

Jacobs *Recommendations*

FOR CONSIDERATION

SEPTEMBER
2017





Acknowledgments

This report was prepared for the School Building Authority at the Rhode Island Department of Education. The project team performed analysis and prepared recommendations for the public schools in the State of Rhode Island. As a planning team, we hope this document will aid the public schools of Rhode Island in implementing innovative and cost-effective facilities improvements that will have a positive impact on student learning.



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RHODE ISLAND SCHOOLHOUSE

JACOBS RECOMMENDATIONS FOR CONSIDERATION

September 2017 | Executive Summary

In order to develop facilities that support its scholastic vision and meet statutory obligation, The School Building Authority (SBA) at the Rhode Island Department of Education (RIDE) has embarked on a statewide action planning process. This landmark moment for school construction will direct policy and investment to achieve the State of Rhode Island's vision and foster equity across the state. The planning process, which included multiple assessments and analyses, used data and enrollment projections to inform this statewide Jacobs Recommendations for Consideration report and forecast of future funding requirements. With this plan, the state can strategically and effectively spend available facility funding to provide the opportunity for student learning to occur in healthy, safe environments. It will also allow for educational spaces to be updated to better reflect 21st century learning environments.

The State of Rhode Island Schoolhouses report, summarized under separate cover, identified current deficiencies and life cycle renewal forecasts for the next five years. Data collected during the facility condition assessment, energy analysis, and demographics study provided the basis for the Jacobs Recommendations for Consideration. State regulation, industry best practices, and the current state of funding for public schools in Rhode Island provided guidance throughout the action planning process. The results of the iterative process are the following recommendations to target high-value investment and other recommendations for the state to provide long-term strategic funding and educational opportunities.

The Jacobs Recommendations for Consideration present three types of recommendations, shown below, to guide the next five years of facility investment: fiscal strategies, Local Education Agency (LEA) Focus Programs, and strategic recommendations.

Q: Why an Action Plan?

A: To create and maintain 21st century learning environments.



JACOBS RECOMMENDATIONS

FISCAL STRATEGIES

- Lower Minimum Share Ratio
- Request Statewide Bond
- Allocate Additional School Construction Aid
- Exceptional Needs Program
- RIDE Capital Budget Requests
- Establish a Dedicated Funding Stream
- Additional Construction Aid

LEA FOCUS PROGRAMS

- Warm, Safe, and Dry
- Newer and Fewer
- Educational Programs
- Energy
- Technology and FF&E
- Charter Public Schools

STRATEGIC RECOMMENDATIONS

- Prioritize School Construction Projects
- Encourage LEAs to Establish and Use Capital Reserve Funds
- Consider Public-Private Partnerships
- Enhance Facility Innovation
- Establish Adequacy Standards
- Develop a Community Engagement Protocol
- Provide Additional Staff to SBA
- Streamline Procurement
- Reinforce Existing Facility Master Plan Process

The fiscal strategies provide recommendations on possible financial opportunities the state could seek to potentially fund projects to bring more facilities into 21st century learning environments. The identified LEA Focus Programs allow the state to better prioritize funding while maintaining LEA control. These programs were based on the facility condition assessment, demographics analysis, industry best practices, and the current state of the public schools in Rhode Island. The strategic recommendations for LEAs and the state provide guidelines to improve operations of their facilities and give guidance for additional processes that will contribute to the overall goals of RIDE. These are highlighted in the following pages.

FISCAL STRATEGIES

Operating under the assumption that there is an \$80 million annual allocation for school construction aid, the Council on Elementary and Secondary Education can continue to approve \$140 million in school projects annually for the next five years.

Lower the Minimum Share Ratio

Rhode Island General Law establishes housing aid minimums of 35 percent for districts and 30 percent for charter schools, regardless of what the share ratio (reimbursement rate) would be based on the calculation established by law. By returning the housing aid minimums to 30 percent and the maximum to 80 percent, the statewide average would be reduced to 43.6 percent. This would be similar to the 2011 housing aid share ratio average and would allow the state to fund more projects while remaining under the \$80 million school construction aid threshold.

Request Statewide Bond

Considering the need for critical repairs in Rhode Island schools far exceeds current funding allocations, a statewide bond presents all Rhode Island communities the opportunity to invest strategically in school environments that are safe and adequate for students' success in the college or career of their choice.

Allocate Additional School Construction Aid

Returning school construction aid to the FY 2016 amount of \$90.7 million would allow for over \$75 million of SBA capital funded projects to be completed over a five-year period. The SBA Capital Fund targeted high-priority projects in communities with the highest need.

Create an Exceptional Needs Program

An Exceptional Needs Program would allocate funding to assist LEAs with health and safety needs in their facilities. This program would be available for LEAs that are financially distressed.

Consider a RIDE Capital Budget Request

RIDE should consider including a Capital Budget request to target programmatic improvements that align with statewide priorities, such as Science, Technology, Engineering, Art, and Math (STEAM), and Career and Technical Education (CTE). Providing these spaces will allow LEAs the foundation for program innovation.

Establish a Dedicated Funding Stream

It is recommended that a dedicated funding stream be created to aid in bridging the gap between the current funding and the amount of need in Rhode Island's public schools. Statewide levies or commerce taxes are some of the tools states can consider to meet funding needs.

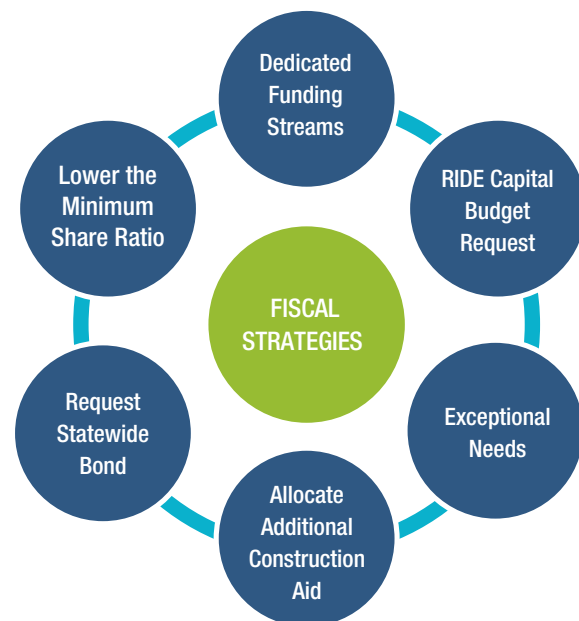


Figure ES-1: Fiscal strategies provide recommendations on possible funding opportunities to bring more schools into 21st century learning.

LEA FOCUS PROGRAMS

The identified five-year need for all school buildings to be improved to an aspirational condition has been estimated at more than \$3 billion. This includes \$2.2 billion in facility deficiency costs and nearly \$800 million in identified five-year life cycle costs. The reality of financial parameters shapes priorities that will have the largest scale impact for the facilities and students in Rhode Island. The Focus Programs outline \$700 million of condition improvements that address the highest priority of the five-year need statewide. The recommendations identify opportunities for programmatic improvements and fiscal stewardship, including focus on educational programs, energy efficiency, and technology, at approximately \$1 billion. **LEA Focus Programs are approval categories under Necessity for School Construction that are derived from the facility condition assessment, totaling approximately \$1.7 billion.** The LEA Focus Programs provide guidance while still allowing LEAs flexibility. In the analysis of the identified facility need, the following categories emerged.

Warm, Safe, and Dry

It is suggested that LEAs address all top-priority condition items statewide to ensure students have warm, safe, dry, and comfortable learning environments. These approvals include high-priority deficiencies identified during the condition assessment.

Newer and Fewer

This incentivizes facility improvements that enhance educational offerings by prioritizing projects that improve school utilization and address programmatic needs. Identifying opportunities to utilize surplus space can enhance educational opportunities.

Educational Programs

This would improve educational program offerings such as pre-kindergarten, CTE, or STEAM. By targeting these opportunities, children in Rhode Island will be afforded better educational experiences through enhanced course offerings and better-equipped facilities.

Energy

This program would identify opportunities to save money by reducing energy consumption and replacing fossil-based energy with clean renewable energy.

Technology and Furniture, Furnishings and Equipment

This focus program would identify technology infrastructure needs, including network architecture, major infrastructure components, classroom instructional systems, and necessary building space and support for technology. This infrastructure provides students with access to advancing technologies and learning opportunities.

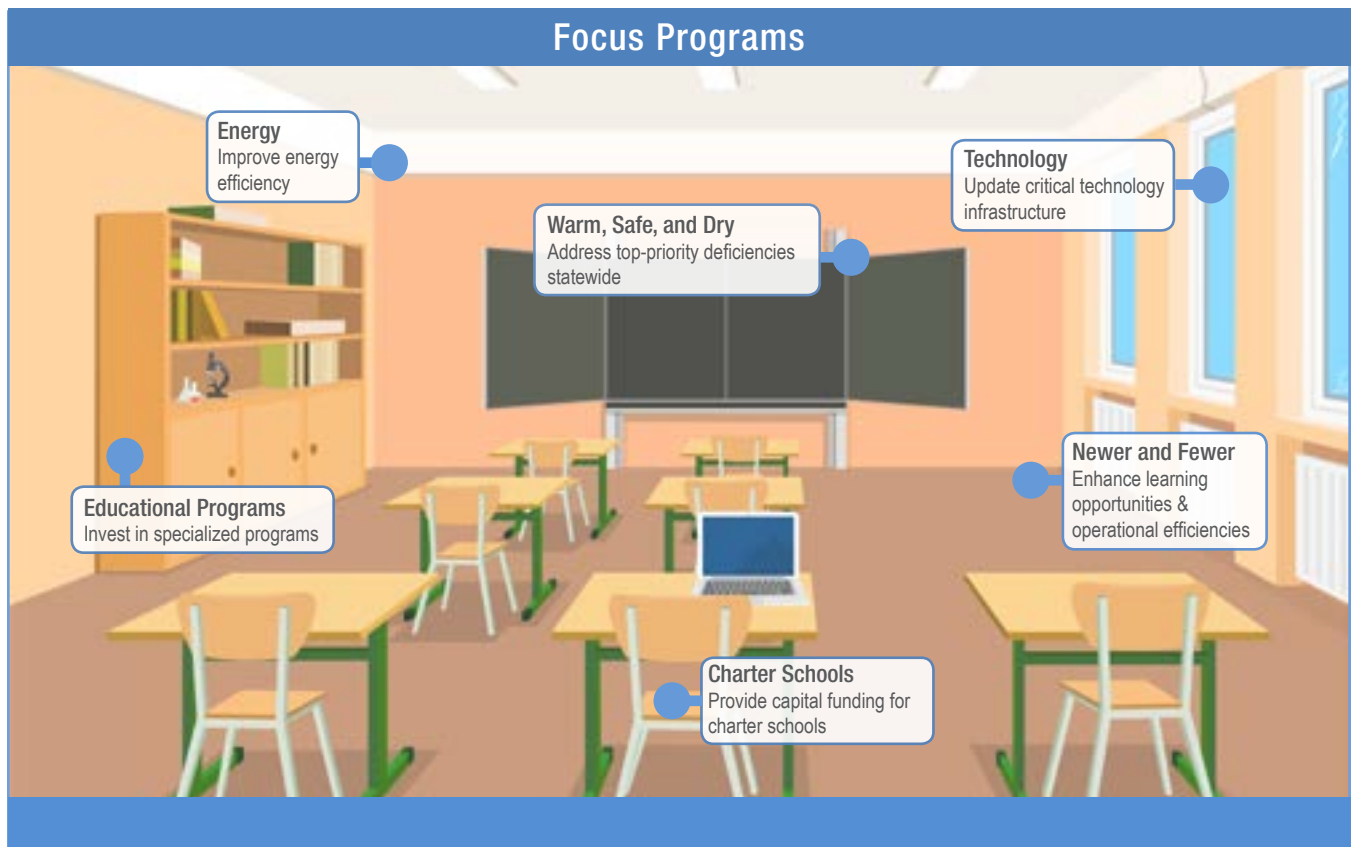


Figure ES-2: Jacobs Recommendations for Consideration identified these LEA Focus Program funding needs.

Charter Public Schools

This plan should explore mechanisms that will provide housing aid opportunity for charter public schools, bridging the gap from charter approval to ownership of a facility.

STRATEGIC RECOMMENDATIONS

The following strategic recommendations are opportunities for LEAs and the state. They provide guidelines to improve operation of their facilities, potentially fund opportunities that bring more facilities into 21st century learning environments, and give guidance for additional processes that will contribute to the overall goals of RIDE.

Prioritize School Construction Projects

As LEAs develop projects for school campuses, each project will be prioritized. Project prioritization should be based on the school priority, but evaluated individually for alignment with identified needs and the Jacobs Recommendations. The rankings will aid in promoting adequate school housing for all public school children and improved learning environments.

Encourage LEAs to Establish and Use Capital Reserve Funds

It is suggested that LEAs be encouraged to establish and use capital reserve funds. By LEAs not bonding, the state can save substantial amounts of financing cost that can be reinvested.

Consider Public-Private Partnerships

Explore partnership opportunities with the private sector that result in win-win scenarios addressing K-12 facility innovation and/or funding, while meeting private industry needs.

Embrace Facility Innovation

Offer the opportunity for expedited access to 21st century learning environments by providing LEAs the opportunity to leverage model facility construction projects. In accordance with state regulations, model innovation programs should be established to provide a “kit” of spaces, adjacencies and requirements to aid in the development of 21st century schools. Often referred to as High Performance Learning Environments (HPLE), the concepts of this design embrace and promote student-centered learning environments that focus on facilitating experiential and project-based learning.

Establish Adequacy Standards

Establish standards in compliance with the Basic Educational Program (BEP) to address the following: 1) facilities planning, coordination, and maintenance; 2) safe, healthy, and sanitary physical environments; and 3) adequate facilities to promote modern teaching and learning.

Develop a Community Engagement Protocol

Develop a community engagement protocol to provide guidance to LEAs and create consistency across the state. It is recommended that the established community engagement process require LEAs to conduct a robust process of collaboration with community stakeholders.

Provide Additional Staff to SBA

Create positions for project managers in the SBA to provide LEAs a resource with the ability to assist in the navigation of the planning process all the way to funding. This additional staff could, in return, expedite the review process, and provide LEAs the guidance needed to access the maximum allowable funding available.


Streamline Procurement

In an effort to facilitate and expedite the acquisition of services, the state could consider developing Master Price Agreements with various vendors specifically related to school construction. Master Price Agreements would allow LEAs to execute contracts quickly and efficiently, work with vendors who are familiar with RIDE’s standard terms and conditions, as well as receive work at the most competitive price.

Leveraging the Jacobs Recommendations, the state and LEAs have the opportunity to engage stakeholders, to fund the highest priority construction and renovation projects, provide enhanced learning opportunities for Rhode Island students, aspire to Net Zero facilities, and provide 21st century learning environments based on sound planning principles.

Reinforce Existing Facility Master Planning Process

LEAs are currently required by the Necessity of School Construction process to conduct a five-year facility master plan prior to submittal of capital projects. The School Construction Regulation (SCR) outlines a robust process for master planning; it is recommended that this requirement continues.

A young girl with curly hair, wearing a backpack, smiling in a school hallway. The image is overlaid with a blue tint.

"By targeting these opportunities, children in Rhode Island will be afforded better educational experiences through enhanced educational course offerings and better-equipped facilities."



Introduction

OVERVIEW

The School Building Authority (SBA) at the Rhode Island Department of Education (RIDE) provides school construction oversight for PK-12 public schools. The public schools in Rhode Island are currently composed of more than 24.1 million square feet of permanent educational facilities on 306 campuses, excluding support and administration buildings. Public schools in Rhode Island include six preschool campuses, five kindergarten to eighth grade campuses, four kindergarten to 12th grade campuses, 177 elementary campuses, 50 middle school campuses, four middle / high school campuses, and 60 high school campuses.

The SBA works with Local Education Agencies (LEAs) to improve efficiencies in the design and construction of school facilities and reinvest associated savings directly back into the classroom. They have engaged Jacobs and Cooperative Strategies to conduct a statewide facility condition assessment and provide Jacobs Recommendations for Consideration. These types of facility assessments are required by statute to be conducted once every five years for PK-12 public schools. The data collected during the facility condition assessment informs Jacobs Recommendations for Consideration.

Because research and associated technologies advance at a rapid pace, it is beneficial to frequently fine-tune the learning environment to keep pace with emerging technologies and methodologies. In addition, studies have shown that the condition of school facilities impacts student performance and attendance. Schools in better condition have better student behavior and more effective teaching.

Clean, quiet, safe, comfortable, and healthy learning environments are important components of successful teaching and learning. Building conditions are important not only to the safety and health of students and staff, but also to the Council on Elementary and Secondary Education's core mission: ensuring that all students achieve at the high levels needed to lead fulfilling and productive lives, to succeed in academic and employment settings, and to contribute to society. To this end, facility condition assessment and action planning efforts help facility managers, districts, and the state effectively use their limited resources to provide the best possible student learning outcomes.

Clean, quiet, safe, comfortable, and healthy learning environments are an important component of successful teaching and learning.

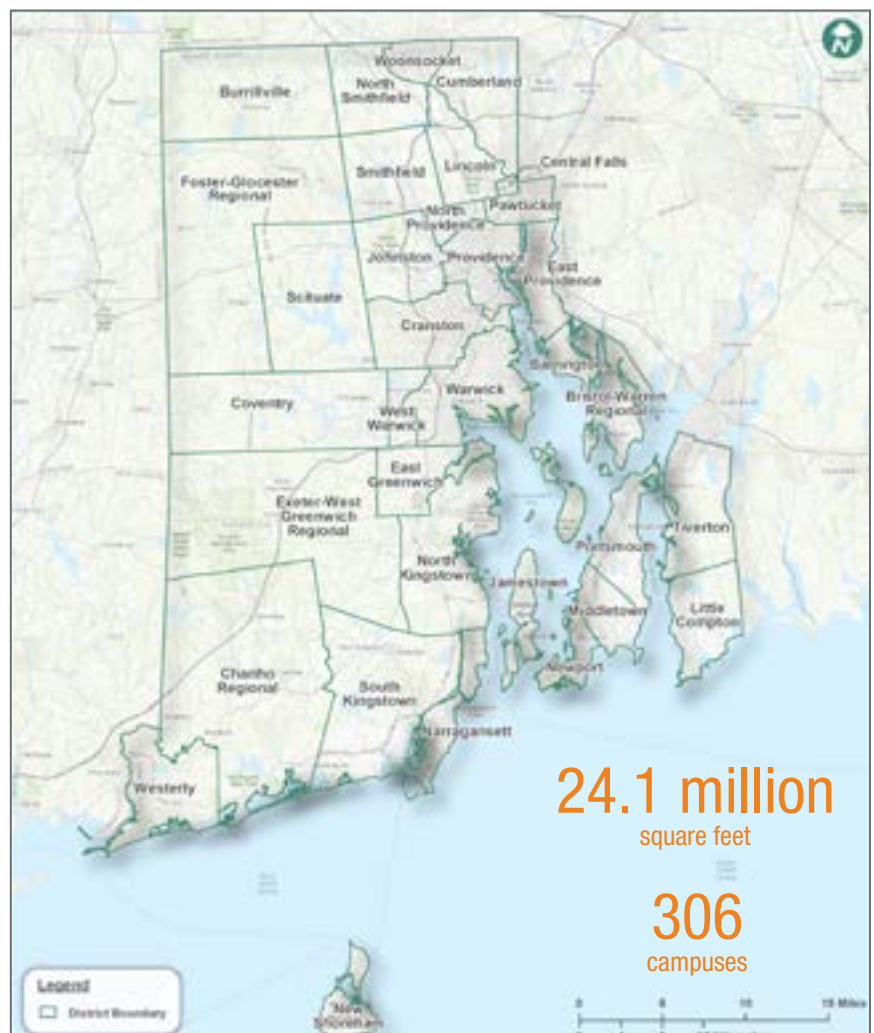


Figure 1: RIDE is made up of 58 LEAs comprising 306 campuses and 24.1 million square feet of facility space.

STUDY PURPOSE

K-12 public school facilities assessment and educational space adequacy are required to be conducted every five years pursuant to Rhode Island General Law. Consistent with the RIDE Strategic Plan and guided by the School Construction Regulations (SCRs), the Jacobs Recommendations for Consideration document the capacity and condition of Rhode Island schools, and identify opportunities for savings and efficiencies for both the LEA and the state. This report provides a statewide perspective that will assist the Board of Education in performing its statutory functions of approving the necessity for school construction and ensuring statewide uniformity in school building quality.

Currently, the Necessity of School Construction application process is governed by the SCRs adopted by the Board of Education in 2007 and administered by the School Building Authority. Through a multi-stage review, the School Building Authority assists LEAs in identifying facility needs for approval by the Board of Education. Since 2007, the School Building Authority has worked closely with LEAs to find efficiencies in design, construction, and programming that have resulted in substantial savings.

Thanks to Governor Gina Raimondo and the Rhode Island General Assembly, school construction in the State of Rhode Island is a priority for significant attention and investment. The governor, with the support of the legislature, lifted the school construction moratorium and together they have passed forward-thinking policies that will help bring equity and efficiency to school construction.

BOARD OF EDUCATION

The Board of Education is the chief policy-setting body overseeing education in Rhode Island, including elementary and secondary education. Through its designated powers and duties, the Board of Education helps shape the course of public education to ensure that all Rhode Island children receive the best possible education.

RHODE ISLAND DEPARTMENT OF EDUCATION (RIDE)

RIDE, through the Commissioner of Elementary and Secondary Education, has the authority to implement and administer the regulations on behalf of the Board of Education. This includes making approval recommendations to the Board based on a multi-phase review, disbursing school housing aid for approved projects, and monitoring compliance with the conditions of project approval and requirements for asset protection and maintenance of facilities set forth in Rhode Island law.

SCHOOL BUILDING AUTHORITY ADVISORY BOARD

The School Building Authority Advisory Board advises the School Building Authority setting statewide priorities, criteria, and recommendations for project approval and prioritization. With the establishment of the School Building Authority Advisory Board and School Building Authority, Rhode Island reaffirmed its commitment to ensure that children of Rhode Island have safe, healthy, adequate, and educationally appropriate school facilities.

SCHOOL BUILDING AUTHORITY

The School Building Authority is part of RIDE's Office of Statewide Efficiencies. It oversees the school construction process to ensure that districts comply with provisions of the SCRs. Furthermore, as of 2007, RIDE ensures that all projects comply with the requirements set forth in the most recent Northeast Collaborative for High Performance Schools (NECHPS) protocol so that approved projects provide high-quality learning environments, conserve natural resources, consume less energy, are easier to maintain, and provide an enhanced school facility. Through this process, RIDE has helped find efficiencies in the design, construction, and operations of school facilities that have resulted in substantial savings due to educational facility planning efficiencies and construction cost avoidance, as well as energy and water cost savings.





Approach and Findings

APPROACH

The Jacobs Recommendations for Consideration will provide guidance to LEAs and stakeholders in making decisions to adequately fund facility improvements while working within the fiscal realities of the state. Ultimately the recommendations will provide opportunities for learning to occur in healthy, safe environments, while providing the potential for learning spaces to be updated to 21st century learning environments. In order to reach these goals, a robust assessment and action planning process was undertaken.

School facility planning consists of four major inputs, including facility condition, enrollment, educational framework, and costs. Robust facility planning needs to consider all four aspects in order to create a successful master plan. Given the multiple factors involved in planning, designing, and building school facilities and their improvements (facility condition, capacity, utilization, prioritization, asset protection), it is necessary to develop and analyze various scenarios. Each scenario has different strengths and varying impacts on the cost related to facility condition improvements, educational program space improvements, five-year life cycle costs, and the replacement of facilities in poor condition with new buildings. It is important to note that the development of potential scenarios involves reviewing these factors, as well as planning with key stakeholders.

Once the scenarios are vetted, the Jacobs Recommendations for Consideration are compiled. This report outlines suggestions for the state and LEAs to consider in addressing facility needs, funding strategies, and facility improvements to support 21st century learning. In addition, the Jacobs Recommendations will indicate approximate budgetary costs of renovations, additions, replacements, and new construction, while illustrating opportunities for savings and efficiencies for both the state and the LEAs.

Jacobs Recommendations for Consideration support the School Building Authority's mission to ensure that all approved projects provide high-quality learning environments, conserve natural resources, consume less energy, are easier to maintain, and provide educationally appropriate school facilities. Because school-age children spend more time in schools than any other building aside from their homes, the schools they attend should be safe, clean, comfortable, and well equipped.

These recommendations provide opportunities for learning to occur in healthy, safe environments. They provide for 21st century learning.

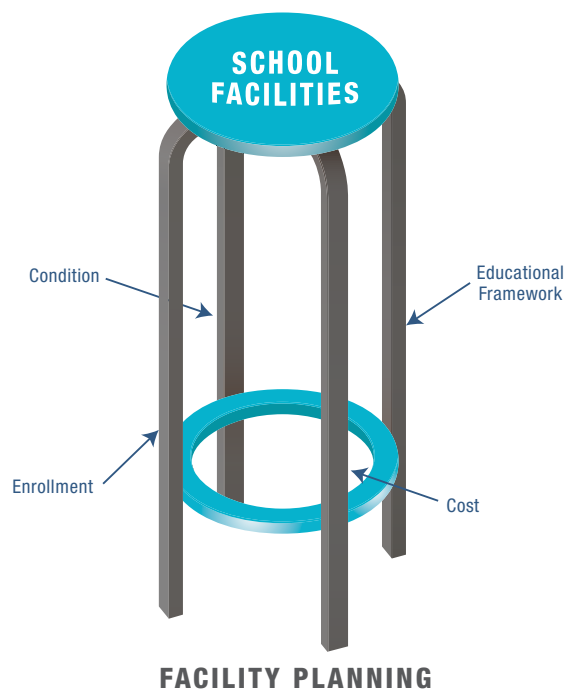


Figure 2: Successful facility planning consists of four imperative components, including condition, educational framework, enrollment, and cost.

As shown in Figure 3 below, each individual assessment or data gathering exercise leads to the production of a list of needs over the next five years. This is used to finalize options informing the Jacobs Recommendations.

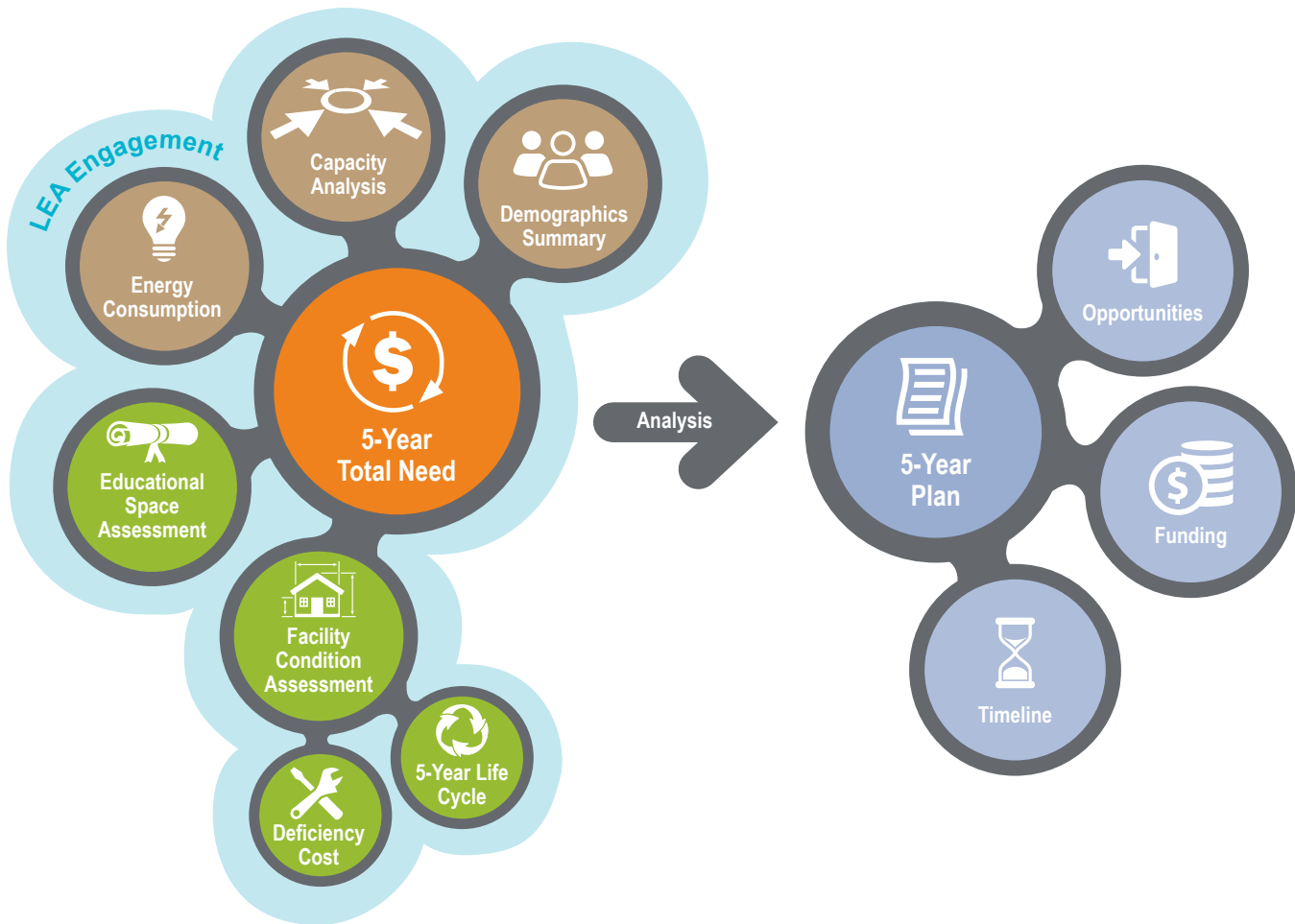


Figure 3: The comprehensive assessment process highlights components of the statewide assessment that inform the Jacobs Recommendations for Consideration.

SUMMARY OF ASSESSMENT FINDINGS

The components of the assessment include an educational program space assessment, capacity analysis, facility condition assessment, five-year life cycle forecast, and enrollment projections. Data were combined to formulate total statewide investment needs for the next five years, and used to develop Jacobs Recommendations for Consideration and forecast future funding requirements. An assessment of energy usage and associated savings opportunities was also conducted as part of the facility condition and planning efforts.

The facility condition assessment provides detailed information associated with each campus, including the overall condition of school facilities and life cycle forecasting information used to identify future building and system needs. The educational program space assessments provide an inventory of facility features that support the educational mission of the schools. All collected data are available on the RIDE website for future access and analysis by the School Building Authority at RIDE.

Most children spend a significant part of their lives inside public school buildings, so the condition of those buildings is of great concern to the State of Rhode Island. Aside from the physical safety and well-being of school children and the adults who work in school buildings, it has long been accepted that the condition and design of school buildings have a direct impact on academic performance. As the state strives to prepare its public school students for success in college, careers and life, facilities must be part of the equation. Findings of the statewide comprehensive assessment have been summarized to give a clear picture of the State of Rhode Island’s PK-12 facilities over the next five years.

The results of this comprehensive facility assessment informed Jacobs Recommendations that will assist stakeholders in making decisions to achieve the goal of adequately funding facility improvements across Rhode Island.

Five-Year Need

Facility condition assessments revealed \$2.2 billion of facility condition costs, including educational space assessment and condition-related deficiencies. These costs are categorized into five priority areas, ranging from critical needs such as building safety and code compliance, to aesthetic improvements like repainting and replacing carpeting. Priority 1 deficiencies are estimated at \$54.5 million, and Priority 2 deficiencies are estimated at \$572.9 million. Combined, these costs constitute improvements that are needed to ensure all buildings meet the “warm, safe, and dry” standard. The remaining priorities address improvements that schools should consider to bring facilities to an ideal, aspirational condition. The majority of educational space needs are related to new construction and the learning environment. More than 41 percent of building condition need is related to interior and technology systems. Considering Rhode Island public schools’ average campus age is 56 years, many of the building systems in the state are nearing or have exceeded the end of their useful lives.

The projected five-year life cycle renewal needs for Rhode Island’s public school facilities are estimated to be \$793.5 million. Over 34 percent of the estimated costs are related to interior finishes, which include flooring, ceilings, walls, painting, and interior doors. Mechanical systems are 25 percent of the projected life cycle renewal costs, followed by site level items. The majority of these costs will be incurred five years out. Of the \$793.5 million in life cycle forecast costs, \$52.3 million are associated with Priority 1 projects.

CONDITION ASSESSMENT FINDINGS	
FACILITY DEFICIENCY COST	+ \$ 2,222.7 Million
5-YEAR LIFE CYCLE FORECAST	+ \$ 793.5 Million
COMBINED 5-YEAR NEED	\$ 3,016.2 Million

Facility Condition Index

The Facility Condition Index (FCI) is a recognized formula that provides a general indicator of a building's health, calculated by dividing the total cost of repair into the total replacement cost. For action planning purposes, the facility deficiency costs and five year life cycle forecast were combined. A five-year FCI was calculated by dividing the five-year need by the total replacement cost. Costs associated with new construction are not included in the FCI calculation.

Approximately 13.4 percent of the five-year FCIs are 20 percent or less, indicating that only a small percentage of public school campuses in the state are in good to average health. The majority of public school facilities in Rhode Island have a five-year FCI in the 31-50 percent range, indicating that they are in poor condition. This is largely due to the aging school facilities in the state. Typically, facilities with an FCI of 65 percent or greater are identified as potential candidates for replacement, and 18 schools currently exceed that threshold.

Utilization

The utilization of a school is determined by dividing the current enrollment by the calculated capacity of a facility. Three different school capacities are reported for this analysis: the LEA reported capacity provided by the LEAs, a functional capacity based on the observed use of rooms during the 2016 assessment, and an aspirational capacity based on the Educational Program Space Guidelines in the SCRs. For the purposes of this study, the SCRs were utilized to calculate an aspirational capacity because the most consistent and equitable way a state can determine school capacities across a variety of districts and educational program offerings is by using square feet per student.

The average R.I. aspirational utilization across the state is 104 percent. On average, elementary schools are 125 percent utilized, middle schools 98 percent, and high schools 89 percent, indicating that there is little-to-no-excess capacity at the middle and high school levels with overcrowding at the elementary school level. Figure 4 represents statewide enrollment compared to the aspirational capacity and indicates statewide utilization of 104 percent.

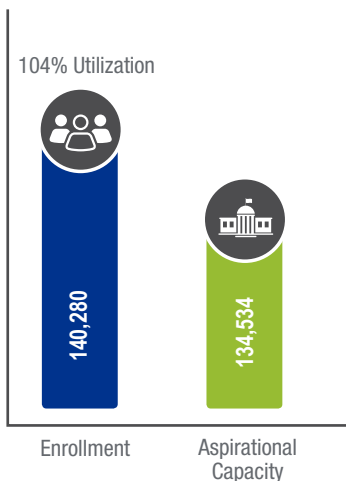


Figure 4: Comparing the Rhode Island 2016 enrollment to aspirational capacity indicates overutilization in schools.

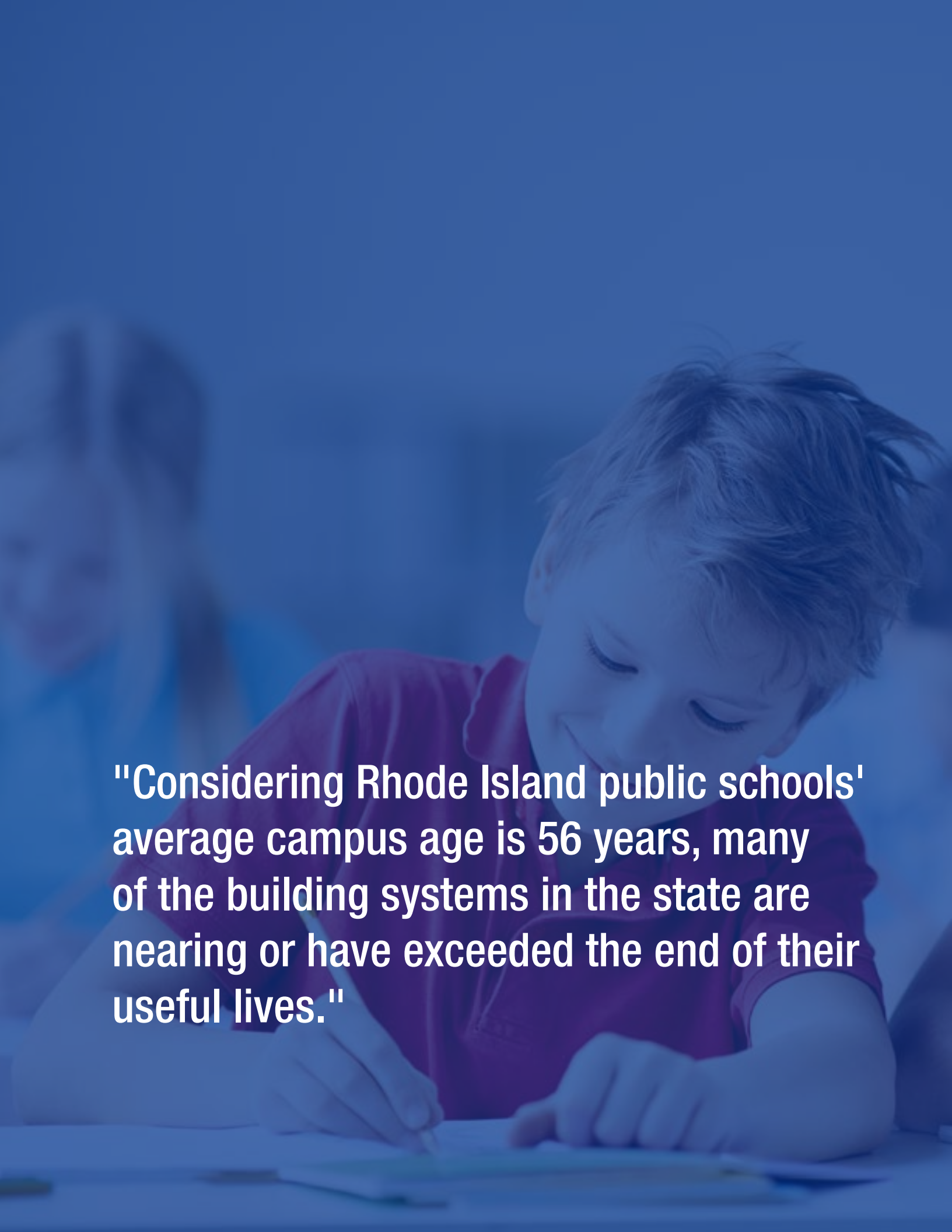
Energy

Through the implementation of cost-effective energy conservation measures statewide savings can be as much as \$33.6 million annually. The public schools in the State of Rhode Island can reduce energy consumption by up to 30 percent, their carbon footprint by 100 percent, and emissions by 100 percent. The schools can also improve indoor air quality, demonstrate institutional values, and utilize solar photovoltaic (PV), geothermal energy, and energy conservation technologies as instruments of learning. Reducing energy consumption, achieving Net Zero Energy Schools, and involving students in the process are inspirational. They engage students, make them invest in their school communities, and prepare a generation of environmental stewards who understand and care deeply about energy conservation issues.

POTENTIAL ENERGY COST SAVINGS ANNUALLY

\$33.6

- LED Lighting Upgrades
- Building Automation Systems Installation
- BAS Occupancy Scheduling
- Building Pressurization (DOAS)
- Solar Photovoltaics
- Ground Source Heat Pumps
- Net Zero Energy

A young child with light-colored hair, wearing a red shirt, is focused on writing at a desk. The child's eyes are down, and their hands are positioned over a piece of paper. In the background, a blurred figure of an adult, likely a teacher, is visible, looking towards the child. The entire scene is overlaid with a semi-transparent blue filter.

"Considering Rhode Island public schools' average campus age is 56 years, many of the building systems in the state are nearing or have exceeded the end of their useful lives."



Analysis

The assessment and action planning approach for public schools in Rhode Island included a holistic view of the condition of the facilities, standards and requirements within the state, and industry best practices. Various documents, standards, and regulations guide and inform school construction in the state. To that end, Jacobs Recommendations for Consideration include a review and analysis of this information. There are opportunities to provide guidance to LEAs on the creation and use of standards to guide best practices for school design and operations, and for RIDE to consider additional funding opportunities to support these standards.

APPLICATION OF EDUCATIONAL STANDARDS

Educational space standards establish the primary requirements to which all school facilities are measured. Standards are intended to provide the framework that design, construction, and modernization prescribe to, in order to spatially and organizationally serve programs for which they are intended.

Application of educational standards must address real challenges faced in the diverse landscape of Rhode Island. These educational standards must provide the flexibility to accommodate urban, suburban, rural and coastal areas of the state, along with providing appropriate spaces for a diverse student population. While meeting these demands, the standards must balance both flexibility for evolving educational pedagogy and provide a safe and secure environment, robust technology infrastructure, environmental stewardship, and the ability to accommodate capacity for fluctuating enrollment needs.

Educational standards work concurrently with the Basic Educational Program (BEP) as set forth by the state. The BEP is a set of regulations that defines the standards for the Rhode Island public education system and the maintenance of local appropriation to support its implementation. While abiding to applicable legal mandates under both federal and state law, the BEP is designed to ensure that high-quality education is available to all public school students, regardless of where they reside or which school they attend. The BEP outlines a comprehensive approach for the following:

- Setting directions for the LEA
- Providing guidance on curriculum, instruction, and assessment
- Providing for safe, healthy, and supportive learning environments
- Providing guidance on administration, management, and accountability of the LEA

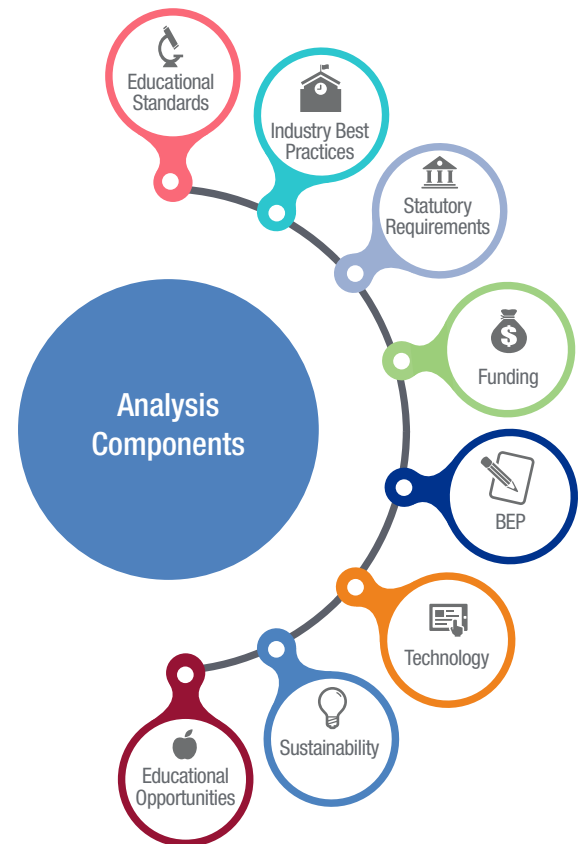


Figure 5: The analysis process includes a holistic view of several essential components of RIDE's educational goals.

GRADE LEVEL SPACE PRINCIPLES

Elementary School

- Introductory learning environments
- Spaces encouraging literacy and numeracy
- Hands-on environments

Middle School

- Spaces promoting growth and exploration
- Flexible fixtures and furniture

High School

- Personalized educational spaces
- Objective-based achievement pathways
- Environments illustrating the "why's" of learning

Figure 6: Educational standards provide the framework to effectively support different types of school spaces.

Fundamental Grade Level Principles

Elementary school facility design standards must fulfill the primary requirement of providing an introductory learning environment. Spaces should reflect a safe and nurturing environment that supports the developmental stages of the student. Elementary school facilities should encourage the concepts of literacy and numeracy. This begins with spaces for students to use a hands-on environment for learning the concepts of literacy comprehension, "learning to read," which evolves into a project-based world of "reading to learn."

Middle years' facility design standards should follow concepts of growth and exploration. Middle years' education not only focuses on the application of fundamental learning principles from elementary years, but also the rapid physical and emotional changes of the student. Therefore, key focus on flexible fixtures and furniture should be emphasized at these grade levels to accommodate the needs of the physically growing student. Exploratory spaces that allow students a wide range of learning experiences will begin to bridge the concepts of core subject areas to the hands-on experiences of visual and performing arts, integrated technology, and even early career exploration.

High school facilities must be organized in a manner that ensures a sense of belonging and a personalized educational experience for each student, designing small communities within the larger community. Focus should be on key adjacencies that allow students to move in objective-based achievement pathways (i.e., not defined by their grade level). Facility and resource efficiencies of adjacencies, such as subject-level groupings, could promote a smaller amount of space necessary to build or renovate. Finally, adjacencies that allow for cross-curricular delivery of core subjects to other core subjects, or integrate into electives or career-technical spaces, promote environments that illustrate the "why's" of learning into the educational model.

APPLYING EDUCATIONAL INDUSTRY BEST PRACTICES

Standards of space will support educational "best practices" intended to provide students with the greatest opportunity for success. Buildings will be designed for the future, accommodating flexibility to meet the changing demands of best practices, technology, instruction delivery, and learning. Characteristics of space, scheduling, and program delivery that are often highlighted include:

- Larger classrooms/space types to support group work
- Scheduling flexibility
- Small group work areas
- Interdisciplinary delivery of curriculum
- Presentation areas
- Common planning time
- Spaces that reinforces teaming and collaboration

Jacobs Recommendations for Consideration are based on sound planning principles and apply industry best practices like these into the development of final strategic recommendations.

INCORPORATING STATUTORY REQUIREMENTS

The SCRs have provided guidance for school construction in Rhode Island since 2007. Their prescription of required square feet per student formed the basis of capacity calculations applied to all public schools in Rhode Island (SCRs, 12-13). The SCRs Space Allowance by Program Activity (pages 13-14) formed the foundation of the space adequacy standards, where assessors walked each school to determine the degree to which they had the prescribed space types at the prescribed sizes. The standards derived from the SCRs are robust, and the assessment provides a snapshot of how each school size and space compare to the standards. Since the standards were created in 2007 and the average school in Rhode Island was constructed in the 1960s, gaps between current schools and the standards are expected. The results of the assessments identify potential areas for future investment. Decision makers now have information needed to make long-term investments in school facilities.

The analysis and use of the SCRs revealed two main areas to be considered for future study. First, the SCRs' prescription for square feet per student designates significantly more square feet per student than what most Rhode Island schools can currently offer. For example, public schools self-report capacities that are approximately 30 percent higher than what the SCRs dictate based on total square feet. This difference may point to a need to replace older, smaller schools with newer, larger schools, or create additions to existing schools to meet the standards. This difference may also point to a need to rethink the standards themselves.

Secondly, the SCRs do not have standards for common or shared learning areas, which are a staple of 21st century schools. Common learning areas function as an extension of the classroom, allowing teachers to have more space for group and individualized instruction, while providing students casual learning spaces they utilize on their own time. These spaces reflect the increased use of project-based learning by teachers and the increasing flexibility students have as to where, when, and how they learn.

When compared to Massachusetts, however, the elementary school and middle school space standards are identical, and the SCRs' high school standards prescribe only slightly less square feet than Massachusetts'.

COMPARING FUNDING AND HOUSING AID TO OTHER STATES

It will take significant effort and commitment to have all RIDE schools functioning to the standards outlined in the BEP. The planning team performed background research on each state in the nation to gain further insight into how K-12 school facilities are funded, being prioritized, and whether they have minimum facility standards. Research was undertaken mainly through interview of state facilities officials. Using the 21st Century Fund's *2016 State of Schools Report* as a central reference, the team identified key variables and drafted a questionnaire. With these questions answered, the State of Rhode Island now has additional reference for how other states fund and manage their school facilities, and how best to engage in policy issues in the future.

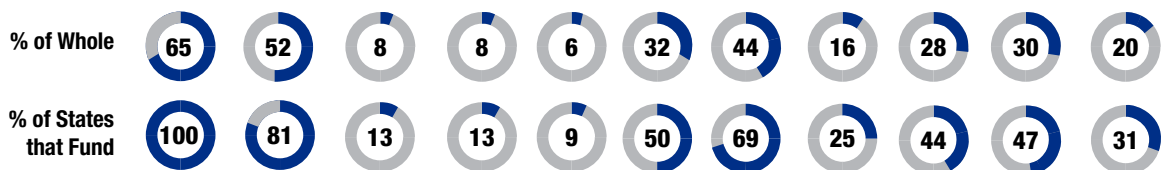
The Jacobs Recommendations are based on a holistic view of facility condition, standards, state requirements, and industry best practices.

States With No Capital Funding

Eighteen states do not fund school capital projects at the state level; 14 states do not provide facility standards for condition, adequacy or utilization, in addition to not funding facilities construction. States that do not fund their facilities are not represented. Despite not funding K-12 facilities, four states provide guidance through building standards and/or prioritization tools (Florida, New Hampshire, North Dakota, and Vermont). These states were not investigated past the point of confirmation that they do not fund capital projects. Table 1 demonstrates various states that do fund school capital projects.

Table 1: Research highlights how other states fund K-12 facilities, prioritize funding, and develop minimum facility standards.

	Does the state fund LEA capital projects	Funding Source				Funding Prioritization			Periodic or New Build Standards		
		General Assembly Allocation	Statewide Voter Referendum/ Levy	Energy/ Natural Resources Tax	Commerce Tax	Wealth Index of District	Worse to First by Facility Condition	Educational Adequacy	Conditions Standards	Educational Adequacy Standards	Utilization Standards
Alabama	◆		◆				◆				
Alaska	◆	◆				◆	◆				
Arizona	◆	◆					◆	◆	◆	◆	◆
Arkansas	◆	◆					◆		◆	◆	◆
California	◆	◆	◆				◆			◆	◆
Colorado	◆			◆	◆		◆	◆	◆		
Connecticut	◆	◆				◆					
Delaware	◆	◆				◆	◆				◆
Georgia	◆	◆					◆		◆	◆	
Hawaii	◆	◆					◆			◆	
Illinois	◆	◆				◆	◆				
Iowa	◆				◆		◆				
Kansas	◆	◆				◆					
Kentucky	◆	◆				◆	◆				
Maine	◆	◆					◆	◆	◆	◆	◆
Maryland	◆	◆				◆	◆		◆		
Massachusetts	◆				◆		◆	◆	◆	◆	
Minnesota	◆	◆				◆	◆				
New Jersey	◆	◆				◆	◆	◆	◆		◆
New Mexico	◆	◆		◆		◆	◆	◆	◆	◆	◆
New York	◆	◆	◆			◆	◆	◆	◆	◆	
North Carolina	◆										
Ohio	◆	◆	◆			◆			◆	◆	◆
Pennsylvania	◆	◆									
Rhode Island	◆	◆				◆					
South Carolina	◆	◆				◆					
Texas	◆	◆				◆				◆	
Utah	◆					◆					
Virginia	◆	◆								◆	
Washington	◆	◆		◆			◆		◆	◆	
West Virginia	◆	◆					◆		◆	◆	◆
Wyoming	◆	◆		◆			◆	◆	◆	◆	◆
SUB-TOTALS	32	26	4	4	3	16	22	8	14	15	10



Standards or Prioritization Tools

The survey noted the following ways states can impact K-12 facilities:

- Whether or not a state provides any facilities funding to LEAs
- If state funding to LEAs considers the following:
 - The wealth index of the LEA or community
 - The individual condition of the building ranking from worst condition to best condition
 - If it includes measures of educational adequacy apart from condition
- Whether or not LEA facility standards exist for condition, educational adequacy, or facility utilization

Of states that fund K-12 facilities, a “worst-to-first” funding based on facility condition is the most commonly used prioritization strategy. Half of these states factor local community wealth in funding formulae, and a quarter factor in some form of educational adequacy standard to determine local funding needs.

Most Commonly Used Funding Sources

As shown in Figure 7, the most common method of funding is what has been categorized as General Assembly Allocations. This preference may lead to the general volatility of funding levels for capital projects, as the amount of funding may change year to year, based on the tone of the legislature. The second most common funding sources were from energy/natural resources tax and a commerce tax, tied at 13 percent of states that fund school capital projects. These were followed by Statewide Voter Referendum/Levy.

These funding sources were selected due to their prevalence; however, there are other techniques used. In addition, the categories displayed are not mutually exclusive. Among the states that choose to fund school capital projects, most average just over one funding strategy.

General Assembly Allocations

A few possible scenarios have been lumped together to make the General Assembly Allocation category. For the purposes of this study, if a state has a General Assembly Allocation, it may (1) be allocating funds at the political discretion of the general assembly (this may involve addressing specific projects in need of funding or allocating funds forwarded to a state-level education board, which then decides where and how it is distributed to LEAs), or (2) the state engages in a bonding process when it is in need of funds but prefers to incur debt to accomplish this goal rather than pull from the general fund.

Energy/Natural Resources Tax

This type of funding segregates state tax revenue into specific purposes by the type of tax base, in this case being natural resource revenue. There are various examples of this, ranging from Colorado’s Land Trust Grants revenue to Wyoming’s severance tax revenue. Most cases involve the state generating revenue from its ownership of vast swathes of land.

COMMONLY USED FUNDING SOURCES

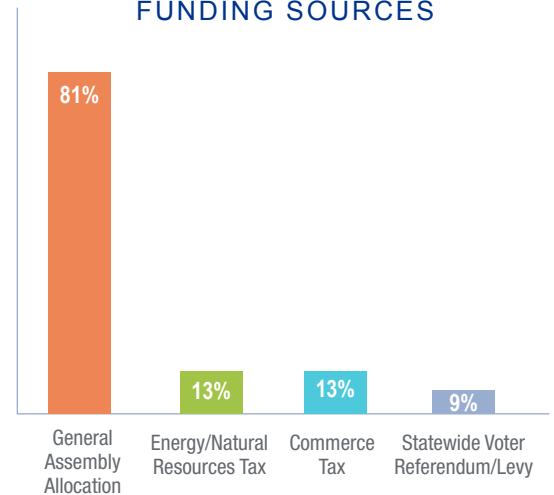


Figure 7: The funding and prioritization study highlights findings related to commonly used funding sources across the responding states.

Commerce Tax

A commerce tax designates a specific source of state revenue for the purpose of school capital outlay. Examples include sales taxes, such as Colorado's Marijuana Excise Tax, and Iowa and Massachusetts' designated \$0.01 (or 1 percent) general sales tax.

Statewide Voter Referendum/Levy

This scenario usually involves the state engaging in asking, through a voting process, to go into debt. Usually, this debt is accommodated by increases in homeowner's tax, business profits tax, or sales tax. This is similar to Option 2 of the General Assembly Allocations option.

FUNDING RHODE ISLAND'S K-12 FACILITY NEEDS

RIDE K-12 FACILITY FUNDING NEEDS

- Funding required to address pressing facility needs **exceeds** current allocations.
- SBA Capital Fund provides housing reimbursement ranging from **35% to 96%** for LEAs with the greatest financial need.
- More than **50%** of charter schools operate on leased properties, and therefore do not qualify for capital reimbursement.

Rhode Island School Construction Aid

The FY 2017 budget for School Construction Aid totals \$80 million: \$70.9 million for housing aid reimbursements and \$9.1 million in the SBA Capital Fund Project for upfront funding. After a statewide assessment, the funding required to address pressing condition, educational adequacy, and utilization needs exceeds current allocations. Jacobs Recommendations for Consideration explore additional ways the state can fund facilities needs to provide safe, healthy, and educational adequate facilities for every student. Additionally, Jacobs Recommendations offer strategies to reduce long-term repair and renovation investments in older, smaller schools, ensuring the large capital investments in schools will be financially sustainable and provide a good return-on-investment for students, LEAs, RIDE, and taxpayers; in short, a "newer, fewer" facility investment strategy. Addressing condition and adequacy while adopting a newer, fewer investment strategy will require an increase in near-term investments to provide long-term financial sustainability for stakeholders and improved educational opportunities for students.

Appropriations, Existing Commitments & Capital Reserve Funds

FY 2016 projects funded under the SBA Capital Fund Project totaled \$19.3 million and impacted 51 schools statewide. Projects focused on fire, security, and major systems repairs. When local funding was included, the result was \$24 million worth of urgent projects. The 2017 housing aid entitlements totaled \$69 million, covering all traditional LEAs and six charter schools. The minimum share RIDE covers for housing aid reimbursements is 35 percent, ranging to 96 percent for LEAs with the greatest financial need. In addition to identifying ways to increase the funding capacity of the housing aid and SBA Capital Fund reserves to address needs identified by these Recommendations, it is suggested that lowering the minimum housing aid reimbursement for the LEAs with the greatest capacity to raise local funds be considered; in this way, more funds can be distributed to those LEAs least capable of raising local funds.

Funding Facility Needs for Charter Schools

Charter schools can apply for capital funding assistance through the state just as their traditional LEA counterparts, as "all students and prospective students of a charter school shall be deemed to be public school students, having all the same rights under federal and Rhode Island law and prospective students at a non-chartered public school" (Rhode Island General Laws §16-77-33.1). More than half of Rhode Island's charter facilities currently operate in facilities leased by the charter operator. Capital improvements of leased facilities are the purview and responsibility of the landlords who own these facilities. There are 15 charter schools currently operating in non-leased facilities and would be eligible for capital reimbursements. These 15 facilities have a total identified need of \$3.8 million for Priority 1 and 2 condition items representing just 0.2 percent of the estimated budget for the Jacobs Recommendations.

APPLYING THE BEP TO THE JACOBS RECOMMENDATIONS

The 2009 BEP provides a broad vision for Rhode Island public education, and when coupled with state and federal laws, outlines the rights and expectations families have for their children's education. A key tenet of the BEP is that "Every public school student will have equal access to a high quality, rigorous, and equitable array of educational opportunities from PK-12" (BEP, 3). The BEP covers:

- Curriculum, instruction, and assessment
 - Guaranteed and viable curriculum
 - Effective instruction for all students
 - Comprehensive assessment and reporting systems
 - Evaluation of curriculum, instruction, and assessment
- Safe, healthy, and supportive learning environment
 - Academic supports and interventions for all students
 - Supportive and nurturing school community
 - Health and social service supports
- Safe and healthy physical environment

The BEP focuses on the successful classroom and personal experience students have during their education, and notes the importance of having well-planned, maintained, and operated schools for quality education. As stated in the BEP:

"Each LEA shall recognize and promote the belief that 21st century, high-performing school facilities must provide a physical environment that contributes to the successful conduct of the program that has been designed to meet the educational needs of students. This requirement encompasses provisions for a variety of areas for instruction and for extra class, recreational, and community activities."

Jacobs Recommendations for Consideration build off the direction of the BEP to quantify a high-performing school facility. The plan identifies priority current and life cycle condition deficiencies, while outlining the needed space types and requirements for a well-rounded 21st century education. It identified the following learning spaces that schools should have to support modern teaching and learning.

Dedicated learning areas for:

- Cafeteria/dining
- Common/flexible learning
- Early childhood education
- Fine and performing arts
- Media centers
- Physical education and athletics
- Special education
- Specialized science and vocational instruction

"Every public school student will have equal access to a high quality, rigorous, and equitable array of educational opportunities."

– BEP Key Tenet

INCORPORATING TECHNOLOGY INTO EVERY LEARNING ENVIRONMENT

Technology continues to evolve and be one of the largest influences on both teaching and learning in education. It is still too often seen as a stand-alone content area with its own dedicated spaces. Best practices suggest incorporating technology into every learning space and integrating it into all curricula. Incorporating technology can accomplish two basic goals of education: (1) linking traditionally isolated content and geographic areas, and (2) providing teachers with tools to explore more ways to teach to multiple intelligences in their lessons.

Research suggests that multi-sensory teaching is most effective in mastery of basic skills. Technology supports visual, auditory and experiential learning; therefore, *it is recommended that all instructional spaces have voice, video, and data accessibility.* This access enhances the flexibility of the learning environment to respond positively to alterations in the use of space. Wiring and other infrastructure components should be the priority since terminal devices can be added later. Infrastructure will support wireless technology as LEAs throughout the state move toward one-to-one technology. The facility should have surplus electrical power capacity and network wiring/bandwidth to permit expansion of such technology.

To take advantage of technology, schools will need comprehensive staff development programs and training; student access to technology applications; updated hardware and software; wireless access points, updated school wiring and internet access; integration of technology into the academic content standards; home-to-school access; technical support personnel at the school level; and a security system that encourages use and protects the investment.

Incorporating technology into all learning spaces and into all curricula can have a significant impact on facilities. First, all learning spaces would require access to voice, video, data ports, and electrical outlets. Second, infrastructure must be designed in such a way to allow access for maintenance and upgrades as technology continues to evolve.

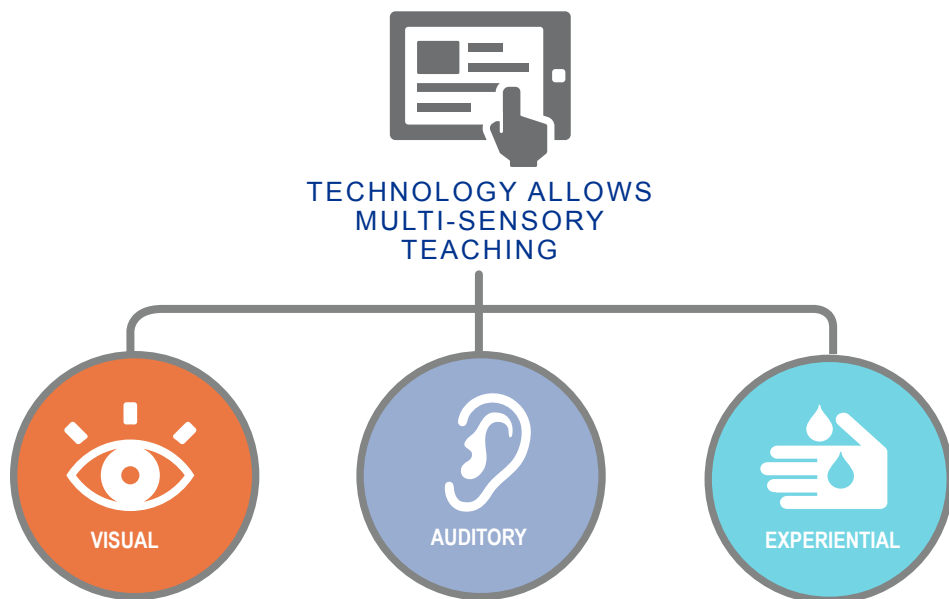


Figure 8: Incorporating technology into every learning space and integrating it into every curricula allows multi-sensory learning.

SUSTAINABLE DESIGN IMPLICATIONS FOR HEALTHY LEARNING ENVIRONMENTS

RIDE recognizes that safe and healthy learning environments need a facilities approach to maintain, remodel, or build new facilities that require use of some renewable energy, that minimize waste and pollution, and have the least intrusion on the natural environment.

As part of the SCRs, school construction projects in Rhode Island shall comply with all requirements set forth in the most recent Northeast Collaborative for High Performance Schools (NECHPS). Following NECHPS protocols provides students with high-quality learning environments, conserves natural resources, consumes less energy, and affords enhanced school facilities.

The NECHPS recommends utilizing an integrated design approach. The overall intent is to integrate high-performance goals into district planning in early programming and in ongoing decision making to maximize system integration and the associated efficiencies and cost benefit of high performance schools. The integrated design approach asks all the members of the building stakeholder community, and the technical planning, design, and construction team to look at the project objectives, and building materials, systems, and assemblies from many different perspectives.

The goal must be to provide healthy indoor spaces for students and staff who will have the largest benefit to the environment, while reducing the life cycle costs over the occupancy of the facility. Industry research has produced significant evidence that facilities that are built and maintained with this purpose in mind lead to increased student achievement. Daylighting, improving test performance, and mold-free environments due to smart environmental design leading to less absenteeism are just examples of how implementation of intentional sustainable design can benefit the educational mission of the school. The major features of sustainable school building design are:

- Commissioning
- Construction and occupancy waste and recycling systems
- Eco-education
- Energy-efficient heating, ventilation, and air conditioning (HVAC) systems
- Energy-efficient building shell
- Environmentally preferable building materials
- Indoor environmental and air quality
- Integrated daylighting and electrical lighting systems
- Renewable energy sources
- Sustainable site planning and landscape design
- Systems commissioning and maintenance programs
- Transportation and community integration
- Water conservation
- Refrigerant management

These features also support practices used by the United States Green Building Council (USGBC), and focus on principles and strategies rather than specific solutions or technologies, which are often site specific. The optimum design solution is one that effectively emulates all natural systems and conditions of a predeveloped site *after* development is complete.

The goal is to provide healthy indoor spaces for students and staff who will have the largest benefit to the environment, while reducing the life cycle costs over the occupancy of the facility.

EXPANDING EDUCATIONAL OPPORTUNITIES

Beyond the space types and requirements identified in the educational adequacy standards, Jacobs Recommendations for Consideration identify areas where current programming exists but requires expansion.

Science, Technology, Engineering, Arts, and Math (STEAM), Career and Technical Education (CTE), and Early Childhood programs are priorities to ensure that as many students as possible have a solid foundation to begin their education and avail of real-world learning opportunities.

Jacobs Recommendations identified funding opportunities to:

- Add dedicated science and art classrooms to all middle and high schools without them
- Bring all current pre-kindergarten spaces up to current SCR standards, and add them to LEAs without dedicated pre-kindergarten classrooms
- Renovate existing CTE centers to update programs and learning technology
- Update technology infrastructure in schools to support the electrical and data needs of 21st century learning



Educational Program and Delivery System: Provide Student-Centered Approaches

Best Practice: Student-centered approaches provide students with a variety of opportunities to learn and develop skills and competencies based on their individual needs. Organizational models such as grade-level teaming, self-contained instruction, multi-age instruction, and looping often characterize these student-centered approaches.

Facilities Impact: Implementing these organizational models offers significant advantages to the delivery of curriculum and observation of students. Best practices suggest that facilities be organized into centers, instructional units composed of classroom spaces, student production spaces, and teacher preparation areas. Absent significant renovations, the traditional double-loaded corridor designs found in many Rhode Island school facilities cannot provide the flexibility necessary to accommodate multiple organizational models, nor can they foster the same level of cooperation, teaming, and sharing of professional resources as pod designs.

Administration: Increase Student Contact and Flexibility

Best Practice: Best practices suggest that decentralizing administration serves the purpose of providing the flexibility and opportunity for increased student contact, decreased student anonymity, and opportunities for passive supervision.

In addition, lead teachers and counselors form teams, are closer to the student and teacher, and can more efficiently use their time, expertise, and resources because their offices are in the academic learning community complexes. Communication between administrators is facilitated through the effective use of technology.

Facilities Impact: Decentralizing administration affects facilities only by the necessity to relocate offices and support spaces within each learning community and/or other areas.



Community Use: Instill a Sense of Participation, Ownership, and Pride



Most schools in Rhode Island are the center of their local community. Utilizing the school in a safe and secure manner that supports community use will instill and oftentimes maintain a sense of ownership from that community. Uses can include the following:

- Youth services
- Cooperative alliances
- Community service volunteers
- Parent volunteer groups
- Recreation centers
- Health and public service organizations

Best Practice: Facilities should serve not only as an instructional center for students, but also as a user-friendly center of the community. They should provide programs and access to resources for adults, businesses, and other community organizations. Community-school partnerships are playing an increasing role in secondary school facilities. These partnerships provide students with expanded learning opportunities, professional development opportunities for staff, and venues for community activities.

Facilities Impact: Providing access to and forming partnerships with the community can have a significant impact on facilities. Additional spaces such as parent or community volunteer rooms, community locker rooms, and storage may be necessary. In addition, for security purposes, community access may require careful attention to the organization of the facility. Community accessible spaces of the facility may need to be in areas that permit the remainder of the facility to be secure before, during, and after school hours.





Recommendations

By combining physical condition, educational appropriateness of space, industry best practices, and financial parameters, Jacobs Recommendations for Consideration break apart those silos of information and allow the data to work together as part of a comprehensive framework to help schools and districts make smart, sustainable investments. Jacobs Recommendations will assist stakeholders in achieving the goal of strategically investing in facility improvements that will advance the learning environment towards 21st century learning.

Although the identified deficiencies and life cycle costs have been estimated at more than \$3 billion over the next five years, the reality of financial parameters shapes priorities that will have the largest scale impact for the facilities and students in Rhode Island. The plan calls for a \$700 million investment over a five-year period that may allow the state to consider lowering the minimum share ratio, issuing a statewide bond, and/or increasing school construction aid.

Jacobs Recommendations for Consideration also provide the state leverage to maintain control of school construction commitment, while outlining recommendations that focus on high-quality programs that remain in local control. With the state creating the LEA Focus Program outline as part of the Necessity of School Construction process, LEAs are incentivized to focus on certain areas of school construction that maintains local control of program decisions, and creates opportunity to be financed by the state when identified as a high-priority need.

Finance opportunities can also be made available for LEAs that have been identified to have high-priority needs in the *Rhode Island State of Schoolhouses* analysis. With the creation of an Exceptional Needs Program, there will be a funding mechanism that uses wealth index and can expedite high-priority projects in communities with lesser means. Creating a capital budget request process can also address educational program improvements that may be otherwise overlooked due to the overall high-priority physical condition needs.

Finally, Jacobs Recommendations for Consideration detail strategies that provide guidance to LEAs seeking capital improvement funding. Most important of all of these strategies is the implementation of requiring LEAs to complete a comprehensive facility plan, as detailed in this document, in an effort to maximize the resources available to them, while maintaining local control of their needs.

Jacobs recommendations can help advance Rhode Island educational spaces into 21st century learning.

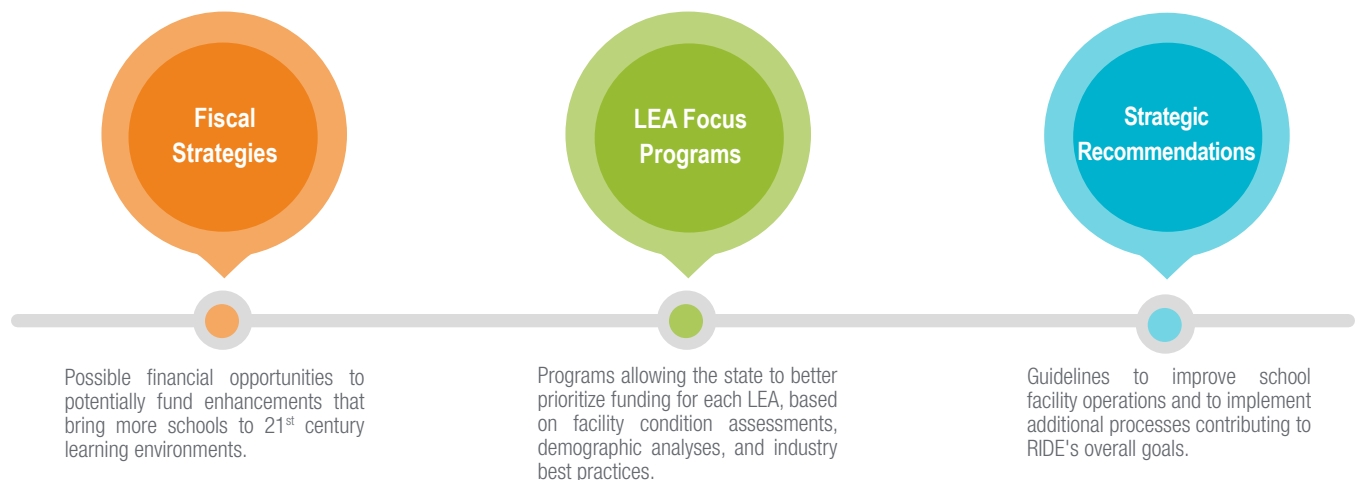


Figure 9: Jacobs recommendations suggest fiscal strategies, LEA Focus Programs, and strategic recommendations.

FISCAL STRATEGIES

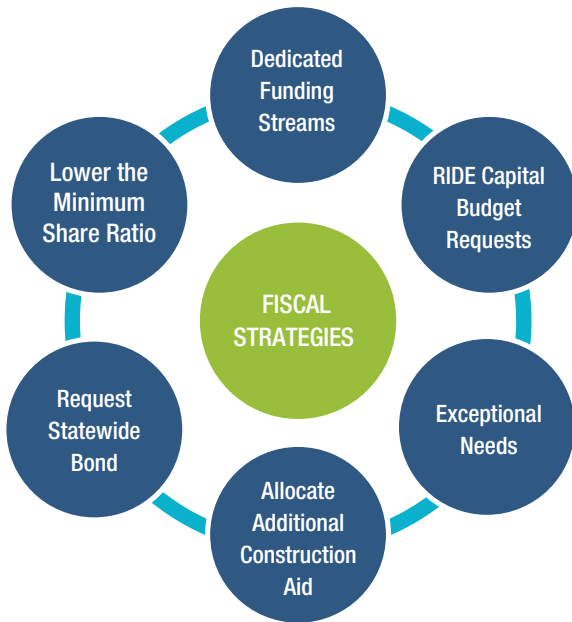


Figure 10: Fiscal strategies offer six recommendations for possible funding opportunities.

Jacobs Recommendations for Consideration are operating under the assumption that there is an \$80 million annual allocation for school construction. In order to keep school construction aid below the \$80 million annual threshold, the Council on Elementary and Secondary Education can continue to approve \$140 million in school construction projects annually for the next five years. In combination with the other recommendations, housing aid would continue to remain under \$80 million after FY 2021, while funding high-priority projects. However, if no other recommendations are enacted, housing aid may begin to surpass \$80 million in FY 2022 provided all approved projects are completed.

Projected housing aid based on \$140 million annual approvals (\$700 million total approvals over five years):

- FY 2017: \$69,010,088
- FY 2018: \$70,907,100
- FY 2019: \$72,537,931
- FY 2020: \$74,403,051
- FY 2021: \$76,862,866

These projections would also allow for at least \$36 million in the SBA Capital Fund over the five-year period. The SBA Capital Fund provides “pay-as-you-go” upfront funding for projects.

Given the current state of funding in Rhode Island, the state can consider the following fiscal strategies.

Lower the Minimum Share Ratio

Rhode Island General Law establishes housing aid minimums of 35 percent for districts and 30 percent for charter schools, regardless of what the share ratio (reimbursement rate) would be based on the calculation established by law. Twenty-one districts in Rhode Island receive the minimum share ratio, including 11 communities that would receive 0 percent based on their calculation. In these cases, these districts are raised to a minimum of 35 percent.

In 2011, the average share ratio (reimbursement rate) for the state was 42.9 percent. In FY 2018, the average share ratio will be 50.6 percent. This is due to the minimums being raised to 35 percent to 40 percent, and then back to 35 percent between 2012 and 2014, and the poorer communities getting poorer. Thirty-three of the 36 traditional districts will receive a higher reimbursement rate in 2018 than they did in 2011. Therefore, regardless of actual school construction starts, the state’s commitment to school construction has increased. By returning the housing aid minimums to 30 percent and reducing the maximum to 80 percent, the statewide average would be reduced to 43.6 percent, which would be similar to the 2011 housing aid share ratio average. This would allow the state to fund more projects, while remaining under the \$80 million school construction aid threshold. Over 40 percent of all new construction called for in the recommendations is tied to LEAs with the minimum share ratio of 35 percent. Lowering the share ratio for the districts most able to raise local funds can help distribute needed repairs and new construction equitably statewide.

Request Statewide Bond

The state should consider a statewide bond in the November 2018 election to address projects in every community. These funds would be distributed similarly to the SBA Capital Fund, where districts could receive pay-as-you-go funding. LEAs would receive the state’s commitment (share ratio) on each approved invoice. This process would allow the state to leverage local dollars and complete additional projects. For example, using the existing

average share ratio of 50.6 percent, Rhode Island would be able to complete between \$180 million and \$200 million of projects with a \$100 million bond. In addition, by targeting projects funded by local capital reserve funds, the state can expedite projects and reduce the debt burden at the local level.

One of the recommendations of the newly released report in collaboration with the 21st Century School Fund, Center for Cities + Schools, National Council on School Facilities and the Center for Green Schools, is that states “establish dedicated state revenue streams to ensure the repayment of long term bonds that finance PK-12 capital improvement projects and new construction” (Priority Actions for Systemic Reform, June 2017, 16). The fact that one in six Americans steps inside a school every day, and most of our nation’s schools were built in the 1950s, there is perhaps no other sector outside K-12 education where the need for enhanced investment in our country’s infrastructure is more pressing. Federal, state and local governments alike need to find additional resources to fund the critical and mounting infrastructure needs for local schools. With the federal government historically funding less than ½ of 1 percent of our nation’s public school needs, states and local governments will likely continue to have to come together to address school infrastructure needs.

Considering the need for critical repairs in Rhode Island schools far exceeds current funding allocations, a statewide bond presents all Rhode Island communities the opportunity to invest strategically to provide school environments that are safe and adequate to prepare all students for success in the college or career of their choice.

A statewide bond presents all Rhode Island communities the opportunity to invest strategically to provide safe and adequate school environments to prepare all students for success in the college or career of their choice.

Allocate Additional Construction Aid

Another recommendation would be to return school construction aid to the FY 2016 amount of \$90.7 million. This would allow for more than \$75 million of SBA Capital Funded projects to be completed over a five-year period. The SBA capital fund targeted high-priority projects in communities with the highest need. An increase in school construction aid would allow for Rhode Island to fund an exceptional needs program to assist the communities that are unable to address their immediate health and safety needs. The SBA Advisory Board could also target funding for other specific needs, such as charter school startup grants, pre-kindergarten, and energy.

Exceptional Needs Program

Creating an Exceptional Needs Program would allocate funding to assist LEAs with health and safety needs in their facilities. This program would be available for fiscally distressed LEAs that cannot fund projects within five years.

The state would reserve the right to request that the LEAs provide a comprehensive capital improvement program that identifies Priority 1 needs for buildings not identified for replacement or consolidation due to condition or demographic needs. Facilities that meet the overall requirements for either replacement or discontinued use would require a waiver from the state to be provided funds for Priority 1 repairs in the Exceptional Needs Program.

This program may serve as a bridge for funding of facilities meeting criteria for replacement, where the LEA cannot provide funds for said facility in a five-year period.

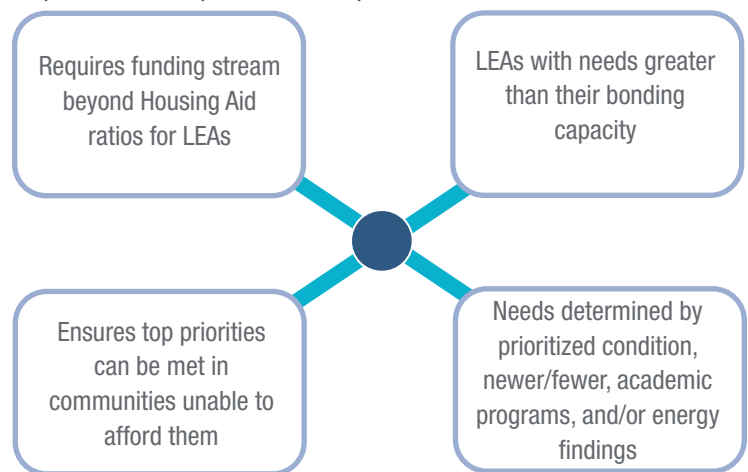


Figure 11: Exceptional Needs Program criteria

Increased capital budget will provide funding for every LEA, setting the foundation for program innovation.

RIDE Capital Budget Request

RIDE should consider including a capital budget request to target programmatic improvements such as STEAM and Career and Technical Education programs. In the past, RIDE has made capital budget requests to support improvements in state-owned career and technical facilities, as well as technology improvements for all LEA facilities. The capital budget increase would focus on STEAM and CTE learning spaces such as science laboratories, maker spaces, outdoor classrooms, and workshops. STEAM and CTE educational programs will prepare Rhode Island students to meet the economy's demand for a 21st century workforce. Providing these spaces will allow LEAs the foundation for program innovation. Currently, many educators are attempting to provide students leading-edge educational experiences in facilities built for a different era.

Increased capital budget would provide funding for every school district to target facility improvements that support CTE and STEAM programs. A \$41.4 million request, or \$8.2 million annually, could be leveraged with local funding to complete more than \$55 million worth of targeted school construction projects. Similar to the School Building Authority Capital Fund, progress payments would be paid to districts for eligible project costs during design and construction.

Creating a dedicated funding stream can have a positive impact on educational and early childhood programs, as well as the general health and welfare of students.

Establish a Dedicated Funding Stream

It is recommended that a dedicated funding stream be created to aid in bridging the gap between the current funding opportunities and the amount of need in Rhode Island's public schools. Of the 32 states that currently fund some degree of K-12 facility needs, 10 states have some form of dedicated funding stream other than general state budget allocations. Dedicated funding sources can supplement state budgets to address exceptional funding needs, allowing the state to narrow equity gaps in a relatively short amount of time. Statewide levies, commerce, and/or natural resources taxes are some of the tools states can consider to meet funding needs. Creating a dedicated funding stream that can only be spent on services for school children can have a positive impact on educational programs, improved early childhood programs, as well as the general health and welfare of students.

LEA FOCUS PROGRAMS

The state can also create Focus Programs as part of the Necessity of School Construction process to incentivize LEAs to focus on certain areas of school construction, while maintaining LEA level control. The identified five-year need has been estimated at more than \$3 billion; that includes \$2.2 billion in facility deficiency costs and nearly \$800 million in identified five-year life cycle costs. The reality of financial parameters shapes priorities that will have the largest scale impact for the facilities and students in Rhode Island. The Focus Programs outline \$700 million of condition improvements that address the highest priority of the five-year need statewide. The recommendations identify opportunities for programmatic improvements and fiscal stewardship including focus on educational programs, energy efficiency, and technology, at approximately \$1 billion.

In the analysis of the identified need, the following categories emerged and are detailed below: Warm, Safe, and Dry; Newer and Fewer; Educational Programs; Energy; Technology and Furniture, Furnishings and Equipment; and Charter Public Schools.

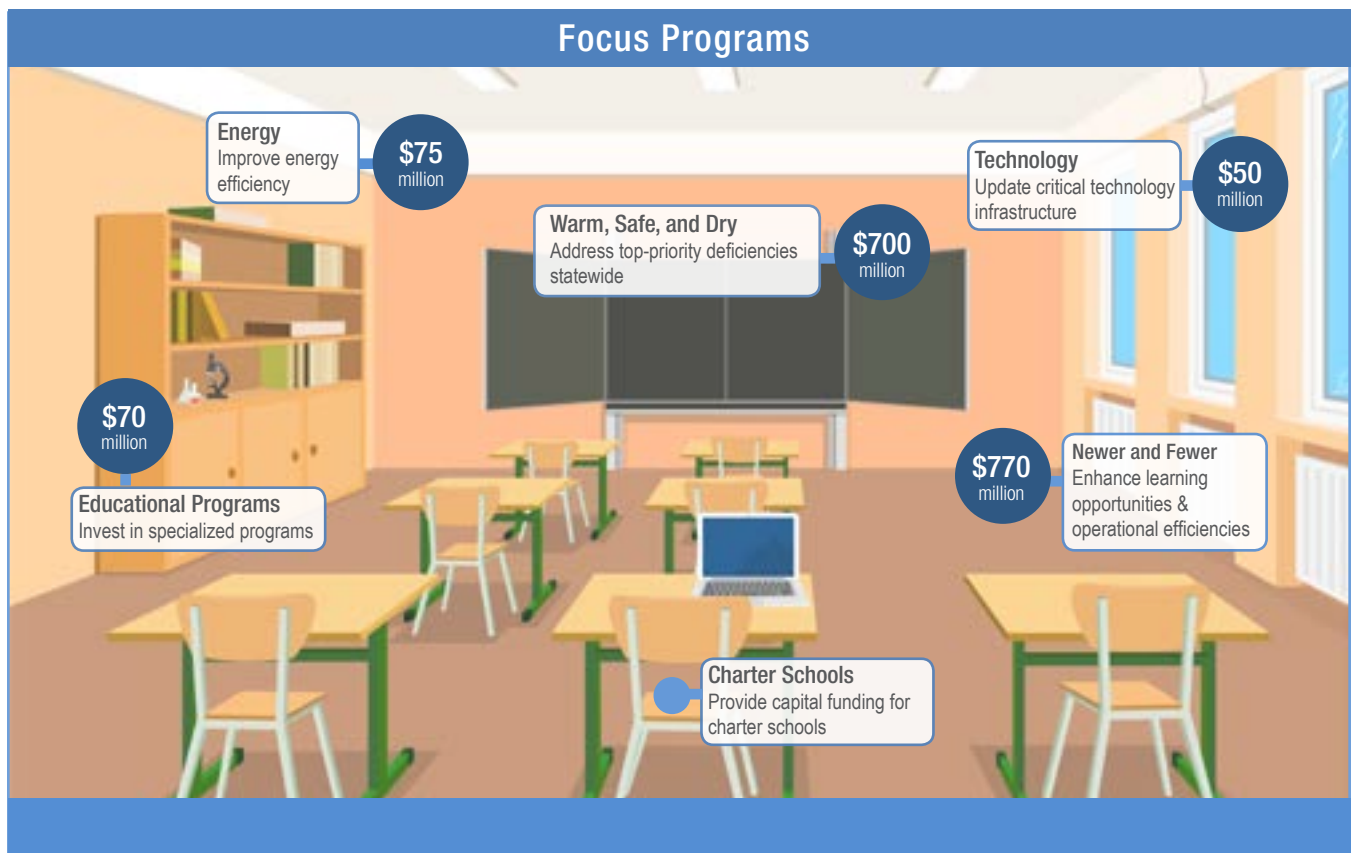


Figure 12: Jacobs Recommendations for Consideration identified these LEA Focus Program funding needs.

Ensure all students are provided healthy, safe, warm, and dry learning environments.

Warm, Safe, and Dry

It is suggested that LEAs address all top-priority condition items statewide in schools not identified as replacement candidates as part of the plan. The facility condition assessment identified all deficiencies as Priority 1 to 5, which are summarized under separate cover in the State of Rhode Island Schoolhouses. Priority 1 items denote building safety or code compliance matters that should be addressed immediately. Priority 2 items reflect those conditions that may become Priority 1 items within a few years if left unaddressed, and are required to keep students warm, safe, and dry. Based on the overall planning aspirations for the schools in the State of Rhode Island, it was decided that the focus of this program would be on the Priority 1 and 2 items identified during the assessment. Priority 1 and 2 needs have been identified at all LEAs across the state **with an investment of \$ 706.3 million**. Not addressing all identified deficiencies frees up funding for other programs, while still investing in improving facility conditions.

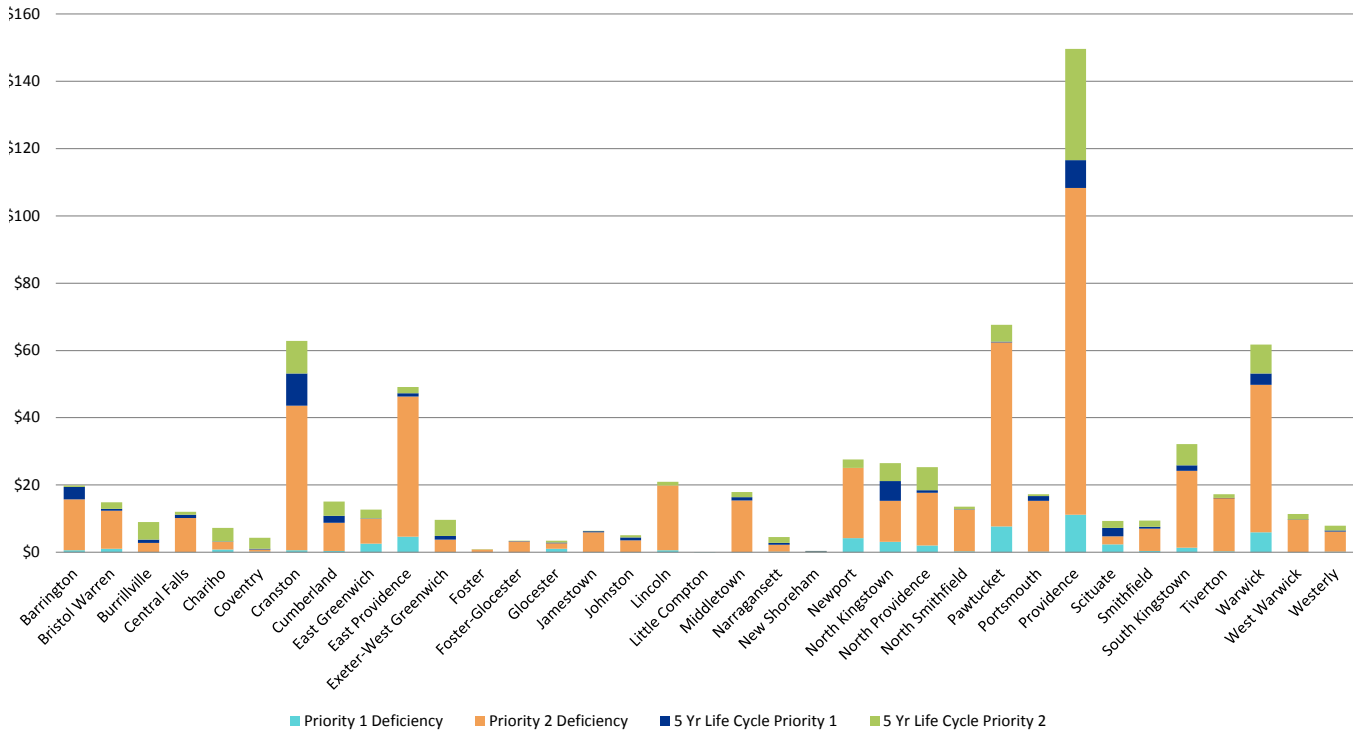


Figure 13: This deficiencies breakdown by LEA illustrates costs associated with Priority 1 and 2 deficiencies and 5-year life cycles.

Newer and Fewer

A key goal of Jacobs Recommendations for Consideration is to position Rhode Island's school portfolio to provide the best educational opportunities to students for decades to come. The planning concept "newer and fewer" applies to districts with multiple, exceptionally small schools with significant condition needs. It is typically not in a district's long-term interest to perpetuate investment in such a portfolio as it is, but rather invest in building newer, fewer schools to provide modern learning environments for as many students, and as sustainably, as possible. It is important to note that the newer and fewer strategy does not apply to small LEAs with one school that meets the above criteria. Small districts cannot gain the efficiencies of larger districts with multiple schools per grade level.

Since Jacobs Recommendations are forward-looking, the 2021 grade-level enrollment projections for each district are multiplied by the SCR square-feet-per-student standards to determine how much space each district requires. Some school districts in Rhode Island have more inventory (square-feet-per-student) than regulations prescribe, while others have less. It is not recommended that districts with excess inventory increase their portfolio. In some cases, excess inventory lends itself to consolidation and would allow for the movement of more students into modern learning environments. It is suggested that LEAs consider strategies for consolidation that are a win-win for RIDE, LEAs, and students alike.

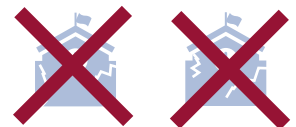
It is suggested that LEAs consider addressing schools with the most need relative to their replacement value, which is determined by using the FCI. Statewide and LEA level summary of the FCIs calculated as part of the facility condition assessment are documented in the State of Rhode Island Schoolhouses report. In most cases, long-term investments are not advisable in buildings where the cost to repair them approaches the cost of new construction. The FCI at which a facility should be considered for replacement is typically adjusted based on the property owners' and facility managers' approach to facility management. Other factors are also used to identify buildings that need renovation, replacement, or closure. With newer, more modern schools come increased educational opportunities and environments benefiting the school children in Rhode Island.

It is suggested that schools with an FCI above 65 percent be considered for full replacement if, and only if, the district will not have enough remaining square-feet-per-student without the school to accommodate all district students in educationally-appropriate learning environments based on the projected 2021 enrollment. This analysis suggests that Barrington, Cranston, East Providence, North Kingstown, and Providence have schools that may be candidates for replacement. These cost estimates are based on the area needed for students based on the 2021 enrollment and the SCR's space requirements; a cost per square foot was then applied based on the type of school (e.g., elementary, middle, or high school) to estimate the replacement cost of the identified schools.

Ten LEAs have more than 60,000¹ surplus square feet based on the projected 2021 enrollment and SCR square feet per student standards. While specific suggestions for how to address these circumstances are not possible without further engagement, this plan suggests potential opportunities to use the identified surplus space for enhanced educational opportunities for students or consider consolidation to streamline operations and capital investments. Currently, the LEAs identified with surplus space, based on the 2020-21 projected enrollments include: Burrillville, East Providence, Foster-Glocester, Newport, Portsmouth, Scituate, South Kingstown, Tiverton, and Westerly. These LEAs may want to focus planning efforts on potential shared-use facilities or consolidation.

Conversely, three districts will be over 120 percent utilized at certain grade levels by 2021 based on SCR standards: high school utilization in Central Falls will be 139 percent, elementary school utilization for Coventry will be 141 percent, and elementary school utilization for Cranston will be 129 percent. It is suggested that these LEAs consider additions proportionate to their needs based on the SCRs.

Invest in building newer, fewer schools to provide modern learning environments for as many students as possible and as sustainably as possible.



Reduce long-term repair and renovation investments in older, smaller schools.



Increase investment in newer, larger facilities catering to 21st century learning.

¹ 60,000 square feet is an approximate size of a school with 350 capacity based on RIDE SCR standards

Based on industry best practices, schools or districts experiencing 120 percent utilization or greater based on projected enrollment are likely to stay overutilized for the foreseeable future. By using a higher utilization for benchmarking, the plan is based on long-term enrollment trends and not short-term influxes of students. For schools currently over 120 percent utilized in districts that are at or near capacity based on their projected 2021 enrollment and SCR square-feet-per-student standards, it is suggested the LEA consider additions proportionate to their needs based on the SCRs. Improved school utilization will exemplify long-term stewardship of public resources resulting in placing more students in modern learning environments and improved operational efficiencies for LEAs. LEAs with the opportunity to implement the newer and fewer concept include: Cranston, East Greenwich, East Providence, Johnston, North Providence, Pawtucket, Providence, South Kingstown, Warwick, and Woonsocket. The districts and schools identified are shown in Figure 14. The recommendations include an **investment to help districts transition away from maintaining and operating multiple, exceptionally small schools in need of significant repairs**, and toward newer and fewer schools that can provide enhanced learning opportunities and long-term operational efficiencies. This newer and fewer strategy would provide new educational opportunities for students across 10 districts based on 2020-21 projections. Rather than perpetuating long-term investment in many, legacy buildings, Rhode Island has the opportunities to pivot toward long-term investment in a modern, efficient portfolio.

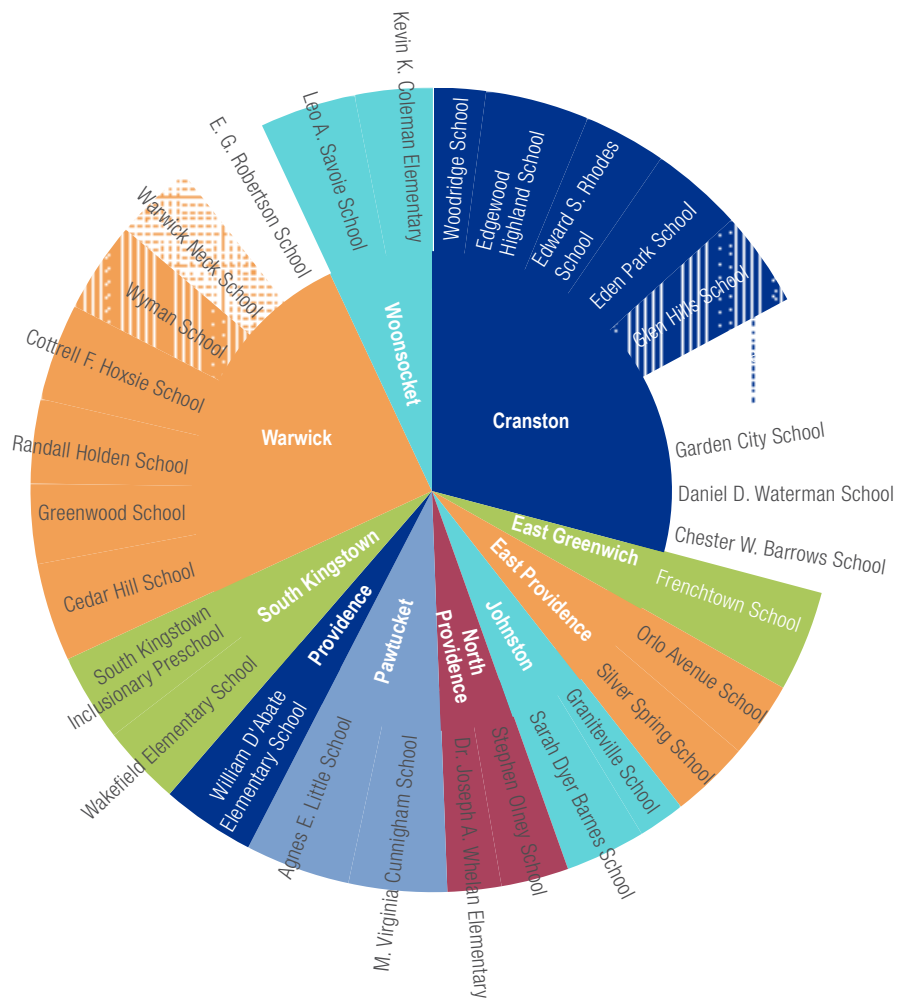





Figure 14: The pie chart above illustrates LEAs and schools considered for Newer and Fewer implementation based on school utilization

Educational Programs

As educational programs, curricula, and instruction methods evolve, it is important to invest in updates to school facilities that reflect these changes, and provide students with educationally appropriate facilities for 21st century learning. Considering the overall planning aspirations for the schools in the State of Rhode Island, the statewide space inventory, and industry best practices, Jacobs Recommendations for Consideration have identified areas with significant space shortfalls or areas of educational importance to the state. Based on the current pre-kindergarten (pre-K) enrollment and current space standards, there is a space shortfall for early childhood programs; therefore, investment is needed to increase this education space. Additionally, it is recommended that investment be made to improve Career and Technical Education (CTE) centers that provide educational opportunities for in-demand skills benefiting students and the workforce. Lastly, many mid-20th century schools were built without dedicated art and science rooms. Including at least one art and one science classroom in every middle and high school will bring more facilities into 21st century learning. Targeting these opportunities will afford children in Rhode Island better educational experiences through enhanced course offerings and better-equipped facilities. **The recommendation estimates an investment of \$72.7 million.** It is also recommended that LEAs assess other educational offerings and their associate space types to ensure their facilities are meeting current teaching modalities.

Children in Rhode Island will be afforded better educational experiences through enhanced course offerings and better equipped facilities.

 EARLY CHILDHOOD	 CAREER AND TECHNICAL EDUCATION (CTE)	 SCIENCE, TECHNOLOGY, ENGINEERING, ART, AND MATH (STEAM)
<p>Kindergarten readiness is one of the leading indicators of future student success. The importance of early childhood education on future achievement supports investment in these facilities. Currently, 2,450 pre-K students are educated in public schools in the State of Rhode Island. The facilities assessment identified 157 pre-kindergarten classrooms statewide covering 137,933 square feet. Based on the SCR derived standards, the existing square feet should contain 115 classrooms, indicating that many pre-kindergarten classrooms are undersized. To bring all current pre-kindergarten classrooms to the current standard would require an additional 50,467 square feet statewide. The state can consider opportunities to right-size existing classrooms and/or add additional pre-kindergarten classrooms to facilitate expanded early childhood education.</p>	<p>CTE programs in Rhode Island are offered at both comprehensive high schools and in CTE centers. There are 839,971 square feet in seven stand-alone CTE centers statewide (this does not include Warwick Area CTE and Newport CTE, which are at high schools). Three of the CTE centers have received renovations since 2000 (Chariho Area Career and Technical Center, Cranston Area Career Technical Center, and Providence Career and Technical Academy). CTE centers not renovated since 2000 should be considered for major renovations to improve learning opportunities. Providing students with greater exposure to CTE increases the likelihood of students graduating from high school, enrolling in a two-year college, being employed, and earning higher wages.</p>	<p>Many mid-20th century schools were not built with dedicated art and science rooms. Nationwide, schools have repurposed space originally designed for rote-teaching and learning to project-based art and science rooms. These repurposed spaces usually lack the square feet, equipment, and plumbing needs for modern art and science programs.</p> <p>In Rhode Island there are 23 middle and high schools without dedicated art rooms and 47 middle and high schools without dedicated science rooms. LEAs should consider providing all middle and high schools with at least one art and science classroom. STEAM programs have been shown to create critical thinkers, improve science literacy, and enable the next generation of innovators. Improving the spaces that offer these learning opportunities provides Rhode Island students more opportunities to advance their education.</p>
<p>\$17.5 million</p>	<p>\$31.4 million</p>	<p>\$23.8 million</p>

Integrating renewable energy concepts into student learning and creating enduring improvements, which are good for budgets, healthy for students, and promote learning, are beneficial to the environment, and demonstrate institutional values.

Energy

The energy assessment revealed the opportunity to invest in energy savings, improve indoor air quality and associated occupant cognitive performance, integrate renewable energy concepts into student learning, and create enduring improvements that are good for budgets, healthy for students, and promote learning. These opportunities are beneficial for the environment and demonstrate institutional values.

A variety of rebates, incentives, grant, and tax incentive programs exist federally in the State of Rhode Island. Funding levels and applicable programs vary based on size and type of installation. Some rebates are prescriptive, in that they are based on the number of fixtures, while others are custom and based on a percentage of the project cost. Rebates, incentives, and grant and tax incentive programs are fluid and transient. A program that exists today could be modified or discontinued and not be available one year from today.

The study suggests that public schools in Rhode Island take advantage of the Efficient Buildings Fund administered by the Rhode Island Infrastructure Bank to facilitate the implementation of energy conservation measures and Net Zero Action Plans. Savings derived from the associated energy conservation and reduction of energy costs are used to repay the loan made from the Rhode Island Infrastructure Bank revolving loan fund.

Given the complexity of the various opportunities for rebates and funding options, it is suggested that all relevant agencies coordinate to assist LEAs in attaining the most effective incentives and funding for school energy improvements. For action planning purposes, it is suggested that LEAs focus on the most easily attainable energy conservation measures; these include LED lighting, energy recovery ventilation/dedicated outside air systems (ERVs/DOAs), and building automation systems. **The total investment in energy over the next five years, not including rebates or funding options, is \$75.8 million.** Investing in these energy-saving opportunities will save \$3 million annually statewide.

LED LIGHTING

Public schools can cost-effectively reduce existing lighting-related electrical energy consumption by as much as 50 percent by upgrading interior lighting from T8 fluorescent to LED (12-18 watt/bulb) lighting technology utilizing existing occupancy sensors. As a result of incentives from the National Grid, most schools have reduced electrical energy consumption by upgrading interior lighting systems to LED with occupancy-based lighting controls.

\$64.1 million

ERVS/DOAS

Improve indoor air quality by pressurizing the building with energy recovery ventilation (ERV)/ dedicated outside air systems (DOAS), filtering/dehumidifying/tempering outside air, and delivering fresh outside air to classrooms. Controlled delivery of fresh outside air ensures that carbon dioxide levels remain healthy at all times. Healthy learning environment carbon dioxide levels facilitate cognitive performance, focus, and initiative. Filtering removes particulate from the air, which has a favorable effect on students and teachers who are sensitive to dust, pollen, mold, and dander.

\$6.9 million

BUILDING AUTOMATION

Install building automation systems (BAS) to implement energy-efficient scheduling and programming (night-time temperature set back, hot water temperature reset, occupancy-based schedules and temperature settings, morning warm up/cool down, and building flush/refresh with outside air). There are several benefits to this upgrade, including providing the capacity and capability to afford for classroom alarm monitoring, trending, command and control, remote troubleshooting, service dispatch, scheduling for weekends, vacancy, holidays, and nighttime or vacancy set back.

\$4.8 million

Technology

The facility condition assessment identified technology infrastructure needs, which included network architecture, major infrastructure components, classroom instructional systems, and necessary building space and support for technology. It is suggested that the LEAs focus on the major campus-wide technology infrastructure needs, such as wireless infrastructure, dedicated telecommunications room needs, and network cabling upgrades. Addressing these technology items will bring schools closer to 21st century learning environments and provide students with access to advancing technologies and learning opportunities. **The total investment in technology is estimated to be \$50.5 million.**

Through the Necessity of School Construction Program, the SBA Capital Fund reimburses investment in technology infrastructure for existing schools; however, technology classified as furniture, fixtures and equipment (FF&E) such as smartboards, projectors, computers, moveable furniture, etc., are only reimbursable for new construction. Jacobs Recommendations have allotted a budget for investment into the existing schools technology infrastructure; however, it is recommended that each LEA embark on an investigation of its own technology. It is recommended that this investigation analyze how the technology and FF&E align with the current teaching modalities.

For estimating purposes, combining FF&E and technology into one total budget provides the most flexibility to each district. The FF&E and IT allowances assumes an elementary school of 75,000 square feet with 350 students; a middle school of 120,000 square feet with 675 students; and a high school of 175,000 square feet with 890 students. The following per-student budgets for FF&E and IT are:

- Elementary School: \$2,200/student
- Middle School: \$2,400/student
- High School: \$2,600/student

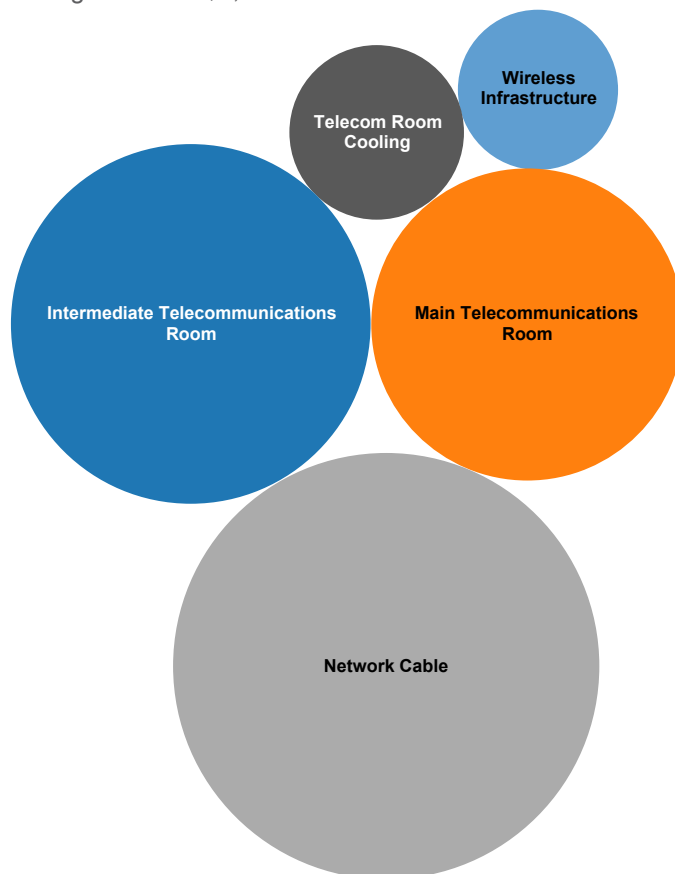


Figure 15: Technology investments are broken down by technology infrastructure need category.

Bring schools closer to 21st century learning environments and provide students with access to advancing technologies and learning opportunities.

Promote student-centered learning environments focused on facilitating experiential and project-based learning.

Charter Public Schools

Charter public schools face a unique funding challenge in the State of Rhode Island when aspiring to purchase or construct a school facility. The current housing aid funding program requires charter public schools to have effective ownership of a building. Because of this funding requirement, most charter public schools lease facilities at a significant higher cost than what it would cost to own. Also, charters are typically granted approval by the Council of Elementary and Secondary Education in late Spring to open in Fall of the same calendar year. This leaves little opportunity for charter public schools to acquire or own property, making them eligible for housing aid.

This plan should explore mechanisms that will provide housing aid opportunity for charter public schools that bridges the gap from charter approval to ownership of a facility, and provides a funding mechanism for these organizations for the time of transition between leasing and ownership.



LEA Focus Program Timeline

The timeline below provides a schematic of the theoretical investment in Jacobs Recommendations for Consideration over the next 10 years. The timeline focuses on the first five years while maintaining a long-term vision, look toward the next 10 years. The schematic timeline takes into consideration the impact on facilities and learning/teaching environment. It is anticipated that in the first two years, there will be a strong emphasis on investing in Warm, Safe, and Dry. As funding allows, it is anticipated that items such as Energy, Technology, and Educational Programs will be invested in. Finally, the Newer and Fewer recommendations will scale up with available funding; therefore, it is anticipated that funding related to Newer and Fewer and the majority of this funding will occur beyond five years. Strategically funding across programs will allow LEAs to address their highest priority needs while, advancing their facilities towards 21st century learning environments.

Strategically funding programs will allow LEAs to address their highest priority needs, while advancing their facilities towards 21st century learning environments.

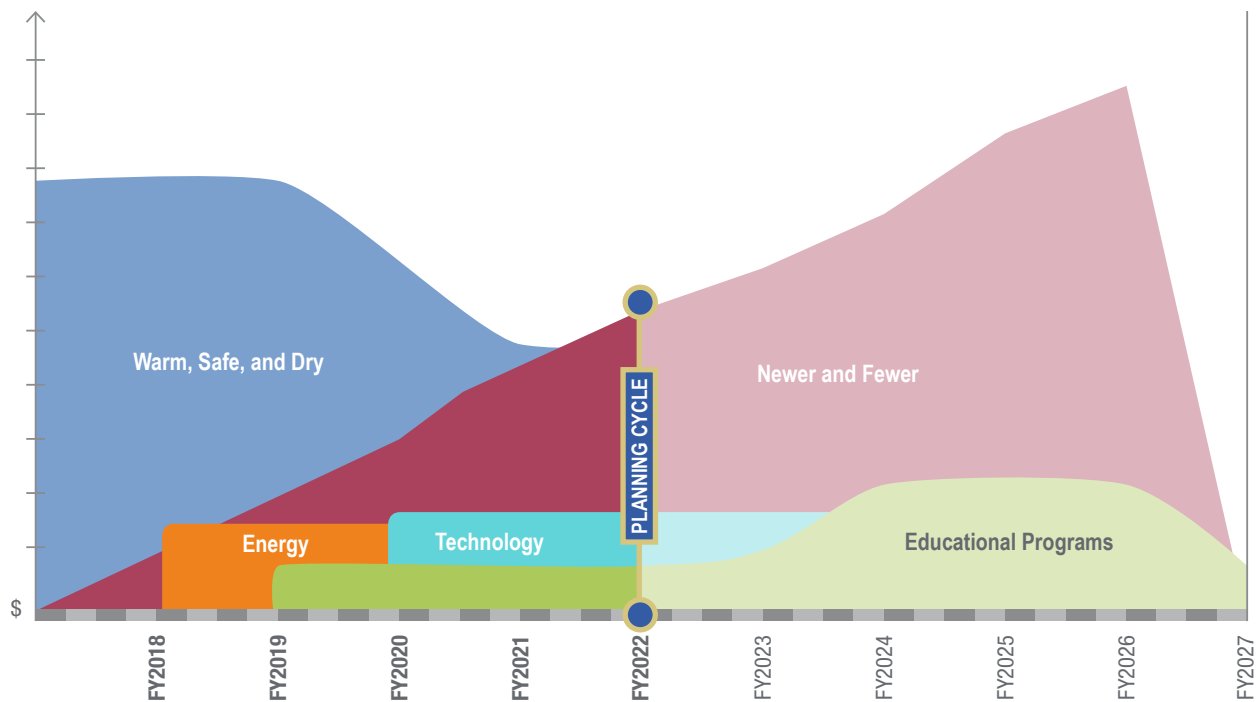


Figure 16: LEA Focus Program funding is strategically spread out within 10 years, with emphasis on the first five years of implementation.

STRATEGIC RECOMMENDATIONS

The following strategic recommendations are opportunities for LEAs and the state. They provide guidelines to improve operation of their facilities, potentially fund opportunities that bring more facilities into 21st century learning environments, and give guidance for additional processes that will contribute to the overall goals of RIDE.

Prioritization of school construction projects will promote adequate school housing for all public school children and improve learning environments.

Prioritize School Construction Projects

A school facilities prioritization methodology and tool that is informed by statute and regulations will result in an objective and methodical prioritization of funding school construction projects. This prioritization tool will take into consideration various data elements, determining a school's ranking in the overall prioritization of public school facilities in Rhode Island. The prioritization methodology is developed to rank school facilities across the state in order to address those with the most need first. A prioritization tool will allow the SBA to allocate funding based on a set of independent metrics that reflect each school's need. In 2017 the SBA Advisor Board established a prioritization rubric. As LEAs develop projects for school campuses, each project will be prioritized. Project prioritization should be based on the school priority, but evaluated individually for alignment with identified needs and the Jacobs Recommendations for Consideration. The rankings will aid in promoting adequate school housing for all public school children and improved learning environments.

Encourage LEAs to Establish and Use Capital Reserve Funds

Projects funded by capital reserve funds can be approved and reimbursed more quickly than bond projects. Projects funded by local capital reserve funds receive quicker reimbursement pursuant to State legislature. LEAs are encouraged to take State reimbursement and reinvest into a capital reserve fund for future school projects. By not bonding, the state can save substantial amounts of financing cost that can be reinvested.

Public-private partnerships directly invite private stakeholders to share in the risk and reward of investing in public education.

Consider Public-Private Partnerships

Innovation and the growing variety of attempts to enhance K-12 education seems destined to include increasingly robust partnerships with organizations traditionally outside of public education, yet deeply impacted by it. LEAs should explore partnership opportunities with the private sector that result in win-win scenarios; addressing K-12 facility innovation and/or funding, while meeting private industry needs. Public-private partnerships open opportunities for private industry to engage with students in their community. Private enterprise has a vested interest in the outcomes of students in their community, with a central concern of adequate workforce development. K-12 educators, in particular at the secondary level, are always looking for ways to make instruction more relevant, incorporating "real-world" learning experiences to improve student learning. Public-private partnerships directly invite private stakeholders to share in the risk and reward of investing in public education.

The National Council for Public-Private Partnerships (NCPPE) offers seven keys to success for public-private partnerships¹. These keys include:

- Having a public sector champion to publicly advocate for the partnership
- Statutory guidance to increase transparency and innovation
- Dedicated public sector support teams
- Detailed contract(s) to detail desired outcomes
- Clearly defined revenue stream
- Stakeholder support
- Clear understanding of the value each entity should expect from the partnership

¹<http://www.ncppp.org/ppp-basics/7-keys/>

RIDE has the opportunity to help lead the nation out of the reductionist and potentially harmful narrative of public education improvements and reform, having come from competition between public and private entities alone. As all share in the benefits of a highly-skilled and well-rounded citizenry and workforce, creative leaders should explore ways to provide model opportunities to rally communities together to improve educational outcomes for our youth and our future.

Embrace Facility Innovation

It is suggested that LEAs be allowed avenues to pursue a facilities plan that embraces innovation in school design. However, before an LEA moves forward in a plan of innovative design, it should understand that a shift in teaching methodology is required to align with this innovation. Often referred to as High Performance Learning Environments (HPLE), the concepts of this design embrace and promote student-centered learning environments that focus on facilitating experiential and project-based learning.

LEAs are strongly encouraged to follow a prescribed process pursuant to state funding that outlines how the HPLE is included in the educational framework of the district, has been presented in the community engagement process as outlined in this document, defines teaching methodologies that align to innovative space types, and remains in the funding parameters of the district. It is recommended that model programs and/or educational specifications be developed that provide LEAs guidance for space types, layouts and requirements that can expedite planning for new HPLEs.

Districts have the option to design facilities with traditional concepts, implementing innovative elements in a sequenced and adaptable approach. As part of the application of funding to the state, a description of this process and timeline, and methods and means should be required.

Establish Educational Adequacy Standards

Statewide educational adequacy standards should be established to align with the BEP and meet state regulations. The SCRs provide a robust framework for planning, design, and building of adequate facilities; however there is an opportunity to advance safe and healthy learning environments by providing thresholds and guidance for operations. Educational adequacy standards should identify baseline facility and educational requirements, as well as establish aspirational recommendations to promote student learning and development. The Rhode Island Adequacy Standards should address:

- Facilities planning, coordination, and maintenance
- Safe, healthy, and sanitary physical environments
- Adequate facilities to promote student learning and development

Establishing adequacy standards will promote healthy, safe, and comfortable learning environments for students in the state and establish standards for 21st century learning.

Develop a Community Engagement Protocol

It is recommended that a community engagement protocol be established for consistency across LEAs. Community engagement is required in advance of application for funding. It is recommended that the established community engagement protocol require LEAs to conduct a robust process of collaboration with community stakeholders. Community engagement in facility planning should include local communities in building a collective vision for the educational goals of each district. Though there are variations of how to engage a community-driven process, there are proven key elements for successful community engagement, including those explained below.

- **Educational Framework and Visioning:** This activity is aimed at conducting an in-depth discussion of how best practices for education are incorporated into and influence facilities. These discussions should focus on both structural goals of the LEA, such as

Establishing adequacy standards will promote healthy, safe, and comfortable learning environments for students.

Community engagement in facility planning should include local communities to build a collective vision for the educational goals of each district.

COMMUNITY ENGAGEMENT PROCESS



- school-size preferences and grade-configuration models, as well as specific delivery models in areas of early childhood development, special education services, elementary/middle/high school instructional models, and career and technical offerings.
- Steering Committee/Community Task Force Group:** The primary purpose of this group is to be the community’s representative for review of data and participation in the larger community outreach. The focus of this group is to represent the best interest of the district as a whole, while considering how decisions impact individual schools and local communities. Each member of the task force is responsible for being a key communicator of this data and educational vision, who can discuss issues or concerns of the larger community audience. This group should be engaged from the beginning of the planning process until a facilities plan is created. Members of this group should be considered to remain engaged as the facilities plan is implemented.
 - Site Meetings:** This process includes school site-specific meetings, allowing local community members to share ideas and concerns specifically related to the local school site. These meetings provide an opportunity to address the short-term maintenance and capital needs of each facility. These meetings can also serve as a means to “recruit” stakeholders to be part of the district-level steering committee/task force or participate in larger district-wide community forums.
 - Facility Options Development:** The role of the steering committee/task force should include participation in facility options development. There are several pathways to follow when deciding the direction of a district-wide facilities plan that is influenced by several factors, including community/social demands, demographic trends, educational vision/framework, condition of facilities, and available funding. These factors all develop different ideas on how to move forward to create the most effective facilities plan. This process should review the benefits and challenges of each option and how each factor can influence another. Options should be presented in larger community forums to assist in determining the outcome of best-refined recommendations for facility actions.
 - Community Dialogues/Meetings:** The purpose of larger stakeholder dialogues or meetings is to obtain feedback from the community regarding both the educational framework and options created as a result of that framework. Utilizing members of the steering committee/task force, educational consultants, and district personnel, and presenting data in a clear and concise manner are critical in obtaining essential feedback from the community as a whole. This community feedback, along with supporting objective data sets, will shape the decisions that come forth in facilities recommendations.

The community engagement protocol suggested complements the current regulations LEAs are working under. For example, each LEA is required to establish a School Building Committee and submit documentation of community support. In the process outlined above, the School Building Committee could be part of the Steering Committee and provide valuable input and leadership throughout the process. These and other community engagement processes can significantly improve voter approvals.

Provide Additional Staff to SBA

Jacobs Recommendations for Consideration identify the process for LEAs to conduct a comprehensive facility plan as a requirement for application of funding. Creating a position for a project manager in the SBA would provide LEAs a resource with the ability to assist in the navigation of the planning process all the way to funding. This additional staff could, in return, expedite the review process and provide LEAs the guidance needed to access the maximum allowable funding available. This staff could also monitor the operations side

of school facilities, including monitoring that adequacy standards are met, conducting ADA compliance inspections, assisting in community engagement processes, and verifying SBA capital-funded projects.

Streamline Procurement

In an effort to facilitate and expedite the acquisition of services, the state could consider developing Master Price Agreements with various vendors, specifically related to school construction. The master agreements would cover a broad array of products and services that would support LEAs in maintaining and operating their facilities. Examples include educational facility planners, engineers, energy management consultants, roof contractors, etc.

To further streamline procurement, template contracts are recommended for various categories of services, including Construction Management, Consulting, and Architectural/Engineer agreements. This recommendation would allow LEAs to execute contracts quickly and efficiently, and work with vendors that are familiar with RIDE's standard terms and conditions, as well as receive work at the most competitive price.

Reinforce Existing Facility Master Planning Process

LEAs are currently required by the Necessity of School Construction process to conduct a five-year facility master plan prior to submittal of capital projects. The SCR outlines a robust process for master planning; it is recommended that this requirement continue. It is recommended that the following process be followed to create a well-informed facility master plan:

- **Educational Framework Visioning:** The framework/vision should include discussion around structural parameters of the district such as grade configuration, school size, class-size requirements, and education delivery goals for each grade-level facility, exceptional student education (i.e., special, gifted, and alternative education), extra-curricular activities, visual and performing arts, career and technical pathways, health/nutrition goals, and social services. The LEAs are encouraged to refer to the BEP when developing this framework/vision.
- **Enrollment/Demographic Analysis:** The LEA shall provide an enrollment projection of no less than five years from the time of application. The projection can either be provided by the LEA or can be an acceptance of projections as provided by the SBA. A projection completed by the LEA must follow best practices for projecting student enrollments using a minimum of a cohort-survival methodology of student projections.
- **Facility Condition Assessment:** The LEA shall provide documentation, either completed independently or as provided by the SBA, of a complete facility assessment report. If the LEA chooses to complete a self-assessment, all elements/systems analysis data as provided in the SBA assessment report should be included.
- **Educational Specifications (when required):** Should the LEA apply for capital construction projects that are aimed as renovation, remodeling, or new construction of a school facility, the LEA shall submit educational specifications that align with or exceed BEP standards.
- **Community Engagement:** As outlined previously in this document, LEAs shall conduct a collaborative stakeholder engagement process when developing a facilities recommended master plan. The community process conducted shall be documented and submitted prior to funding eligibility.
- **Cost Estimates:** The LEA shall submit a cost estimate that follows a prescribed best practice method of capital and life cycle costing.
- **Schedule of Projects:** The LEA shall submit an estimated schedule of projects, even if the LEA is not requesting funding for all projects. The schedule shall include estimated project timelines and order of projects, aligned with funding requirements for the complete facility recommended master plan.



Summary

The SBA at RIDE has embarked on a statewide action planning process, which includes an educational space program assessment, a capacity analysis, a facility condition assessment, a five-year life cycle forecast, and enrollment projections. The assessment data and enrollment projections were used to inform the Jacobs Recommendations for Consideration and forecast future funding requirements. School facility improvements are multi-layered, complex problems that require careful study and stakeholder participation in order to provide safe and healthy 21st century school facilities. Strategically and effectively spending available facility funding provides the opportunity for student learning to occur in healthy, safe environments, while providing the potential for educational spaces to be updated to 21st century learning environments.

Jacobs Recommendations for Consideration provide guidance in allocating funding to replace the schools in the worst condition, address priority condition needs, bring LEAs closer to the SCR derived standards for square feet per student based on projected 2021 enrollment, and address key educational program and energy needs. Based on the condition assessment data, energy assessment, enrollment projections, industry best practices, state regulations, and the aspirations for learning environments in the public schools in the State of Rhode Island, the following recommendations have been made.

Strategically and effectively spending available facility funding provides the opportunity for student learning to occur in healthy, safe environments, while providing the potential for educational spaces to be updated to 21st century learning environments.

JACOBS RECOMMENDATIONS

FISCAL STRATEGIES

- Lower Minimum Share Ratio
- Request Statewide Bond
- Allocate Additional School Construction Aid
- Exceptional Needs Program
- RIDE Capital Budget Requests
- Establish a Dedicated Funding Stream

LEA FOCUS PROGRAMS

- Warm, Safe, and Dry
- Newer and Fewer
- Educational Programs
- Energy
- Technology
- Charter Public Schools

STRATEGIC RECOMMENDATIONS

- Prioritize School Construction Projects
- Encourage LEAs to Establish and Use Capital Reserve Funds
- Consider Public-Private Partnerships
- Enhance Facility Innovation
- Establish Adequacy Standards
- Develop a Community Engagement Protocol
- Provide Additional Staff to SBA
- Streamline Procurement
- Reinforce Existing Facility Master Plan Process

Jacobs Recommendations will assist stakeholders in making decisions to achieve the goal of adequately funding facility improvements across Rhode Island, while working within the fiscal realities of the state budget.

The intent of this report is to advance the use of effective planning, management, and maintenance by the state and its school districts to create and maintain 21st century learning environments for public school students.

CLOSING STATEMENT

We must thank Governor Gina Raimondo, the Rhode Island General Assembly, the Rhode Island Council on Elementary and Secondary Education, the School Building Authority Advisory Board, the Rhode Island Department of Elementary and Secondary Education, and all the LEAs, principals, and stakeholders involved for allowing us the opportunity to complete the statewide condition assessment and prepare the Jacobs Recommendations for Consideration.

The intent of this report is to advance the use of effective planning, management, and maintenance by the state and its school districts to create and maintain 21st century learning environments for public school students. Most children spend a significant part of their lives inside public school buildings, so the condition of those buildings is of great concern to the State of Rhode Island. Aside from the physical safety and well-being of school children and the adults who work in school buildings, it has long been accepted that the condition and design of school buildings have a direct impact on academic performance. As the state strives to prepare its public school students for success in college, careers, and life, facilities must be part of the equation. For those reasons, every student and teacher deserves to learn in a safe and healthy building, as well as a stimulating and uplifting learning environment.

This report provides a state-level view of the conditions and capacities of Rhode Island's public school facilities. This information will assist RIDE and the Board of Education as they conduct their regulatory duties of determining the necessity of school construction, approving projects for housing aid reimbursement, and ensuring high standards in the quality of school construction statewide. Through its designated powers and duties, the Board of Education helps shape the course of public education to ensure that all Rhode Island children receive the best possible education. The information should also assist school district officials as they seek the most efficient and effective methods for upgrading and maintaining their school buildings. This assessment provides valuable information to a wide array of stakeholders, including parents, community members, elected leaders, and government officials.

Leveraging the Jacobs Recommendations for Consideration, the state and LEAs have the opportunity to engage stakeholders going forward to fund the highest priority construction and renovation projects, provide enhanced learning opportunities for Rhode Island students, aspire to Net Zero facilities, and provide 21st century opportunities based on sound, sustainable planning principles. It is only through continued collaboration and commitment from state leaders, education leaders, and community partners that the challenges outlined and opportunities presented in this report can be addressed, ensuring safe, supportive, and high-quality learning environments for all students.

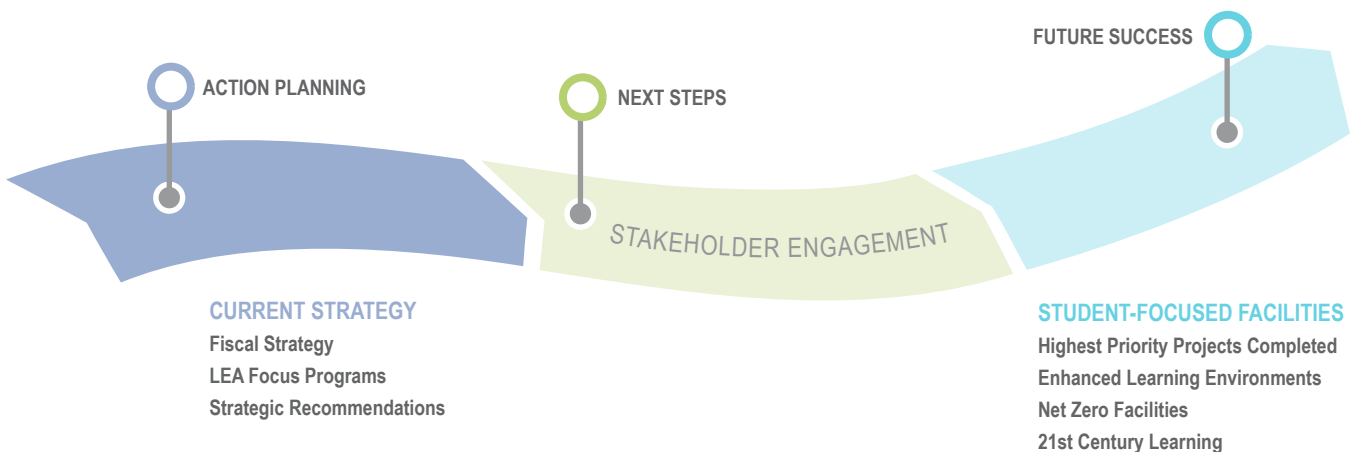


Figure 17: With the recommendations offered in this plan, stakeholder engagement can lead to successful student-focused facilities.

We must thank the LEAs, superintendents, facility directors, principals, and all the staff for their assistance throughout the process. The information each LEA and its staff provided was extremely valuable in conducting the study. Without access to the buildings and the cooperation of all involved, this assessment would not have been possible.

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