171,359,000 | \$ 378,059,628 | |

Cost of Needed New School Space vs Improvements to Existing Schools and Student Enrollment Growth \$80 12,000 \$70 10,000 Cost in Millions \$60 8,000 \$50 Students \$40 6,000 \$30 4,000 \$20 2,000 \$10 \$0 0 80 09 10 11 12 13 14 15 17 16 Inventory Year New Space Existing Space Students

Total Estimated Cost* for Infrastructure Improvements \$111,456,508 3 Transportation (in millions) \$80 \$50 Cost of Completions Est. Cost of Needs \$70 \$40 \$60 \$50 \$30 \$40 \$20 \$30 \$20 \$10 \$10 \$0 \$0 112 113 115 115 115 Est. 80 10 Ξ **Inventory Year** Completed

Rhea County

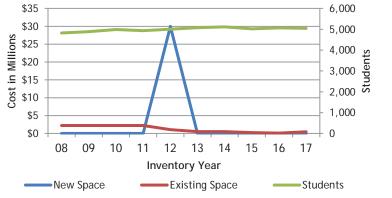




Estimated Cost of Needed Infrastructure for Rhea County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 48,254,000 | \$ 5,534,151 |
| Law Enforcement | 28,000,000 | - |
| Water and Wastewater | 278,571 | 16,842,000 |
| Industrial Sites and Parks | 1,500,000 | 6,000,000 |
| Recreation | 1,250,000 | 1,163,786 |
| Storm Water | 1,100,000 | - |
| Public Buildings | 800,000 | 250,000 |
| School Renovations | 484,000 | - |
| 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 | \$ 81,666,571 | \$ 29,789,937 |





Roane County

Total Estimated Cost* for Infrastructure Improvements \$407,143,559

TOP 3



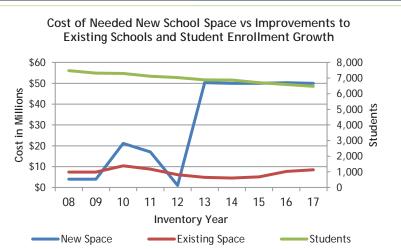


-Completed



Estimated Cost of Needed Infrastructure for Roane County Five-year period July 2017 through June 2022

| | | Planning & Design | |
|--------------------------------------|----------------|-------------------|--|
| Project Type | Conceptual | + Construction | |
| Transportation | \$ 70,753,000 | \$ 179,661,698 | |
| New Public Schools & Additions | 50,000,000 | - | |
| Recreation | 14,430,000 | 10,590,178 | |
| Water and Wastewater | 9,000,000 | 7,551,000 | |
| Other Facilities | 4,000,000 | 7,400,000 | |
| Other Utilities | - | 10,200,000 | |
| Community Development | 10,000,000 | - | |
| School Renovations | 5,500,000 | 2,967,099 | |
| Industrial Sites and Parks | 6,100,000 | - | |
| Storm Water | 5,000,000 | - | |
| Public Buildings | 3,300,000 | 1,000,000 | |
| Law Enforcement | 4,000,000 | - | |
| Post-secondary Education | 1,500,000 | 2,090,584 | |
| Fire Protection | 1,600,000 | - | |
| Solid Waste | - | 300,000 | |
| Business District Development | - | 200,000 | |
| Broadband | - | - | |
| Housing | - | - | |
| Libraries, Museums, & Historic Sites | - | - | |
| Other Education | - | - | |
| Public Health Facilities | - | - | |
| School-System-wide | - | - | |
| Total | \$ 185,183,000 | \$ 221,960,559 | |

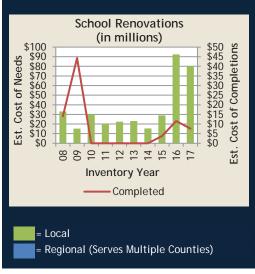


Robertson County Total Estimated Cost* for Infrastructure Improvements \$500,421,766

ΓΟΡ 3

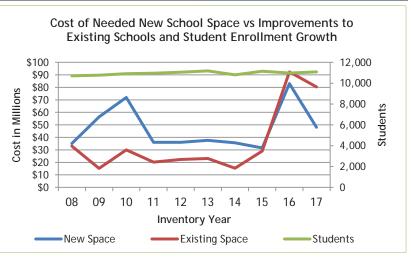






Estimated Cost of Needed Infrastructure for Robertson County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction | |
|--------------------------------------|----------------|-------------------------------------|--|
| Transportation | \$ 79,666,000 | \$ 163,224,973 | |
| Water and Wastewater | 30,982,000 | 76,660,462 | |
| School Renovations | 69,719,000 | 10,689,000 | |
| New Public Schools & Additions | 48,000,000 | - | |
| Recreation | 2,677,600 | 3,913,731 | |
| Community Development | 5,300,000 | - | |
| Fire Protection | 3,050,000 | - | |
| Business District Development | 2,700,000 | - | |
| Other Utilities | 400,000 | 1,340,000 | |
| Law Enforcement | - | 900,000 | |
| Storm Water | - | 699,000 | |
| Industrial Sites and Parks | - | 500,000 | |
| Broadband | - | - | |
| Housing | - | - | |
| Libraries, Museums, & Historic Sites | - | - | |
| Other Education | - | - | |
| Other Facilities | - | - | |
| Post-secondary Education | - | - | |
| Public Buildings | - | - | |
| Public Health Facilities | - | - | |
| School-System-wide | - | - | |
| Solid Waste | - | - | |
| Total | \$ 242,494,600 | \$ 257,927,166 | |



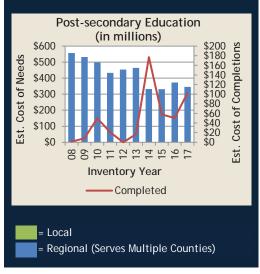
Rutherford County

Total Estimated Cost* for Infrastructure Improvements \$1,751,477,600

TOP 3

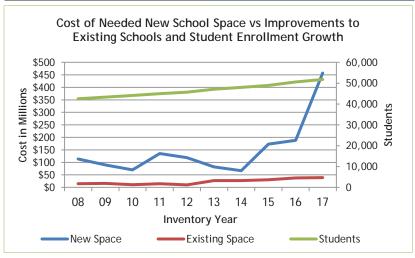






Estimated Cost of Needed Infrastructure for Rutherford County Five-year period July 2017 through June 2022

| | | | | & Design |
|--------------------------------------|------------|-------------|----------------|-----------|
| Project Type | Conceptual | | + Construction | |
| Transportation | \$ | 155,591,000 | \$ 359 | 9,265,841 |
| New Public Schools & Additions | | 320,000,000 | 137 | 7,200,000 |
| Post-secondary Education | | 69,090,000 | 276 | 5,089,416 |
| Water and Wastewater | | 24,700,000 | 12 | ,957,000 |
| Law Enforcement | | - | 125 | 5,050,000 |
| Recreation | | 2,220,000 | 6 | I,780,157 |
| School Renovations | | 15,175,000 | 24 | 1,146,186 |
| Public Health Facilities | | 25,628,000 | 4 | 2,160,000 |
| Fire Protection | | 8,200,000 | 8 | 3,400,000 |
| Business District Development | | - | - | 7,700,000 |
| School-System-wide | | - | 4 | 2,500,000 |
| Community Development | | - | 4 | 2,200,000 |
| Other Utilities | | - | | ,225,000 |
| Public Buildings | | - | | ,200,000 |
| Broadband | | - | | - |
| Housing | | - | | - |
| Industrial Sites and Parks | | - | | - |
| Libraries, Museums, & Historic Sites | | - | | - |
| Other Education | | - | | - |
| Other Facilities | | - | | - |
| Solid Waste | | - | | - |
| Storm Water | | - | | - |
| Total | \$ | 620,604,000 | \$ 1,130 |),873,600 |



\$106,546,316 Transportation (in millions) \$5 \$160 Est. Cost of Completions Cost of Needs \$140 \$4 \$120 \$100 \$3 \$80 \$2 \$60 \$40 \$1 Est. \$20 \$0 \$0 10 112 112 115 115 115 115 80 **Inventory Year** Completed **New Public Schools & Additions** (in millions) \$25 \$12 of Completions Est. Cost of Needs \$10 \$20 \$8 \$15 \$6 \$10 \$4 \$5 Est. Cost \$2 \$0 \$0 **Inventory Year** - Completed Water and Wastewater (in millions) \$5.0 \$4.5 \$4.0 \$3.5 \$3.0 \$2.5 \$2.0 \$1.5 \$1.0 \$0.5 \$0.0 \$4.5 \$4.0 \$3.5 \$3.0 \$2.5 \$2.0 \$1.5 \$1.0 \$0.5 \$0.0 Cost of Completions Cost of Needs Est. Est. **Inventory Year** Completed

Scott County

Total Estimated Cost* for

Infrastructure Improvements

Estimated Cost of Needed Infrastructure for Scott County Five-year period July 2017 through June 2022

| | | Planning & Design |
|--|---------------|-------------------|
| Project Type | Conceptual | + Construction |
| Transportation | \$ 41,244,000 | \$ 53,842,316 |
| New Public Schools & Additions | 4,800,000 | - |
| Water and Wastewater | 525,000 | 3,550,000 |
| School Renovations | 1,135,000 | - |
| Recreation | - | 620,000 |
| Solid Waste | 500,000 | - |
| Post-secondary Education | 120,000 | 210,000 |
| 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 Buildings | - | - |
| Public Health Facilities | - | - |
| School-System-wide | - | - |
| Storm Water | - | - |
| Total | \$ 48,324,000 | \$ 58,222,316 |
| Cost of Needed New School Space vs Improvements to Existing Schools and Student Enrollment Growth | | |
| \$25 \$20 \$15 \$10 \$5 \$5 \$20 \$5 \$20 \$5 \$20 \$20 \$3,500 \$3,500 \$3,500 \$3,500 \$3,500 \$2,500 \$1,500\$ | | |

*Total Estimated Cost = Conceptual + Planning & Design + Construction

\$0

09 10

New Space

80

11

12 13 14

Inventory Year

Existing Space

15

500

0

Students

17

16

= Local

= Regional (Serves Multiple Counties)

Sequatchie County

Total Estimated Cost* for Infrastructure Improvements \$53,355,880

TOP 3



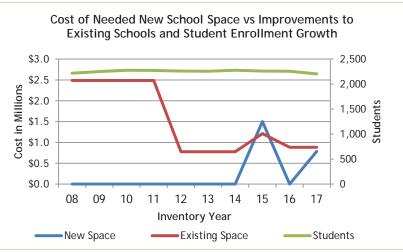


Completed



Estimated Cost of Needed Infrastructure for Sequatchie County Five-year period July 2017 through June 2022

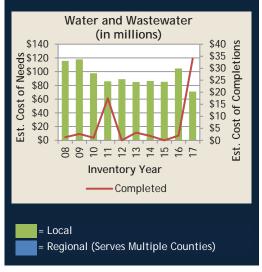
| | | Planning & Design | |
|--------------------------------------|---------------|-------------------|--|
| Project Type | Conceptual | + Construction | |
| Public Health Facilities | \$ 32,600,000 | \$ 1,622,000 | |
| Transportation | 11,542,000 | 1,316,366 | |
| Recreation | - | 2,024,678 | |
| Water and Wastewater | 1,500,000 | - | |
| School Renovations | 505,000 | 380,000 | |
| New Public Schools & Additions | - | 783,000 | |
| School-System-wide | 600,000 | - | |
| Industrial Sites and Parks | - | 482,836 | |
| Broadband | - | - | |
| Business District Development | - | - | |
| Community Development | - | - | |
| Fire Protection | - | - | |
| Housing | - | - | |
| Law Enforcement | - | - | |
| Libraries, Museums, & Historic Sites | - | - | |
| Other Education | - | - | |
| Other Facilities | - | - | |
| Other Utilities | - | - | |
| Post-secondary Education | - | - | |
| Public Buildings | - | - | |
| Solid Waste | - | - | |
| Storm Water | - | - | |
| Total | \$ 46,747,000 | \$ 6,608,880 | |



Sevier County Total Estimated Cost* for Infrastructure Improvements \$595,808,119 TOP 3

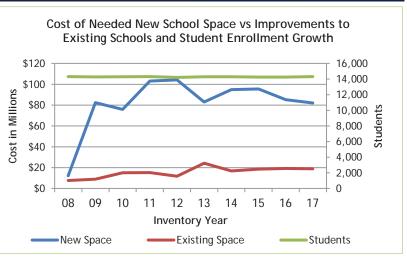






Estimated Cost of Needed Infrastructure for Sevier County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|----------------|-------------------------------------|
| Transportation | \$ 78,015,000 | \$ 212,705,260 |
| New Public Schools & Additions | 38,600,000 | 43,524,243 |
| Water and Wastewater | 12,899,985 | 58,241,600 |
| Other Utilities | - | 57,622,750 |
| Recreation | 370,000 | 23,388,970 |
| School Renovations | 12,476,866 | 6,466,019 |
| Public Buildings | 15,256,841 | - |
| Post-secondary Education | 1,130,000 | 13,318,000 |
| Industrial Sites and Parks | - | 10,000,000 |
| Fire Protection | 350,000 | 6,000,000 |
| Community Development | 770,000 | 4,000,000 |
| 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 | \$ 160,014,992 | \$ 435,793,127 |



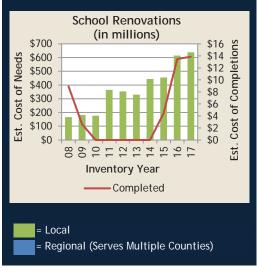
Shelby County

Total Estimated Cost* for Infrastructure Improvements \$5,585,863,958

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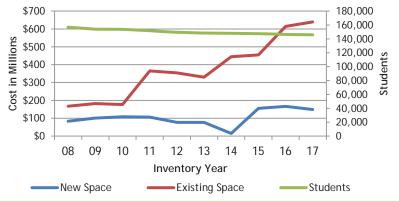




Estimated Cost of Needed Infrastructure for Shelby County Five-year period July 2017 through June 2022

| | | Planning & Design |
|--------------------------------------|------------------|-------------------|
| Project Type | Conceptual | + Construction |
| Transportation | \$ 959,999,940 | \$ 1,995,228,976 |
| Post-secondary Education | 144,820,000 | 581,399,241 |
| School Renovations | 524,696,683 | 114,487,766 |
| Water and Wastewater | 210,323,306 | 266,300,000 |
| Housing | 171,000,000 | - |
| New Public Schools & Additions | 39,489,000 | 109,198,884 |
| Recreation | 15,360,000 | 102,943,861 |
| Law Enforcement | 75,775,800 | 31,546,855 |
| Public Health Facilities | 100,600,000 | - |
| Fire Protection | 22,093,189 | 18,134,038 |
| Libraries, Museums, & Historic Sites | 11,868,000 | 26,667,019 |
| Public Buildings | 11,980,000 | 11,100,000 |
| Other Facilities | 8,750,000 | 5,863,000 |
| Solid Waste | - | 8,000,000 |
| Business District Development | 250,000 | 6,368,000 |
| Community Development | 6,043,500 | 351,900 |
| Storm Water | 2,637,500 | 2,587,500 |
| Broadband | - | - |
| Industrial Sites and Parks | - | - |
| Other Education | - | - |
| Other Utilities | - | - |
| School-System-wide | - | - |
| Total | \$ 2,305,686,918 | \$ 3,280,177,040 |



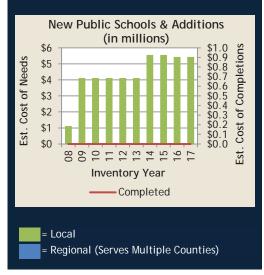


Smith County Total Estimated Cost* for Infrastructure Improvements \$126,338,500



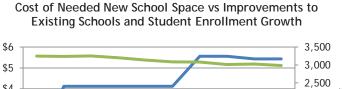


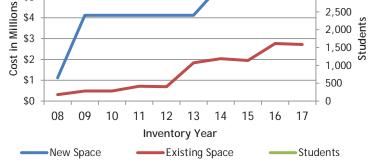
Completed



| Five-year period July 2017 through June 2022 | | |
|--|---------------|-------------------------------------|
| Project Type | Conceptual | Planning & Design + Construction |
| Transportation | \$ 76,448,000 | \$ 34,171,300 |
| Water and Wastewater | 3,000,000 | 3,100,000 |
| New Public Schools & Additions | 5,436,000 | - |
| School Renovations | 2,688,200 | 25,000 |
| Solid Waste | 1,000,000 | - |
| Recreation | 150,000 | 120,000 |
| Law Enforcement | 200,000 | - |
| Broadband | - | - |
| Business District Development | - | - |
| Community Development | - | - |
| Fire Protection | - | - |
| 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 | \$ 88,922,200 | \$ 37,416,300 |

Estimated Cost of Needed Infrastructure for Smith County





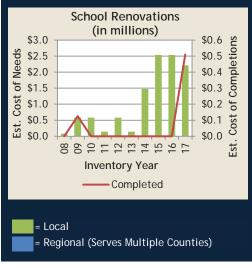
Stewart County

Total Estimated Cost* for Infrastructure Improvements \$35,517,300

TOP 3

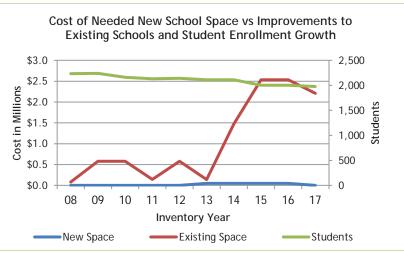






Estimated Cost of Needed Infrastructure for Stewart County Five-year period July 2017 through June 2022

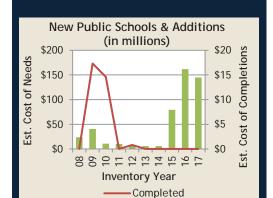
| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 19,845,000 | \$ 544,000 |
| Other Utilities | - | 11,000,000 |
| School Renovations | 1,910,000 | 300,000 |
| Water and Wastewater | 500,000 | 543,300 |
| Recreation | 725,000 | - |
| Public Buildings | 150,000 | - |
| 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 | - | - |
| Post-secondary Education | - | - |
| Public Health Facilities | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Storm Water | - | - |
| Total | \$ 23,130,000 | \$ 12,387,300 |

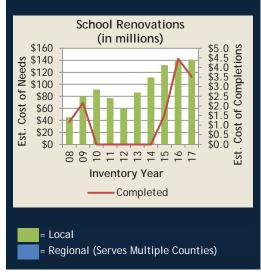


Sullivan County Total Estimated Cost* for Infrastructure Improvements \$1,187,077,536

TOP 3

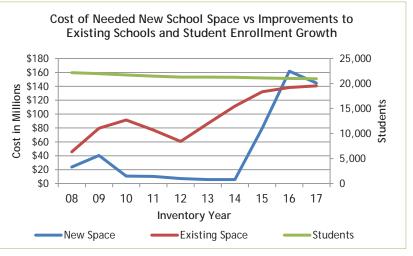






Estimated Cost of Needed Infrastructure for Sullivan County Five-year period July 2017 through June 2022

| | | Planning & Design |
|--------------------------------------|----------------|-------------------|
| Project Type | Conceptual | + Construction |
| Transportation | \$ 359,587,881 | \$ 201,117,754 |
| New Public Schools & Additions | 88,180,000 | 56,500,000 |
| School Renovations | 90,431,000 | 50,303,449 |
| Water and Wastewater | 27,249,000 | 72,951,108 |
| Post-secondary Education | 16,490,000 | 44,741,610 |
| Housing | 6,945,000 | 50,825,000 |
| Public Health Facilities | 55,000,000 | - |
| Industrial Sites and Parks | 22,198,900 | 6,367,000 |
| Recreation | 5,965,000 | 10,610,321 |
| Storm Water | 500,000 | 7,400,000 |
| Other Facilities | 6,700,000 | 100,000 |
| Fire Protection | 200,000 | 4,568,000 |
| School-System-wide | 1,000,000 | - |
| Libraries, Museums, & Historic Sites | - | 505,513 |
| Business District Development | - | 301,000 |
| Public Buildings | - | 270,000 |
| Community Development | 70,000 | - |
| Broadband | - | - |
| Law Enforcement | - | - |
| Other Education | - | - |
| Other Utilities | - | - |
| Solid Waste | - | - |
| Total | \$ 680,516,781 | \$ 506,560,755 |



Sumner County

Total Estimated Cost* for Infrastructure Improvements \$785,331,606





Completed

School-System-wide

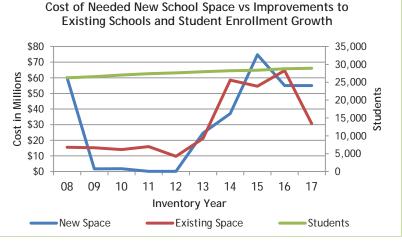
Solid Waste Total



| Five-year period July 2017 through June 2022 | | | | |
|--|----|-------------|----|--------------------------------|
| Project Type | | Conceptual | | nning & Design Construction |
| Transportation | \$ | 139,678,775 | \$ | 196,472,462 |
| Water and Wastewater | | 30,389,000 | | 131,970,000 |
| Recreation | | 78,227,044 | | 12,184,375 |
| New Public Schools & Additions | | 55,000,000 | | - |
| Post-secondary Education | | 2,810,000 | | 49,810,000 |
| School Renovations | | 2,199,000 | | 28,382,950 |
| Community Development | | 5,100,000 | | 6,000,000 |
| Fire Protection | | 6,200,000 | | 4,600,000 |
| Other Utilities | | - | | 9,000,000 |
| Public Buildings | | 4,000,000 | | 4,175,000 |
| Libraries, Museums, & Historic Sites | | 6,310,000 | | 688,000 |
| Storm Water | | 1,410,000 | | 3,675,000 |
| Law Enforcement | | 3,000,000 | | - |
| Business District Development | | 2,000,000 | | - |
| Other Facilities | | 300,000 | | 1,000,000 |
| Industrial Sites and Parks | | - | | 750,000 |
| Broadband | | - | | - |
| Housing | | - | | - |
| Other Education | | - | | - |
| Public Health Facilities | | - | | - |

Estimated Cost of Needed Infrastructure for Sumner County

336,623,819 \$



*Total Estimated Cost = Conceptual + Planning & Design + Construction

448,707,787

\$

Tipton County Total Estimated Cost* for Infrastructure Improvements \$458,747,123

TOP 3



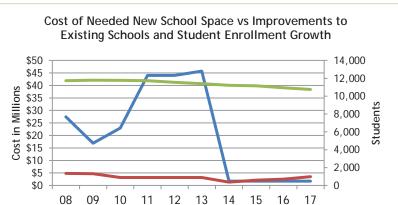


Completed



Estimated Cost of Needed Infrastructure for Tipton County Five-year period July 2017 through June 2022

| | | Planning & Design |
|--------------------------------------|----------------|-------------------|
| Project Type | Conceptual | + Construction |
| Transportation | \$ 111,955,000 | \$ 323,877,314 |
| Water and Wastewater | 8,500,000 | - |
| Recreation | 3,155,000 | 1,145,384 |
| Law Enforcement | 660,000 | 3,500,000 |
| School Renovations | 2,581,000 | 953,425 |
| New Public Schools & Additions | - | 1,700,000 |
| Post-secondary Education | - | 720,000 |
| Broadband | - | - |
| Business District Development | - | - |
| Community Development | - | - |
| Fire Protection | - | - |
| Housing | - | - |
| 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 | \$ 126,851,000 | \$ 331,896,123 |



Inventory Year

New Space

Existing Space

*Total Estimated Cost = Conceptual + Planning & Design + Construction

Students

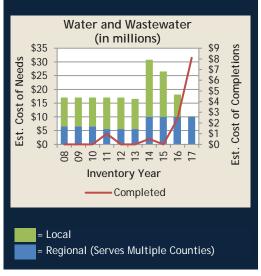
Trousdale County

Total Estimated Cost* for Infrastructure Improvements \$100,316,233

TOP 3

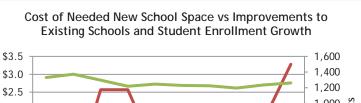


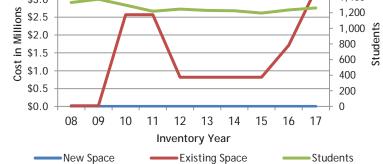




| Estimated Cost of Needed Infrastructure | | |
|--|--|--|
| for Trousdale County | | |
| Five-year period July 2017 through June 2022 | | |

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 25,230,000 | \$ 36,770,754 |
| Industrial Sites and Parks | 1,000,000 | 17,588,847 |
| Water and Wastewater | - | 10,245,000 |
| Law Enforcement | 6,000,000 | - |
| School Renovations | 200,000 | 3,081,632 |
| Post-secondary Education | 200,000 | - |
| Broadband | - | - |
| Business District Development | - | - |
| Community Development | - | - |
| Fire Protection | - | - |
| Housing | - | - |
| Libraries, Museums, & Historic Sites | - | - |
| New Public Schools & Additions | - | - |
| Other Education | - | - |
| Other Facilities | - | - |
| Other Utilities | - | - |
| Public Buildings | - | - |
| Public Health Facilities | - | - |
| Recreation | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Storm Water | - | - |
| Total | \$ 32,630,000 | \$ 67,686,233 |





\$102,869,982 Transportation (in millions) \$70 \$25 of Completions Cost of Needs \$60 \$20 \$50 \$15 \$40 \$30 \$10 \$20 \$5 Cost \$10 Est. \$0 \$0 80 Est. 111 112 115 115 115 115 **Inventory Year** Completed Recreation (in millions) \$30 \$1.6 of Completions \$1.4 Needs \$25 \$1.2 \$20 \$1.0 \$0.8 of \$15 Cost \$0.6 \$10 \$0.4 Cost \$5 Est. \$0.2 \$0 \$0.0 Est. 08 09 111 112 115 115 115 115 115 115 **Inventory Year** - Completed Community Development (in millions) \$25 \$3.0 Completions of Needs \$2.5 \$20 \$2.0 \$15 \$1.5 Cost \$10 \$1.0 of \$5 Cost \$0.5 Est. \$0 \$0.0 Est. 08 09 **Inventory Year** Completed = Local

= Regional (Serves Multiple Counties)

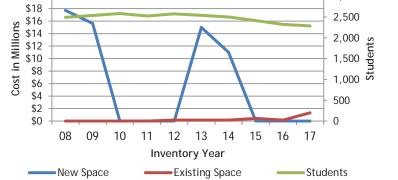
Unicoi County

Total Estimated Cost* for

Infrastructure Improvements

for Unicoi County Five-year period July 2017 through June 2022 Planning & Design + Construction Project Type Conceptual Transportation \$ 36,921,000 \$ 4,460,818 Recreation 12,995,000 15,457,089 **Community Development** 16,575,000 Water and Wastewater 8,475,200 3,010,875 Broadband 1,100,000 740,000 School Renovations 150,000 1,185,000 **Business District Development** 1,000,000 Industrial Sites and Parks 650,000 Housing 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 \$ 78,016,200 \$ 24,853,782 Cost of Needed New School Space vs Improvements to Existing Schools and Student Enrollment Growth \$20 3,000 \$18 2,500

Estimated Cost of Needed Infrastructure



Union County

Total Estimated Cost* for Infrastructure Improvements \$124,402,871

TOP 3

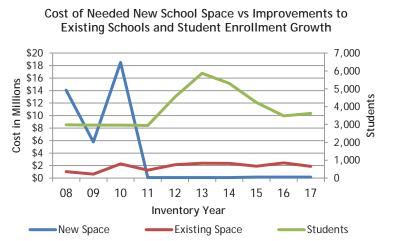






Estimated Cost of Needed Infrastructure for Union County Five-year period July 2017 through June 2022

| nsportation reation | \$ 10,325,000 3,885,000 | \$ 106,384,209 |
|----------------------------------|----------------------------|----------------|
| reation | 3,885,000 | |
| reation | | - |
| ool Renovations | 1,471,679 | 411,983 |
| ustrial Sites and Parks | 1,200,000 | - |
| nmunity Development | 300,000 | - |
| lic Health Facilities | 250,000 | - |
| v Public Schools & Additions | 175,000 | - |
| adband | - | - |
| iness District Development | - | - |
| Protection | - | - |
| ising | - | - |
| Enforcement | - | - |
| aries, Museums, & Historic Sites | - | - |
| er Education | - | - |
| er Facilities | - | - |
| er Utilities | - | - |
| t-secondary Education | - | - |
| lic Buildings | - | - |
| ool-System-wide | - | - |
| d Waste | - | - |
| m Water | - | - |
| er and Wastewater | - | - |
| al | \$ 17,606,679 | \$ 106,796,192 |



Van Buren County Total Estimated Cost* for Infrastructure Improvements \$116,082,340

TOP 3



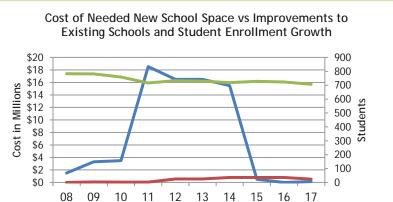


- Completed



Estimated Cost of Needed Infrastructure for Van Buren County Five-year period July 2017 through June 2022

| | | Planning & Design |
|--------------------------------------|---------------|-------------------|
| Project Type | Conceptual | + Construction |
| Community Development | \$ - | \$ 29,440,000 |
| Transportation | 614,000 | 26,239,340 |
| Recreation | 13,790,000 | 6,800,000 |
| Water and Wastewater | 10,300,000 | 550,000 |
| Industrial Sites and Parks | 10,000,000 | - |
| Law Enforcement | - | 7,000,000 |
| Public Health Facilities | 6,000,000 | - |
| Public Buildings | - | 4,000,000 |
| Other Utilities | - | 631,000 |
| School Renovations | 520,000 | - |
| New Public Schools & Additions | - | 130,000 |
| Business District Development | - | 68,000 |
| Broadband | - | - |
| Fire Protection | - | - |
| Housing | - | - |
| Libraries, Museums, & Historic Sites | - | - |
| Other Education | - | - |
| Other Facilities | - | - |
| Post-secondary Education | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Storm Water | - | - |
| Total | \$ 41,224,000 | \$ 74,858,340 |



Inventory Year

New Space

Existing Space

*Total Estimated Cost = Conceptual + Planning & Design + Construction

Students

Warren County

Total Estimated Cost* for Infrastructure Improvements \$126,369,990

TOP 3



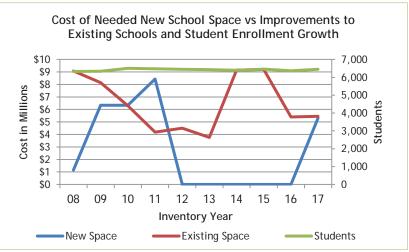


- Completed



Estimated Cost of Needed Infrastructure for Warren County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 32,749,000 | \$ 46,820,890 |
| Water and Wastewater | 4,500,000 | 12,115,000 |
| Law Enforcement | 11,200,000 | - |
| School Renovations | 3,145,000 | 2,304,100 |
| New Public Schools & Additions | 5,304,000 | - |
| Recreation | - | 5,000,000 |
| Public Buildings | 1,260,000 | 300,000 |
| Post-secondary Education | 730,000 | 642,000 |
| Fire Protection | 300,000 | - |
| Broadband | - | - |
| Business District Development | - | - |
| Community Development | - | - |
| 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 | \$ 59,188,000 | \$ 67,181,990 |

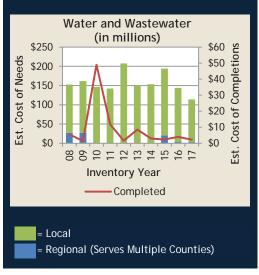


Washington County Total Estimated Cost* for Infrastructure Improvements \$711,793,004

TOP 3

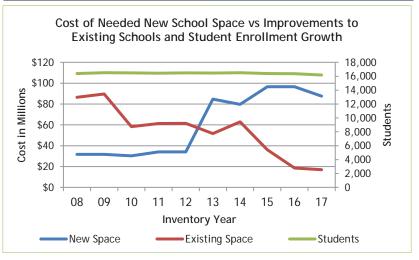






Estimated Cost of Needed Infrastructure for Washington County Five-year period July 2017 through June 2022

| Decident Type | Concentual | Planning & Design + Construction |
|--------------------------------------|----------------|-------------------------------------|
| Project Type | Conceptual | |
| Post-secondary Education | \$ 27,100,000 | \$ 155,699,250 |
| Transportation | 103,662,000 | 70,211,248 |
| Water and Wastewater | 48,125,000 | 65,655,000 |
| New Public Schools & Additions | 50,175,500 | 37,400,000 |
| Recreation | 3,070,000 | 56,523,006 |
| Housing | 6,780,000 | 30,600,000 |
| School Renovations | 12,454,000 | 4,455,000 |
| Law Enforcement | 7,800,000 | 1,600,000 |
| Other Facilities | - | 8,000,000 |
| Fire Protection | 5,750,000 | 75,000 |
| Libraries, Museums, & Historic Sites | 1,990,000 | 2,700,000 |
| Public Buildings | 1,650,000 | 2,084,000 |
| Industrial Sites and Parks | 1,000,000 | 1,900,000 |
| Public Health Facilities | 2,800,000 | - |
| Business District Development | 2,000,000 | - |
| School-System-wide | 300,000 | 174,000 |
| Solid Waste | - | 60,000 |
| Broadband | - | - |
| Community Development | - | - |
| Other Education | - | - |
| Other Utilities | - | - |
| Storm Water | - | - |
| Total | \$ 274,656,500 | \$ 437,136,504 |

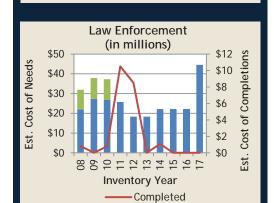


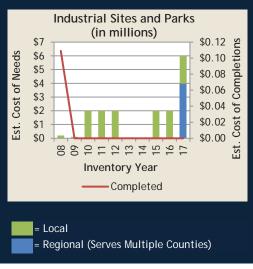
Wayne County

Total Estimated Cost* for Infrastructure Improvements \$105,416,999

TOP 3

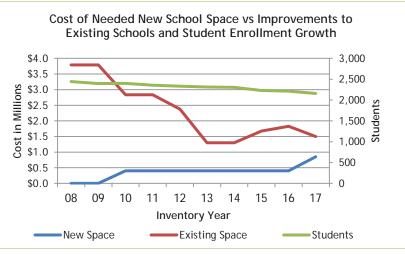






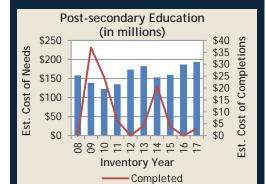
Estimated Cost of Needed Infrastructure for Wayne County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|---------------|-------------------------------------|
| Transportation | \$ 43,384,000 | \$ 2,532,180 |
| Law Enforcement | 19,330,000 | 25,200,000 |
| Industrial Sites and Parks | 5,000,000 | 974,300 |
| Water and Wastewater | 1,500,000 | 1,289,847 |
| Community Development | 1,500,000 | - |
| School Renovations | 1,399,000 | 100,000 |
| Solid Waste | - | 950,000 |
| New Public Schools & Additions | 850,000 | - |
| School-System-wide | - | 781,717 |
| Public Health Facilities | 250,000 | - |
| Recreation | 250,000 | - |
| Fire Protection | 125,955 | - |
| Broadband | - | - |
| Business District Development | - | - |
| Housing | - | - |
| Libraries, Museums, & Historic Sites | - | - |
| Other Education | - | - |
| Other Facilities | - | - |
| Other Utilities | - | - |
| Post-secondary Education | - | - |
| Public Buildings | - | - |
| Storm Water | - | - |
| Total | \$ 73,588,955 | \$ 31,828,044 |



Weakley County Total Estimated Cost* for Infrastructure Improvements \$266,790,102

TOP 3



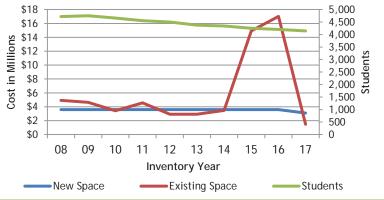




Estimated Cost of Needed Infrastructure for Weakley County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|----------------|-------------------------------------|
| Post-secondary Education | \$ 79,160,000 | \$ 114,470,000 |
| Transportation | 36,185,000 | 10,784,833 |
| Libraries, Museums, & Historic Sites | 5,500,000 | - |
| Law Enforcement | - | 4,500,000 |
| Water and Wastewater | 2,500,000 | 1,359,280 |
| New Public Schools & Additions | 3,100,000 | - |
| Recreation | 850,000 | 1,149,633 |
| Industrial Sites and Parks | 1,900,000 | - |
| Public Buildings | 1,500,000 | 60,000 |
| School Renovations | 575,000 | 896,356 |
| 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 | \$ 132,570,000 | \$ 134,220,102 |





White County

Total Estimated Cost* for Infrastructure Improvements \$134,119,999

TOP 3



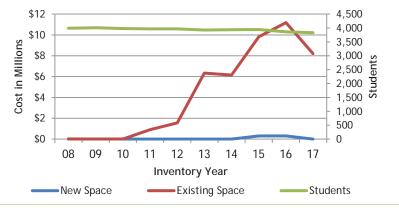




Estimated Cost of Needed Infrastructure for White County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|----------------|-------------------------------------|
| Transportation | \$ 44,179,000 | \$ 14,399,330 |
| Industrial Sites and Parks | 40,000,000 | 2,065,700 |
| Water and Wastewater | 9,500,000 | 3,800,000 |
| School Renovations | 2,200,000 | 6,010,000 |
| 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 | \$ 103,779,000 | \$ 30,340,999 |

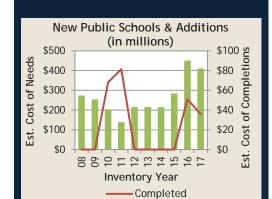


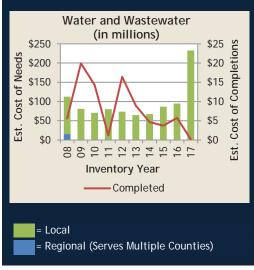


Williamson County Total Estimated Cost* for Infrastructure Improvements \$1,790,616,104

TOP 3

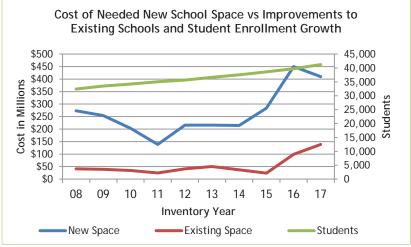






Estimated Cost of Needed Infrastructure for Williamson County Five-year period July 2017 through June 2022

| Project Type | Conceptual | Planning & Design + Construction |
|--------------------------------------|----------------|-------------------------------------|
| Transportation | \$ 201,184,000 | \$ 562,577,145 |
| New Public Schools & Additions | 252,000,000 | 157,920,000 |
| Water and Wastewater | 39,201,264 | 193,534,370 |
| School Renovations | 94,079,000 | 44,842,943 |
| Recreation | 44,496,900 | 40,300,338 |
| Post-secondary Education | - | 52,760,000 |
| Fire Protection | 33,400,000 | 8,939,884 |
| Public Buildings | - | 26,500,000 |
| Law Enforcement | - | 21,000,000 |
| Libraries, Museums, & Historic Sites | 3,700,760 | 3,120,000 |
| Community Development | 5,292,500 | - |
| Solid Waste | 2,800,000 | 1,262,000 |
| School-System-wide | - | 1,530,000 |
| Business District Development | - | 175,000 |
| Broadband | - | - |
| Housing | - | - |
| Industrial Sites and Parks | - | - |
| Other Education | - | - |
| Other Facilities | - | - |
| Other Utilities | - | - |
| Public Health Facilities | - | - |
| Storm Water | - | - |
| Total | \$ 676,154,424 | \$ 1,114,461,680 |



Wilson County

Total Estimated Cost* for Infrastructure Improvements \$1,547,140,186

TOP 3







Estimated Cost of Needed Infrastructure for Wilson County Five-year period July 2017 through June 2022

| | | Planning & Design |
|--------------------------------------|------------------|-------------------|
| Project Type | Conceptual | + Construction |
| New Public Schools & Additions | \$ 621,700,000 | \$ 46,000,000 |
| Transportation | 266,870,000 | 279,437,950 |
| School Renovations | 152,878,500 | 16,000,000 |
| Water and Wastewater | 56,800,000 | 30,265,000 |
| School-System-wide | 2,150,000 | 20,000,000 |
| Law Enforcement | 5,000,000 | 11,840,000 |
| Recreation | 3,897,216 | 12,181,520 |
| Other Utilities | - | 10,000,000 |
| Fire Protection | 2,000,000 | 3,500,000 |
| Solid Waste | 3,000,000 | - |
| Public Buildings | 2,500,000 | 400,000 |
| Public Health Facilities | 720,000 | - |
| Broadband | - | - |
| Business District Development | - | - |
| Community Development | - | - |
| Housing | - | - |
| Industrial Sites and Parks | - | - |
| Libraries, Museums, & Historic Sites | - | - |
| Other Education | - | - |
| Other Facilities | - | - |
| Post-secondary Education | - | - |
| Storm Water | - | - |
| Total | \$ 1,117,515,716 | \$ 429,624,470 |

Cost of Needed New School Space vs Improvements to Existing Schools and Student Enrollment Growth \$800 25,000 \$700 20,000 \$600 Cost in Millions 15,000 Students \$500 \$400 \$300 \$200 5,000 \$100 \$0 0 08 09 10 11 12 13 14 15 17 16 **Inventory Year** Existing Space Students New Space

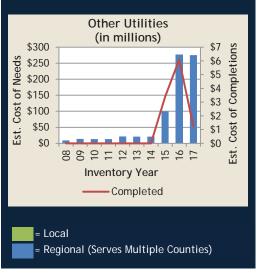
Multi-county

Total Estimated Cost* for Infrastructure Improvements \$3,688,566,915

TOP 3







Estimated Cost of Needed Infrastructure for Multi-county Five-year period July 2017 through June 2022

| | | Planning & Design |
|--------------------------------------|------------------|-------------------|
| Project Type | Conceptual | + Construction |
| Transportation | \$ 1,329,181,000 | \$ 1,483,067,306 |
| Water and Wastewater | 24,106,410 | 405,544,000 |
| Other Utilities | 89,700,000 | 185,775,000 |
| Law Enforcement | 3,200,000 | 66,230,000 |
| Post-secondary Education | - | 37,420,000 |
| Recreation | 13,640,000 | 15,000,000 |
| Other Education | - | 23,000,000 |
| Public Buildings | - | 12,410,000 |
| Fire Protection | 158,000 | - |
| Libraries, Museums, & Historic Sites | - | 135,199 |
| Broadband | - | - |
| Business District Development | - | - |
| Community Development | - | - |
| Housing | - | - |
| Industrial Sites and Parks | - | - |
| New Public Schools & Additions | - | - |
| Other Facilities | - | - |
| Public Health Facilities | - | - |
| School Renovations | - | - |
| School-System-wide | - | - |
| Solid Waste | - | - |
| Storm Water | - | - |
| Total | \$ 1,459,985,410 | \$ 2,228,581,505 |