



Long-Term Facilities Master Plan
Final Report
June 20th, 2016



**Joint Meeting
Shenandoah County School Board &
Board of Supervisors**

**August 23, 2016
Public Meeting 5:00 p.m.
County Board Room**

Agenda

- I. Call to Order Shenandoah County School Board**
- II. Call to Order Shenandoah County Board of Supervisors**
- III. Introductions**
- IV. Presentation on Long Term Facility Master Plan**
- V. Question and Answer on Long Term Facility Master Plan**
- VI. Adjournment**



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HBA Architecture and DeJONG-RICHTER extend our appreciation to Shenandoah County Public Schools for allowing us to be a part of this project.

Special acknowledgements go to Dr. Jeremy J. Raley, Superintendent, his excellent staff, and the SCPS School Board for their tremendous support and guidance throughout the entire planning process.

We would also like to thank the Stakeholder Committee whose leadership in this process was critical to its success.

Shenandoah County School Board Members:

District 1 :: Karen S. Whetzel, Chairman
District 2 :: Richard L. Koontz, Jr., Vice Chairman
District 3 :: Cynthia D. Walsh
District 4 :: Katheryn A. Freakley
District 5 :: Irving L. Getz
District 6 :: Sonya Williams-Giersch

Shenandoah County Public Schools Administration:

Dr. Jeremy J. Raley, Superintendent
Evelyn K. Linaburg, Assistant Superintendent of Curriculum, Instruction and Assessment
Cynthia F. Page, System Efficiencies Co-Leader / Director of Finance
Dr. David A. Hinegardner, System Efficiencies Leader / Director of Middle and Secondary Education
Chadwick M. Hensley, Director of Elementary Education
Linda C. Hodges, Supervisor of Human Resources
Gina M. Steffer, Director of Special Education
Deborah J. Litten, Student Services Supervisor
Gene H. Dykes, Maintenance Supervisor
Martin J. Quigley, Transportation Supervisor
Timothy F. Taylor, Instructional Technology Supervisor
Debra C. Swecker, Student Information System Administrator/State Reporting

HBA Architecture & Interior Design:

Mike Ross, AIA, REFP, Architect / Educational Facilities Planner

DeJONG-RICHTER:

Tracy Richter, REFP, CEO, Educational Facilities Planner
Matt Sachs, Geographic Information Systems [GIS] Analyst



ACKNOWLEDGEMENTS

Stakeholder Committee Members:

Dr. Jeremy J. Raley, Superintendent
Evelyn K. Linaburg, Assistant Superintendent of Curriculum, Instruction and Assessment
Gene H. Dykes, Maintenance Supervisor
Robin Shrum, Principal, SHES
Missy Hensley, Principal, CHS
Rayanna Davis, Teacher, Northern Campus
Connie Fravel, Teacher, Northern Campus
Kelly Newcomer, Teacher, Central Campus
Chris Boies, Northern Campus Parent
Jennifer Dimarco, Northern Campus Parent
Mason Fisher, Northern Campus Parent
Brian Williams, Northern Campus Parent
Seth Coffman, Central Campus Parent
Heather Jenelle, Central Campus Parent
Erin Turner, Central Campus Parent
Jennifer Bennett, Southern Campus Parent
Jerry Biller, Southern Campus Parent
Will Gangwer, Southern Campus Parent
Mary Gibson, Southern Campus Parent
Kip Brannon, Citizen
Heather Leake, Citizen
Ray Powell, Citizen
Steve Wood, Citizen
Vito Gentile, Chairman, Citizen's Advisory Committee/Comp. Plan



MISSION:

The Mission of Shenandoah County Public Schools is to prepare each student for a future of life-long learning. We believe that:

- The success of Shenandoah County Public Schools rests with how well we prepare our students for the future
- All members of the learning community are valued and respected
- A work environment must encourage and support trust, mutual respect, open communications, and risk taking
- Processes which allow for continuous improvement and problem solving are essential
- The education of all members of the learning community is a shared responsibility

VISION:

The Vision of Shenandoah County Public Schools is to be the first choice for education by:

- Producing individuals who have the skills, ability, and attitudes to succeed as productive citizens and develop a mindset of life-time learning
- Demonstrating high standards and expectations for all school personnel
- Maximizing the utilization of school resources
- Fostering goals and values that will be embraced by those whom the school division touches
- Recognizing superior performance
- Comparing favorably with Virginia standards

BELIEF STATEMENTS:

Great communities come from great schools; therefore, we believe.....

- All decisions are based on the best interest of our students
- Meaningful learning occurs only in the presence of meaningful relationships
- Measures of success are unique and individualized for each learner
- Continuous growth and improvement is expected for everyone
- Problem solving is an essential skill
- An atmosphere of respect must exist
- The education of our children is an investment of time, labor, and resources in our future.



SCHOOL DIVISION GOALS (2015-2016):

Student Opportunity and Achievement:

Create a systemic culture of deeper learning where students are empowered to learn in an interdisciplinary environment where rigorous academic concepts are coupled with authentic experiences that provide students with the skills needed to be future-ready in a global economy.

Effective Communication:

Ensure proactive external and internal communications to foster a community-wide conversation and understanding regarding the excellence of SCPS and the role that the school division plays in preparing students to be connected, global citizens.

Staff Excellence:

Attract, retain, develop, and support high quality and diverse staff to support organizational excellence.

System Efficiencies:

Critically analyze current practices to strategically and equitably align all resources to support the division's beliefs while achieving efficiencies of operations and relief for overcrowded schools.



PURPOSE of the STUDY

The School Board has the responsibility as an independent Virginia body corporate to govern the Shenandoah County Public Schools (SCPS), including the duty to plan for school facilities that anticipate and meet the needs of students in the 21st century. As part of discharging its obligations, the School Board now is engaging professional consulting services to conduct an evaluation of the designated SCPS facilities, grounds, and property to include a baseline analysis of the appropriateness of classrooms and other educational environments needed to prepare students to be future, world-ready learners, and to develop a comprehensive long-term facilities and infrastructure master plan for the future that will facilitate SCPS objective of developing *"schools as 21st century learning centers and cultural hubs for the community."*

LONG-TERM FACILITIES MASTER PLAN SCOPE

The purpose of the LONG-TERM FACILITIES MASTER PLAN is to develop a comprehensive facilities and infrastructure plan for the future that will facilitate SCPS objective of developing *"schools as 21st century learning centers and cultural hubs for the community."* The facilities plan shall include but not be limited to the following requirements and components:

Facilities Evaluation:

Conduct an evaluation of Shenandoah County Public School facilities, grounds, and property to include a baseline analysis of the appropriateness of classrooms and other educational environments needed to prepare students to be future, world-ready learners. The assessment process shall include onsite visits to all facilities and interviews with key stakeholders including students, faculty, administrators, and involved citizens. The facility assessment shall include a community perspective with regard to facility use as school division facilities currently accommodate many of the community's needs for non-school programs. The Consultant shall rely on SCPS' current facilities data for the condition of school facilities and shall develop a Facilities Condition Index for all school facilities from this data for the sole purpose of prioritizing needs.

Update Demographic and Feeder Pattern Analysis:

Update the demographic analysis of projected population changes in the county compared against current feeder patterns to project where, how, and when future enrollment changes might impact the system.

Community Engagement:

Consultant will meet with a representative community group, as selected by SCPS. Consultant will present enrollment and facilities data that Consultant have conducted and analyzed. The community group will work toward both short and long-term solutions options for the areas of this study. The community group will meet a minimum of 4 times and from these meetings a recommendation will be developed to present to the School Board. The Consultant shall also conduct one public information and input workshop.



LONG-TERM FACILITIES PLANNING STUDY SCOPE (cont.)

Recommendations

Provide recommendations for addressing potential deficiencies related to current facilities in the areas of building conditions, educational adequacy, capacity, and potential growth. With regard to capacity and potential growth, solutions to be examined shall include, but should not be limited to, boundary adjustments, changes in school grade configurations, the addition of temporary classrooms, renovations and/or new construction, regional cooperation, or a combination of these strategies. Long-term solutions shall address projected needs beyond 2016-17 for a minimum of 20 years. Recommendations shall include an analysis of the financial impact to the system in the short term and in the long term should include an analysis of the potential impact on students and the community.

- Recommendations shall include an impact on the number of students affected and include an estimated financial impact associated with school division operations (transportation, travel, staffing, etc.). The Consultant shall provide maps, graphics, and associated data to visually represent students affected by any recommended solution or alternative.
- Recommendations shall ensure equity across the school division.
- Recommendations shall not have a negative impact on established programs at Triplett Technical & Business Institute as well as the Massanutten Regional Governor's School.
- Recommended solutions shall take into account traffic patterns on each school campus.
- Recommendations and alternatives shall be aligned with the School Board's goals as they are articulated at the time of the study.
- Recommendations and alternatives shall be aligned with the SCPS established beliefs.
- The Consultant shall provide a public report to the School Board regarding the recommendations and alternatives in the final evaluation. The Consultant shall also provide a report on the findings and recommendations to the Shenandoah County Board of Supervisors.



BACKGROUND DATA

Enrollment Projections:

The enrollment projections for the Shenandoah County Public Schools included in this report were developed using the cohort survival methodology and DeJONG-RICHTER's custom enrollment projection software, S.T.E.P. [Student Trends & Enrollment Projections]. This custom software was developed in collaboration with The Ohio State University and is based on industry best practices as well as the national experience DeJONG-RICHTER has with schools, school districts/divisions, and state agencies.

The projections presented in this report are meant to serve as a planning tool for the future, and represent the most likely direction of the Division. Enrollment projections were developed by analyzing the following data:

- Live birth data
- Historical enrollment by school, by grade
- Census data
- Building permits

The Shenandoah County Public Schools enrollment has decreased by 143 students since the 2006-07 school year. Based on the cohort survival methodology, enrollment is projected to decrease over the next ten years.

DeJONG-RICHTER developed low, moderate, high, and recommended enrollment projections for the Shenandoah County Public Schools. The low projection illustrates a conservative approach reflecting an economy that may have higher inflation/interest rates, a decline in new housing, and/or a decline in live births. The high projection takes a more liberal approach and reflects an economy that may have lower inflation/interest rates, a high level of new housing, and/or an increase in live births. The moderate falls in between these two approaches. The recommended projection illustrates the most likely direction of the Division based on more recent trends in the Division. Please see Appendix for full Enrollment Projections Report.

Projected Enrollment - Recommended - District-wide

Grade	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
PK	144	144	144	144	144	144	144	144	144	144
K - 5	2,622	2,585	2,533	2,485	2,492	2,478	2,481	2,471	2,480	2,476
6 - 8	1,371	1,342	1,325	1,351	1,299	1,265	1,212	1,230	1,209	1,215
9 - 12	1,885	1,906	1,889	1,846	1,817	1,792	1,786	1,753	1,717	1,669
Grand Total	6,022	5,977	5,891	5,826	5,752	5,679	5,623	5,598	5,550	5,504

Source: DeJONG-RICHTER



BACKGROUND DATA

Capacity / Utilization Analysis Update:

The following chart shows Target Capacities for each school as developed in the 2015 Short-Term Facilities Planning Study, current Enrollments and Utilizations [enrollment/capacity] for the 2015-2016 school year, and also the projected "Live-in" Enrollments and Utilizations for the 2016-17 school year based on the attendance boundary realignment approved by the SCPS School Board in March of 2015:

	CAPACITY ANALYSIS 2014-15			CURRENT UTILIZATION 2015-16			PROJECTED UTILIZATION 2016-17 POST BOUNDARY ADJUSTMENT		
	Targets Capacity w/ Educational Adequacy Adjustments	Gross Building Area	Building Area per Student	Actual 2015-16 Enrollment	Under/ (Over) Capacity	Utilization Factor	Live-in 2016-17 Enrollment	Under/ (Over) Capacity	Utilization Factor
Northern Cluster									
Sandy Hook Elementary School 1972, 1991, 1999, 2008	945	93,712	99	932	13	98.6%	921	24	97.5%
Signal Knob Middle School 1992	540	86,840	161	513	27	95.0%	489	51	90.6%
Strasburg High School 1959, 1964, 1992, 2003	819	138,574	169	626	253	69.1%	620	259	68.3%
Northern Cluster Subtotals	2,304	319,126	138	2,071	293	89.9%	2,030	334	88.1%
Central Cluster									
W.W. Robinson Elementary School 1975, 1991, 1999	1,209	123,175	102	1,246	(37)	103.1%	1,139	70	94.2%
Peter Matheson Middle School 1994	600	96,917	162	597	3	99.5%	535	65	69.2%
Central High School 1959, 1964, 1994, 2003	903	148,901	165	792	171	81.1%	677	286	68.4%
Central Cluster Subtotals	2,712	368,993	136	2,635	137	97.2%	2,351	421	86.7%
Southern Cluster									
Ashby-Lee Elementary School 1975, 1991, 1999	750	80,433	107	605	145	80.7%	734	16	97.9%
North Fork Middle School 1993	446	80,204	180	315	131	70.6%	396	50	88.8%
Stonewall Jackson High School 1959, 1964, 1993, 2003	793	134,588	170	449	404	49.1%	565	288	63.7%
Southern Cluster Subtotals	1,989	295,225	148	1,369	680	68.8%	1,695	354	85.2%
Triplett Tech & Gov's School 1966, 1975		50,120							
Division Totals	7,005	1,033,464	148	6,075	1,110	86.7%	6,076	1,109	86.7%
Elementary School Totals	2,904	297,320	102	2,783	121	95.8%	2,794	110	96.2%
Middle School Totals	1,586	263,961	166	1,425	161	89.8%	1,420	166	89.5%
High School Totals	2,515	422,063	168	1,867	828	66.4%	1,862	833	66.8%

(X) Approximate number of students leaving home HS and attending Triplett Tech (full-time program) for half-day session



BACKGROUND DATA

Facilities Assessment Definitions:

The following terms and abbreviations define the various types of facilities assessments and analysis that have been performed by HBA Architecture:

SCI - System Condition Index: A numeric score between 0 and 1 which quantifies the condition of building or site systems and components in the context of their anticipated useful life. 0 = new and 1.0 = exceeded useful life.

FCI - Facility Condition Index: A numeric score between 0 and 1 which quantifies the condition of a site/ building facility or group of building facilities on the same site. $FCI = \text{Sum of all } [SCIs \times \text{relative value of each system or component as a percentage of the total value of the facility}]$. As with the SCI, 0 = new and 1.0 = exceeded useful life. This score allows us to compare the condition of facilities against other facilities in a school division and also against the average or median FCI conditions for the school division. When a school campus includes attached buildings of various ages, a unique FCI is developed for each building area by age, and then these FCIs are averaged together, weighted by their relative areas as a part of the entire group of buildings.

EAI - Educational Adequacy Index: This is an educational adequacy scoring system developed by the CEFPI [Council of Educational Facilities Planners International, recently rebranded as the Association for Learning Environments] that rates various elements of a school building and school site for how well, or poorly, they support the desired educational programs. This index is usually expressed as a percentage, with 90% to 100% being "Excellent" and 0% to 29% being "Inadequate" with ranges for "Poor", "Borderline" and "Satisfactory" in between.

EAF - Educational Adequacy Factor = $1.0 + (1.0 - EAI)$, so that 1.0 = perfect score and 2.0 = worst possible score. This score allows us to compare the educational adequacy of facilities against other facilities in a school division and also against the average educational adequacy for the school division.

TCI - Total Condition Index = $FCI \times EAF$. For this index, 0 = perfect score and 2.0 = worst possible score. This score allows us to compare facilities against other facilities in a school division and also against the average or median for the school division considering both the relative condition of the facilities and also the relative adequacy of the facilities for supporting desired educational programs.

Facilities Assessment Process:

Architects from HBA Architecture performed Facilities Conditions Assessment site visits in February of 2016. We also reviewed current facilities conditions data and CIP needs projections for building system and components replacements with Mr. Gene H. Dykes, Maintenance Supervisor of Shenandoah County Public Schools.

An Architect/Educational Facility Planner with HBA Architecture performed Educational Adequacy Assessments of Sandy Hook ES, Signal Knob MS, WW Robinson ES, and Peter Muhlenberg MS in July of 2015 as part of the Short-Term Facilities Study. The balance of the Educational Adequacy Assessments were performed in February of 2016. Each Educational Adequacy Assessment consisted of the Architect/Educational Facility Planner observing how the school facility was being utilized and then an interview with the school's Principal. During the interview, the Architect/Educational Facility Planner reviewed questions related to usage of the facility and the quality of the learning environments and support spaces with the Principal, and then together they developed a consensus score for each evaluation criteria.



BACKGROUND DATA

Facilities Evaluations Summary Results:

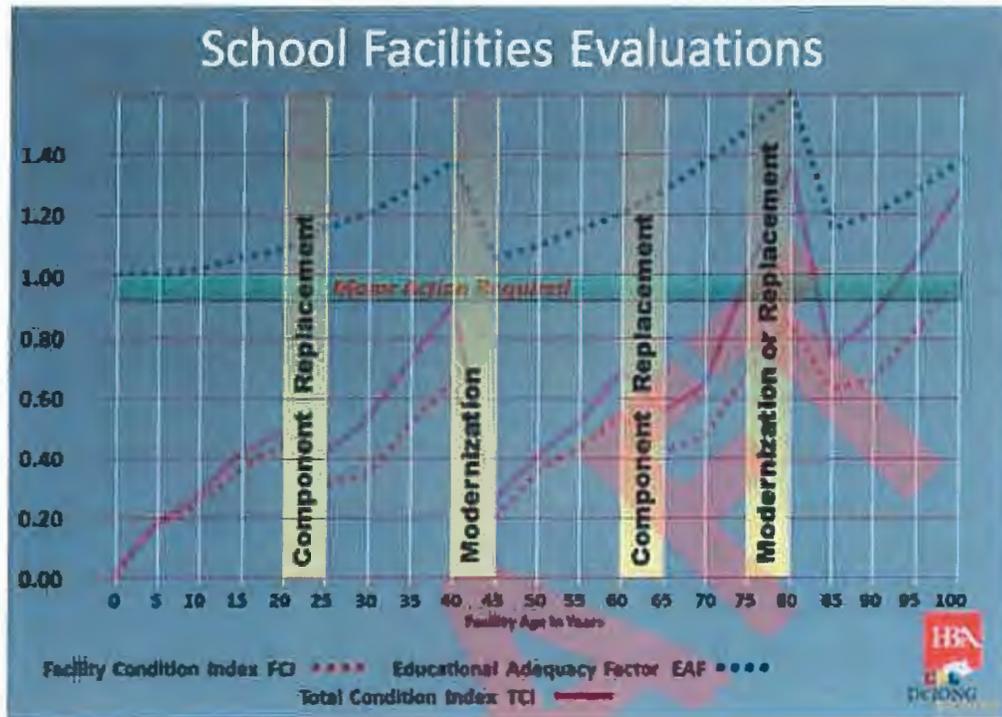
	Targets Capacity w/ Educational Adequacy Adjustments	Gross Building Area	Building Area per Student	Average Building Age	Facility Condition Index [FCI]	Educational Adequacy Index [EAI]	Educational Adequacy Factor [EAF] = [2 - EAI]	Total Condition Index [TCI] = [FCI] x [EAF]
Northern Cluster								
Sandy Hook Elementary School 1972, 1991, 1999, 2008	945	93,712	99	31	0.5138	51%	1.49	0.7691
Signal Knob Middle School 1992	540	86,840	161	24	0.5660	71%	1.29	0.7313
Strasburg High School 1959, 1964, 1992, 2003	819	138,574	169	36	0.4549	57%	1.43	0.6567
Northern Cluster Subtotals	2,304	319,126	139	31				
Central Cluster								
WW Robinson Elementary School 1976, 1991, 1999	1,209	123,175	102	32	0.5554	59%	1.41	0.7856
Peter Muhlenberg Middle School 1994	600	96,917	162	22	0.5363	73%	1.27	0.6798
Central High School 1959, 1964, 1994, 2003	903	148,901	165	35	0.4546	52%	1.48	0.6722
Central Cluster Subtotals	2,712	368,993	136	30				
Southern Cluster								
Ashby-Lee Elementary School 1975, 1991, 1999	750	80,433	107	35	0.5817	60%	1.40	0.8141
North Fork Middle School 1993	446	80,204	180	23	0.5405	68%	1.32	0.7137
Stonewall Jackson High School 1959, 1964, 1993, 2003	793	134,588	170	33	0.4579	75%	1.25	0.5724
Southern Cluster Subtotals	1,989	295,225	148	30				
Triplett Tech & Gov's School 1966, 1975		50,120			0.6439	60%	1.40	0.9015
Division Totals	7,005	1,033,464	148	31	0.5117	63%	1.37	0.7056
Elementary School Totals	2,904	297,320	102	33	0.5505	57%	1.43	0.7876
Middle School Totals	1,586	263,961	166	23	0.5176	71%	1.29	0.7083
High School Totals	2,515	472,183	188	38	0.4572	61%	1.39	0.6336



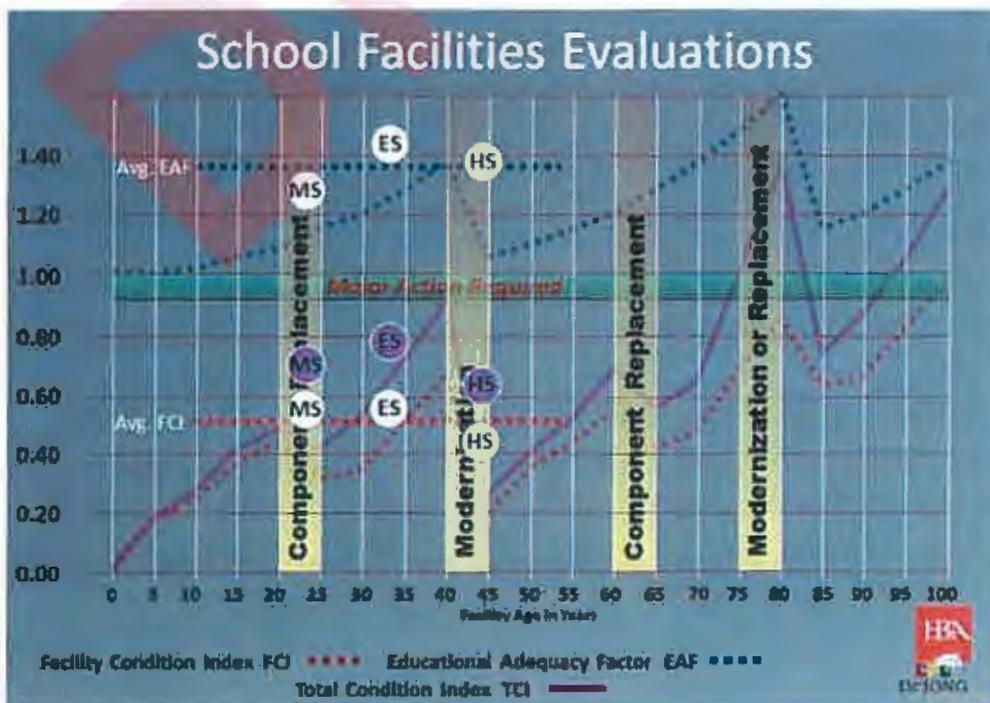
BACKGROUND DATA

Interpreting the Data:

The following graphic shows the typical paths of school facility FCIs, EAFs and TCIs over time.



The following graphic shows how SCPS schools map into the typical paths of FCIs, EAFs and TCIs over time. Note that we have averaged the scores of elementary schools, middle schools and high school because scores within each grade-level group were very close.





BACKGROUND DATA

INTERPRETING the FACILITY CONDITIONS ASSESSMENT DATA

Facility Age:

The average age of SCPS' ten school facilities is 31 years old, with the average age of elementary school facilities being 33 years, the average age of middle school facilities being 23 years, and the average age of high school facilities being 38 years of age.

According to the National Center for Educational Statistics (NCES), the national average age of all school facilities nationwide is 42 years, and the average age of school facilities in the US Southeast Region is 37 years. Therefore, SCPS schools are, on average, 11 years younger than the national average and 6 years younger than the regional average.

Facility Conditions:

The generally accepted standards for FCI – Facility Condition Index ratings are as follows:

POOR	FCI > .7500
FAIR	.4000 < FCI < .7500
GOOD	.4000 > FCI

The SCPS Division-wide average FCI for all school facilities is .5137.

The average FCI for all elementary school facilities is .5506.

The average FCI for all middle school facilities is .5476.

The average FCI for all high school facilities is .4572.

Facility Conditions Observations and Analysis:

All SCPS school facilities are in the "FAIR" FCI range.

All SCPS schools facilities are, in general, very clean and well maintained.

As a whole, the division-wide FCI of .5137 is a little higher than we would expect it to be given that the average age of school facilities is 31 years. This is likely due to the fact that there are a number of major capital renewal projects such as Roof Replacements, HVAC Replacements, and Fire Alarm System Replacements that are overdue.

Within each elementary school campus and high school campus there are multiple buildings with a range of FCIs each contributing to the campus average FCI. The best (lowest) FCI scores are on the newest building additions and the worst (highest) FCI scores are on the original buildings.

The three 1999 building additions at the elementary schools have an average FCI of .3938 which is considered "GOOD". The three 2004 building additions at the high schools have an average FCI of .3301 which is considered "GOOD".

No SCPS school facility received an FCI score of .7500 or higher indicating a "POOR" condition.

The highest FCI score of .6439 was received by the facility housing the Triplett Technical & Business Institute and Massanutten Regional Governor's School.

Plumbing Fixture, HVAC and Lighting System upgrades performed at most school facilities in 2010 - 2011 have extended the useful life of these systems, and accordingly, these buildings.



BACKGROUND DATA

INTERPRETING the EDUCATIONAL ADEQUACY ASSESSMENT DATA

Educational Adequacy Conditions:

The purpose of the Educational Adequacy Assessment is to assess how well [or how poorly] current school facilities support the desired educational mission and goals of Shenandoah County Public Schools. The EAI - Educational Adequacy Index is an educational adequacy scoring system developed by the CEFPI [Council of Educational Facilities Planners International, recently rebranded as the Association for Learning Environments] that rates various elements of a school building and school site for how well they support the desired educational programs. This index is usually expressed as a percentage with scoring ranges as follows:

EAI	90% to 100%	Excellent	EAF	1.00 to 1.10
EAI	70% to 89%	Satisfactory	EAF	1.11 to 1.30
EAI	50%-69%	Borderline	EAF	1.31 to 1.50
EAI	30% to 49%	Poor	EAF	1.51 to 1.70
EAI	0% to 29%	Inadequate	EAF	1.70 to 2.00

The SCPS Division-wide average EAI for all school facilities is 63% - Borderline.

The average EAI for all elementary school facilities is 57% - Borderline.

The average EAI for all middle school facilities is 71% - Satisfactory.

The average EAI for all high school facilities is 61% - Borderline.

Educational Adequacy Observations and Analysis

A "Borderline" score indicates that there are many aspects of SCPS school facilities that are failing to support the desired educational goals and educational programs of the school division and the community. Typical shortcomings include:

@ Elementary Schools:

- Sandy Hook and WW Robinson Elementary Schools are at capacity or are over capacity, respectively.
- At 945 student capacity and 1209 student capacity respectively, Sandy Hook and WW Robinson Elementary Schools are two of the largest elementary schools in the state.
- In addition to shortages of general classroom space, adequate space is not provided for Commonwealth of VA recommended levels of Art and Music coursework.
- Insufficient space is available for Special Education Resource Rooms and workspace for SE Teachers and Specialists.
- Teacher Planning Spaces are limited and inadequate.
- Cafeteria Dining Space is limited, creating the necessity to run lunch continuously for up to 3 hours.
- Sandy Hook ES has insufficient space for indoor Physical Education.
- Administration/Main Office Spaces are inadequately sized.
- Original 1970's buildings have routes and elements that do not comply with the requirements of the ADA (Americans with Disabilities Act).
- The buildings do not have flexible spaces to support various types of teaching and learning.



BACKGROUND DATA

@ Elementary Schools (cont.)

- Furniture is generally not designed to support collaborative learning and/or active, hands-on learning.

@ Middle Schools:

- Signal Knob and Peter Muhlenberg Middle Schools are near or at capacity, thereby limiting program flexibility.
- North Fork Middle School is only at 70% capacity with 315 students, and this significantly limits course availability and advanced course opportunities for these students.
- Middle School floor plans are not well organized to support three grade levels in traditional interdisciplinary middle school teams.
- Each middle school has only 2 Science Labs.
- Approximately 40% of general classrooms are below the State recommended minimum size of 700 SF, and many of these same classrooms have operable partitions on 2 sides that do not provide adequate sound isolation between teaching spaces.
- Each middle school has 2 Centrum (commons spaces) that are significantly underutilized for learning activities.
- Teacher Planning Spaces are limited and inadequate.
- The buildings do not have flexible spaces to support various types of teaching and learning.
- Furniture is generally not designed to support collaborative learning and/or active, hands-on learning.

@ High Schools

- The average utilization of high schools division-wide is at 66.4%. Central HS has the highest utilization at 81% and Stonewall Jackson HS has the lowest utilization at 49%. This division-wide under-utilization contributes to an inefficient use of maintenance and energy dollars.
- All three high schools are relatively small (in capacity) by state standards, and this significantly limits course availability and advanced course opportunities.
- Classrooms in the original 1959 buildings tend to be undersized and without windows.
- Teacher Planning Spaces are limited and inadequate.
- Large assembly space is only available in "multi-purpose" spaces such as Gymatoria and Cafeteria, and these spaces are not well equipped with appropriate acoustics and lighting.
- Original 1970's buildings have routes and elements that do not comply with the requirements of the ADA (Americans with Disabilities Act).
- The buildings do not have flexible spaces to support various types of teaching and learning.
- Furniture is generally not designed to support collaborative learning and/or active, hands-on learning.



BACKGROUND DATA

@ School Sites:

- SCPS schools are organized into 3 ES / MS/ HS clusters in the northern (Strasburg), central (Woodstock) and southern (Quicksburg) parts of the county. The school sites in the central and southern clusters are contiguous. The northern cluster school sites are not contiguous but are near each other.
- Triplett Technical & Business Institute and Massanutten Regional Governor's School is located in Mt. Jackson.
- The schools in the central cluster are land-locked by terrain and other types of development and their sites are undersized by state recommended guidelines.
- At all 3 schools in the central cluster, there is inadequate separation between bus, car, service, and pedestrian traffic, and there is inadequate parking for staff and visitors
- Strasburg HS is in a bowl shaped site which is surrounded by substantial gradients. This site is undersized by state recommended guidelines. The varsity baseball and softball fields are located up the road adjacent to the Sandy Hook ES site.



BACKGROUND DATA

UTILIZING FCIs to DEVELOP CAPITAL RENEWAL BUDGETING REQUIREMENTS

School Facilities Managers typically utilize one or more of the following three methodologies when developing projected annual budget expenditures for Capital Renewals [building system and building component replacements and/or renewals].

- 1) Building a Capital Renewal Budget by Projects as prioritized by need.
- 2) Utilizing a school facilities industry standard of 2.00% of Total Current Capital Renewal Value per year to establish recommended overall levels of funding for Capital Renewal Budgets and then identifying specific renewal projects and recommended replacement timeframes.
- 3) Utilizing Facilities Condition Assessments and FCIs [and SCIs] to both generate recommended overall levels of funding for Capital Renewal Budgets and also to identify specific renewal projects and recommended replacement timeframes. This is the methodology used in this study.

Methodology 3 utilizes Facilities Condition Assessments and FCIs to generate recommended overall levels of funding for Capital Renewal Budgets. This methodology also allocates funding requests by facility based on FCI needs. The recommended average annual Capital Renewal Budget is generated by dividing the Total Request [\$99,547,118 - see chart below] by 25 years, the average building system and component renewal cycle, and this yields an average annual budget recommendation of \$3,981,885 [not adjusted for inflation].

With the 3rd methodology, the School Facilities Manager can drill into the FCI Background Data Report to begin building a detailed renewal/replacement project specific budget based on the SCI [System Condition Index] of each unique building system and component, with the confidence that all building systems and components are being scheduled for replacement or renewal promptly as they reach or exceed their useful life.

By utilizing methodology 3, we have achieved one of the primary objectives of the Long-Term Facilities Master Plan by providing Shenandoah County Public Schools with a data-driven process through the use of Facilities Conditions Assessments to quantify and document the current conditions of building systems and building components in the context of their industry standard useful life and thus to determine priorities, timelines, and adequate budgets for timely renewals and replacements.

It is also extremely important to note that the Capital Renewal Budget planning scenarios outlined in all of these methodologies do very little to improve educational adequacy deficiencies which may be present in the division's school facilities, as the focus of Capital Renewal is replacing and renewing building systems and components "in kind" along with code compliance and/or energy usage improvements. Additional funding in the form of Capital Improvement Projects will be required to adequately address deficiencies related to student capacity and utilization or to improve the capacity of learning environments to support the desired educational programs.



BACKGROUND DATA

FCI - Facility Condition Index - A numeric score between 0 and 1 which quantifies the condition of a site / building facility or group of building facilities on the same site. FCI = Sum of all [SCs x relative value of each system or component as a percentage of the total value of the facility]. As with the SCI, 0 = new and 1.0 = exceeded useful life. The FCI also represents the:

$$\frac{\text{Current Cost of Capital Renewals (Building System and Component Replacements)}}{\text{Current Capital Renewal Value}}$$

The chart below provides an analysis of Capital Renewal Budgeting by methodologies 2 and 3:

	Gross Building Area [SF]	Current Capital Replacement Cost / SF 2016 \$\$\$	Current Capital Replacement Value	Current Capital Renewal Cost / SF 2016 \$\$\$	Current Capital Renewal Value [Method 2]	Facility Condition Index (FCI)	Current Cost of Capital Renewals [Method 3]
Northern Cluster							
Sandy Hook Elementary School 1968, 1991, 1999, 2008	93,712	\$ 245.19	\$ 22,977,386	\$ 169.20	\$ 15,856,311	0.5139	\$ 8,146,798
Signal Knob Middle School 1992	86,840	\$ 260.59	\$ 22,629,636	\$ 185.37	\$ 16,097,617	0.5460	\$ 9,112,037
Strasburg High School 1959, 1964, 1992, 2003	138,574	\$ 274.80	\$ 38,080,689	\$ 200.30	\$ 27,755,775	0.4589	\$ 12,738,271
Northern Cluster Subtotals	319,126		\$ 83,687,711		\$ 59,709,703		\$ 29,997,106
Central Cluster							
WW Robinson Elementary School 1976, 1991, 1999	123,175	\$ 245.19	\$ 30,201,463	\$ 169.20	\$ 20,841,526	0.5564	\$ 11,596,341
Peter Muhlenberg Middle School 1994	96,917	\$ 260.59	\$ 25,255,601	\$ 185.37	\$ 17,983,600	0.5363	\$ 9,634,788
Central High School 1959, 1964, 1994, 2003	148,901	\$ 274.80	\$ 40,918,590	\$ 200.30	\$ 29,824,129	0.4546	\$ 13,558,098
Central Cluster Subtotals	368,993		\$ 96,375,654		\$ 68,631,356		\$ 34,789,227
Southern Cluster							
Ashby-Lee Elementary School 1975, 1991, 1999	80,433	\$ 245.19	\$ 19,721,488	\$ 169.20	\$ 13,609,470	0.5817	\$ 7,916,350
North Fork Middle School 1993	80,204	\$ 260.59	\$ 20,900,360	\$ 185.37	\$ 14,867,495	0.5405	\$ 8,035,375
Stonewall Jackson High School 1959, 1964, 1993, 2003	134,588	\$ 274.80	\$ 36,985,321	\$ 200.30	\$ 26,957,397	0.4579	\$ 12,344,713
Southern Cluster Subtotals	295,225		\$ 77,607,169		\$ 55,434,362		\$ 28,296,438
Triplett Tech & Gov's School	50,120	\$ 274.80	\$ 13,773,176	\$ 200.30	\$ 10,038,820	0.6139	\$ 6,464,347
Division Totals	1,033,464		\$ 271,443,711		\$ 193,814,241	0.5136	\$ 99,547,118
Elementary School Totals	297,320		\$ 72,900,337		\$ 50,307,307		\$ 27,659,489
Middle School Totals	268,961		\$ 68,785,597		\$ 48,930,713		\$ 26,782,200
High School Totals	472,183		\$ 129,757,777		\$ 94,576,221		\$ 45,105,430
	1,033,464		\$ 271,443,711		\$ 193,814,241		\$ 99,547,118

[note 1] $\frac{\text{Current Capital Renewal Value}}{\text{Current Capital Renewal Value}} \times 2.00\%$ [note 2] $\frac{\text{Current Capital Renewal Value}}{25}$

Recommended Average Annual Budget for Capital Renewal Projects (Adjust for Inflation) **\$ 3,876,285** **\$ 3,981,885**

note 1: This methodology uses the industry standard for budgeting of Capital Renewal at 2% of Total Current Capital Renewal Value per year.

note 2: This methodology spreads the Current Value of Capital Renewals over 25 years (the average building system and component renewal cycle).



BACKGROUND DATA

HISTORY of CAPITAL IMPROVEMENT FUNDING

The following chart shows the approximate history of Capital Improvement funding for Shenandoah County Public Schools from 1959 to current with dollar estimates escalated to approximate 2016 dollars.

Estimated Capital Improvement Cost in 2016 \$			North Campus		Central Campus		South Campus		
			School	SF Area	School	SF Area	School	SF Area	
\$ 88,205,170	\$ 43,323,620	\$ 43,323,620	01	1959	Shenandoah HS	69,375	Central HS	68,872	
			02	1960			Shenandoah Jackson HS	58,819	
			03	1961					
			04	1962					
			05	1963					
			06	1964					
			07	1965					
		\$ 6,648,938	\$ 6,648,938	08	1966	Triplet Tech Building	30,244		
				09	1967				
				10	1968				
				11	1969				
				12	1970				
				13	1971				
		\$ 9,095,624		14	1972	Sandy Hook ES	46,370		
				15	1973				
	\$ 126,748,350	\$ 38,232,613		16	1974				
				17	1975			Triplet Tech Building	19,676
		\$ 14,559,854		18	1976	WW Robinson ES	74,315	Ashby-Lee ES	56,351
		\$ 14,577,125		19	1977				
				20	1978				
				21	1979				
				22	1980				
				23	1981				
				24	1982				
				25	1983				
				26	1984				
				27	1985				
				28	1986				
				29	1987				
				30	1988				
				31	1989				
				32	1990				
	\$ 10,637,192		33	1991	Sandy Hook ES	20,617	WW Robinson ES	19,317	
	\$ 18,103,708		34	1992	Sandy Knoll MS	86,840	Ashby-Lee ES	14,295	
	\$ 16,720,288		35	1993			North Fork MS	80,204	
	\$ 20,204,481		36	1994					
			37	1995			Peter Mulvaney MS	96,917	
			38	1996					
			39	1997					
			40	1998					
	\$ 23,586,005	\$ 11,960,789	41	1999	Strasburg HS	16,019	Central HS	25,289	
	\$ 11,625,216			1999	Sandy Hook ES	17,086	WW Robinson ES	29,493	
			42	2000			Stonewall Jackson HS	13,098	
			43	2001			Ashby-Lee ES	11,787	
			44	2002					
	\$ 37,496,676	\$ 37,496,676	45	2003	Strasburg HS	33,180	Central HS	54,740	
			46	2004			Stonewall Jackson HS	62,641	
			47	2005					
			48	2006					
			49	2007					
			50	2008					
			51	2009					
			52	2010					
			53	2011					
			54	2012					
			55	2013					
			56	2014					
			57	2015					
			58	2016					
Total CIP			\$ 214,953,521	\$ 3,706,095.18		Average / Year			

Please note that the approximate \$7.5M Plumbing Fixture, HVAC and Lighting Fixture Upgrade Project performed at all school facilities in 2010-2011 has not been included in this chart because these were Capital Renewal Projects and not Capital Improvement Projects, even though these improvements were funded with borrowed money.



OPTIONS SUMMARY

Long-term facility options were developed in conjunction with the Stakeholder Committee for addressing potential deficiencies related to current facilities in the areas of building conditions, educational adequacy, capacity, and potential growth

Long-Term Facility Options Considered:

Option A - 3 Elementary Schools, 3 Middle Schools, 3 High Schools

Option B - 4 Elementary Schools, 2 Middle Schools, 1 High Schools

Option C - 5 Elementary Schools, 3 Middle Schools, 3 High Schools

Option D - 5 Elementary Schools, 1 Middle Schools, 2 High Schools



OPTIONS SUMMARY

Option A - 3 Elementary Schools, 3 Middle Schools, 3 High Schools

This option would leave the current 3 campus model and all current facilities in place. Elementary schools would move to a year-round calendar, increasing the capacity of each by 25%. Triplett Tech would be rebuilt at a centralized location within the county.

School	Capacity	Square Footage	25 Year Capital Renewal Cost	Action	Capacity	Square Footage	25 Year Capital Renewal Cost	Educational Adequacy Renovation	New Construction Cost
Sandy Hook ES	945	93,712	\$ 8,146,798	Renovate	855	84,973	\$ 7,387,078	\$ 1,846,770	-
WW Robinson ES	1,209	123,175	\$ 11,596,341	Renovate	1,209	123,175	\$ 11,596,341	\$ 2,899,085	-
Ashby-Lee ES	750	80,433	\$ 7,916,350	Renovate	750	80,433	\$ 7,916,350	\$ 1,979,088	-
ES Subtotal	2,904	297,320	\$ 27,659,489						
Signal Knob MS	540	86,840	\$ 9,112,037	Renovate	540	86,840	\$ 9,112,037	\$ 2,278,009	-
Peter Muhlenberg MS	600	96,917	\$ 9,634,783	Renovate	600	96,917	\$ 9,634,783	\$ 2,408,696	-
North Fork MS	446	80,204	\$ 8,035,375	Renovate	446	80,204	\$ 8,035,375	\$ 2,008,844	-
MS Subtotal	1,586	263,961	\$ 26,782,195						
Strasburg HS	819	138,574	\$ 12,738,271	Renovate	819	138,574	\$ 12,738,271	\$ 3,184,568	-
Central HS	903	148,901	\$ 13,558,098	Renovate	903	148,901	\$ 13,558,098	\$ 3,389,525	-
Stonewall Jackson HS	793	134,588	\$ 12,344,713	Renovate	793	134,588	\$ 12,344,713	\$ 3,086,178	-
HS Subtotal	2,515	422,063	\$ 38,641,082						
Triplett Tech	-	50,120	\$ 6,464,347	New Construction/ New Site	-	45,000	-	-	\$ 10,336,500
Total	7,005	1,033,464	\$ 99,547,113		6,915	1,019,605	\$ 92,323,046	\$ 23,080,762	\$ 10,336,500

Facility/Cost Summary

- 25 Year Capital Renewal Cost - **\$92,323,046**
- Educational Adequacy Renovation - **\$23,080,762**
- New Construction Cost - **\$10,336,500**
- Total Option Cost - **\$125,740,308**
- Square Footage Change: **-13,859**

Strengths

- Minimal new construction
- Leaves current 3 campus model in place
- Least expensive option
- Increases capacity of existing elementary schools by 25%
- Improved access to CTE at centralized location
- Removes portable classrooms from Sandy Hook ES

Challenges

- Larger elementary schools remain in place
- Converting elementary schools to year-round calendars
- Average age of buildings in 25 years
 - Elementary: 58 years
 - Middle: 48 years
 - High: 68 years
- Funding



OPTIONS SUMMARY

Option B - 4 Elementary Schools, 2 Middle Schools, 1 High Schools

This option would build 2 new 700 seat elementary schools and convert NFMS and SKMS to elementary schools. SJHS and SHS would be converted to middle schools. The Central campus would be renovated for 1 Division-wide HS campus, utilizing CHS and PMMS and constructing a new career & technical center.

School	Capacity	Square Footage	25 Year Capital Renewal Cost	Action	Capacity	Square Footage	25 Year Capital Renewal Cost	Educational Adequacy Renovation	New Construction Cost
Sandy Hook ES	945	93,712	\$ 8,146,798	Close	-	-	-	-	-
WW Robinson ES	1,209	123,175	\$ 11,596,341	Close	-	-	-	-	-
Ashby-Lee ES	750	80,433	\$ 7,916,350	Close	-	-	-	-	-
New North/Central ES	-	-	-	New Construction	700	91,000	-	-	\$ 22,312,290
New South/Central ES	-	-	-	New Construction	700	91,000	-	-	\$ 22,312,290
ES Subtotal	2,904	297,320	\$ 27,659,489						
Signal Knob MS	540	86,840	\$ 9,112,037	Renovation/ Conversion to ES	790	99,340	\$ 9,112,037	\$ 2,278,009	\$ 3,257,375
Peter Muhlenberg MS	600	96,917	\$ 9,634,783	Renovation to HS	-	-	\$ 9,634,783	\$ 3,853,913	-
North Fork MS	446	80,204	\$ 8,035,375	Renovation/ Conversion to ES	696	92,704	\$ 8,035,375	\$ 2,008,844	\$ 3,257,375
MS Subtotal	1,586	263,961	\$ 26,782,195						
Strasburg HS	819	138,574	\$ 12,738,271	Renovation/ Conversion to MS	819	138,574	\$ 12,738,271	\$ 3,184,568	-
Central HS	903	148,901	\$ 13,558,098	Renovation/Addition	1,800	295,818	\$ 13,558,098	\$ 3,389,525	\$ 11,489,500
Stonewall Jackson HS	793	134,588	\$ 12,344,713	Renovation/ Conversion to MS	793	134,588	\$ 12,344,713	\$ 3,086,178	-
HS Subtotal	2,515	422,063	\$ 38,641,082						
Triplett Tech	-	50,120	\$ 6,464,347	Close	-	-	-	-	-
Total	7,005	1,033,464	\$ 99,547,113		6,298	943,024	\$ 65,423,277	\$ 17,801,037	\$ 62,628,830

Facility/Cost Summary

- 25 Year Capital Renewal Cost - **\$65,423,277**
- Educational Adequacy Renovation - **\$17,801,037**
- New Construction Cost - **\$62,628,830**
- Total Option Cost - **\$145,853,144**
- Square Footage Change: **-90,440**

Strengths

- Creates smaller elementary schools
- Increased program offerings at 1 centralized HS campus
- Increased athletic program offerings
- Phase out oldest buildings over time

Challenges

- Transportation time issues with 1 HS campus
 - Activity transportation
- Fewer opportunities for athletics/extra curricular activities with 1 HS campus
- May limit access for economically disadvantaged HS students
- Funding



OPTIONS SUMMARY

Option C - 5 Elementary Schools, 3 Middle Schools, 3 High Schools

This option would renovate and make educational adequacy improvements to all current facilities. Two new 550 seat elementary schools would be constructed. Triplett Tech would be rebuilt at a centralized location within the county.

School	Capacity	Square Footage	25 Year Capital Renewal Cost	Action	Capacity	Square Footage	25 Year Capital Renewal Cost	Educational Adequacy Renovation	New Construction Cost
Sandy Hook ES	945	93,712	\$ 8,146,798	Renovate	633	84,973	\$ 7,387,078	\$ 1,846,770	-
WW Robinson ES	1,209	123,175	\$ 11,596,341	Renovate	810	123,175	\$ 11,596,341	\$ 2,899,085	-
Ashby-Lee ES	750	80,433	\$ 7,916,350	Renovate	503	80,433	\$ 7,916,350	\$ 1,979,088	-
New North/Central ES	-	-	-	New Construction	550	71,500	-	-	\$ 17,531,085
New South/Central ES	-	-	-	New Construction	550	71,500	-	-	\$ 17,531,085
ES Subtotal	2,904	297,320	\$ 27,659,489						
Signal Knob MS	540	86,840	\$ 9,112,037	Renovate	540	86,840	\$ 9,112,037	\$ 2,278,009	-
Peter Muhlenberg MS	600	96,917	\$ 9,634,783	Renovate	600	96,917	\$ 9,634,783	\$ 2,408,696	-
North Fork MS	446	80,204	\$ 8,035,375	Renovate	446	80,204	\$ 8,035,375	\$ 2,008,844	-
MS Subtotal	1,586	263,961	\$ 26,782,195						
Strasburg HS	819	138,574	\$ 12,738,271	Renovate	819	138,574	\$ 12,738,271	\$ 3,184,568	-
Central HS	903	148,901	\$ 13,558,098	Renovate	903	148,901	\$ 13,558,098	\$ 3,389,525	-
Stonewall Jackson HS	793	134,588	\$ 12,344,713	Renovate	793	134,588	\$ 12,344,713	\$ 3,086,178	-
HS Subtotal	2,515	422,063	\$ 2,515						
Triplett Tech	-	50,120	\$ 6,464,347	New Construction/ New Site	-	45,000	-	-	\$ 10,336,500
Total	7,005	1,033,464	\$ 60,909,546		7,147	1,162,605	\$ 92,323,046	\$ 23,080,762	\$ 45,398,670

Facility/Cost Summary

- 25 Year Capital Renewal Cost - **\$92,323,046**
- Educational Adequacy Renovation - **\$23,080,762**
- New Construction Cost - **\$45,398,670**
- Total Option Cost - **\$160,802,478**
- Square Footage Change: **+129,141**

Strengths

- Creates smaller elementary schools
- Improved access to CTE at centralized location
- More space available at Sandy Hook, WW Robinson & Ashby-Lee for Pre-K programs
- Removes portable classrooms from Sandy Hook ES

Challenges

- Increases overall capacity
- Increases total square footage
- Most expensive option
- Funding



OPTIONS SUMMARY

Option D - 5 Elementary Schools, 1 Middle Schools, 2 High Schools

This option would convert SHES and ALES to serve grades PK-2 and convert NFMS and SKMS to serve grades 3-5. A new 650 seat elementary would be constructed near the Central campus. The Central campus would be renovated for 1 Division-wide MS campus, utilizing CHS and PMMS.

School	Capacity	Square Footage	25 Year Capital Renewal Cost	Action	Capacity	Square Footage	25 Year Capital Renewal Cost	Educational Adequacy Renovation	New Construction Cost
Sandy Hook ES	945	93,712	\$ 8,146,798	Renovation/Conversion to PK-2	709	84,973	\$ 7,387,078	\$ 1,846,770	-
WW Robinson ES	1,209	123,175	\$ 11,596,341	Close	-	-	-	-	-
Ashby-Lee ES	750	80,433	\$ 7,916,350	Renovation/Conversion to PK-2	563	80,433	\$ 7,916,350	\$ 1,979,088	-
New Central ES	-	-	-	New Construction	650	84,500	-	-	\$ 20,718,555
ES Subtotal	2,904	297,320	\$ 27,659,489						
Signal Knob MS	540	86,840	\$ 9,112,037	Renovation/Conversion to 3-5	540	86,840	\$ 9,112,037	\$ 2,278,009	-
Peter Muhlenberg MS	600	96,917	\$ 9,634,783	Renovation/Conversion to MS Campus	-	-	-	-	-
North Fork MS	446	80,204	\$ 8,035,375	Renovation/Conversion to 3-5	446	80,204	\$ 8,035,375	\$ 2,008,844	-
MS Campus	-	-	-	Renovate PMMS & CHS	1,400	245,818	\$ 23,192,881	\$ 5,798,220	-
MS Subtotal	1,586	263,961	\$ 26,782,195						
Strasburg HS	819	138,574	\$ 12,738,271	Renovation/Addition	1,019	163,574	\$ 12,738,271	\$ 3,184,568	\$ 5,742,500
Central HS	903	148,901	\$ 13,558,098	Renovation/Conversion to MS Campus	-	-	-	-	-
Stonewall Jackson HS	793	134,588	\$ 12,344,713	Renovation/Addition	993	159,588	\$ 12,344,713	\$ 3,086,178	\$ 5,742,500
HS Subtotal	2,515	422,063	\$ 38,641,082						
Triplett Tech	-	50,120	\$ 4,464,347	Close	-	-	-	-	-
Total	7,005	1,033,464	\$ 99,547,113		6,319	985,930	\$ 80,726,705	\$ 20,181,676	\$ 32,203,555

Facility/Cost Summary

- 25 Year Capital Renewal Cost - **\$80,726,705**
- Educational Adequacy Renovation - **\$20,181,676**
- New Construction Cost - **\$32,203,555**
- Total Option Cost - **\$133,111,936**
- Square Footage Change: **-47,534**

Strengths

- Creates smaller elementary schools
- Increased program offerings at 1 centralized MS campus
- Greater access to CTE at North & South campuses
- Removes portable classrooms from Sandy Hook ES

Challenges

- Transportation time issues with 1 MS campus
- Funding



COMMUNITY INPUT AND RESULTS

A community dialogue was held on Wednesday, May 11, 2016, to obtain input and feedback on the options presented for consideration as part of the long-term facilities study. A presentation was given using background data of the Division and a summary of the options was provided. A questionnaire was distributed to obtain input from the community regarding various long-term facilities options. There were a total of 7 group respondents and 22 individual respondents at the meeting. The questionnaire was also offered on the web, where 246 individuals responded.

The questionnaire asked respondents to prioritize the order in which options should occur, give feedback regarding performing arts and aquatic centers, rank each of the 4 options individually from 1-10, and give their preference for each option against every other option.

Given that funds, time, and resources will likely not allow all projects to be completed at the same time, please rank the order that projects should occur. Choose each ranking only once.

	Web + Individual					
	1st	2nd	3rd	4th	5th	6th
Elementary School projects	200	20	9	18	6	6
Middle School projects	5	86	58	56	32	15
High School projects	18	50	109	37	23	14
Career and Technical Education (CTE)	14	58	36	100	31	14
Aquatics Center(s)	8	12	20	11	73	124
Performing Arts Center(s)	14	25	21	29	87	76

How should performing arts and/or aquatic centers be incorporated into the Division?

	Web	Individual (paper)	Web + Individual	Group
At each high school	62	2	64	1
At a Division-wide center on a current facility site	24	3	27	0
At a Division-wide center on a new site	39	3	42	1
At a Division-wide center with a partner TBD which may include Shenandoah County or public-private partnership.	115	13	128	5



COMMUNITY INPUT AND RESULTS

Please rate your level of support for Option A. Ten (10) being the highest level of support and one (1) being the lowest.

	Web	Individual (paper only)	Web + Individual	Group
1	77	8	85	2
2	10	3	13	1
3	9	4	13	2
4	9	1	10	1
5	34	4	38	1
6	22	1	23	0
7	16	1	17	0
8	17	0	17	0
9	9	0	9	0
10	34	0	34	0

Average Score:

Web: 4.8

Individual (paper only): 2.9

Web + Individual: 4.6

Please rate your level of support for Option B. Ten (10) being the highest level of support and one (1) being the lowest.

	Web (all)	Individual (paper only)	Web + Individual	Group
1	101	4	105	0
2	24	0	24	1
3	17	0	17	0
4	9	1	10	1
5	23	1	24	0
6	10	2	12	1
7	14	2	16	0
8	10	1	11	2
9	7	7	14	1
10	21	4	25	1

Average Score:

Web: 3.7

Individual (paper only): 6.8

Web + Individual: 3.9



COMMUNITY INPUT AND RESULTS

Please rate your level of support for Option C. Ten (10) being the highest level of support and one (1) being the lowest.

	Web (all)	Individual (paper only)	Web + Individual	Group
1	24	0	24	1
2	6	2	8	0
3	6	4	10	1
4	2	1	3	1
5	15	3	18	1
6	16	4	20	1
7	11	2	13	0
8	29	2	31	2
9	12	0	12	0
10	116	4	120	0

Average Score:

Web: 7.6

Individual (paper only): 5.9

Web + Individual: 7.5

Please rate your level of support for Option D. Ten (10) being the highest level of support and one (1) being the lowest.

	Web (all)	Individual (paper only)	Web + Individual	Group
1	88	4	92	1
2	23	0	23	0
3	12	1	13	0
4	15	7	22	2
5	33	1	34	1
6	25	3	28	2
7	8	2	10	0
8	12	3	15	0
9	9	1	10	1
10	12	0	12	0

Average Score:

Web: 3.8

Individual (paper only): 4.8

Web + Individual: 3.9

Relevant themes from community in comments section:

- Concern over having one large, consolidated middle or high school
- Moving elementary schools to year-round calendar would be challenging for families with multiple students

The full Community Dialogue Results Report can be found in the Appendix



RECOMMENDATIONS

The purpose of the LONG-TERM FACILITIES PLAN was to study current conditions and develop recommendations for addressing potential deficiencies related to current facilities in the areas of building conditions, educational adequacy, capacity, and potential growth. After reviewing all collected data and community input, and reviewing options with Division personnel and Stakeholder Committee, our recommendation is a 4 elementary school, 2 middle school and 2 high school system.

A summary of the action and estimated costs for each facility is shown in the table below:

Current School	Capacity	Project Cost/Phase	15 Year Capital Renewal Cost	Proposed School	Action	Capacity	Project Cost/Phase	15 Year Capital Renewal Cost	15 Year Annual Maintenance	New Construction Cost
Sandy Hook ES	945	93,712	\$ 8,146,798	Sandy Hook ES	Replacement	700	91,000	-	-	\$ 22,312,290
WW Robinson ES	1,209	123,175	\$ 11,596,341	WW Robinson ES	Renovation	907	123,175	\$ 11,596,341	\$ 2,899,085	
				Peter Muhlenberg ES	Renovation / Conversion / Addition	636	116,417	\$ 9,634,783	\$ 2,408,696	\$ 4,781,205
Ashby-Lee ES	750	80,433	\$ 7,916,350		Close					
				North Fork ES	Renovation / Conversion / Addition	507	99,704	\$ 8,035,375	\$ 2,008,844	\$ 4,781,205
ES Subtotal	2,904	297,320	\$ 27,659,489	ES Subtotal		2,744				
Signal Knob MS	540	86,840	\$ 9,112,037	Signal Knob MS	Renovation / Addition	740	116,840	\$ 9,112,037	\$ 2,278,009	\$ 7,817,700
Peter Muhlenberg MS	600	96,917	\$ 9,634,783							
North Fork MS	446	80,204	\$ 8,035,375							
MS Subtotal	1,586	263,961	\$ 26,782,195	MS Subtotal		1,533				
Strasburg HS	819	138,574	\$ 12,738,271	Strasburg HS	Renovation / Addition	919	156,074	\$ 12,738,271	\$ 3,184,568	\$ 4,809,000
Central HS	903	148,901	\$ 13,558,098	Triplet Tech, All. Education, Community Recreation + Performing Arts + Aquatics at CHS	Renovation / Addition	0	150,000	\$ 9,083,926		\$ 12,507,500
Stonewall Jackson HS	793	134,588	\$ 12,344,713							
HS Subtotal	2,515	422,063	\$ 38,641,082	New South/Central HS	New Construction	900	157,500			\$ 43,281,000
Triplet Tech	-	50,120	\$ 6,464,347	HS Subtotal		1,819				
					Close					
Total	7,005	1,033,464	\$ 99,547,113	Total		6,096	1,145,298	\$ 72,545,446	\$ 15,865,380	\$ 100,289,900

Elementary Schools

Sandy Hook - Replacement in phase 1 (6-10 years).

WW Robinson - Capital renewal and educational adequacy renovations. Potential replacement in 15-20 years.

Ashby Lee - Close following construction of new HS, Sandy Hook replacement and conversion of Signal Knob and Peter Muhlenberg to elementary schools.

Middle Schools

Signal Knob - Capital renewal and educational adequacy renovations. 200 seat addition for additional capacity.

Peter Muhlenberg - Conversion to elementary school. Capital renewal and educational adequacy renovations. 150 seat addition for additional capacity.

North Fork - Conversion to elementary school. Capital renewal and educational adequacy renovations. 150 seat addition for additional capacity.



RECOMMENDATIONS

High Schools

Strasburg - Capital renewal and educational adequacy renovations. 100 seat addition for additional capacity. Potential replacement in 25+ years.

Central - Conversion/renovation for Triplett Tech and alternative education. New construction of community recreation, performing arts and aquatics center.

Stonewall Jackson - Conversion to middle school. Capital renewal and educational adequacy renovations. Potential replacement in 25+ years.

New HS - New construction of 900 seat high school in a centralized location between current central and southern campuses.

Moving to 4 elementary schools, with an average capacity of roughly 700, will allow for smaller school sizes at the elementary level. In order to accomplish this, construction of the new HS must take place in the first phase. This frees up SJHS to be used as a middle school and PMMS and NFMS to be used as elementary schools. Total costs (in 2016 dollars) are estimated at \$188,700,726. Costs for potential replacement of buildings in 15+ years are not included. It should be noted that the 25 year capital renewal cost of a facility could potentially be lessened in this recommendation, if it were replaced less than 25 years in the future.

Action	New Construction	Replacement	MS Conversion to ES / Addition	MS Conversion to ES / Addition	Addition	HS Conversion to MS	Addition	New Construction / New Use	Replacement	Replacement	Replacement	Replacement	Total 25 Year Cost in 2016 Dollars
Capital Improvement	\$ 43,281,000	\$ 22,312,290	\$ 4,781,205	\$ 4,781,205	\$ 7,817,702	-	\$ 4,809,000	\$ 12,507,500	\$ 22,312,290	-	-	-	\$ 122,602,190
Educational Adequacy Renovation	\$ -	\$ -	\$ 2,908,844	\$ 2,405,696	\$ 2,278,009	\$ 3,085,178	\$ 3,184,508	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,956,295
Capital Renewal Required to Action Year	\$ -	\$ -	\$ 3,214,150	\$ 3,853,913	\$ 3,644,815	\$ 4,937,885	\$ 5,095,308	\$ 3,633,570	\$ 5,758,171	\$ -	\$ -	\$ -	\$ -
Capital Renewal Required over 25 Years	\$ -	\$ -	\$ 8,035,375	\$ 8,634,783	\$ 8,112,037	\$ 12,344,713	\$ 12,738,271	\$ 9,083,926	\$ 5,798,121	\$ -	\$ -	\$ -	\$ 66,747,276
Total Cost in 2016 Dollars	\$ 43,281,000	\$ 22,312,290	\$ 10,004,189	\$ 11,043,814	\$ 13,740,524	\$ 8,024,053	\$ 13,088,876	\$ 16,141,070	\$ 28,110,461	\$ -	\$ -	\$ -	\$ 202,315,761
Capital Renewal Required over 25 Years	\$ -	\$ -	\$ 8,035,375	\$ 8,634,783	\$ 8,112,037	\$ 12,344,713	\$ 12,738,271	\$ 9,083,926	\$ 5,798,121	\$ -	\$ -	\$ -	\$ 72,545,446
Capital Renewal Adjustment Factor	0%	0%	40%	40%	40%	40%	40%	40%	50%	0%	0%	0%	