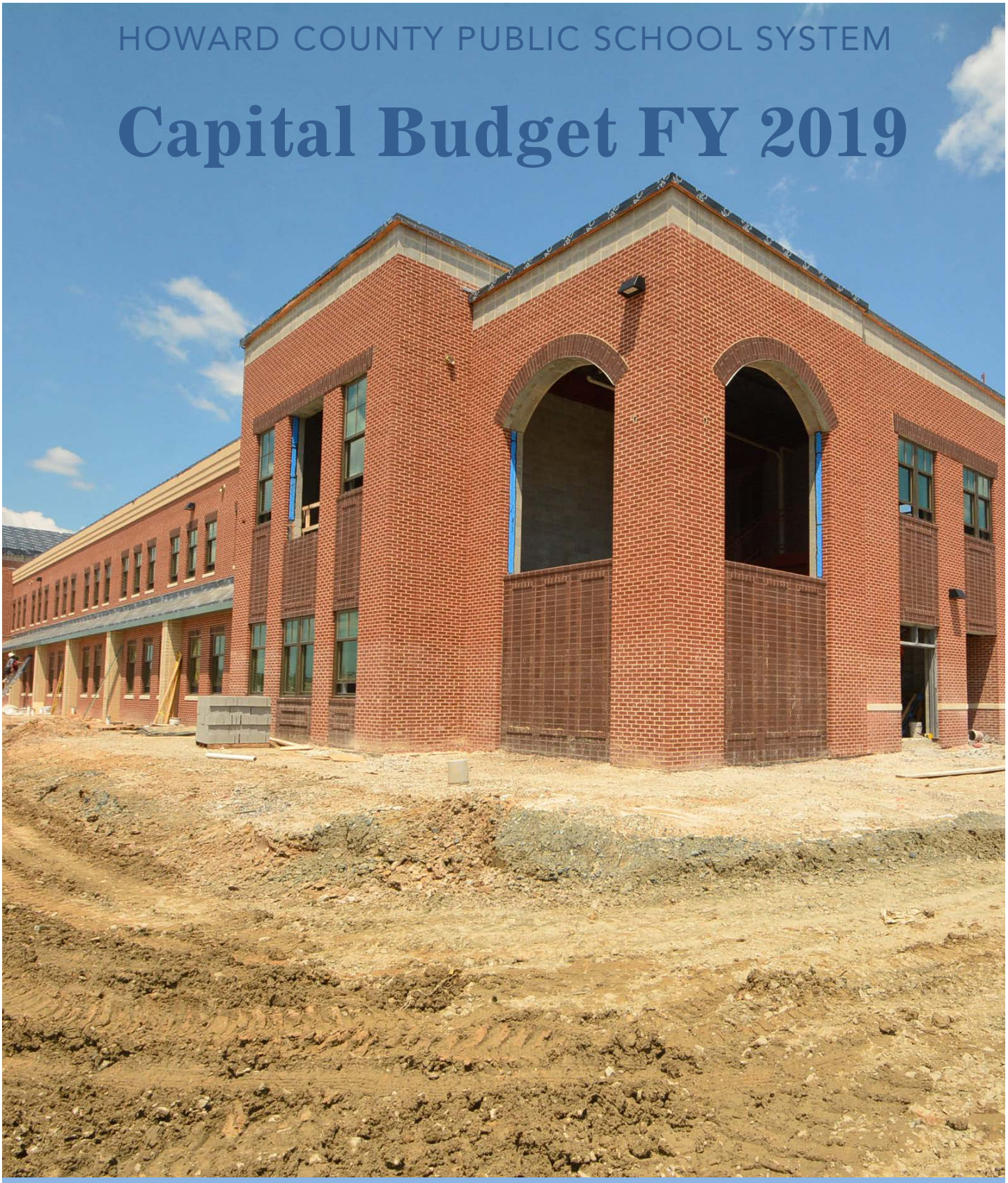
HOWARD COUNTY PUBLIC SCHOOL SYSTEM

Capital Budget FY 2019



Capital Improvement Program FY 2020–2024
Long-Range Master Plan FY 2019–2028

Superintendent's Proposed Budget

REVISED 9/9/17

Howard County Public School System

Superintendent's Proposed FY 2019 Capital Budget

Capital Improvement Program FY 2020–2024
Long-Range Master Plan FY 2019–2028

Interim Superintendent

Michael J. Martirano, Ed.D.

Board of Education

Elected Officials

Cynthia L. Vaillancourt, Chairman
Bess Altwerger, Ed.D., Vice Chairman
Kirsten Coombs
Christina Delmont-Small
Mavis Ellis
Sandra H. French
Ananta Hejeebu

Student Member

Anna C. Selbrede

September 2017

Howard County Public School System

Superintendent's Proposed FY 2019 Capital Budget

Capital Improvement Program FY 2020–2024
Long-Range Master Plan FY 2019–2028

Prepared By
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Planning Specialist

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This is a publication of the Howard County Public School System.

Electronic copy of the Capital Budget can be
found on the school system's website at *www.hcpss.org.*

Howard County Public School System

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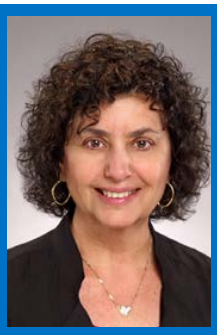
Term Expires 2018



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Theo Cramer, Community Superintendent

Marcy Leonard, Community Superintendent

Patrick Saunderson, Community Superintendent

Kevin Gilbert, Ed.D., Director of Diversity, Equity and Inclusion

James LeMon, Executive Director of Community, Parent and School Outreach

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Howard County Public School System

Superintendent's Proposed FY 2019 Capital Budget

Capital Improvement Program FY 2020–2024
Long-Range Master Plan FY 2019–2028

Section 1

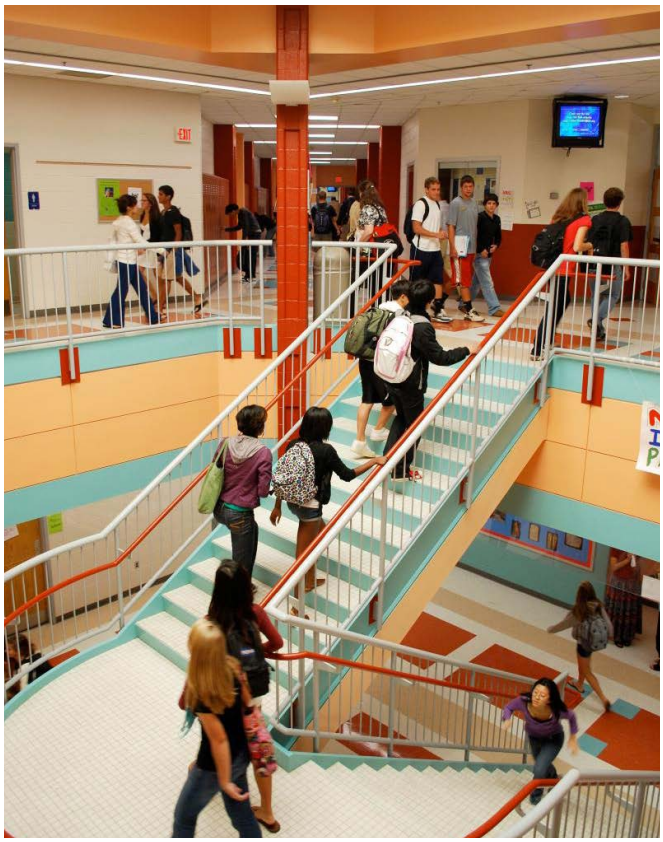
Executive Summary

September 2017

Introduction

This document contains the Howard County Public School System's (HCPSS) Superintendent's Proposed FY 2019 Capital Budget and the FY 2020–2024 Capital Improvement Program (CIP) schedules. Projects are presented for the next fiscal year and future years, documenting long-range plans for the system.

The capital budget process, detailed within the Executive Summary, links capital planning with attendance area planning and addresses long-range planning issues identified in the annual feasibility study. Presented to the Board of Education on June 22, 2017, the Feasibility Study provided new enrollment projections and proposed future redistricting. Several factors affect the total FY 2019 Capital Budget. This year's capital improvement program provides for student capacity, renovations, and various other improvements that staff, parents, and community leaders have identified as needed. The formula used by the state to calculate school construction costs has increased to $360 per square foot. Project budgets have increased to reflect rising costs such as the requirement to pay prevailing wages on all projects after July 1, 2014, costs to comply with LEED requirements, and general inflationary increases.



The Superintendent's Proposed Capital Budget is the first step in this annual process which will ultimately end with the Board of Education's Approved Capital Budget in May 2018. The capital budget is submitted much earlier than the operating budget to accommodate deadlines associated with submission of the State capital budget to the Public School Construction Program.

Executive Summary provides an introduction to the Superintendent's Proposed FY 2019 Capital Budget, the Capital Improvement Program FY 2020–2024, and the Long-Range Master Plan FY 2019–2028. It presents a high level overview of the budget process and the FY 2019 Proposed Capital Budget. Included in the Executive Summary is the Superintendent's Message which provides an overview of the budget issues. Other information found in the Executive Summary is enrollment projections and student capacities, recent capital budget accomplishments, the capital budget schedule, and information on the capital budget process.

System Information presents information on the county and the school system, with maps of school locations throughout the county displayed by school level.

Project Detail presents detail on each project presented in the proposed FY 2019 Capital Budget as well as information on longer range project plans.

Supporting Data includes data from the feasibility study, detailed enrollment data, school and region tests for Adequate Public Facilities Ordinance (APFO), fully funded projects in process, facilities constructed and/or renovated with state funds, and the glossary.

Message from the Superintendent

September 11, 2017

Dear Howard County community,

I am pleased to present my Proposed FY 2019 Capital Budget, FY 2020-2024 Capital Improvement Program and the FY 2019-2028 Long-Range Master Plan for the Howard County Public School System.

In alignment with my Strategic Call to Action, the Capital Budget provides a framework for educational facilities that give all students and staff equitable opportunities to learn and achieve. It adds improvements and capacity where they are most urgently needed to relieve overcrowded classrooms and ensure the equitable allocation of instructional resources. The proposed budget facilitates the delivery of the high-quality instructional programming needed to enable every student to reach their full potential in the classroom and beyond.

The $79.7 million Capital Budget, $616 million Capital Improvement Program and $1.3 billion Long-Range Master Plan for FY2019-2028 support our ultimate goal to build an inclusive, nurturing environment, close opportunity gaps, and address projected student capacity and existing facility needs. The Capital Improvement Program and Long-Range Master Plan address existing and projected facility needs to support our projected growth of 9,800 additional students between 2018 and 2028.

The Long-Range Master Plan reflects the collaborative deliberation by a committee of school system and county government staff to develop a realistic and affordable plan that equitably meets student needs and community priorities.

FY 2019 Capital Budget Highlights

- Location and construction of New High School #13, scheduled for opening in August 2022.
- Completion of New Elementary School #42, scheduled for opening in August 2018.
- Additions to Waverly Elementary School to increase school capacity.
- Renovations, additions and systemic renovations.

FY 2020-2024 Capital Improvement Program Highlights

- An addition to Hammond High School to increase school capacity and functionality.
- $190 million in systemic renovations, modernizations, major programmatic renovations, and additions to existing school facilities.
- Addresses deferred maintenance needs at schools.
- Identifies specific systemic renovation projects for each school.

Message from the Superintendent

FY 2019-2028 Long-Range Master Plan Highlights

- Includes funding for four future elementary schools and a future high school, which are necessary to meet projected enrollment growth and capacity needs.
- Replaces the Applications and Research Lab with a new Middle and High School Career Development Center in order to expand educational spaces to meet the growing curriculum.
- Provides for the addition of 5,500 additional seats.

My proposed Capital Budget alleviates overcrowding at the elementary school level and provides capacity for the development of a new Elementary Regional Language Immersion Schools Program, through a planned addition to Clarksville Elementary School , replacement of Talbott Springs Elementary School and construction of Elementary School #43.

The confluence of the Attendance Area Adjustment process with the start of the Capital Improvement Program development process has presented a unique opportunity for us to alleviate overcrowding while moving forward with our mission to ensure equitable outcomes and support student success. The recommended budget, in conjunction with a multi-year boundary adjustment plan, will level capacity utilization among schools while avoiding the disruption of a broad-scale boundary line adjustment. At the same time, the budget provides the facilities needed to give every student access to the high quality educational opportunities that lead to lifelong success. I want to acknowledge the stakeholder feedback that helped develop this budget. Thank you to our community, County Executive and Council, and our board members for sharing your views and for participating and collaborating with us during this process. Through continued partnerships, we can advance our vision of equity and support instructional growth with success.

Rising costs and continued increasing enrollment have led to school system capital needs that will require an increase to historical funding levels by the county and state. We know that resources are limited and there are many competing needs. I am committed to working collaboratively with our state and county partners to secure the funding that is necessary to move these projects forward.

Large public organizations demonstrate their priorities through their budgets. This recommended budget reflects our priority as a school system to support our children and maintain excellence in instruction by leading with equity.

The FY 2019 Capital Budget schedule is detailed at the end of the Executive Summary and includes the dates of Board public hearings, and work sessions. I am dedicated to working with the Board of Education and our community stakeholders to advance these important capital projects forward.

Sincerely,

Michael J. Martirano, Ed.D.
Interim Superintendent

HCPSS Strategic Call to Action

HCPSS Strategic Call to Action

Learning and Leading with Equity

The Fierce Urgency of Now

Vision

Every student and staff member embraces diversity and possesses the skills, knowledge and confidence to positively influence the larger community.

Mission

HCPSS ensures academic success and social-emotional well-being for each student in an inclusive and nurturing environment that closes opportunity gaps.

Four Overarching Commitments

VALUE

Every HCPSS stakeholder feels happy and rewarded in their roles and takes pride in cultivating the learning community.

ACHIEVE

An individualized focus supports every person in reaching milestones for success.

CONNECT

Students and staff thrive in a safe, nurturing and inclusive culture that embraces diversity.

EMPOWER

Schools, families and the community are mutually invested in student achievement and well-being.

Desired Outcomes

- **Equity** and **relationships** are at the foundation of all decisions and actions.
- Students' **social-emotional learning** is nurtured through life skills development and collaborative dialogue, such as **restorative practices** to solve problems.
- **Graduation rates** among all high schools and each demographic group are at exemplary levels.
- Students graduate with the skills, attributes and knowledge necessary to acquire **meaningful and rewarding employment** in a dynamic international workplace.
- All students have equitable opportunities to earn **college credit or industry certification**.
- Through collaboration with families and the greater community, all students enter kindergarten **ready to learn**.
- Each and every student receives a high-quality education through **individualized** instruction, challenges, supports and opportunities.
- High quality **special education** services are delivered in a consistent and collaborative manner.
- **Curriculum** is based on standards and best practices, implemented with fidelity, and aligned with meaningful **assessments** that provide actionable data for instructional planning.
- Students see **diversity and inclusion** reflected in the curriculum, and respect the contributions of all populations.
- Staff reflect the **diversity** of the student and community population.
- Parents, guardians and community members **trust** in the integrity of the school system and are active and valued **partners**.
- All staff feel **valued**, are effective in their roles, and have equitable access to additional opportunities through **professional learning** and leadership development.
- Organizational **culture and climate** are supportive and nurturing, and provide a **safe** and healthy environment for all.
- All operations and practices are **responsive**, accountable, efficient and **student-centered**.

HOWARD COUNTY PUBLIC SCHOOL SYSTEM

FY 2019 Capital Budget

Superintendent's Proposed

September 11, 2017

(In Thousands)

Capacity	Project	County Project	Occupancy	Approved Appropriations	Local Bonds	Codes	Total FY19 Request	Requested Project Totals Through FY19
100	Waverly ES Renovation/Phase II Addition*	E0973	Aug 2018	$ 32,455	$ 4,000	(C,E)	$ 4,000	$ 36,455
832	New ES #42	E1028	Aug 2018	35,741	8,132	(C,E)	8,132	43,873
640	Talbott Springs ES Replacement School	E1043	Aug 2021	1,000	8,156	(P,C)	8,156	9,156
1,615	New HS #13	E1035	Aug 2022	-	11,732	(P,C)	11,732	11,732
97	Dunloggin MS Renovation/Addition	TBD	Aug 2022	-	1,000	(P)	1,000	1,000
	Systemic Renovations/Modernizations	TBD		-	28,655	(P,C,E)	28,655	28,655
	Roofing Projects	TBD		-	12,500	(P,C,E)	12,500	12,500
	Playground Equipment	E0990		2,930	-	(E)	-	2,930
	Relocatable Classrooms	TBD		-	2,500	(P,C,E)	2,500	2,500
	Site Acquisition & Construction Reserve	TBD		-	-	(P,C)	-	-
	Technology	TBD		-	2,750	(C,E)	2,750	2,750
	School Parking Lot Expansions	E1012		4,200	-	(P,C,E)	-	4,200
	Planning and Design	E1038		600	300	(P)	300	900
	Barrier Free	E0989		5,628	-	(P,C,E)	-	5,628
	TOTALS			**$ 82,554**	**$ 79,725**		**$ 79,725**	**$ 162,279**

(P) Planning

(C) Construction

(E) Equipment

* Partial planning funds received in Systemic Renovation Project

FY 2020-2024 Capital Improvement Program

Superintendent's Proposed — September 11, 2017

(In Thousands)

Grades	Capacity	Project	County Project	Occupancy	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	5 Year CIP Total
K-5	640	Talbott Springs ES Replacement School	E1043	Aug 2021	$ 18,250	$ 12,218	$ 2,000	$ -	$ -	$ 32,468
9-12	1,615	New HS #13	E1035	Aug 2022	29,066	39,350	38,350	5,566	-	112,332
6-8	97	Dunloggin MS Renovation/Addition	TBD	Aug 2022	15,694	15,671	3,534	3,000	-	37,899
6-8	-	Oakland Mills MS Renovation*	E1036	Aug 2022	9,003	14,404	10,603	2,000	-	36,010
6-8	156	Ellicott Mills MS Addition	E1037	Aug 2022	788	7,627	-	-	-	8,415
K-5	150	Clarksville ES Addition	TBD	Aug 2022	2,000	7,000	1,000	-	-	10,000
K-5	788	New ES #43	E1039	Aug 2023	5,705	15,881	21,175	15,881	-	58,642
9-12	TBD	Hammond HS Renovation/Addition	E1024	Aug 2028	-	-	-	2,800	25,748	28,548
K-5	788	New ES #44	E1040	Aug 2027	-	-	-	-	5,705	5,705
6-12	TBD	MS/HS Career Development Center	TBD	Aug 2028	-	-	-	-	11,232	11,232
	-	Systemic Renovations/Modernizations	TBD		25,694	31,435	30,227	45,956	56,467	189,779
	-	Roofing Projects	TBD		5,000	5,000	5,000	5,000	5,000	25,000
	-	Playground Equipment	E0990		500	500	500	500	500	2,500
	-	Relocatable Classrooms	TBD		2,500	1,500	1,500	1,500	1,500	8,500
	-	Site Acquisition & Construction Reserve	TBD		2,000	2,000	2,000	2,000	2,000	10,000
	-	Technology	TBD		5,500	5,500	7,500	7,500	7,500	33,500
	-	School Parking Lot Expansions	E1012		600	600	600	600	600	3,000
	-	Planning and Design	E1038		300	300	300	300	300	1,500
	-	Barrier Free	E0989		200	200	200	200	200	1,000
		TOTALS			**$ 122,800**	**$ 159,186**	**$ 124,489**	**$ 92,803**	**$ 116,752**	**$ 616,030**

* Partial planning funds received in Systemic Renovation Project

FY 2019-2024 Long-Range Systemic Renovation Projects

Superintendent's Proposed — September 11, 2017

(In Thousands)

Project	FY 2019 Local Bonds	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Totals
Mount View MS HVAC Replacement	$ 5,243	$ -	$ -	$ -	$ -	$ -	$ 5,243
Pointers Run ES HVAC Replacement	5,019	-	-	-	-	-	5,019
Rockburn ES HVAC Replacement	3,824	-	-	-	-	-	3,824
Burleigh Manor MS HVAC Replacement	4,469	-	-	-	-	-	4,469
ARL - HVAC Program Fall 2018	200	-	-	-	-	-	200
ARL - Agriculture Program Fall 2018	200	-	-	-	-	-	200
Long Reach HS - Building Envelope	2,000	2,000	-	-	-	-	4,000
Glenwood MS Exterior Windows/Doors	1,400	-	-	-	-	-	1,400
Applications and Research Lab Maintenance	1,000	1,500	1,500	1,500	1,500	1,500	8,500
Community Use Room Reconfigurations	-	1,000	-	-	-	-	1,000
Forest Ridge ES Office Reconfiguration	-	750	-	-	-	-	750
Guilford ES Exterior Windows/Doors	-	1,300	-	-	-	-	1,300
Ascend One Relocation/Renovations	-	1,000	-	-	-	-	1,000
West Friendship ES MBR	-	2,500	2,500	-	-	-	5,000
Manor Woods ES HVAC Replacement	-	3,297	2,830	-	-	-	6,127
Elkridge Landing MS HVAC Replacement	-	4,747	4,077	-	-	-	8,824
Bonnie Branch MS HVAC Replacement	-	-	4,467	3,838	-	-	8,305
Fulton ES HVAC Replacement	-	-	4,274	3,673	-	-	7,947
Hollifield Station ES HVAC Replacement	-	-	4,187	3,598	-	-	7,785
Administration Office	-	-	-	5,000	5,000	2,000	12,000
Jeffers Hill ES Renovation	-	-	-	2,158	12,238	8,158	22,554
Harper's Choice MS Renovation	-	-	-	2,860	17,106	11,404	31,370
Hammond MS Renovation	-	-	-	-	3,512	19,462	22,974
Patapsco MS Renovation	-	-	-	-	-	4,002	4,002
Forest Ridge ES Renovation	-	-	-	-	-	3,341	3,341
Kitchen Modernizations	-	300	300	300	300	300	1,500
Special Education/Regional Program Needs	300	300	300	300	300	300	1,800
Indoor Environmental Quality Project Repairs	3,000	2,000	2,000	2,000	2,000	2,000	13,000
High School Security Measures	-	1,000	1,000	1,000	-	-	3,000
Structural Replacements/Repairs	-	2,000	2,000	2,000	2,000	2,000	10,000
Emergency Reserve	2,000	2,000	2,000	2,000	2,000	2,000	12,000
TOTALS	**$ 28,655**	**$ 25,694**	**$ 31,435**	**$ 30,227**	**$ 45,956**	**$ 56,467**	**$ 218,434**

FY 2019-2028 Long-Range Master Plan

Superintendent's Proposed

September 11, 2017

(In Thousands)

Project	County Project	Approved Appropriations	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Total Approp. plus FY19-FY28 Request
Waverly ES Renovation/Phase II Addition*	E0973	32,455	4,000	-	-	-	-	-	-	-	-	-	36,455
New ES #42	E1028	35,741	8,132	-	-	-	-	-	-	-	-	-	43,873
Talbott Springs ES Replacement School	E1043	1,000	8,156	18,250	12,218	2,000	-	-	-	-	-	-	41,624
New HS #13	E1035	-	11,732	29,066	39,350	38,350	5,566	-	-	-	-	-	124,064
Dunloggin MS Renovation/Addition	TBD	-	1,000	15,694	15,671	3,534	3,000	-	-	-	-	-	38,899
Oakland Mills MS Renovation*	E1036	-	-	9,003	14,404	10,603	2,000	-	-	-	-	-	36,010
Ellicott Mills MS Addition	E1037	-	-	788	7,627	-	-	-	-	-	-	-	8,415
Clarksville ES Addition	TBD	-	-	2,000	7,000	1,000	-	-	-	-	-	-	10,000
New ES #43	E1039	-	-	5,705	15,881	21,175	15,881	-	-	-	-	-	58,642
Hammond HS Renovation/Addition	E1024	-	-	-	-	-	2,800	25,748	21,890	19,890	11,099	16,100	97,527
New ES #44	E1040	-	-	-	-	-	-	5,705	15,881	21,175	15,881	-	58,642
MS/HS Career Development Center	TBD	-	-	-	-	-	-	11,232	22,566	30,850	31,686	22,566	118,900
New ES #45	E1041	-	-	-	-	-	-	-	-	5,705	15,881	21,175	42,761
Systemic Renovations/Modernizations	TBD	-	28,655	25,694	31,435	30,227	45,956	56,467	59,290	62,255	65,368	68,636	473,983
Roofing Projects	TBD	-	12,500	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	57,500
Playground Equipment	E0990	2,930	-	500	500	500	500	500	500	500	500	500	7,430
Relocatable Classrooms	TBD	-	2,500	2,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	17,000
Site Acquisition & Construction Reserve	TBD	-	-	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	18,000
Technology	TBD	-	2,750	5,500	5,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	66,250
School Parking Lot Expansions	E1012	4,200	-	600	600	600	600	600	600	600	600	600	9,600
Planning and Design	E1038	600	300	300	300	300	300	300	300	300	300	300	3,600
Barrier Free	E0989	5,628	-	200	200	200	200	200	200	200	200	200	7,428
TOTALS		**$ 82,554**	**$ 79,725**	**$ 122,800**	**$ 159,186**	**$ 124,489**	**$ 92,803**	**$ 116,752**	**$ 137,227**	**$ 157,475**	**$ 157,515**	**$ 146,077**	**$ 1,376,603**

* Partial planning funds received in Systemic Renovation Project

Ten-Year Long-Range Master Plan = $1,294,049

Capital Planning

Capital planning is an ongoing process where the annual Capital Improvement Program (CIP) and Long-Range Master Plan are updated to reflect changes in enrollments, building capacities, and other conditions. The HCPSS provides other relevant publications which should be taken as a whole with the capital budget. These include the Feasibility Study, Educational Facilities Master Plan, and the Comprehensive Maintenance Plan.

The formulation of the FY 2019 Capital Budget, FY 2020–2024 Capital Improvement Plan, and the FY 2019–2028 Long-Range Master Plan begins with the annual completion of enrollment projections first presented in the 2017 Feasibility Study. The results of this projection are also included in this document in pre- and post-measures charts. Capacities of schools dictate the calculation of percentage capacity utilization, a measure which allows the effect of school projections to be illustrated in a meaningful way. A school with capacity utilization over 110 percent is deemed to be over-utilized, while a school below 90 percent capacity utilization is deemed to be under-utilized. This range is set by Board of Education policy.

The redistricting of school attendance areas is an integral part of the CIP. The HCPSS is responsible for ensuring that school buildings in the county are run efficiently and effectively. This means keeping schools at or near capacity and ensuring that most available seats are used before new schools would be built. Redistricting is used to ensure that existing capacity and the scheduled capital projects efficiently accommodate projected student enrollments.

While redistricting plans are implied for new facilities proposed in this plan, formal approval of those plans will not occur until the year before they take effect. Changing circumstances may require different plans. For planning purposes, the school attendance areas are grouped into six planning regions. Redistricting plans may include more than one region. The schools and their regions are identified on the elementary, middle, and high school level pages found in the Supporting Data section.

Capital Planning and Growth Management

General Plan

The Capital Improvement Plan (CIP) must conform with an important County planning document, the Howard County General Plan. Known as *PlanHoward 2030*, it includes annual residential development targets through 2030. The HCPSS will work closely with the Howard County Government to identify future funding sources so that our capital plan best supports the growth management goals of the Howard County General Plan. The capital budget is presented to the Howard County Planning Board so they may make a finding of conformance with the General Plan to the County Council.

The General Plan policy most relevant to this capital budget is Policy 6.1h -- Schools, which directs HCPSS to make efficient use of existing school capacity avoiding unnecessary capital outlays. HCPSS has conducted three years of redistricting since the adoption of *PlanHoward 2030* to make more efficient use of existing schools. A total of 4,326 students were moved. More than three quarters of these students were relocated to existing schools. In 2011, prior to these redistricting efforts, 51 percent of students were in schools which met the BOE target of 90–110 percent utilization. At the end of the redistricting cycle in 2014, 64 percent were in schools that meet this target. This was accomplished with only a four percent increase in capacity.

The General Plan also guides land development in accordance with relevant state growth management laws like the 1997 Priority Funding Areas Act and Smart Green and Growing Act which direct state spending to existing communities and places where local governments want state investment to support future growth, rather than farmland or undeveloped land. The HCPSS has invested heavily in priority funding areas of late with the construction of Ducketts Lane Elementary School and Thomas Viaduct Middle School. Projects proposed outside of the priority funding area are systemic renovations necessary to maintain systems in existing schools, like boiler or HVAC upgrades.

Adequate Public Facilities Ordinance

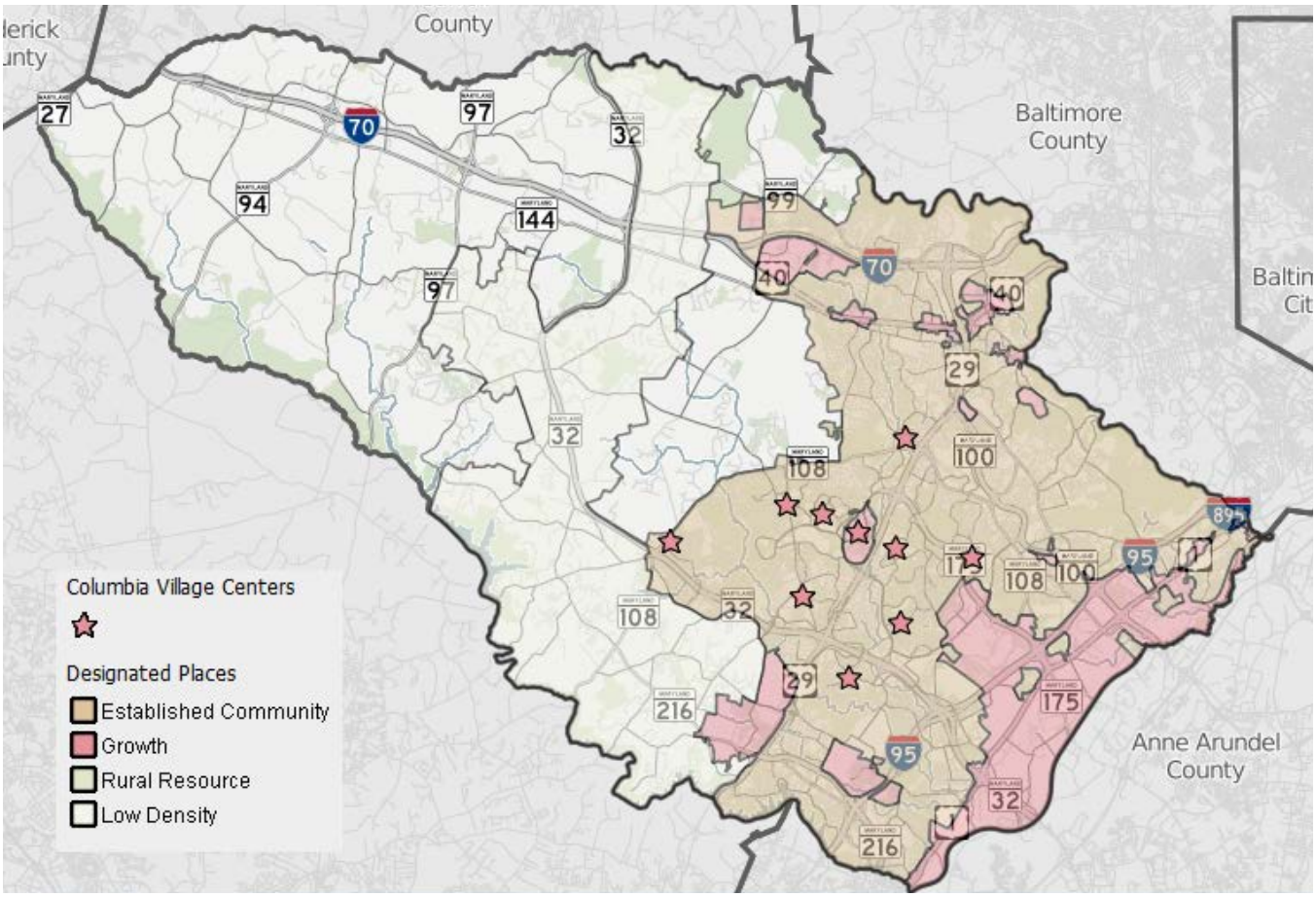
The Adequate Public Facilities Ordinance (APFO) ties future residential construction in Howard County to projected school enrollments and school capacities. Elementary and middle school attendance areas that show a projected enrollment over 115 percent of a school's program capacity are closed to future residential development until an attendance area adjustment or a capital improvement can be completed. The APFO test for opening or closing a school attendance area to new residential building looks at the projected population of a school three years out from the current year. HCPSS participated in the County Executive's APFO task force and proposed changes to the Ordinance are under consideration by County Council.

Capital Planning and Growth Management

The APFO charts that appear in the Supporting Data section are the charts that were approved for submission to the Howard County Council by the Board of Education on May 18, 2017, and subsequently submitted to the County Council and begin with the year 2020. The APFO charts do not include new schools or projects when their sites have not yet been acquired. As the school system secures deeds for the sites to these planned schools or projects, they will be reflected in that year's APFO chart.

Along with the elementary and middle school tests, a regional test within planning regions at the elementary level is also included in the ordinance. Using the APFO charts as indicators at the elementary level, one region is "closed" in 2020 and six schools are "closed" in 2020. At the middle school level, six schools are "closed" in 2020.

With the pre-/post-measures approach, the APFO formatted charts found in the Supporting Data section are in the pre-measures format. These charts represent the adjusted FY 2018 Capital Budget projects and the new projections. The post-measures charts represent the recommended capital projects for the FY 2019 Capital Budget and redistricting results from the 2017 Feasibility Study and are for demonstrative purposes only.



The General Plan process was followed by adoption of the growth tiers map. Future development and school needs are planned in growth areas or village centers.

Enrollment Projections and School Capacities

Methodologies

The formulation of the FY 2019 Capital Budget, FY 2020–2024 Capital Improvement Program, and the FY 2019–2028 Long-Range Master Plan begins with the annual completion of enrollment projections, which were first published in the 2017 Feasibility Study. The projections included in this document are the result of a collaborative effort between the HCPSS, Howard County Department of Planning and Zoning, Maryland Department of Health and Mental Hygiene, and other county and state agencies.

The calculation of the future enrollment projection is based upon a "cohort survival ratio" method of projecting student enrollments. This methodology looks at past population patterns within the county to construct "survival ratios" in predicting a particular grade's migration through the school system. For example, cohort-survival ratios predict how many second graders will result from last year's first graders, how many third graders will result from last year's second graders, and continues until the number of twelfth graders from last year's eleventh graders is predicted. A geographical cohort survival ratio is used rather than a school-based cohort survival ratio to maintain comparability regardless of any redistricting. Finally, the effects of new housing, the net effect of resale of existing housing, and programs housed at the school that impact enrollment are added to the cohort.

Capacities

Equitable evaluation of the impact of projected enrollment growth requires calculation of the capacities of schools. Capacities are not necessarily fixed to the capacity designed when a building first opened. Changes in use, programs, and standards can effectively change capacity.

High school capacities were evaluated and updated by the Board of Education in March 2009. High school program capacities are a product of either 80 or 85 percent of the total number of teaching stations multiplied by 25 students, exclusive of special education classrooms, and factored with consideration that not all teaching stations can be scheduled for use every period of the school day. Further, special-use teaching stations may not be adaptable for academic programs even if the space is available for a period of the school day.

Middle school capacities were evaluated and approved by the Board on September 26, 2013, after a full study and report by Gilbert Architects Inc. Middle school program capacities are a product of 95 percent of the total number of teaching stations multiplied by 20.5 students, exclusive of special education classrooms. Like high schools, not all teaching stations can be scheduled for use every period of the school day.

Elementary school capacities were evaluated and approved by the Board on October 23, 2014, after a full study and report by Gilbert Architects Inc. Elementary school program capacities are based on 22 students for each Kindergarten classroom, 19 students for each classroom in Grades 1 and 2, and 25 students for each classroom in Grades 3–5. Elementary school special education classroom capacities are established by the mandated student/teacher ratios for the various programs. Not included in the capacities for elementary schools are resource/instructional spaces that are utilized on a schoolwide basis where no one group of students is assigned exclusively. Some examples of spaces not included in the capacity are gymnasiums or multipurpose rooms, cafetoriums, art rooms, music rooms, media centers, gifted and talented rooms, or rooms dedicated to regional programs such as prekindergarten.

Types of Capital Projects

The Capital Improvement Plan (CIP) provides for all facilities needs for the school system. Projects are identified by their purpose as described below.

Capacity Projects

New facilities or additions are proposed when projected enrollments cannot be accommodated reasonably within available capacity. The decision to construct a new facility or build an addition on an existing school involves consideration of fiscal implications as well as consideration of the following:

- Growth and location of the population to be served.
- Available capacity in surrounding schools.
- Accommodating needs of current and desired educational programs.

Each capacity project in the CIP has first been evaluated in the annual feasibility study which balances school boundary redistricting choices with capital investments. If the attendance areas for existing schools can be adjusted, capital expenditures can be avoided or at least delayed. The Board of Education will review the CIP and set direction as appropriate during capital budget presentations each year. The opening of new schools requires redistricting. Redistricting is not annual but potential options are evaluated annually in the feasibility study.

From the receipt of planning funds until completion of a project, it typically requires a maximum of three years to plan and construct an elementary or middle school and four years for a high school. Some parts of the construction process can be expedited at cost.

Non-Capacity Projects

Capital projects, which don't produce capacity are "systemic" and serve the long-term plans of HCPSS and the state of Maryland by keeping and maintaining the systems that support 30–40 year infrastructure investments. Most maintenance investments are covered by the operating budget and documented in the annual Comprehensive Maintenance Plan published as a requirement of the Maryland State Department of Education (MSDE). Each year staff evaluates the comprehensive maintenance plan to identify projects that exceed regular maintenance and add these projects to the capital improvement program as appropriate.

Renovations of existing schools are proposed when repairs of the structure's internal systems are no longer economically feasible. As the Comprehensive Facility Master Plan is updated using the results of ongoing facility assessments, specific projects are identified in the long-range master plan.

Types of Capital Projects

The decision to renovate an existing school involves the following considerations:

- Prioritization of needs based upon the current facility assessment.
- Optimal sequencing to ensure eligibility for state funding.
- Existing electrical, HVAC, roofing, and/or other major mechanical systems needs.
- Educational space needs.
- Health and safety needs.
- Americans with Disability Act (ADA) needs.
- Need to provide improved spaces for general teaching areas and/or supporting areas.

When renovating an older school, there are multiple considerations of how to best balance the existing footprint of the building against requirements defined in newer versions of the educational specifications. Renovation guidelines have been developed to provide a set of standards, guidelines, and procedures for use by HCPSS administrative staff and architectural/engineering firms engaged in the planning and design of renovation work for the school system.

Roofing Projects

A well-planned roofing program is critical to all other systems in a capital facility. When roofing systems wear, the damage from a failure can impact other systems and multiply costs. HCPSS regularly inspects roofing systems and provides reports to the state of Maryland. Planning and project execution must balance system warranties, state funding eligibility, and the risk of maintenance deferral.

Playground Equipment

Elementary school students are stimulated by interesting and engaging playground installations. The playground planning process considers the needs of a wide-range of ages and skills to develop strength, social skills, coordination, balance, and motor planning. Each year various playgrounds are replaced, repaired, or upgraded based upon need.

Types of Capital Projects

Relocatable Classrooms

Relocatable classrooms are pre-fabricated, stand-alone buildings which provide temporary capacity to a school to relieve overcapacity, provide temporary swing space during renovations/ additions, or provide space for a school's program needs. Currently there are 224 modular/relocatable classrooms for Grades K–12 being used by the HCPSS, including several larger modular units of at least five classrooms.

In some cases modular units are integrated into a building's core facility, such as at St. John's Lane Elementary School and Clarksville Middle School. These units are included in building capacity as they are considered permanent additions.

In recent renovations, modular units have been replaced, like Bollman Bridge Elementary School, Deep Run Elementary School and Patuxent Valley Middle School. Similar plans are underway at Waverly Elementary School. The school system conducts reviews of the physical condition and usage of all relocatable/modular units. When units are inspected, the cost of repairs is weighed against the option of retiring the units.

Site Acquisition and Construction Reserve

The selection and acquisition of appropriate school sites figures prominently in the development of a capital program. Each proposed school site is carefully evaluated prior to acquisition according to Board-approved selection criteria identified in Policy 6000 Site Selection and Acquisition. Delays in acquisition of suitable school sites may affect the timing of construction of needed schools, resulting in overcrowding situations.

The HCPSS continues to maintain a "land bank" to purchase potential sites or portions of land to augment sites. Larger sites identified in the subdivision review process may be reserved to be budgeted as line items in future capital budgets. This fund is also used as a reserve for unanticipated construction costs.

Land Bank as of July 1, 2017

The Board maintains ownership and/or the rights to purchase parcels of land for future school sites, commonly known as the "Land Bank." The following schedules detail the current land in the Land Bank.

Owned Sites	Acreage	Location	Date Acquired	Cost
Sunny Spring Drive	10	Sunny Spring Drive	1974	$ 1
Future Middle School Site	41	2865 Marriottsville Road	2007	$ 1,700,000
Faulkner Ridge Center	9.01	Marble Faun Lane	1968	$ 1

The following properties are held by other parties for future use by the Board of Education for school construction. Upon need for a school site, the Board may utilize these properties.

Reserved Sites	Acreage	Location
Clary's Forest	10	Little Patuxent Parkway near Bright Passage
Dickinson	11	Eden Brook Drive and Weather Worn Way
Dickinson	20	Sweet Hours Way east of Eden Brook Drive
Hopewell	10	Rustling Leaf at Deepage Drive
Huntington	11	Vollmerhausen Road east of Murray Hill Road

Recent Capital Accomplishments

HCPSS completed impressive projects in the past year which provided urgently needed capacity and necessary renovations.

Renovation and Replacement Facilities

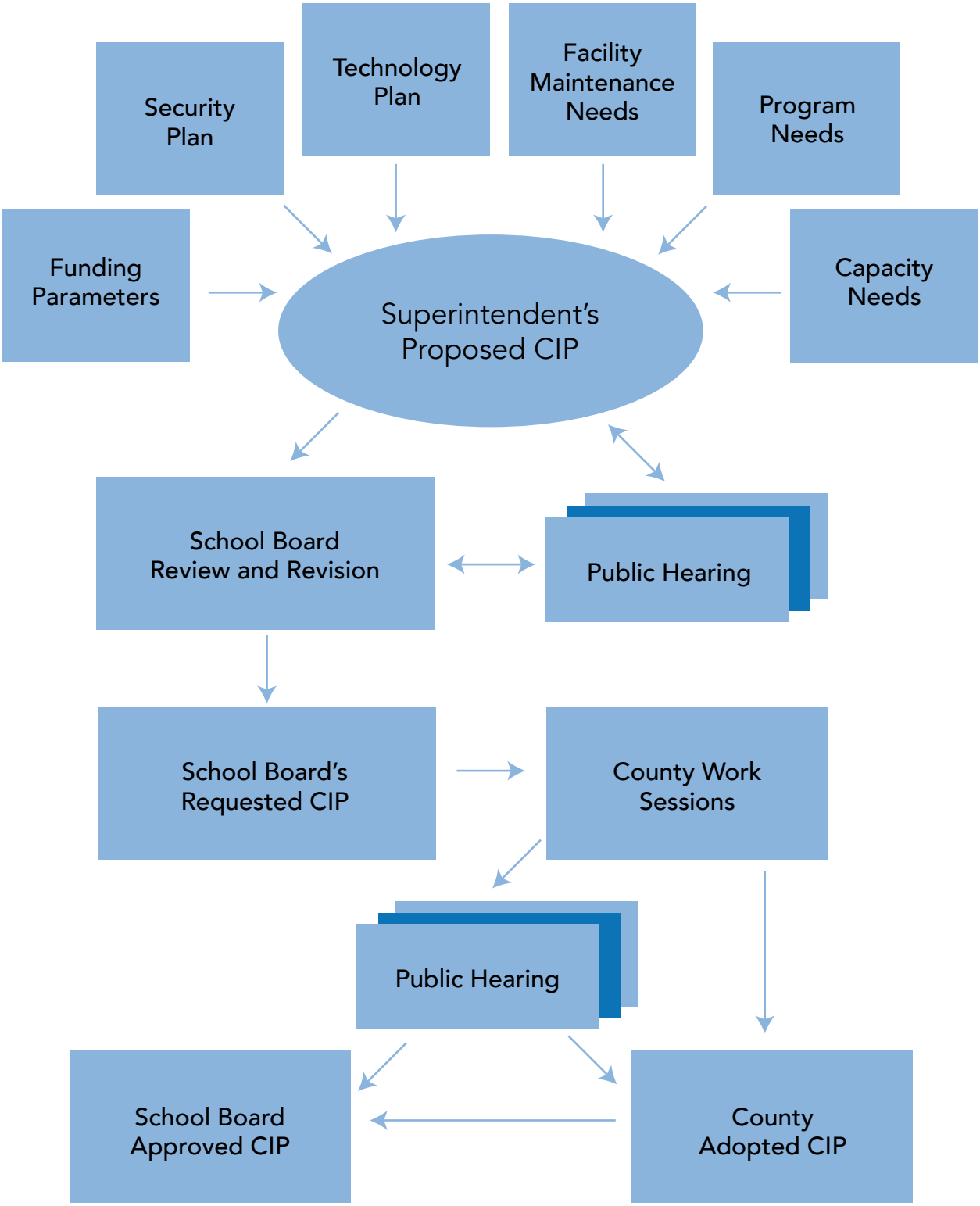
Patuxent Valley Middle School

The Patuxent Valley Middle School project renovated the existing two-story structure originally built in 1989. The focus of the project was a complete systemic renovation, including new mechanical, electrical and technology systems. Cluster teaching stations were reconfigured into self-contained classrooms and additions were constructed allowing for a new administration area with improved security and COMAR compliant health suite. The balance of the interior spaces was reconfigured providing better circulation with improved accessibility and new finishes. The existing modular classroom section was demolished and replaced with permanent classroom construction. The project will receive a LEED certification.

Wilde Lake Middle School

The Wilde Lake Middle School project replaced the former single-story structure originally built in 1969 with a new, state-of-the-art two-story Net Zero facility. The new facility is 49% larger and accommodates 752 students. The school was constructed behind the original building which was later demolished to provide play fields and parking. The project was the sixth iteration of the middle school prototype which was updated to address both the systemic and programmatic needs of our school system. The school was designed and partially funded in collaboration with the Maryland Environmental Agency as the first Net Zero school in the state. The Net Zero aspects of the school, such as the use of solar panels and geo-thermal system not only allows for the building to be one of the most energy efficient, but also provides a teaching tool to students and staff though the use of the energy dashboard. The project is also slated to receive a LEED platinum certification.

Capital Improvement Program (CIP) Development Process



Calendar for Development and Review/Approval

Superintendent's Proposed FY 2019 Capital Budget

Capital Improvement Program FY 2020–2024
Long-Range Master Plan FY 2019–2028

Thursday, June 22, 2017 7:30pm - Board Room	Staff presentation of Feasibility Study Report including 2017 enrollment projections.
Thursday, August 17, 2017 7:30pm - Board Room	Board of Education Public Hearing and Pre-Development Work Session.
Monday, September 11, 2017 3:00pm - Board Room	Staff presentation of the Superintendent's Proposed Capital Budget.
Tuesday, September 19, 2017 7:30pm - Board Room	Board of Education Public Hearing on Superintendent's Proposed Capital Budget. Work Session and Approval of Superintendent's Proposed Capital Budget following the Public Hearing.
Wednesday, October 4, 2017	Board of Education submission of Proposed Capital Budget to Maryland Public School Construction Program.
Thursday, September 28, 2017 7:00pm	Planning Board Public Hearing on Board of Education's Proposed Capital Budget.
Monday, November 6, 2017 7:00pm	County Council approval of Board of Education's Proposed Capital Budget for letter of support to the Interagency Committee on School Construction.
Tuesday, February 22, 2018 3:00pm - Board Room	Board of Education Adoption of the Requested Capital Budget.
Mid-March	Board of Education submission of the Requested Capital Budget to the County Executive and Budget Administrator.
TBD	County Executive Public Hearing on Capital Budget.
TBD	County Executive presentation of the Capital Budget.
Thursday, April 19, 2018 7:30pm - Board Room	Board of Education Public Hearing.
TBD	County Council Public Hearing on the Education portion of the County Executive's Capital Budget.
Thursday, April 26, 2018 7:30pm - Board Room	Board of Education Work Session (if necessary).
TBD	Staff pre-file of the Adequate Public Facilities Ordinance Open/Closed Chart to County Council.
TBD	County Council Adoption of the Capital Budget.
Thursday, May 24, 2018 9:00am - Board Room	Board of Education Adoption of the Capital Budget
TBD	County Council Adoption of Adequate Public Facilities Ordinance Open/Closed Chart.

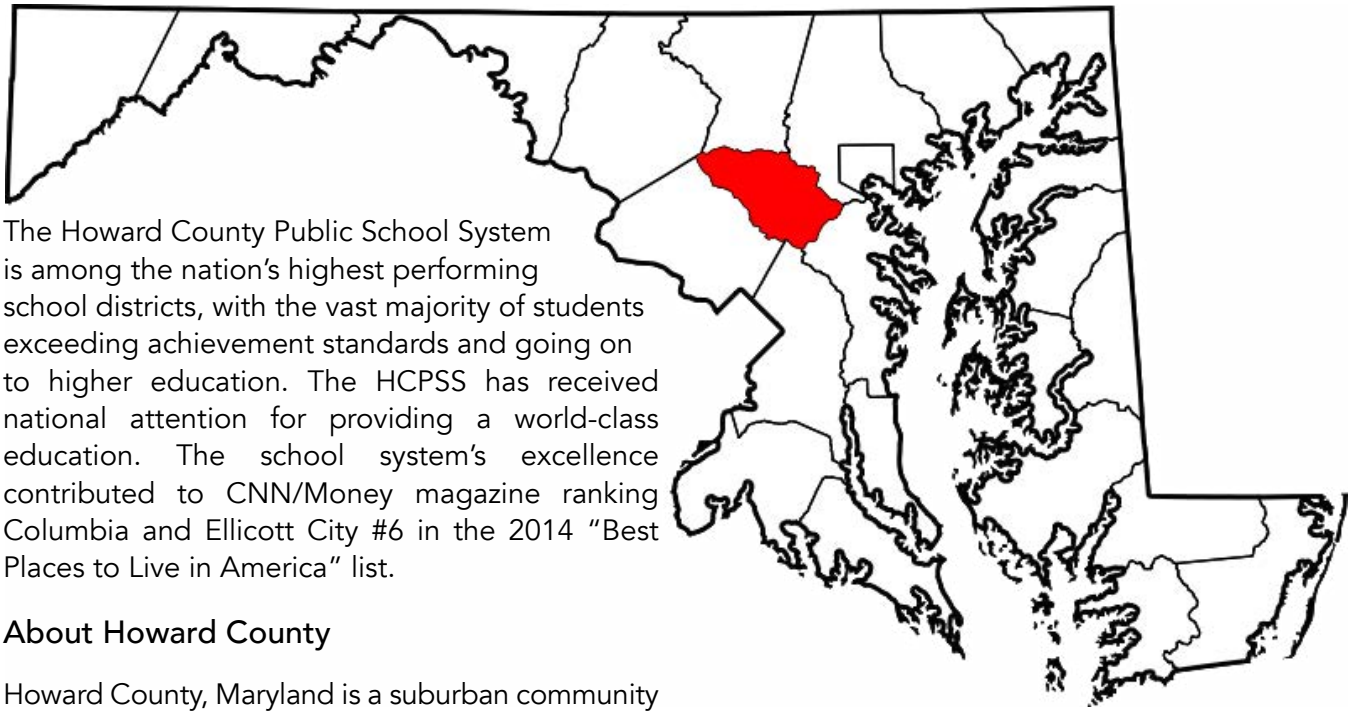
TBD (To Be Determined) - Please check Howard County's website for the full schedule: http://www.co.ho.md.us/

Section 2

System Information

September 2017

Howard County at a Glance



The Howard County Public School System is among the nation's highest performing school districts, with the vast majority of students exceeding achievement standards and going on to higher education. The HCPSS has received national attention for providing a world-class education. The school system's excellence contributed to CNN/Money magazine ranking Columbia and Ellicott City #6 in the 2014 "Best Places to Live in America" list.

About Howard County

Howard County, Maryland is a suburban community with a population over 300,000, situated midway along the Baltimore-Washington corridor. It is a county of contrast—a blend of old and new, urban and rural, historical and progressive. The county's borders encompass Ellicott City, one of the country's oldest towns, and Columbia, a planned community conceived and designed over 40 years ago by the Rouse Company.

Howard County boasts a number of historical landmarks, including the Bollman Truss Railroad Bridge, the Thomas Viaduct, and nine sites along the Maryland Civil War trails. The county's 30 regional and community parks, 7 golf courses, 5 lakes, and extensive hiking and biking trails also contribute to the $590.1 million in annual tourism revenue.

Howard County Race/Ethnicity

	Howard County	Maryland
American Indian/Alaskan	0.4%	0.6%
Asian	18.3%	6.6%
Black/African American	19.1%	30.7%
Hawaiian/Pacific Islander	0.1%	0.1%
Hispanic/Latino	6.6%	9.8%
White	53.3%	51.5%
Two or More Races	3.7%	2.8%

2016 US Census Bureau Data

Howard County Fast Facts

- 95.2% of the population over 25 has graduated high school. (MD State 89.4%)
- 60.6% hold a Bachelor's degree or higher. (MD State 37.9%)
- $110,238 is the median household income.
- 73.3% homeownership rate with median value of owner-occupied housing of $426,100.
- 250.74 square miles land area and 1,144.9 persons per square mile.
  (MD State land area 9,707.24 square miles and 594.8 persons per square mile)
- Howard County is the smallest Maryland County by land area.
- 3.3% unemployment rate as of June 2017, lowest rate in Maryland. (MD State 4.6%)

HCPSS Facilities at a Glance

The HCPSS maintains well over seven million square feet of school facilities and other buildings in service of delivering the educational program and for use by the community. The school system owns or controls approximately 1,820 acres of land. Approximately seven percent of HCPSS staff are devoted in some way to the maintenance of facilities.

HCPSS Facilities

76 Schools

41 Elementary Schools

20 Middle Schools

12 High Schools

3 Special Schools

Ancillary Facilities

Ascend One

Central Office

Amberton Drive (Leased Storage)

Dorsey Building (Shared Space)

Faulkner Ridge (Vacant)

Mendenhall Court (Leased Offices and Shops)

Ridge Road Center (Shops)

Old Bushy Park (Storage)

Old Cedar Lane (Offices)

Average Age of Facilities*

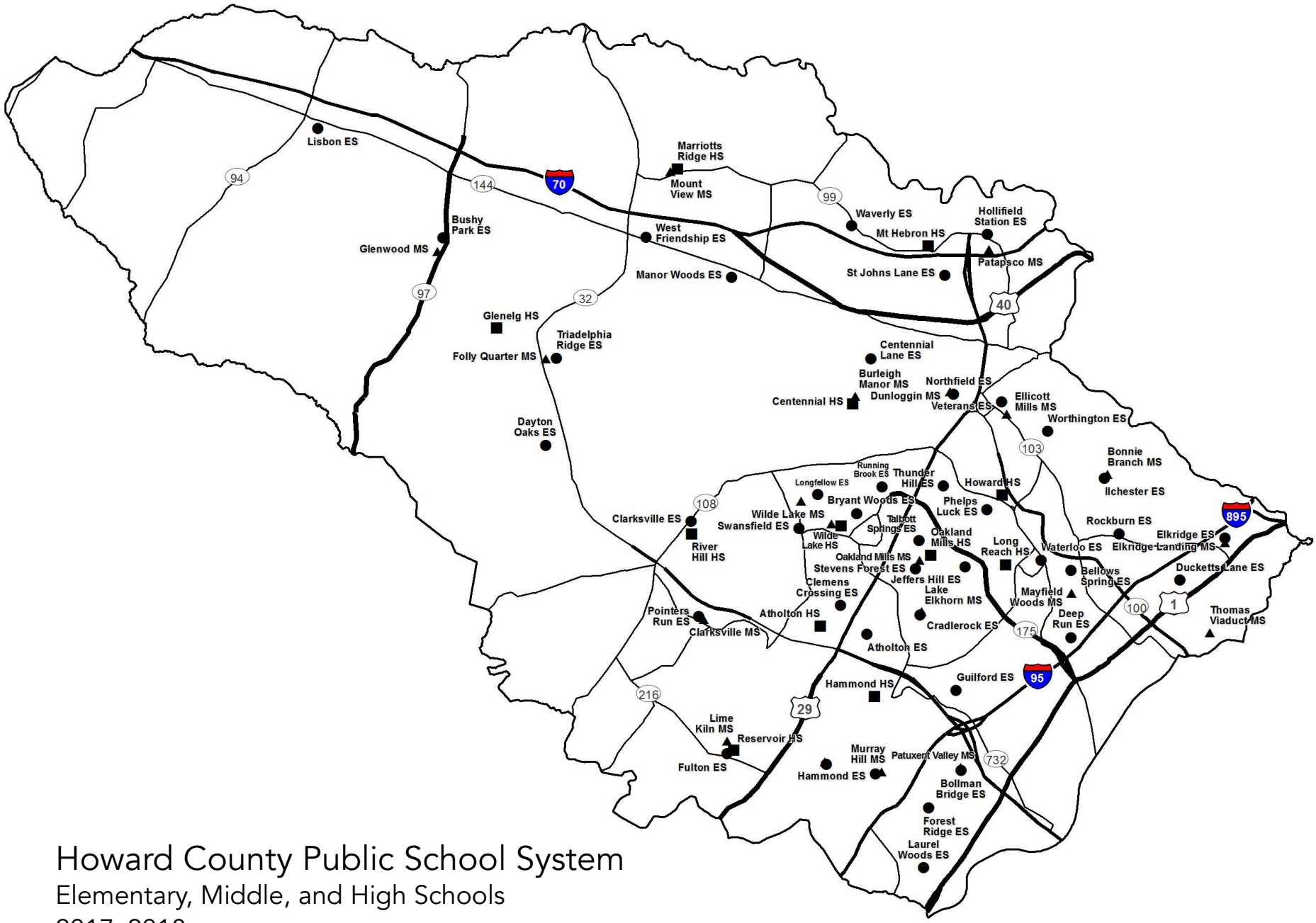
Elementary	Middle	High
15.1 years	16.7 years	20.0 years

* Including completed renovations.

Enrollment*

Total Enrollment (Pre-K–12)	**55,638**
Elementary (Pre-K–5)	25,863
Middle (6–8)	12,897
High (9–12)	16,768
Special Schools	110

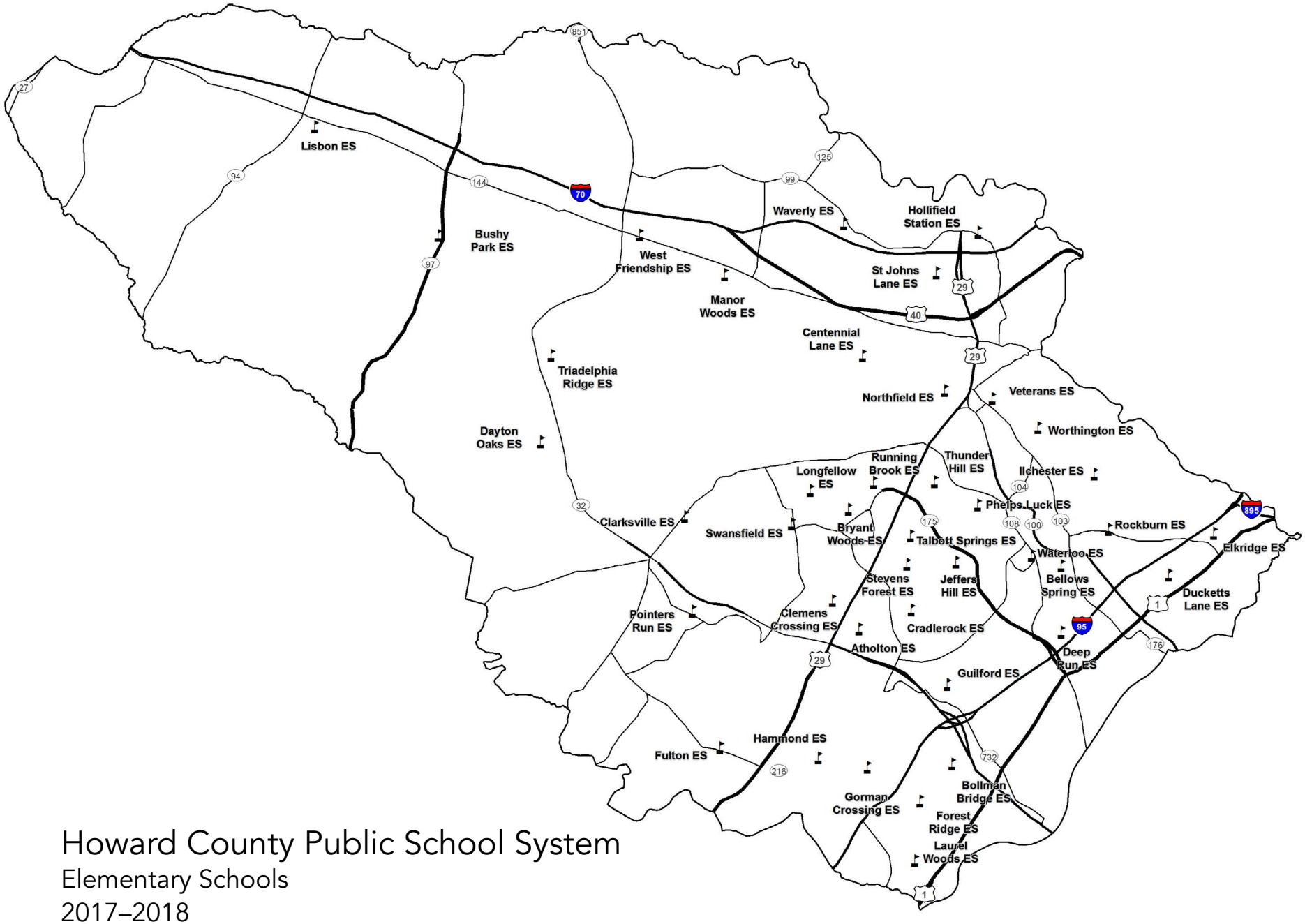
* Official September 30, 2016 Enrollment Report.



Howard County Public School System

Elementary, Middle, and High Schools

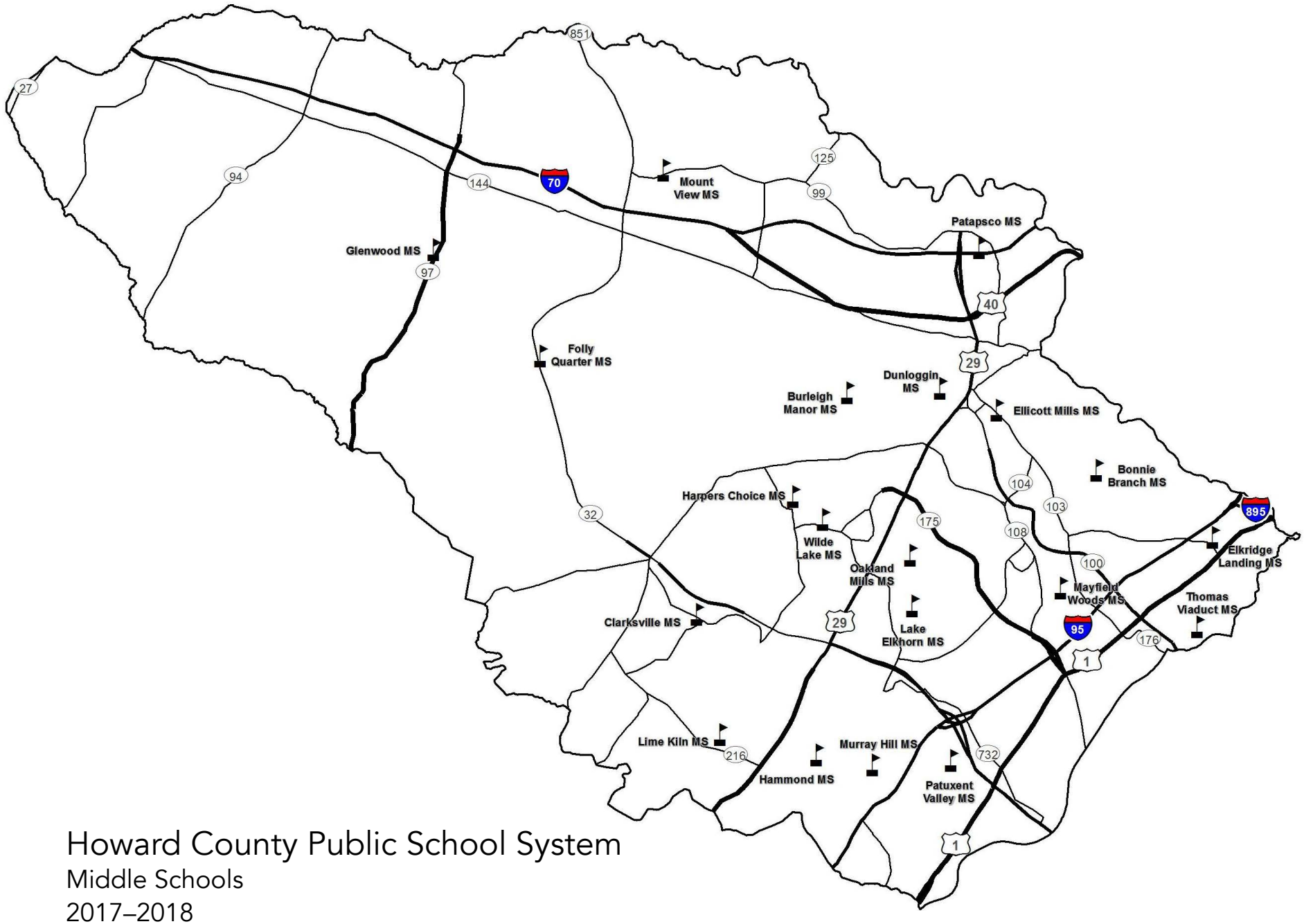
2017–2018



Howard County Public School System

Elementary Schools

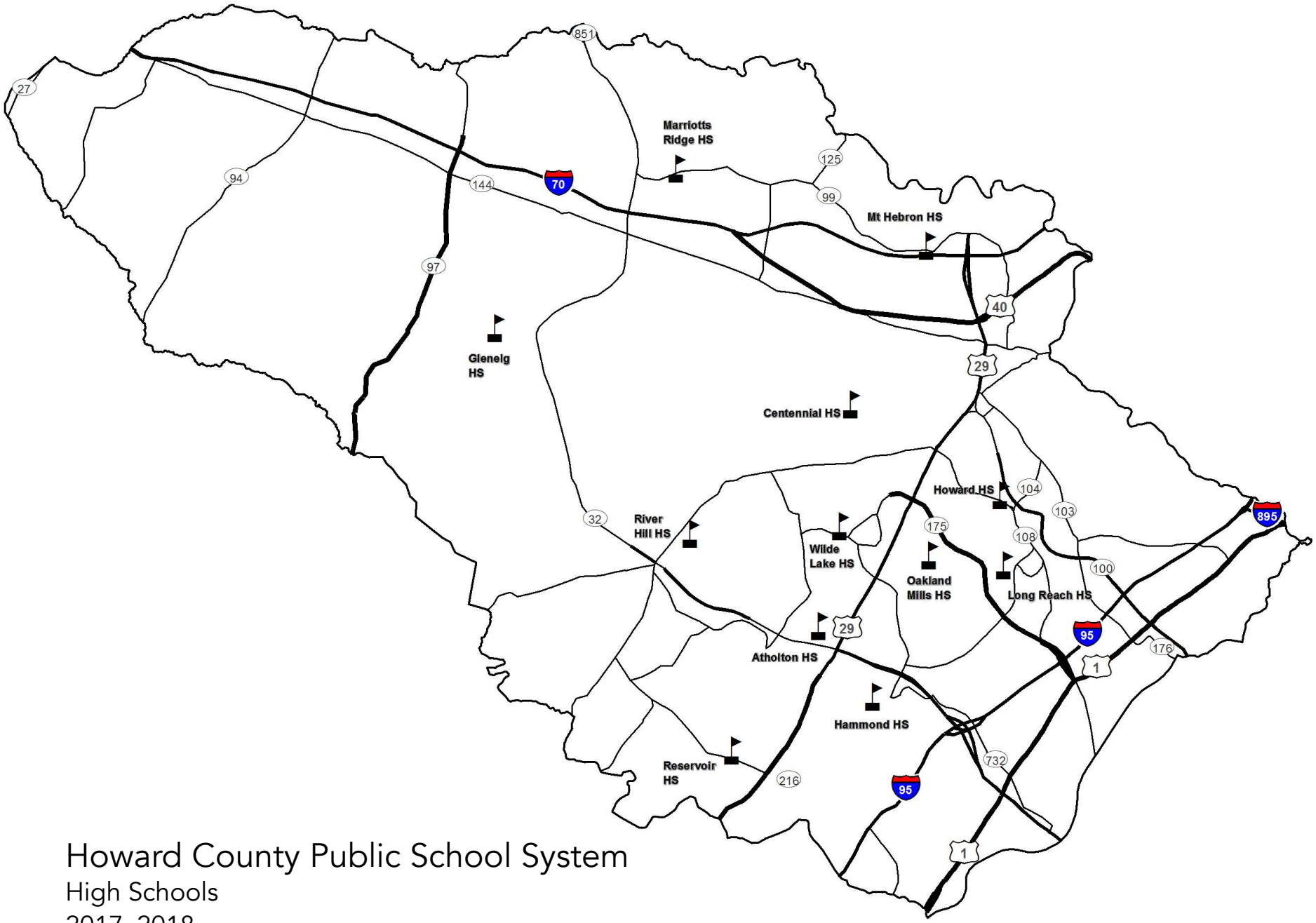
2017–2018



Howard County Public School System

Middle Schools

2017–2018



Howard County Public School System

High Schools

2017–2018

Section 3

Project Detail

September 2017

Waverly Elementary School Renovation/Addition: Project 0973

10220 Wetherburn Road, Ellicott City, MD 21043
http://waves.hcpss.org/

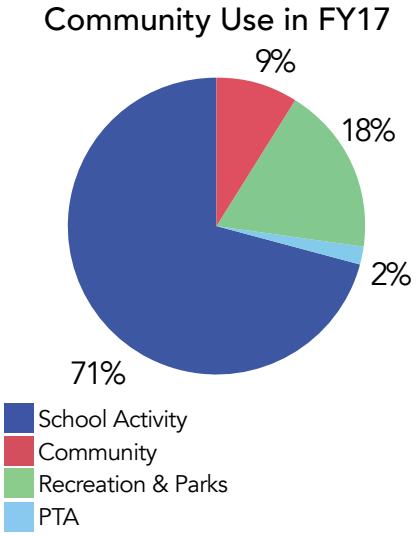
Kathy Jacobs, Principal
410.313.2819

Building Data	
Year Built	1990
Age	27
Site Area (acres)	11.49
Last Renovation/Addition	2007
Current Relocatables	9
Current Capacity	638
9/2016 Enrollment	707

Projections/Capacity Utilization	
2017 Projection	684
Projected Utilization	107%
2018 Projection	686
Projected Utilization	108%
Post-Renovation Cap.	738
Projected Util. 2021	86%

Project Purpose

The Waverly Elementary School project will expand educational program spaces with 100 seats of new capacity and renovate the existing facility. Waverly Elementary School opened in 1990 and was renovated in 2007 to accommodate full-day kindergarten. The 2009 facility assessment of elementary schools concluded that Waverly Elementary School had 14.6 percent deficiency of educational program area of the 40 elementary schools operating at that time. The FY 2016 Capital Budget introduced this project in the CIP. In previous budgets, it was listed as a systemic renovation. In the FY 2016 Capital Budget, the total project cost was estimated at $29.5 million. In the FY 2019 Capital Budget, the total project cost estimate is $36.5 million. The $7 million increase is mainly attributed to the new plan including an addition. The complete scope of this project is defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.



Community Use at Waverly Elementary School

Waverly Elementary School hosted after school and weekend activities for a variety of community and student programs, meetings, activities, and events. An attendance of 66,000 was estimated for these activities. School events accounted for the majority of the facility use. Other uses, which include child care and after school activities, make up the balance of reservations.

Project Details

This project calls for an expansion of the educational program spaces and renovation of the existing facility. This will consist of a complete systemic renovation of the existing building including new electrical, mechanical, plumbing, technology, roofing, and life safety systems as applicable per the recent feasibility assessment survey. The project will provide 100 seats of additional classroom space and core infrastructure space necessary to operate effectively at the larger capacity. Interior spaces will be reconfigured, new finishes provided, accessibility improved, and new spaces added as required bringing the facility into compliance with renovation specifications.

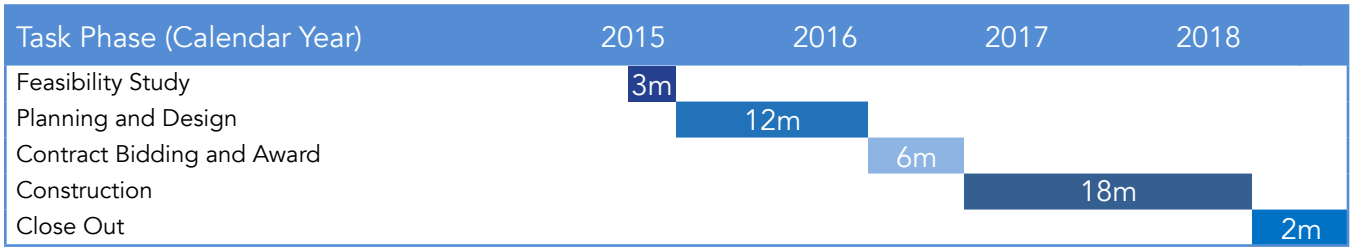
The Waverly Elementary School Addition supports a long-term plan as described in the 2016 Feasibility Study. In 2016 and beyond, Manor Woods Elementary School is projected to be above the 110 percent capacity utilization standard and eventually trends above 200 percent. Manor Woods Elementary School is not on public sewer and for that reason expansion is unlikely. Constructing this addition in 2018 can help relieve overcrowding at Manor Woods Elementary School. Beyond that, a new elementary school in Turf Valley has been considered after 2020.

School Location Map

This is the fifth year of funding for Waverly Elementary School. Planning funds also were received in the Systemic Renovation Line in FY 2015.

Details of the budget request for this project can be found on the Capital Budget Request pages in Section 1 (Executive Summary) and the Project Cost Details pages in Section 3 (Project Detail).

Project Timeline



The above chart shows the calendar year timeline for planning and construction for this project (in months). The Waverly Elementary School Renovation/Addition project is scheduled for completion in August of 2018.

New ES #42: Project 1028

School Site located adjacent to Thomas Viaduct Middle School
7030 Banbury Drive, Hanover, MD

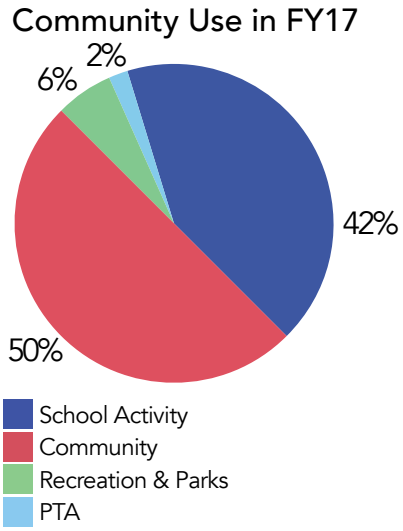
Project Purpose

The New ES #42 will be a new facility. Capacity utilization at Ducketts Lane Elementary School, which opened in August 2013 in the northern Route 1 corridor, will continue to grow. Even with additional capacity that may have been found in the Gilbert study, we now know that at least one additional elementary school is needed in the eastern part of the county. The region will exceed 115 percent utilization in 2023 and require approximately 1,000 additional seats. The recently completed comprehensive zoning increased the entire housing projection this year by 996 units, most was initiated in FY 2016.

The complete scope of this project is defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.

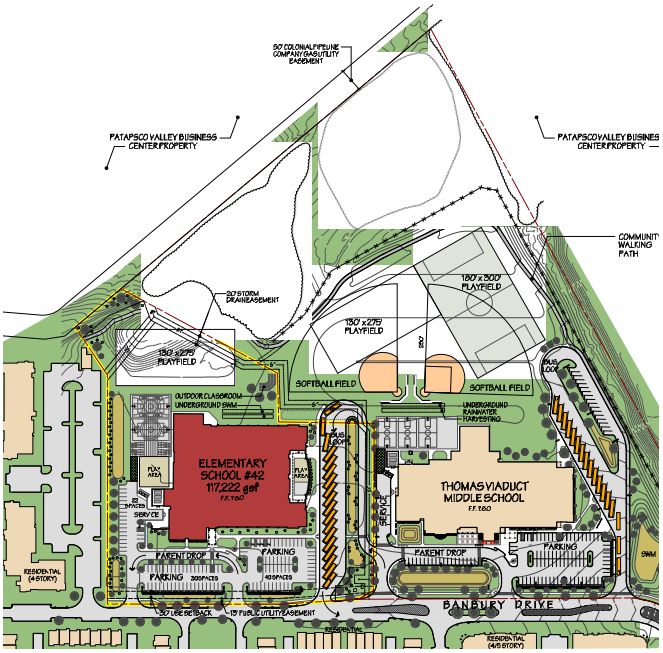
Community Use at New ES #42

Community use is anticipated in the planning for this new facility. Ducketts Lane Elementary School serves as a comparison. Ducketts Lane Elementary School hosted an estimated 64,000 attendees for over 1,400 reservations after school hours and on weekends for a variety of events. The majority of the events were athletic events and remaining reservations were school and other community events.



Project Details

The New ES #42 will be designed in conformance with the General Educational Specifications for New Elementary Schools published in June 2003. The building design will provide the best possible learning environment for all elementary students in every aspect of educational programs by providing inclusive learning spaces, state-of-the art technology, and sustainable building practices. The prototype is a two-story elementary school designed for a 788 student capacity. The new school will also accommodate prekindergarten through fifth grade, as well as the Regional Early Childhood Center. The project will achieve USGBC LEED Gold certification in keeping with the sustainable goals of HCPSS to reduce negative impact on the environment and enhance health and comfort of the building occupants, thereby improving building performance.



A school site is located adjacent to Thomas Viaduct Middle School at 7000 Banbury Drive in Hanover, MD.

Transit-oriented developments (TOD) are densely arranged communities of homes, offices, and stores near a rail station or bus line. Oxford Square is situated very close to the Dorsey MARC Station and will have a community shuttle until pedestrian access can be constructed.

This is the fourth year of funding for New ES #42. Planning funds were received in FY 2016. Construction funds have been received in FY2017 and FY2018 and are requested again in FY 2019. The school is scheduled to open in August 2018.

Details of the budget request for this project can be found on the Capital Budget Request pages in Section 1 (Executive Summary) and the Project Cost Details pages in Section 3 (Project Detail).

Project Timeline

Task Phase (Calendar Year)	2015	2016	2017	2018
Feasibility Study	3m			
Planning and Design		12m		
Contract Bidding and Award			6m	
Construction			18m	
Close Out				2m

The above chart shows the calendar year timeline for planning and construction for this project (in months). The New ES #42 project is scheduled for opening in August of 2018.

Talbott Springs Elementary School Replacement: Project 1043

9550 Basket Ring Road, Columbia, MD 21045
http://tses.hcpss.org/

Nancy Thompson, Principal
410.313.6915

Building Data	
Year Built	1973
Age	44
Site Area (acres)	10
Last Renovation/Addition	2008
Current Relocatables	10
Current Capacity	377
9/2016 Enrollment	447

Projections/Capacity Utilization	
2017 Projection	447
Projected Utilization	119%
Projected Cap.	640
2021 Projection	449
Projected Utilization	70%

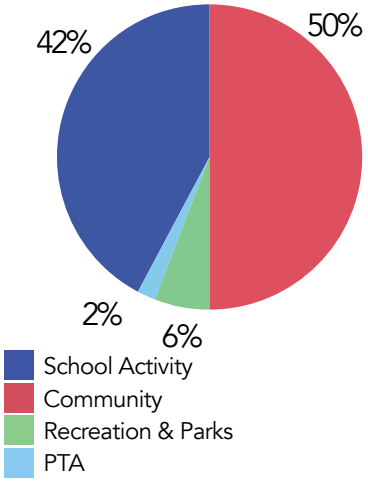
Project Purpose

The Talbott Springs Elementary School project will replace an aging elementary school with a larger, modern facility. Talbott Springs Elementary School opened in 1973 and was renovated in 2000. The school was expanded in 2000 (art room and gymnasium) and 2008 (all day kindergarten). In April 2009, HCPSS engaged Gilbert Architects Inc. to conduct a facility assessment of elementary schools. The report concluded that Talbott Springs Elementary School had 18.7 percent deficiency of educational program area of the 40 elementary schools operating at that time. In the FY 2019 Capital Budget, the total project cost estimated is $41.6 million. Talbott Springs Elementary School will be a USGBC LEED Silver Certified school facility. The complete scope of this project will be defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.

Community Use at Talbott Springs ES

Talbott Springs Elementary School hosted an estimated 64,000 attendees for nearly 1,500 reservations after school hours and on weekends for a variety of events. The majority of the events were after school activities and community events and remaining reservations were athletic and PTA events.

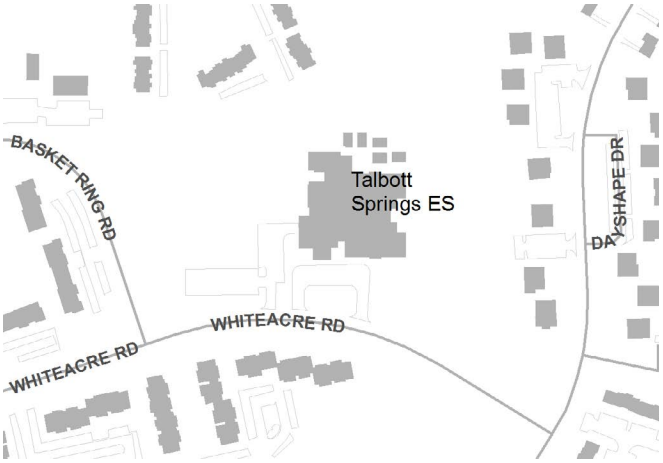
Community Use in FY17



Project Details

The planned scope of work includes a replacement facility to provide students with a new modern energy efficient building with programmatic and physical upgrades as well as new mechanical, electrical and technology systems in compliance with the HCPSS General Educational Specifications for New Elementary Schools. This project calls for an expansion of the educational program spaces to address space needed for the new Elementary Regional Language Immersion Program.

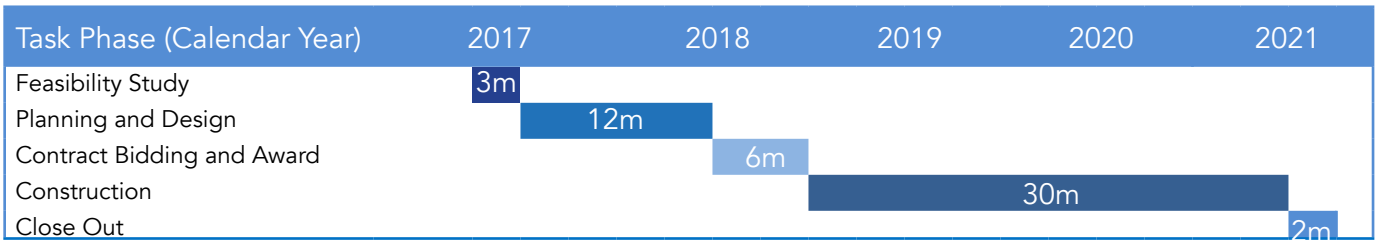
School Location Map



This project received $1 million in planning funds in FY 2018. Construction funds are to be requested in FY 2019 through FY 2022 to complete work and have the school ready by August 2021.

Details of the budget request for this project can be found on the Capital Budget Request pages in Section 1 (Executive Summary) and the Project Cost Details pages in Section 3 (Project Detail).

Project Timeline



The above chart shows the calendar year timeline for planning and construction for this project (in months). The Talbott Springs Elementary School Renovation project is scheduled for completion in August of 2021.

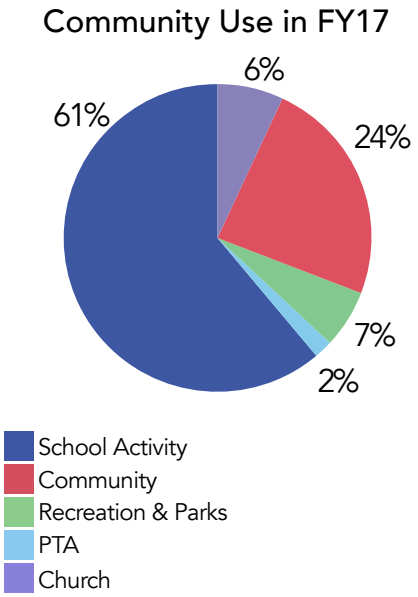
New HS #13: Project 1035

School site to be determined.

Architect rendering of Marriotts Ridge High School courtesy of TCA Architects.

Project Purpose

New HS #13 will be a new facility. Based upon enrollment projections, at least one additional high school is needed to accommodate growth. Balanced capacity utilization in the northeast region alone would require 1,100 additional seats by 2019. This capital budget recommends completion of New HS #13 in 2022. Planning would be initiated in FY 2019. The complete scope of this project would be defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.



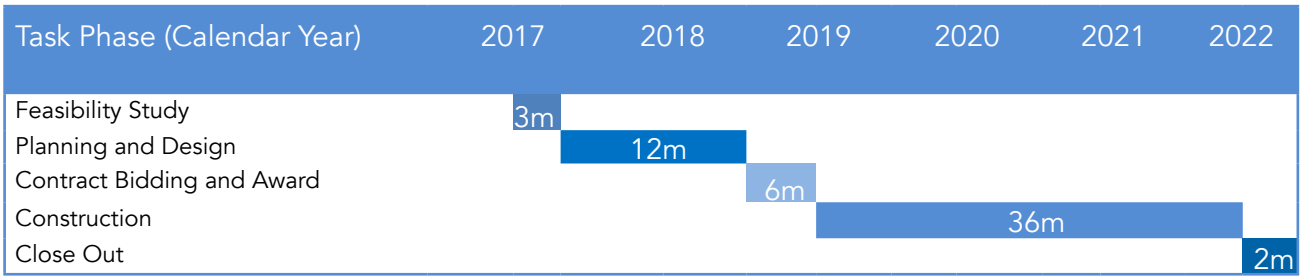
Community Use at New HS #13

Community use is anticipated in the planning for this new facility. Wilde Lake High School serves as a comparison. Wilde Lake High School hosted an estimated 900,000 attendees for over 8,700 reservations after school hours and on weekends for a variety of events. The majority of the events were community and school related and athletic events, and the remaining reservations were Recreation and Parks, church events, and PTA meetings.

Planning for New HS #13 will occur during FY 2019. Based upon this timeline, the Board will request construction funding for this project in FY 2020 through FY 2023 to complete work and have the school ready by August 2022.

Details of the budget request for this project can be found on the Capital Budget Request pages in Section 1 (Executive Summary) and the Project Cost Details pages in Section 3 (Project Detail).

Project Timeline



The above chart shows the calendar year timeline for planning and construction for this project (in months). The New HS #13 project is scheduled for completion in August of 2022.

Dunloggin Middle School Renovation/Addition: Project TBD

9129 Northfield Road Ellicott City, MD 21042
http://dms.hcpss.org/

Jeffrey Fink, Principal
410.313.2839

Building Data	
Year Built	1973
Age	44
Site Area (acres)	20
Last Renovation/Addition	1999
Current Relocatables	5
Current Capacity	565
9/2016 Enrollment	617
Projections/Capacity Utilization	
2017 Projection	614
Projected Utilization	109%
2021 Projection	694
Projected Utilization	123%
Post-Renovation Cap.	662
Projected Utilization	105%

Project Purpose

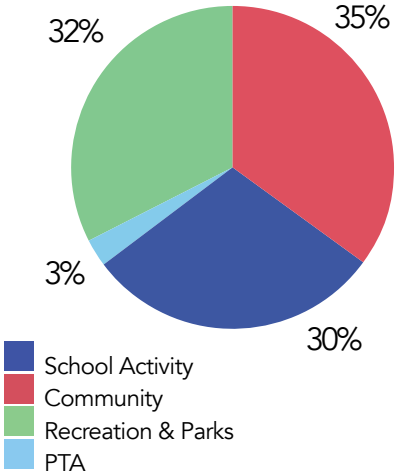
The Dunloggin Middle School project will expand educational program spaces with 97 seats of new capacity and renovate the existing facility. Dunloggin Middle School opened in 1973 and was renovated in 1999. In August 2008, HCPSS engaged Gilbert Architects, Inc. to conduct a facility assessment of middle schools. The report concluded that Dunloggin Middle School has a 13.8 percent deficiency of educational program area of the 19 middle schools operating at that time. In the FY 2019 Capital Budget, the total project cost estimate is $38.9 million. Dunloggin Middle School will be another USGBC LEED Certified school facility for Howard County.

The complete scope of this project is defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.

Community Use at Dunloggin Middle School

Over 1,800 reservations brought citizens and students into Dunloggin Middle School after school hours and on weekends for a variety of community and student programs, meetings, activities, and events. An attendance of 115,000 was estimated for these activities. Community activities accounted for the largest portion of the facility use. Other uses, which include school activities, PTA events and Recreation and Parks programs, make up the remaining reservations.

Community Use in FY17



Project Details

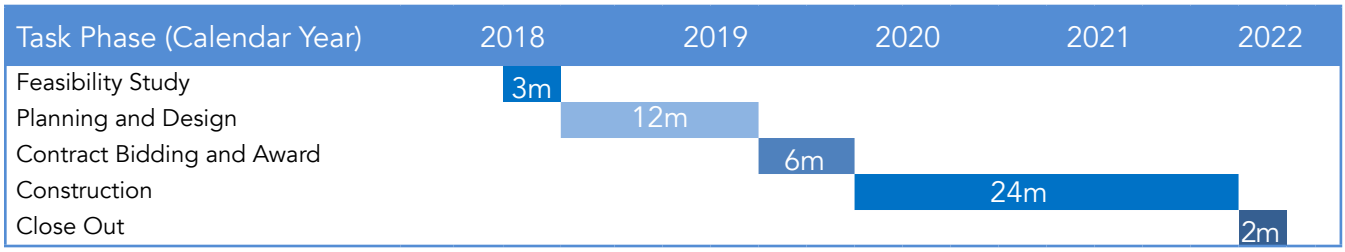
This project calls for an expansion of the educational program spaces and renovation of the existing facility. The renovation will include a complete systemic renovation of the existing building including new electrical, mechanical, plumbing, technology, roofing and life safety systems. The project will provide 97 seats of additional classroom space and core infrastructure space necessary to operate effectively at the larger capacity. Interior spaces will be reconfigured, new finishes provided, accessibility improve, and new spaces added as required bringing the facility into compliance with renovation specifications.

School Location Map

This is the first year of funding for Dunloggin Middle School. In previous budgets it was listed as a systemic renovation. The requested sum of $1 million in FY 2019 will allow planning and design to begin. Construction will start in FY 2020. Based upon the current plan, the Board will request a final $3 million in FY 2023 to complete work for the school to open in August 2022.

Details of the budget request for this project can be found on the Capital Budget Request pages in Section 1 (Executive Summary) and the Project Cost Details pages in Section 3 (Project Detail).

Project Timeline



The above chart shows the calendar year timeline for planning and construction for this project (in months). The Dunloggin Middle School Renovation/Addition project is scheduled for completion in August of 2022.

Oakland Mills Middle School Renovation: Project 1036

9540 Kilimanjaro Road, Columbia, MD 21045
http://omms.hcpss.org/

Megan Chrobak, Principal
410.313.6937

Building Data	
Year Built	1972
Age	45
Site Area (acres)	20
Last Renovation/Addition	1998
Current Relocatables	0
Current Capacity	506
9/2016 Enrollment	443
Projections/Capacity Utilization	
2017 Projection	464
Projected Utilization	92%
2021 Projection	497
Projected Utilization	98%

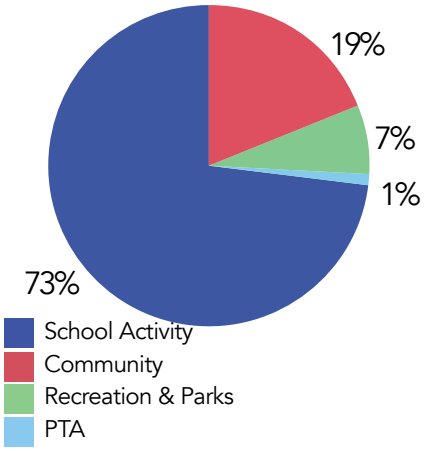
Project Purpose

The Oakland Mills Middle School project will renovate the existing facility. Oakland Mills Middle School opened in 1972 and was renovated in 1998. In August 2008, HCPSS engaged Gilbert Architects Inc. to conduct a facility assessment of middle schools. This project evaluated and scored each school according to the Council of Educational Facilities Planners, International (CEFPI) appraisal guidelines. The assessment included reviewing each school's plan layouts and measurements of spaces to compare to the educational specifications developed by HCPSS for middle schools. The report concluded that Oakland Mills Middle School had 8.8 percent deficiency of educational program area of the 19 middle schools operating at that time. The FY 2016 Capital Budget introduced this project to the Capital Improvement Plan. In previous budgets, it was listed as a systemic renovation. In the FY 2016 Capital Budget the cost for the limited renovation was estimated at $16.3 million. In the FY 2019 Capital Budget the complete renovation cost estimate is $36 million. The complete scope of this project is defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.

Community Use at Oakland Mills Middle School

Citizens and students spent over 9,000 hours at Oakland Mills Middle School after school hours and on weekends for a variety of community and student programs, meetings, activities, and events. An attendance of 76,000 was estimated for these activities. After school activities accounted for more than half of the facility use. Athletic activities and child care are included in the remaining reservations.

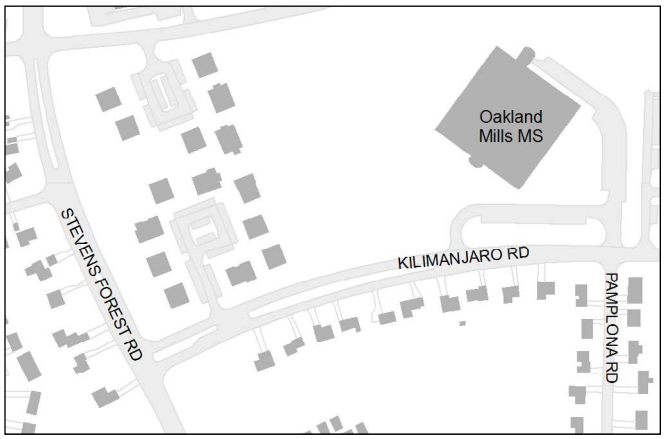
Community Use in FY17



Project Details

The project calls for a renovation of the existing building in accord with recommendations from the feasibility study. Renovation will include new electrical, mechanical, plumbing, technology, roofing, and life safety systems as applicable per the scope of work. Some Interior spaces will be reconfigured, new finishes provided, accessibility improved, and new spaces added as required, bringing the facility into compliance with the HCPSS Guidance Manual for Renovations and Modernizations of Existing Schools.

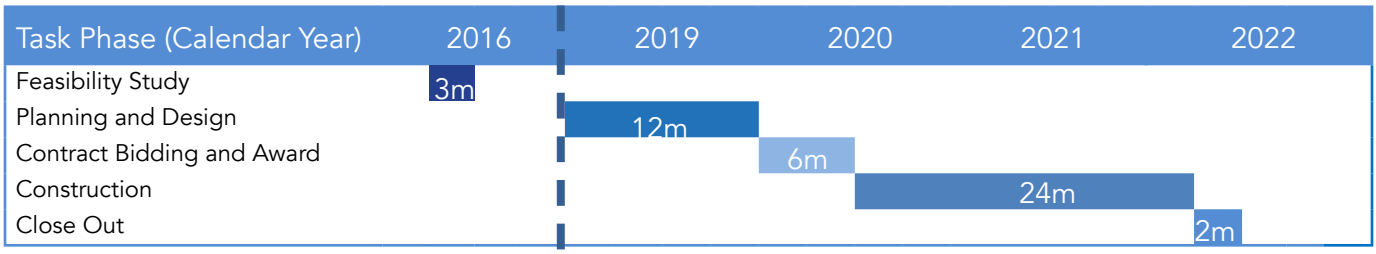
School Location Map



This project received planning funds through the systemic line in FY 2015. Construction funds will be requested in FY 2020 through FY 2023. This funding schedule will allow construction to progress on schedule and work to be completed by August 2022.

Details of the budget request for this project can be found on the Capital Budget Request pages in Section 1 (Executive Summary) and the Project Cost Details pages in Section 3 (Project Detail).

Project Timeline



The above chart shows the calendar year timeline for planning and construction for this project (in months). The Oakland Mills Middle School Renovation project is scheduled for completion in August of 2022.

Ellicott Mills Middle School Addition: Project 1037

4445 Montgomery Road, Ellicott City, MD 21043
http://emms.hcpss.org/

Christopher Rattay, Principal
410.313.2839

Building Data	
Year Built	1939
Age	78
Site Area (acres)	16.22
Last Renovation/Addition	2001
Current Relocatables	5
Current Capacity	662
9/2016 Enrollment	829
Projections/Capacity Utilization	
2017 Projection	890
Projected Utilization	134%
2021 Projection	906
Projected Utilization	137%
Post-Renovation Cap.	818
Projected Utilization	111%

Project Purpose

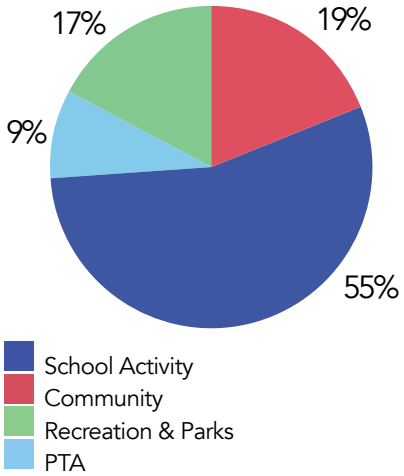
The Ellicott Mills Middle School project will add 156 seats of new capacity to the existing school. Ellicott Mills Middle School was originally built in 1939. The replacement school, which opened in 2001, was the third iteration of the current middle school prototype. The projections in the 2017 Feasibility Study support the approved middle school capacity adjustments and the effort invested in redistricting. All middle schools in the northeast were relieved of overcrowding by the opening of Thomas Viaduct Middle School, except Ellicott Mills Middle School. Redistricting scenarios using western capacity failed to resolve crowding and created unacceptable travel distances and unusually elongated attending areas. With these findings, planned expansion of Ellicott Mills Middle School was contemplated in the 2015 Feasibility Study. This project is a next logical step after study of middle school capacity and analysis of redistricting scenarios.

The complete scope of this project is defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.

Community Use at Ellicott Mills Middle School

Over 2,800 reservations brought citizens and students into Ellicott Mills Middle School after school hours and on weekends for a variety of community and student programs, meetings, activities, and events. An attendance of 148,000 was estimated for these activities. Athletic events and school activities accounted for the largest portion of the facility use. Other uses, which include PTA events and performing arts, make up the remaining reservations.

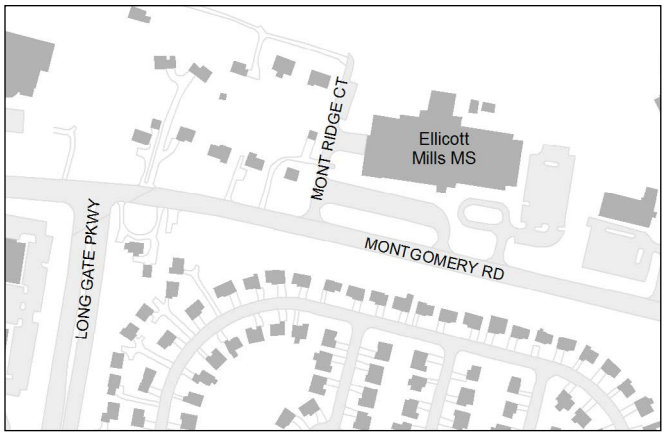
Community Use in FY17



Project Details

This project will include an addition and light renovation to ensure seamless operation of the expanded facility. The majority of existing walls will remain; therefore, most existing classrooms will remain as classrooms. The addition will be designed to retain the use of natural daylight. The cafetorium will be enlarged to meet educational program requirements.

School Location Map



FY 2020 will be the first year of funding for Ellicott Mills Middle School. During FY 2020, the first year of planning will be implemented. Based upon the current plan, the Board will request construction funding for this program in FY 2021 to complete work and have the school ready by August 2022.

Details of the budget request for this project can be found on the Capital Budget Request pages in Section 1 (Executive Summary) and the Project Cost Details pages in Section 3 (Project Detail).

Project Timeline

Task Phase (Calendar Year)	2020	2021	2022
Feasibility Study	3m		
Planning and Design	12m		
Contract Bidding and Award		6m	
Construction		12m	
Close Out			2m

The above chart shows the calendar year timeline for planning and construction for this project (in months). The Ellicott Mills Middle School Addition project is scheduled for completion in August of 2022.

Clarksville Elementary School Addition: Project TBD

12041 Clarksville Pike Clarksville, MD 21029
http://ces.hcpss.org/

Robin Malcotti, Principal
410.313.7050

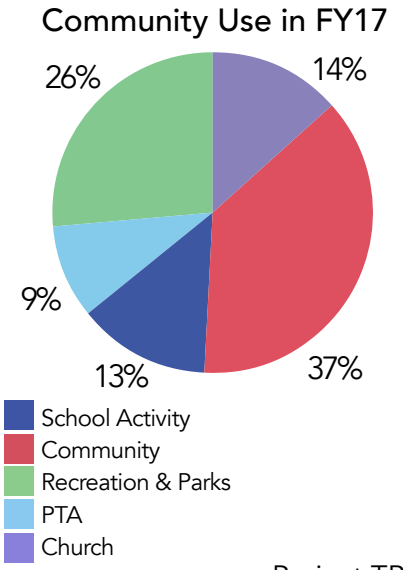
Building Data	
Year Built	1964
Age	53
Site Area (acres)	11
Last Renovation/Addition	2002
Current Relocatables	1
Current Capacity	612
9/2016 Enrollment	430

Project Purpose

The Clarksville Elementary School project will expand educational program spaces with 150 seats of new capacity for a new Elementary Regional Language Immersion Program. The program is under development and project details are forthcoming. Considerations for the full immersion program include programmatic parameters and language options. The program placement is scheduled for locations in the West (Clarksville Elementary School), Columbia (Talbott Springs Elementary School), and the Southeast (New Elementary School #43). The complete scope of this project will be defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.

Community Use at Clarksville Elementary School

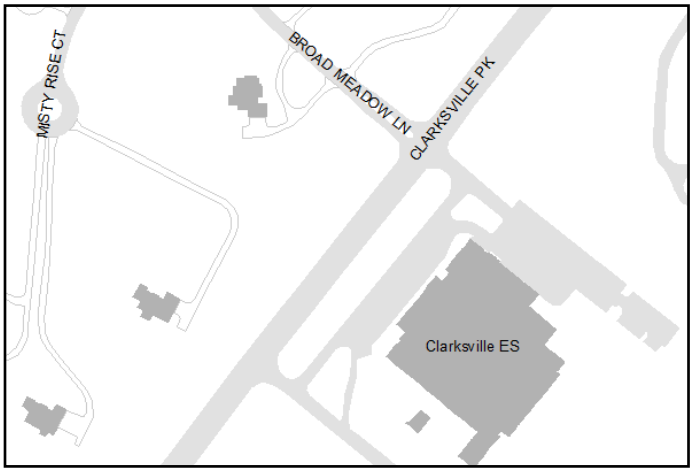
Over 2,500 reservations brought citizens and students into Clarksville Elementary School after school hours and on weekends for a variety of community and student programs, meetings, activities, and events. An attendance of 133,000 was estimated for these activities. Community activities accounted for the largest portion of the facility use. Other uses, which include school activities, PTA events, Recreation and Parks programs and church services, make up the remaining reservations.



Project Details

This project calls for an expansion of the educational program spaces to address space needed for the new Elementary Regional Language Immersion Program.

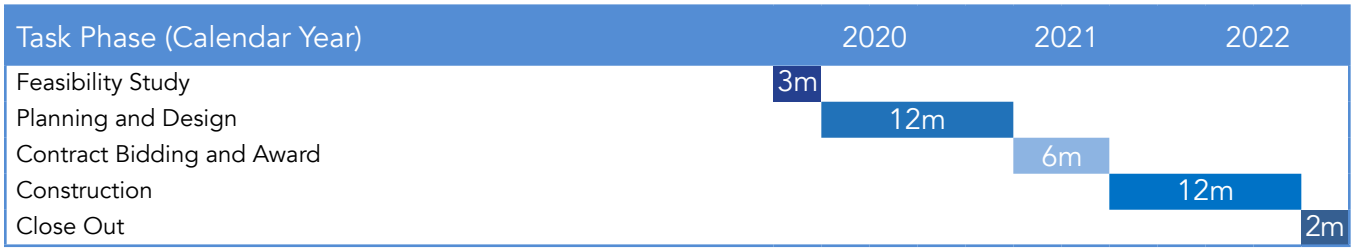
School Location Map



FY 2020 is the first year of funding for Clarksville Elementary School. The requested sum of $2 million in FY 2020 will allow planning and design to begin. Construction will start in FY 2021. Based upon the current plan, the Board will request a $7 million in FY 2021 and $1 million in FY 2022 to complete work for the school to open in August 2022.

Details of the budget request for this project can be found on the Capital Budget Request pages in Section 1 (Executive Summary) and the Project Cost Details pages in Section 3 (Project Detail).

Project Timeline



The above chart shows the calendar year timeline for planning and construction for this project (in months). The Clarksville Elementary School Addition project is scheduled for completion in August of 2022.

Hammond High School Renovation/Addition: Project 1024

8800 Guilford Road, Columbia, MD 21046
http://hahs.hcpss.org/

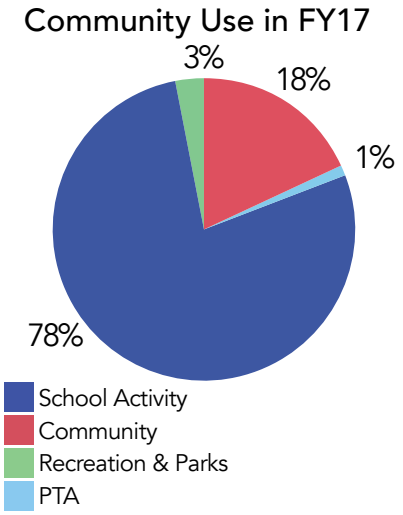
John DiPaula, Principal
410.313.7615

Building Data	
Year Built	1976
Age	41
Site Area (acres)	33.14
Last Renovation/Addition	2011
Current Relocatables	4
Current Capacity	1,220
9/2016 Enrollment	1,300

Projections/Capacity Utilization	
2017 Projection	1,332
Projected Utilization	109%
2021 Projection	1,392
Projected Utilization	114%

Project Purpose

The Hammond High School project will renovate and expand the existing school. Hammond High School is a one-story building that first opened in 1976 and underwent some renovation and addition work in 1997, followed by a dance studio addition in 2011. The present need is a complete renovation of the school with systemic upgrades to bring it into compliance with the Howard County Public School Systems Guidelines Manual for Renovations and Modernizations of Existing Schools. Additional capacity is under consideration for this proposed project. The complete scope of this project is defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.



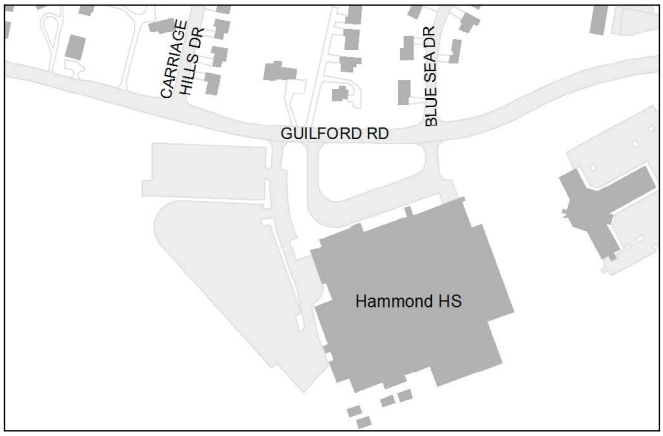
Community Use at Hammond High School

An attendance of 67,000 was estimated for over 3,300 reservations at Hammond High School outside of school hours for events. Most after school activities at any high school are school related including after school programming, athletic activities, educational activities and performing arts.

Project Details

The project will consist of a complete systemic renovation of the school that will replace the aging heating and cooling systems, upgrade the plumbing and electrical systems, supply new data technology and security systems, provide new interior finishes throughout the building, create ADA accessibility compliance throughout, repartition select areas of the school, and construct building additions as necessary to fulfill program deficiencies. It is also the intent to concentrate on energy efficient systems and sustainable practices thus yielding another USGBC LEED certified facility. Staff is studying options for constructing additional capacity.

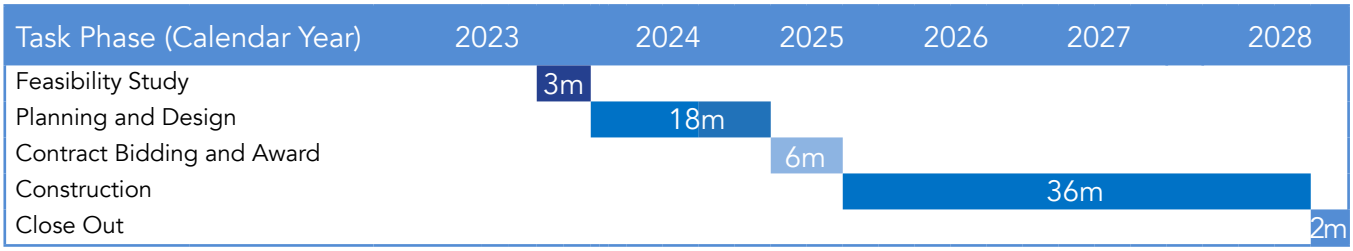
School Location Map



The first year of funding for Hammond High School is planned for FY 2023. During FY 2023, the first year of planning will be implemented. Based upon the current plan, the Board will request construction funding for this program in FY 2024 through FY 2028 totaling $98 million to complete work and have the school ready by August 2028.

Details of the budget request for this project can be found on the Capital Budget Request pages in Section 1 (Executive Summary) and the Project Cost Details pages in Section 3 (Project Detail).

Project Timeline



The above chart shows the calendar year timeline for planning and construction for this project (in months). The Hammond High School Addition/Renovation project is scheduled for opening in August of 2028.

MS/HS Career Development Center: Project TBD

10920 Clarksville Pike (Route 108), Ellicott City, MD 21042
http://arl.hcpss.org/

Karl Schindler, Principal
410.313.6998

Project Purpose

The MS/HS Career Development Center project will replace the aging Applications and Research Lab (ARL) school with a larger, more modern facility to facilitate the expansion of educational spaces to meet the growing curriculum. The current ARL campus includes multiple buildings constructed in various phases. The complete scope of this project would be defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.

Building Data	
Year Built	1968
Age	49
Site Area (shared acres)	45.48
Last Renovation/Addition	1998
Current Relocatables	0

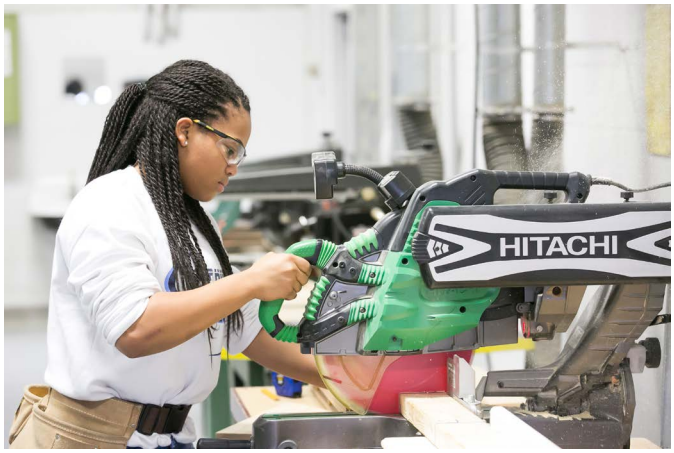
Applications and Research Lab - Current Programs

- Aerospace Engineering: Project Lead the Way Academy
- Architectural Design Academy
- Automotive Technology Academy
- Biotechnology Academy
- Construction Technology
- CyberSecurity Networking Academy
- Early College Program-CyberSecurity
- Academy of Finance
- Academy of Health Professions
- Homeland Security and Emergency Management
- Hotel and Restaurant Management Academy
- Systems and Project Engineering Academy
- Visual Communications Academy

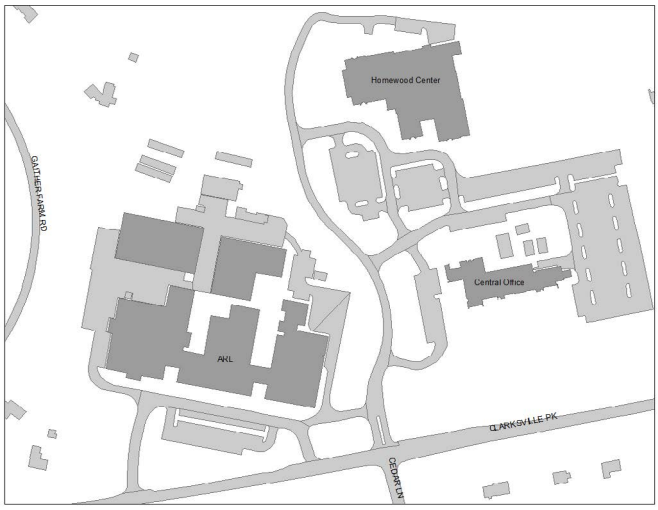
Project Details

The current Applications and Research Laboratory (ARL) is the Career and Technology High School. The program offers students an opportunity to meet and work with professionals from career fields while building an academic foundation and skill base to be college and career ready. Business partnerships and advisory boards are pivotal in the success of these programs. Students from all 12 high schools and Homewood are currently able to enroll in programs at the ARL. Students use industry standard software and technology through project-based instruction. Students have the opportunity to earn industry certifications and college credits while attending the ARL, preparing them for success in college and careers.

A feasibility study is planned to determine the curricular and facility needs of the replacement building. LEED certification will be studied.



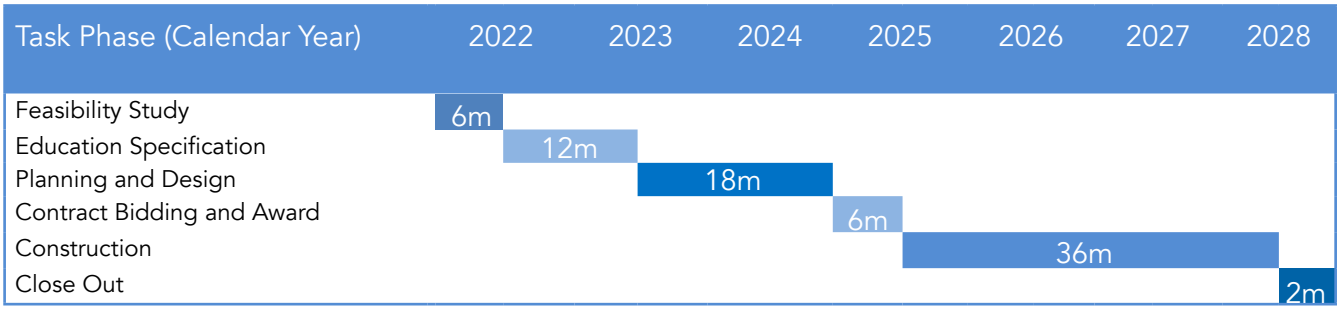
School Location Map



The first year of funding for the MS/HS Career Development Center project will be in FY 2024. The requested sum of $11 million will allow planning and design to begin. During FY 2025, construction will be started and based upon the current plan the school will open in August 2028.

Details of the budget request for this project can be found on the Capital Budget Request pages in Section 1 (Executive Summary) and the Project Cost Details pages in Section 3 (Project Detail).

Project Timeline



The above chart shows the calendar year timeline for planning and construction for this project (in months). The MS/HS Career Development Center project is scheduled for completion in August of 2028.

Long-Range Plan Adjustments: New Schools (Grades K–12)

Sites to be determined.

Responding to the 2017 Feasibility Study

Planning and zoning changes require changes to the CIP. While the HCPSS is peripheral to land development discussions, land planning decisions impact school system capital improvement plans. Staff continues to work closely with the Department of Planning and Zoning and Public Works to ensure that schools are central to new development. The annual feasibility study analyzes these trends and proposes adjustments to the CIP.

The projections indicate that the FY 2019–2028 long-range plan requires four new elementary schools. Previous budgets introduced ES #42, ES #43, ES #44 and ES #45.

Elementary School Needs

Elementary enrollment is projected to increase by 3,300 students by 2024 and the capacity utilization of all elementary schools combined will begin to exceed 110 percent by 2024. This suggests more elementary capacity is needed in the long-range capital improvement plan. The three areas which will experience the greatest growth over the next five to ten years will be the Route 1 Corridor, Columbia Town Center, and Turf Valley.

ES #43 – Southeastern ES – 1039

The continued growth along the Route 1 Corridor continues to support the need for additional seats between the Northeastern and Southeastern regions. The needs of the southeast region are evident in the projections of Bollman Bridge Elementary School, Gorman Crossing Elementary School and Forest Ridge Elementary School. The location of ES #43 is to be determined. A location in close proximity to the planned Transit Oriented Development is desirable. This project includes the Elementary Regional Language Immersion Program.

Artist rendering of the redevelopment of the Columbia Town Center. The Columbia Town Center report anticipated future needs as a result of this project.

ES #44 – Columbia West ES – 1040

Running Brook Elementary School is expected to exceed 110 percent utilization by 2019. A redistricting strategy alone, which uses nearby schools like Clarksville Elementary School, will not provide an adequate solution to accommodate the projected growth. Faulkner Ridge Center was closed on July 1, 2011. This site is a likely location for redevelopment as a future school.

ES #45 – Turf Valley ES – 1041

Projections continue to support the need for elementary redistricting to relieve overcrowding at Manor Woods Elementary School associated with Turf Valley growth. The addition at Waverly Elementary School can absorb some growth. Considering the limited potential for expanding schools outside of the sewer service area, a Turf Valley school is planned. Land sites are being considered for this future school.

Details of the budget requests for these projects can be found on the Capital Budget Request pages in Section 1 (Executive Summary) and the Project Cost Details pages in Section 3 (Project Detail).

Systemic Renovations: Project TBD

School Facilities is charged with maintaining the facilities and grounds of the Howard County Public School System (HCPSS) in as near original condition and effectiveness as possible. Actual costs incurred in the Systemic Renovations Project over the past five years is below.

Systemic Renovations Actual Expenses

Fiscal Year	Actual Expense
FY 2013	$ 21,798,947
FY 2014	$ 15,593,468
FY 2015	$ 11,565,498
FY 2016	$ 10,920,834
FY 2017	$ 7,872,598

Project Purpose

The Systemic Renovations project will include projects that are needed to bring older facilities up to current standards in lighting, electrical, HVAC systems, reconfiguring space, handicap accessible improvements, and provide for upgrades to other building systems. For larger systemic renovation projects (see schools listed in project details section), the complete scope of projects are defined by the BOE approved construction documents (CD) brochure (see Policy 6020 in the Supporting Data Section for a complete description of the process) and any change orders approved subsequent to submittal of the CD brochure.

FY 2019 Request Analysis

Project Funding (July 1, 2003 - June 30, 2018)	$	253,729,994
Project Cost-to-Date (through June 30, 2017)		(222,011,878)
FY 2018 Projected Costs		(15,778,116)
Available Project Funding (July 1, 2018)	$	15,940,000
Requested Budget FY 2019	$	28,655,000

Project Details

The FY 2019 Capital Budget request represents renovation work or planning for future construction at the following school system facilities:

Mount View Middle School HVAC
Pointers Run Elementary School HVAC
Rockburn Elementary School HVAC
Burleigh Manor Middle School HVAC
ARL - HVAC Program Fall 2018
ARL - Agriculture Program Fall 2018
Applications Research Lab Maintenance
Long Reach HS - Building Envelope
Glenwood MS Exterior Windows/Doors
Special Education/Regional Program Needs
Indoor Environmental Quality Project Repairs
Emergency Reserve

Systemic renovation projects include improvements and installation of systems at various school sites, including projects of a critical nature such as sprinkler repair, HVAC repair, and window replacement. The department publishes an annual Comprehensive Maintenance Plan which reflects the objectives and methods utilized to provide a safe and secure learning environment for Howard County's school community as required by the Public School Construction Program's Administrative Procedures Guide. This document has been consulted in the development of this budget for potential systemic projects.

The Board of Education previously requested information on the cost to implement additional physical security protective measures at each Howard County High School. A review of previously completed vulnerability assessments and facility plans has revealed a range of designs, potential construction requirements, security cameras and physical security concerns. As a result, capital funding is needed to conduct a detailed engineering and security survey of each high school and prepare an accurate report of the funding necessary to upgrade security at these facilities. FY 2019 includes funding in the Planning and Design line for the Feasibility Study, while FY 2020 through FY 2022 include a funding request in the Systemic Renovation line for estimated construction costs.

Roofing Projects: Project TBD

School Facilities oversees the Roofing Projects and provides maintenance and repairs for all HCPSS facilities. Actual costs incurred in Roofing Projects over the past five years is below.

Roofing Projects Actual Expenses

Fiscal Year	Actual Expense
FY 2013	$ 3,093,044
FY 2014	$ 5,468,035
FY 2015	$ 3,400,190
FY 2016	$ 2,220,940
FY 2017	$ 4,830,760

Project Purpose

Roofing Projects will address aging roofs on various Howard County Public School System schools. A well-planned roofing program is critical to all other systems in a capital facility. When roofing systems wear, the damage can impact other systems and multiply costs. Roof planning is more than shingles and asphalt. Modern roofing systems are actually complex investments built to exact specifications and code requirements. The HCPSS inspects each facilities' roof twice a year and provides the reports to the state of Maryland. Planning and project execution must balance system warranties, state funding eligibility, and the risk of maintenance deferral.

FY 2019 Request Analysis

Project Funding (July 1, 2003 - June 30, 2018)	$	45,836,247
Project Cost-to-Date (through June 30, 2017)		(42,932,888)
FY 2018 Projected Costs		(2,903,359)
Available Project Funding (July 1, 2018)	$	-
Requested Budget FY 2019	$	12,500,000

Project Details

The roof system is the largest single area of the building that must endure the most severe weather conditions. The roof protects the structural integrity of the building, equipment and its systems. Because of building age and environmental conditions, scheduled roof replacements must be completed to protect the investments that have been made in many facilities.

Roofing Projects include the design and construction of repairs to existing roof systems, the removal of old roof systems, and installation of new roof systems to include insulation membrane and flashings, sheet metal, drainage systems, and other associated components.

HCPSS is requesting funding for roof replacement projects in FY 2019. In continued collaboration with the Office of School Construction, roofing Projects will be considered in conjunction with systemic renovations, when feasible.

The Facilities Department is in the process of reviewing significant additional costs and impacts related to the roof replacement projects, such as high ceiling cleaning of debris and fireproofing, budgeting for the 2015 IBC/IECC code for R-30 insulation, exterior sealants may be considered to be included, etc. Facilities will conservatively budget for these items but will have to revisit the schools to determine the final scope for budgeting purposes. These newer items will require additional thought regarding roof budgeting and, maybe more importantly, their impact on the project and schedule, to include phasing.

Playground Equipment: Project 0990

School Facilities oversees the Playground Equipment Project, managing safety requirements and a long-term replacement plan for all HCPSS playgrounds. Actual costs incurred in the Playground Equipment Project over the past five years is below.

Playgrounds Actual Expenses		
Fiscal Year	Actual Expense	
FY 2013	$	240,677
FY 2014	$	8,506
FY 2015	$	503,412
FY 2016	$	85,058
FY 2017	$	-

Project Purpose

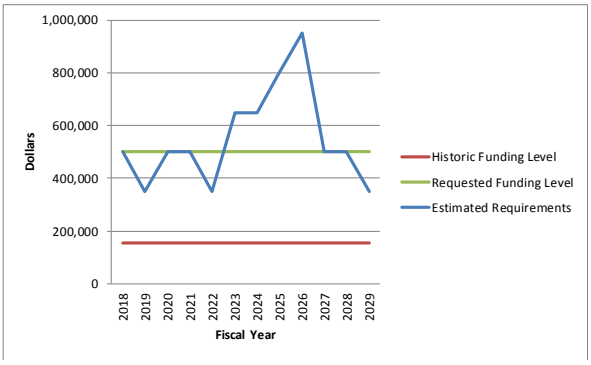
The Playground Equipment project will replace aging playgrounds at a variety of Howard County Public School System schools. This fund maintains a cycle of playground replacements. While playgrounds seem to be a standard installment at any elementary school, playgrounds can vary widely in design and are not specifically required by state or local codes or policies. Recess and unstructured play is a standard of Policy 9090 Health and Wellness. Research supports a link between learning and unstructured play. Elementary school students are stimulated by interesting and engaging playground installations. The playground planning process considers the needs of a wide-range of ages and skills to develop strength, social skills, coordination, balance, and motor planning.

FY 2019 Request Analysis		
Project Funding (July 1, 2003 - June 30, 2018)	$	2,930,000
Project Cost-to-Date (through June 30, 2017)		(2,321,569)
FY 2018 Projected Costs		(608,431)
Available Project Funding (July 1, 2018)	$	-
Requested Budget FY 2019	$	-

Project Details

Playground replacement is planned every 15 years. In the interim, they are maintained and repaired using operating funds. This schedule delivers new designs and safety improvements in a reasonable period without requiring a much larger share of the capital budget. $500,000 is adequate to replace two (2) playgrounds per year while allowing for major repairs to equipment and play surfacing. In future years, more than two playground replacements are needed per year. The long-term plan could be adjusted to smooth out the number of replacements per year by advancing or delaying some projects. Decisions about installing specific equipment are school based and require individual contracts. Better pricing may be possible through package bidding. Playground equipment at newly built schools is included in the funding request for the individual capital improvement project.

Projected Playground Replacement Cost per FY



Long-Term Plan	
Playground Site	Fiscal Year
Hollifield Station Elementary School	Deferred FY 2017
Manor Woods Elementary School	Deferred FY 2017
Triadelphia Ridge Elementary School	FY 2019
Bryant Woods Elementary School	FY 2020
Guilford Elementary School	FY 2020
Clarksville Elementary School	FY 2021
Worthington Elementary School	FY 2021
Bellows Spring Elementary School	FY 2022
Gorman Crossing Elementary School	FY 2023
Rockburn Elementary School	FY 2023
Thunder Hill Elementary School	FY 2023
Centennial Lane Elementary School	FY 2024
Lisbon Elementary School	FY 2024
St John's Lane Elementary School	FY 2024
Atholton Elementary School	FY 2025
Cedar Lane School at Lime Kiln	FY 2025
Dayton Oaks Elementary School	FY 2025
West Friendship Elementary School	FY 2025
Bollman Bridge Elementary School	FY 2026
Bushy Park Elementary School	FY 2026
Cradlerock Elementary School	FY 2026
Fulton Elementary School	FY 2026
Phelps Luck Elementary School	FY 2026
Ilchester Elementary School	FY 2027
Veterans Elementary School	FY 2027
Clemens Crossing Elementary School	FY 2028
Waterloo Elementary School	FY 2028
Northfield Elementary School	FY 2029

The chart seen to the left shows the estimated funding requirements based upon the long-term plan listed above. Advancing or delaying some projects may help to smooth the funding profile but the graph shows that present funding levels will not be sufficient with future requirements. Risk management and purchasing staff are exploring different bidding methods with standard design options which may save on design costs.

Relocatable Classrooms: Project TBD

Project Purpose

The Relocatable Classrooms project will provide funds for the relocation and repairs of existing portable classrooms or purchase of new portable classrooms to be placed at schools in need of additional capacity. Relocation includes moving the structures as well as the installation of support services that make the portable structures functional classrooms. Additional classroom spaces are needed to help relieve overcapacity schools until permanent classroom spaces are available.

FY 2019 Request Analysis		
Project Funding (July 1, 2003 - June 30, 2018)	$	20,410,000
Project Cost-to-Date (through June 30, 2017)		(18,067,427)
FY 2018 Projected Costs		(2,342,573)
Available Project Funding (July 1, 2018)	$	-
Requested Budget FY 2019	$	2,500,000

Relocatable Classrooms Actual Expenses		
Fiscal Year	Actual Expense	
FY 2013	$	1,620,398
FY 2014	$	1,117,572
FY 2015	$	1,613,098
FY 2016	$	1,322,547
FY 2017	$	661,112

The School Planning Office evaluates relocatable classroom needs annually in a report to the Board of Education. After a decision is made, the Construction Office oversees the placing and connecting of all HCPSS relocatables. Actual costs incurred in the Relocatable Classrooms Project over the past five years is shown above.

Project Details

In some cases modular units are integrated into a building's core facility. These units are in use at St. John's Lane Elementary School and Clarksville Middle School. These units are included in building capacity because they are considered permanent additions. In recent renovations, for example Bollman Bridge Elementary School, Deep Run Elementary School and Patuxent Valley Middle School, they have been replaced.

The school system conducts regular reviews of the physical condition and usage of all relocatable/ modular units. When units are inspected, the cost of repairs is weighed against the option of retiring the units. Cycling out, and even reducing the inventory, can create operating economies. However, any dramatic reduction of inventory would require a considerable investment in brick and mortar construction.

In September 2017, there were 224 relocatable/ modular classrooms in use (four are used for administrative purposes at the Central Office, all others are at school sites). The school system will continue to conduct regular reviews of all relocatables which will include condition and usage. The potential to either remove relocatables out-of-service, transport them to other locations where needed, or place them in excess to dispose of in an appropriate manner will be decided annually.

Site Acquisition and Construction Reserve: Project TBD

The School Construction Office oversees the Site Acquisition and Construction Reserve Project. Actual costs incurred in the Site Acquisition and Construction Reserve Project over the past five years is below.

Site Acquisition/Construction Reserve Actual Expenses

Fiscal Year	Actual Expense
FY 2013	$ 526,091
FY 2014	$ 4,258,073
FY 2015	$ 22,850
FY 2016	$ 3,704
FY 2017	$ 607,123

Project Purpose

The Site Acquisition and Construction Reserve project is needed as a contingency reserve providing funds for use on an as-needed basis. Site funds are needed for future enrollment growth. This account is also a contingency fund for school construction at various school sites. The county government is currently negotiating the purchase of a future school site that will be purchased directly by the county.

FY 2019 Request Analysis

Project Funding (July 1, 2003 - June 30, 2018)	$	20,836,241
Project Cost-to-Date (through June 30, 2017)		(18,570,287)
FY 2018 Projected Costs		(2,265,954)
Available Project Funding (July 1, 2018)	$	-
Requested Budget FY 2019	$	-

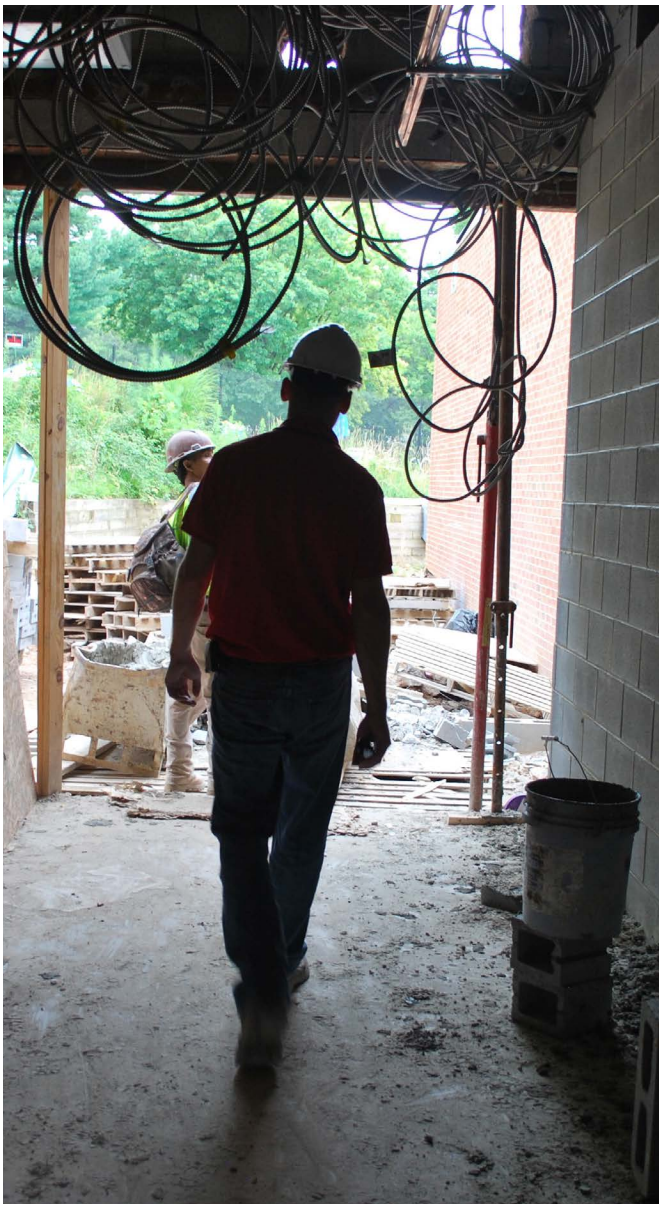
Project Details

This fund is for site acquisition. The selection and acquisition of appropriate school sites is integral to the development of a capital program. Each proposed school site is carefully evaluated prior to acquisition according to Board-approved selection criteria identified in Policy 6000 Site Selection and Acquisition.

Delays in acquisition of suitable school sites may affect the timing of construction of needed schools. This can result in extended periods of overcrowding situations. In an effort to reduce such delays, the HCPSS continues to maintain a "land bank" that will be called upon to pursue the purchase of potential sites or portions of land to augment sites.

Larger sites identified in the subdivision review process may be reserved to be budgeted as line items in future capital budgets. The state of Maryland regulates but does not pay the costs for site acquisitions; therefore, funds for the purchase of school sites are provided locally by the Howard County Government.

This fund also serves as a construction reserve. Capital planning has been fairly accurate and overruns have been minimal so the actual use of the majority of this fund has been to acquire land. In the past, initial pre-planning expenses have been charged to this account, but the FY 2016 Capital Budget introduced pre-planning as a separate project request.



Technology: Project TBD

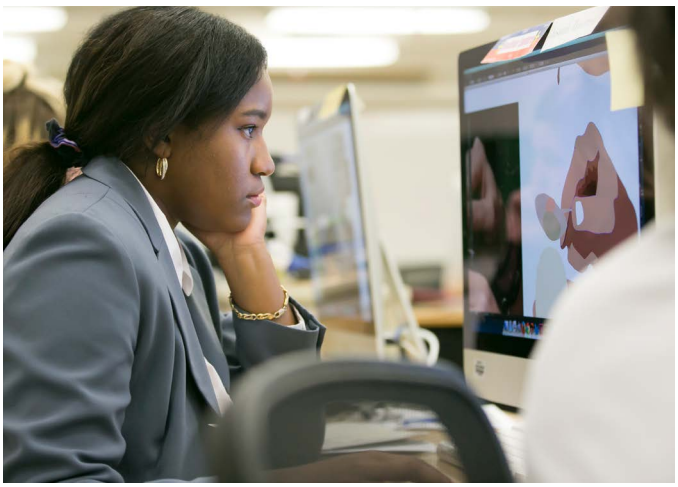
The Information Technology Department oversees the Technology Project. A staff of 15 provides maintenance and support for approximately 48,670 computing devices, 3,600 printers, and 300 copier and multifunction devices (MFDs) throughout the system. Actual costs incurred in the Technology Project over the past five years is below.

Technology Actual Expenses	
Fiscal Year	**Actual Expense**
FY 2013	$ 5,714,919
FY 2014	$ 3,606,457
FY 2015	$ 5,226,710
FY 2016	$ 5,559,784
FY 2017	$ 458,965

Project Purpose

Technology project funds are required for continuous improvements and upgrades to the HCPSS network infrastructure and computer systems to ensure that instruction and business technology needs are met in a standard and equitable manner. Network infrastructure consists of the equipment needed to connect students and employees to internal and external resources. The equipment must be highly reliable and have enough capacity to meet the ever increasing needs of on-line access. Technology refresh programs, known as "Replacement Plans," have been established to ensure that all HCPSS students and school-based staff are equipped with the appropriate computing and network resources. Replacement Plans are designed to ensure that these essential resources are kept current in order to meet instruction and business technology requirements.

FY 2019 Request Analysis		
Project Funding (July 1, 2003 - June 30, 2018)	$	41,986,000
Project Cost-to-Date (through June 30, 2017)		(33,929,739)
FY 2018 Projected Costs		(8,056,261)
Available Project Funding (July 1, 2018)	$	-
Requested Budget FY 2019	$	2,750,000



Project Details

The following network infrastructure projects are candidates for technology capital budget:
School servers originally installed in 2008/2009 are end-of-life. There is a need to consolidate school servers as well as data center servers to replace single points of failure and improve redundancy. The initial major roll out of wireless in the schools took place in 2010-11 and has been a tremendous success by any measure. However, the wireless access points (APs) and controllers (Ctrls) are also end-of-life, no longer supported by the manufacturer and cannot meet the needs of the today's technology and applications. This equipment will need to be updated and refreshed to ensure network availability. The core of the HCPSS data network was built in 2009 and is lacking redundancy in critical areas. We need to update the core switching to provide the network reliability needed for the system. The telephone system is at end-of-life as well. Its replacement with Voice-Over-Internet Protocol (VOIP) technology switches and telephone sets is critical to ensure communications between the central office, schools, and the communities they serve. Furthermore, the disaster recovery infrastructure needs to be refreshed to ensure recovery of systems in the event of a natural or man-made disaster.

Project	User	Purpose	Age	Cost
School Servers	All HCPSS	Store student data	9 yr	$0.8M
Wireless APs+Ctrls	All HCPSS	Access network	8 yr	$0.4M
Data Center Switches	All HCPSS	Access network	11 yr	$0.5M
VOIP switches+tel sets	All HCPSS	Communication	30 yr	$4.5M

The following computer replacement projects are candidates for technology capital budget: Starting in FY2007, the Technology Department was funded to replace HCPSS school computers on 4-year cycles. 4 Replacement Plans (RP) were initiated to spread their deployment timeline and cost over 4 years. RP3.0 started in FY2009 for all school-based curriculum programs. Computers were next replaced in FY2013 along with printers. Replacing these 6,143 computers and 155 printers (which will be 6 years old in FY2019 and not covered by any repair warranty) will cost $6.4M. In addition, the 3,720 computers purchased in FY2013 associated with on-line testing and elementary & middle school instructional use will also be 7 years old in FY2019 and not covered by any repair warranty. This estimated replacement cost for these 3,720 computers in $2.0M. Lastly, 1,600 general labs and media center computers in high schools (HS) will be 8 years old are 6 years old and not covered by any repair warranty. The batteries for most of the laptops will not hold a charge and are swelling causing the cases to break apart. The estimated cost to replace with identical Dell computers is $1.6M.

Project	User	Purpose	# Computers	Age	Cost
RP3.0	students	curriculum	6,143	6 yr	$6.4M
Testing+Instruction	students	Testing+instruction	3,720	7 yr	$2.0M
HS labs	students	labs	1,600	8 yr	$1.6M

School Parking Lot Expansions: Project 1012

School Facilities oversees the School Parking Lot Expansions Project. Actual costs incurred in the School Parking Lot Expansions Project over the past five years is shown below.

Parking Lot Expansion Actual Expenses	
Fiscal Year	**Actual Expense**
FY 2013	$ -
FY 2014	$ -
FY 2015	$ -
FY 2016	$ -
FY 2017	$ -

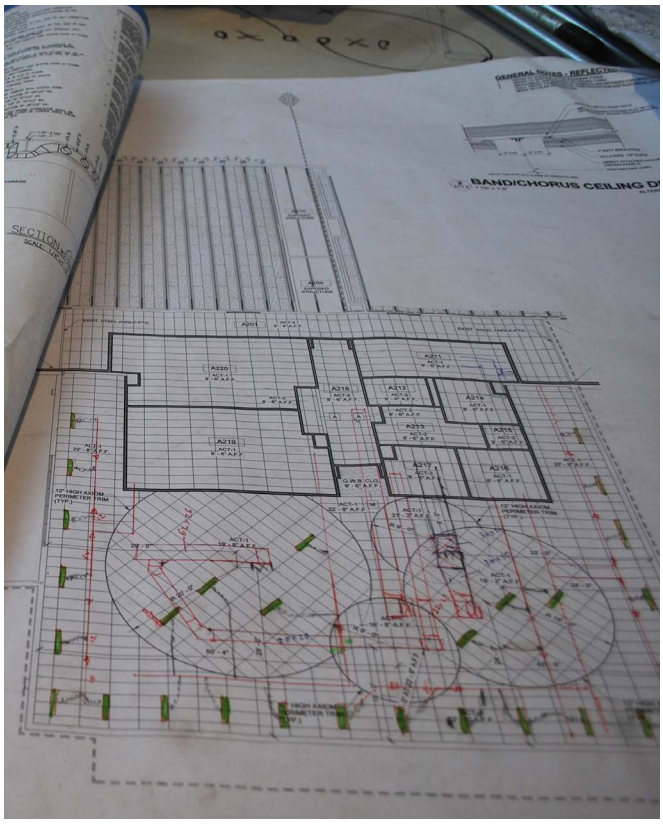
Project Purpose

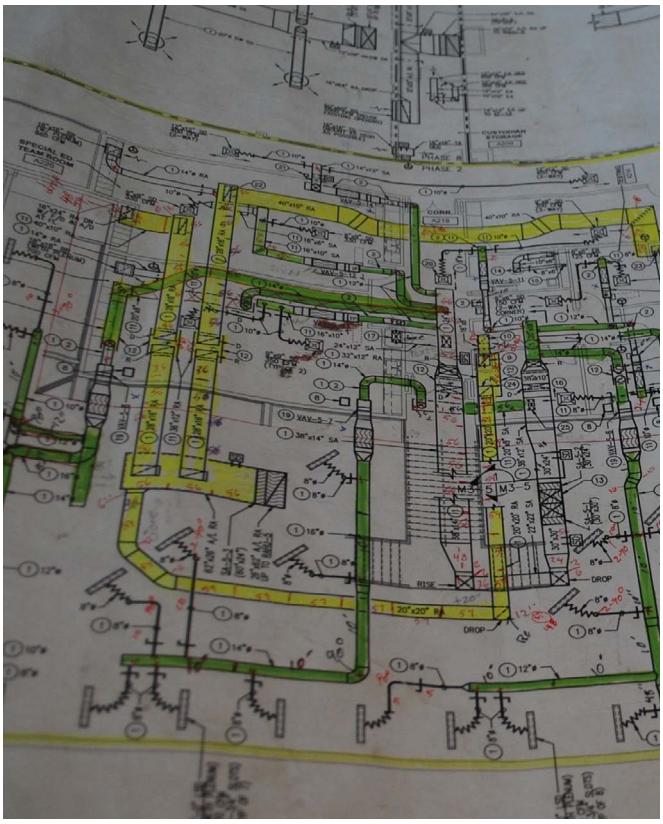
Parking lot expansions are necessary due to the insufficient supply of spaces to meet existing needs. Funds are used for parking improvements on sites that are not scheduled for other construction projects. This project provides for the construction of additional parking spaces and modification of parking lots to improve traffic flow patterns at existing school sites.

FY 2019 Request Analysis

Project Funding (July 1, 2003 - June 30, 2018)	$	4,200,370
Project Cost-to-Date (through June 30, 2017)		(3,580,764)
FY 2018 Projected Costs		(350,000)
Available Project Funding (July 1, 2018)	$	269,606
Requested Budget FY 2019	$	-

Planning and Design: Project 1038





Project Purpose

The Planning and Design Project has been established to provide funding for feasibility studies prior to the funding of individual projects. During the concept development stage, each project is summarized, supporting documentation is gathered, and necessary approvals are obtained before construction begins. A feasibility study provides the analysis to determine the scope and breadth of a project under consideration.

The value of these studies is having the flexibility to ask technical questions about projects before the formal design process. With these studies, projects can be "right sized." The replacement of Wilde Lake Middle School is a good example. The feasibility study helped guide a decision to replace the school. Pricing for these studies is favorable because design consultants want to obtain the full design project. Through a feasibility study, the Board is able to examine the needs of an existing building as well as unexpected design circumstances. These studies ensure the selection of the most effective scope for each project. This process will reduce the costs associated with significant changes in scope, which often occur in a compressed planning schedule. In the construction phase, the reduced number of change orders will lessen the impact on the construction schedule and decrease incremental costs. Proposed studies for FY 2019 are listed below. Future year studies may include out-year construction projects and/or the considerations for the potential mandate of All-Day Pre-K.

Proposed Feasibility Studies in FY 2019
New HS #13
High School Security Measures
MS/HS Career Development Center

The Office of School Construction oversees the planning and design for capital projects. Staff serve as the fiduciary agent for the administration of the Howard County Public School System/Board of Education construction contracts. The office recommends the selection of design consultants of capital projects to the Board of Education and supervises these consultants. Details regarding the High School Security Measure project are noted on the Systemic Renovation Project page.

Barrier-Free Projects: Project 0989

An accessibility ramp to access the upper level play area at Bryant Woods Elementary School.

Project Purpose

Barrier-Free Projects will include installation of ramps; alteration of restrooms, fixtures, and drinking fountains; and various modifications to make all remaining spaces (school buildings and school sites) accessible to the public, students, teachers, and staff. Federal, state, and local regulations require that school facilities be made accessible to the physically handicapped by removing barriers to access. Examples of projects include stadium bleacher ramps, play field access ramps, automatic door opening devices, reconfiguration of bathroom fixtures and partitions to allow wheelchair access, and other school-specific projects that remove barriers as described in project details.

School Facilities oversees the Barrier-Free Projects. Actual costs incurred in the Barrier-Free Projects over the past five years is shown below.

Barrier Free Actual Expenses	
Fiscal Year	**Actual Expense**
FY 2013	$ 77,734
FY 2014	$ 119,445
FY 2015	$ 23,580
FY 2016	$ 54,747
FY 2017	$ 234,811

Lift room for access to the stage.

FY 2019 Request Analysis		
Project Funding (July 1, 2003 - June 30, 2018)	$	5,627,500
Project Cost-to-Date (through June 30, 2017)		(5,056,965)
FY 2018 Projected Costs		(570,535)
Available Project Funding (July 1, 2018)	$	-
Requested Budget FY 2019	$	-

Project Details

The Americans with Disabilities Act (ADA) of 1990 is a comprehensive civil rights law that makes it unlawful for public and private employers to discriminate against individuals with disabilities. This law, as well as COMAR, and best risk management practices require that HCPSS be ready to adjust our physical plant for access.

The barrier-free fund ensures our facilities provide full access to all students. When buildings are designed with accessibility in mind, issues are addressed in the schematic phase of a project. This practice generally produces buildings that are more accessible at the best cost.

With changing student enrollments, unique access issues may arise after the building is completed. This fund is used to make sensible, low-cost adjustments to improve overall access. This project funding is ongoing.

Elevator for transportation to the second-story level.

Waverly ES (Grades K–5)

RENOVATION / PHASE II ADDITION

Project: 0973

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Bonds	$ 16,720	$ 4,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 20,720
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	11,650	-	-	-	-	-	-	-	-	-	-	11,650
Transfer Tax	3,200	-	-	-	-	-	-	-	-	-	-	3,200
Z Bonds	885	-	-	-	-	-	-	-	-	-	-	885
Total Funds	$ 32,455	$ 4,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 36,455

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	32,455	2,850	-	-	-	-	-	-	-	-	-	35,305
Equip./Furnishings	-	1,150	-	-	-	-	-	-	-	-	-	1,150
Total Expenditures	$ 32,455	$ 4,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 36,455

Project Commencement FY 2003

Project: 0973

New ES #42 (Grades K–5)

NEW SCHOOL

Project: 1028

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Bonds	$ 20,833	$ 8,132	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 28,965
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	14,908	-	-	-	-	-	-	-	-	-	-	14,908
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ 35,741	$ 8,132	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 43,873

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Plans/Engineering	$ 2,807	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,807
Construction	32,934	6,787	-	-	-	-	-	-	-	-	-	39,721
Equip./Furnishings	-	1,345	-	-	-	-	-	-	-	-	-	1,345
Total Expenditures	$ 35,741	$ 8,132	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 43,873

Project Commencement FY 2016

Project: 1028

Talbott Springs ES (Grades K–5)

RENOVATION

Project: 1043

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Bonds	$ -	$ 8,156	$18,250	$12,218	$ 2,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 40,624
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	1,000	-	-	-	-	-	-	-	-	-	-	1,000
Total Funds	$ 1,000	$ 8,156	$18,250	$12,218	$ 2,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 41,624

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Plans/Engineering	$ 1,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,000
Construction	-	8,156	18,250	12,218	1,000	-	-	-	-	-	-	39,624
Equip./Furnishings	-	-	-	-	1,000	-	-	-	-	-	-	1,000
Total Expenditures	$ 1,000	$ 8,156	$18,250	$12,218	$ 2,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 41,624

Project Commencement FY 2019

Project: 1043

New HS #13 (Grades 9–12)

NEW SCHOOL

Project: 1035

(In Thousands)

Source of Funds		Five-Year Capital Program					Master Plan					
Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Bonds	$ -	$11,732	$29,066	$39,350	$38,350	$ 5,566	$ -	$ -	$ -	$ -	$ -	$ 124,064
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$11,732	$29,066	$39,350	$38,350	$ 5,566	$ -	$ -	$ -	$ -	$ -	$ 124,064

Use of Funds		Five-Year Capital Program					Master Plan					
Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Plans/Engineering	$ -	$11,732	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 11,732
Construction	-	-	29,066	39,350	38,350	566	-	-	-	-	-	107,332
Equip./Furnishings	-	-	-	-	-	5,000	-	-	-	-	-	5,000
Total Expenditures	$ -	$11,732	$29,066	$39,350	$38,350	$ 5,566	$ -	$ -	$ -	$ -	$ -	$ 124,064

Project Commencement FY 2018

Project: 1035

Dunloggin MS (Grades 6–8)

RENOVATION/ADDITION

Project: TBD

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Bonds	$ -	$ 1,000	$15,694	$15,671	$ 3,534	$ 3,000	$ -	$ -	$ -	$ -	$ -	$ 38,899
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$ 1,000	$15,694	$15,671	$ 3,534	$ 3,000	$ -	$ -	$ -	$ -	$ -	$ 38,899

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Plans/Engineering	$ -	$ 1,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,000
Construction	-	-	15,694	15,671	3,034	2,500	-	-	-	-	-	36,899
Equip./Furnishings	-	-	-	-	500	500	-	-	-	-	-	1,000
Total Expenditures	$ -	$ 1,000	$15,694	$15,671	$ 3,534	$ 3,000	$ -	$ -	$ -	$ -	$ -	$ 38,899

Project Commencement FY 2019

Project: TBD

Oakland Mills MS (Grades 6–8)

RENOVATION

Project: 1036

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Bonds	$ -	$ -	$ 9,003	$14,404	$10,603	$ 2,000	$ -	$ -	$ -	$ -	$ -	$ 36,010
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$ -	$ 9,003	$14,404	$10,603	$ 2,000	$ -	$ -	$ -	$ -	$ -	$ 36,010

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	-	-	9,003	14,404	10,603	1,000	-	-	-	-	-	35,010
Equip./Furnishings	-	-	-	-	-	1,000	-	-	-	-	-	1,000
Total Expenditures	$ -	$ -	$ 9,003	$14,404	$10,603	$ 2,000	$ -	$ -	$ -	$ -	$ -	$ 36,010

Project Commencement FY 2016

Project: 1036

Ellicott Mills MS (Grades 6–8)

ADDITION

Project: 1037

(In Thousands)

Source of Funds		Five-Year Capital Program					Master Plan					
Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Bonds	$ -	$ -	$ 788	$ 7,627	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 8,415
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$ -	$ 788	$ 7,627	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 8,415

Use of Funds		Five-Year Capital Program					Master Plan					
Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Plans/Engineering	$ -	$ -	$ 788	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 788
Construction	-	-	-	7,127	-	-	-	-	-	-	-	7,127
Equip./Furnishings	-	-	-	500	-	-	-	-	-	-	-	500
Total Expenditures	$ -	$ -	$ 788	$ 7,627	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 8,415

Project Commencement FY 2022

Project: 1037

Clarksville ES (Grades K–5)

ADDITION

Project: TBD

(In Thousands)

Source of Funds		Five-Year Capital Program					Master Plan					
Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Bonds	$ -	$ -	$ 2,000	$ 7,000	$ 1,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,000
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$ -	$ 2,000	$ 7,000	$ 1,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,000

Use of Funds		Five-Year Capital Program					Master Plan					
Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Plans/Engineering	$ -	$ -	$ 2,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,000
Construction	-	-	-	7,000	500	-	-	-	-	-	-	7,500
Equip./Furnishings	-	-	-	-	500	-	-	-	-	-	-	500
Total Expenditures	$ -	$ -	$ 2,000	$ 7,000	$ 1,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,000

Project Commencement FY 2019

Project: TBD

New ES #43 (Grades K–5)

NEW SCHOOL

Project: 1039

(In Thousands)

Source of Funds			Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Bonds	$ -	$ -	$ 5,705	$15,881	$21,175	$15,881	$ -	$ -	$ -	$ -	$ -	$ 58,642
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$ -	$ 5,705	$15,881	$21,175	$15,881	$ -	$ -	$ -	$ -	$ -	$ 58,642

Use of Funds			Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	-	-	5,705	15,881	21,175	13,687	-	-	-	-	-	56,448
Equip./Furnishings	-	-	-	-	-	2,194	-	-	-	-	-	2,194
Total Expenditures	$ -	$ -	$ 5,705	$15,881	$21,175	$15,881	$ -	$ -	$ -	$ -	$ -	$ 58,642

Project Commencement FY 2024

Hammond HS (Grades 9–12)

RENOVATION/ADDITION

Project: 1024

(In Thousands)

Source of Funds		Five-Year Capital Program					Master Plan					
Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Bonds	$ -	$ -	$ -	$ -	$ -	$ 2,800	$25,748	$21,890	$19,890	$11,099	$16,100	$ 97,527
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$ -	$ -	$ -	$ -	$ 2,800	$25,748	$21,890	$19,890	$11,099	$16,100	$ 97,527

Use of Funds		Five-Year Capital Program					Master Plan					
Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ 2,800	$ -	$ -	$ -	$ -	$ -	$ 2,800
Construction	-	-	-	-	-	-	25,748	21,890	19,890	11,099	13,100	91,727
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	3,000	3,000
Total Expenditures	$ -	$ -	$ -	$ -	$ -	$ 2,800	$25,748	$21,890	$19,890	$11,099	$16,100	$ 97,527

Project Commencement FY 2019

Project: 1024

New ES #44 (Grades K–5)

NEW SCHOOL

Project: 1040

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Bonds	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,705	$15,881	$21,175	$15,881	$ -	$ 58,642
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,705	$15,881	$21,175	$15,881	$ -	$ 58,642

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,705	$ -	$ -	$ -	$ -	$ 5,705
Construction	-	-	-	-	-	-	-	15,881	21,175	13,687	-	50,743
Equip./Furnishings	-	-	-	-	-	-	-	-	-	2,194	-	2,194
Total Expenditures	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,705	$15,881	$21,175	$15,881	$ -	$ 58,642

Project Commencement FY 2025

Project: 1040

MS/HS Career Development Center (Grades 6–12)

NEW SCHOOL

Project: TBD

(In Thousands)

Source of Funds		Five-Year Capital Program					Master Plan					
Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Bonds	$ -	$ -	$ -	$ -	$ -	$ -	$11,232	$22,566	$30,850	$31,686	$22,566	$ 118,900
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$ -	$ -	$ -	$ -	$ -	$11,232	$22,566	$30,850	$31,686	$22,566	$ 118,900

Use of Funds		Five-Year Capital Program					Master Plan					
Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$11,232	$ -	$ -	$ -	$ -	$ 11,232
Construction	-	-	-	-	-	-	-	22,566	30,850	31,686	17,566	102,668
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	5,000	5,000
Total Expenditures	$ -	$ -	$ -	$ -	$ -	$ -	$11,232	$22,566	$30,850	$31,686	$22,566	$ 118,900

Project Commencement FY 2019

Project: TBD

New ES #45 (Grades K–5)

NEW SCHOOL

Project: 1041

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Bonds	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,705	$15,881	$21,175	$ 42,761
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,705	$15,881	$21,175	$ 42,761

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,705	$ -	$ -	$ 5,705
Construction	-	-	-	-	-	-	-	-	-	15,881	21,175	37,056
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,705	$15,881	$21,175	$ 42,761

Project Commencement FY 2026

Project: 1041

Systemic Renovations

Project: TBD

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Bonds	$ -	$28,655	$25,694	$31,435	$30,227	$45,956	$56,467	$59,290	$62,255	$65,368	$68,636	$ 473,983
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$28,655	$25,694	$31,435	$30,227	$45,956	$56,467	$59,290	$62,255	$65,368	$68,636	$ 473,983

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	-	28,655	25,694	31,435	30,227	45,956	56,467	59,290	62,255	65,368	68,636	473,983
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	$ -	$28,655	$25,694	$31,435	$30,227	$45,956	$56,467	$59,290	$62,255	$65,368	$68,636	$ 473,983

Project Commencement FY 2004

Project: TBD

Roofing Projects

Project: TBD

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Bonds	$ -	$12,500	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 57,500
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$12,500	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 57,500

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	-	12,500	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	57,500
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	$ -	$12,500	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 57,500

Project Commencement FY 2004

Project: TBD

Playground Equipment

Project: 0990

(In Thousands)

Source of Funds		Five-Year Capital Program					Master Plan					
Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Bonds	$ 2,350	$ -	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 6,850
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	580	-	-	-	-	-	-	-	-	-	-	580
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ 2,930	$ -	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 7,430

Use of Funds		Five-Year Capital Program					Master Plan					
Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	2,930	-	500	500	500	500	500	500	500	500	500	7,430
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	$ 2,930	$ -	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 7,430

Project Commencement FY 2002

Project: 0990

Relocatable Classrooms

Project: TBD

(In Thousands)

Source of Funds		Five-Year Capital Program						Master Plan				
Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Bonds	$ -	$ 2,500	$ 2,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 17,000
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$ 2,500	$ 2,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 17,000

Use of Funds		Five-Year Capital Program						Master Plan				
Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	-	2,500	2,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	17,000
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	$ -	$ 2,500	$ 2,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 17,000

Project Commencement FY 2004

Project: TBD

Site Acquisition and Construction Reserve

Project: TBD

(In Thousands)

Source of Funds			Five-Year Capital Program					Master Plan				
Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Bonds	$ -	$ -	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 18,000
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$ -	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 18,000

Use of Funds			Five-Year Capital Program					Master Plan				
Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	-	-	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	18,000
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	$ -	$ -	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 18,000

Project Commencement FY 2004

Project: TBD

Technology

Project: TBD

(In Thousands)

Source of Funds

		Five-Year Capital Program					Master Plan					
Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Bonds	$ -	$ 2,750	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,750
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	-	-	5,500	5,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	63,500
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ -	$ 2,750	$ 5,500	$ 5,500	$ 7,500	$ 7,500	$ 7,500	$ 7,500	$ 7,500	$ 7,500	$ 7,500	$ 66,250

Use of Funds

		Five-Year Capital Program					Master Plan					
Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	-	-	-	-	-	-	-	-	-	-	-	-
Equip./Furnishings	-	2,750	5,500	5,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	66,250
Total Expenditures	$ -	$ 2,750	$ 5,500	$ 5,500	$ 7,500	$ 7,500	$ 7,500	$ 7,500	$ 7,500	$ 7,500	$ 7,500	$ 66,250

Project Commencement FY 2011

Project: TBD

School Parking Lot Expansions

Project: 1012

(In Thousands)

Source of Funds

Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
		Five-Year Capital Program						**Master Plan**				
Bonds	$ 2,779	$ -	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 8,179
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	1,421	-	-	-	-	-	-	-	-	-	-	1,421
Transfer Tax	-	-	-	-	-	-	-	-	-	-	-	-
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ 4,200	$ -	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 9,600

Use of Funds

Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
		Five-Year Capital Program						**Master Plan**				
Plans/Engineering	$ 240	$ -	$ 60	$ 60	$ 60	$ 60	$ 60	$ 60	$ 60	$ 60	$ 60	$ 780
Construction	3,960	-	540	540	540	540	540	540	540	540	540	8,820
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	$ 4,200	$ -	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 9,600

Project Commencement FY 2008

Project: 1012

Planning and Design

Project: 1038

(In Thousands)

Source of Funds

Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
		Five-Year Capital Program						**Master Plan**				
Bonds	$ -	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 3,000
Paygo	-	-	-	-	-	-	-	-	-	-	-	-
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	600	-	-	-	-	-	-	-	-	-	-	600
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ 600	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 3,600

Use of Funds

Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
		Five-Year Capital Program						**Master Plan**				
Plans/Engineering	$ 600	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 3,600
Construction	-	-	-	-	-	-	-	-	-	-	-	-
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	$ 600	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 3,600

Project Commencement FY 2016

Project: 1038

Barrier-Free

Project: 0989

(In Thousands)

Source of Funds

Type	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
		Five-Year Capital Program						**Master Plan**				
Bonds	$ 3,875	$ -	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 5,675
Paygo	303	-	-	-	-	-	-	-	-	-	-	303
State Aid	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Tax	1,450	-	-	-	-	-	-	-	-	-	-	1,450
Z Bonds	-	-	-	-	-	-	-	-	-	-	-	-
Total Funds	$ 5,628	$ -	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 7,428

Use of Funds

Description	Approved Appropriation	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	**Total**
		Five-Year Capital Program						**Master Plan**				
Plans/Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Construction	5,628	-	200	200	200	200	200	200	200	200	200	7,428
Equip./Furnishings	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	$ 5,628	$ -	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 7,428

Project Commencement FY 1989

Project: 0989

ENERGY KIOSK
Wilde Lake Middle School
10481 Cross Fox Ln, Columbia, MD 21044
Tiger Scarlet
lucid

Section 4

Supporting Data

September 2017

Pre-Measures

ELEMENTARY SCHOOLS - Data for Demonstrative Purposes Only

Capacity Utilization Rates with Board of Education's Approved FY 2018 Capital Budget Projects - Not Test for APFO

Chart reflects May 2017 Projections, Board of Education's FY 2018 approved capacities, and no redistricting.

		Capacity				2018-19		2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29	
Columbia - East		**2018**	**2019**	**2020**	**2021**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**
Cradlerock ES		398	398	398	398	416	104.5	394	99.0	380	95.5	374	94.0	351	88.2	363	91.2	363	91.2	368	92.5	374	94.0	377	94.7	383	96.2
Jeffers Hill ES		421	421	421	421	439	104.3	439	104.3	430	102.1	437	103.8	432	102.6	434	103.1	434	103.1	441	104.8	450	106.9	455	108.1	460	109.3
Phelps Luck ES		616	616	616	616	584	94.8	613	99.5	638	103.6	654	106.2	664	107.8	676	109.7	682	110.7	691	112.2	714	115.9 C	720	116.9 C	727	118.0 C
Stevens Forest ES		399	399	399	399	401	100.5	395	99.0	406	101.8	410	102.8	424	106.3	420	105.3	416	104.3	422	105.8	434	108.8	436	109.3	438	109.8
Talbott Springs ES		377	377	377	377	446	118.3 C	455	120.7 C	456	121.0 C	449	119.1 C	436	115.6 C	439	116.4 C	447	118.6 C	444	117.8 C	449	119.1 C	454	120.4 C	461	122.3 C
Thunder Hill ES		509	509	509	509	544	106.9	525	103.1	511	100.4	513	100.8	507	99.6	499	98.0	504	99.0	508	99.8	509	100.0	515	101.2	521	102.4
Region Totals		**2720**	**2720**	**2720**	**2720**	**2830**	**104.0**	**2821**	**103.7**	**2821**	**103.7**	**2837**	**104.3**	**2814**	**103.5**	**2831**	**104.1**	**2846**	**104.6**	**2874**	**105.7**	**2930**	**107.7**	**2957**	**108.7**	**2990**	**109.9**
Columbia - West																											
Bryant Woods ES		361	361	361	361	420	116.3 C	421	116.6 C	417	115.5 C	416	115.2 C	404	111.9	406	112.5	404	111.9	410	113.6	414	114.7	418	115.8 C	418	115.8 C
Clemens Crossing ES		521	521	521	521	576	110.6	609	116.9 C	652	125.1 C	670	128.6 C	694	133.2 C	723	138.8 C	735	141.1 C	781	149.9 C	801	153.7 C	821	157.6 C	830	159.3 C
Longfellow ES		512	512	512	512	412	80.5	400	78.1	393	76.8	385	75.2	392	76.6	390	76.2	388	75.8	396	77.3	401	78.3	406	79.3	412	80.5
New ES #44	NS	0	0	0	0																						
Running Brook ES		515	515	515	515	555	107.8	600	116.5 C	641	124.5 C	701	136.1 C	771	149.7 C	833	161.7 C	882	171.3 C	927	180.0 C	981	190.5 C	1032	200.4 C	1071	208.0 C
Swansfield ES	A	621	621	621	621	636	102.4	634	102.1	645	103.9	644	103.7	658	106.0	663	106.8	665	107.1	673	108.4	682	109.8	688	110.8	700	112.7
Region Totals		**2530**	**2530**	**2530**	**2530**	**2599**	**102.7**	**2664**	**105.3**	**2748**	**108.6**	**2816**	**111.3**	**2919**	**115.4 C**	**3015**	**119.2 C**	**3074**	**121.5 C**	**3187**	**126.0 C**	**3279**	**129.6 C**	**3365**	**101.4**	**3431**	**103.4**
Northeastern																											
Bellows Spring ES		751	751	751	751	744	99.1	780	103.9	852	113.4	885	117.8 C	936	124.6 C	964	128.4 C	1002	133.4 C	1010	134.5 C	979	130.4 C	962	128.1 C	945	125.8 C
Deep Run ES		772	772	772	772	794	102.8	815	105.6	851	110.2	892	115.5 C	917	118.8 C	954	123.6 C	976	126.4 C	1002	129.8 C	991	128.4 C	1005	130.2 C	1013	131.2 C
Ducketts Lane ES		770	770	770	770	1030	133.8 C	1166	151.4 C	1291	167.7 C	1454	188.8 C	1589	206.4 C	1639	212.9 C	1681	218.3 C	1687	219.1 C	1688	219.2 C	1692	219.7 C	1675	217.5 C
Elkridge ES		760	760	760	760	829	109.1	796	104.7	786	103.4	770	101.3	739	97.2	719	94.6	738	97.1	780	102.6	807	106.2	852	112.1	868	114.2
Ilchester ES		653	653	653	653	569	87.1	544	83.3	536	82.1	527	80.7	546	83.6	592	90.7	622	95.3	663	101.5	696	106.6	708	108.4	736	112.7
New ES #42	NS	788	788	788	788																						
Rockburn ES		653	653	653	653	689	105.5	710	108.7	753	115.3 C	761	116.5 C	767	117.5 C	779	119.3 C	808	123.7 C	851	130.3 C	856	131.1 C	887	135.8 C	927	142.0 C
Veterans ES		821	821	821	821	886	107.9	896	109.1	905	110.2	900	109.6	886	107.9	874	106.5	882	107.4	869	105.8	867	105.6	923	112.4	944	115.0
Waterloo ES		663	663	663	663	559	84.3	530	79.9	544	82.1	539	81.3	552	83.3	551	83.1	547	82.5	556	83.9	562	84.8	568	85.7	584	88.1
Worthington ES		590	590	590	590	465	78.8	423	71.7	415	70.3	402	68.1	408	69.2	423	71.7	442	74.9	471	79.8	481	81.5	492	83.4	547	92.7
Region Totals		**7221**	**7221**	**7221**	**7221**	**6565**	**90.9**	**6660**	**92.2**	**6933**	**96.0**	**7130**	**98.7**	**7340**	**101.6**	**7495**	**103.8**	**7698**	**106.6**	**7889**	**109.3**	**7927**	**109.8**	**8089**	**112.0**	**8239**	**114.1**
Northern																											
Centennial Lane ES		647	647	647	647	738	114.1	740	114.4	744	115.0	738	114.1	741	114.5	721	111.4	718	111.0	718	111.0	713	110.2	718	111.0	726	112.2
Hollifield Station ES		694	694	694	694	796	114.7	806	116.1 C	842	121.3 C	841	121.2 C	827	119.2 C	814	117.3 C	842	121.3 C	834	120.2 C	830	119.6 C	851	122.6 C	869	125.2 C
Manor Woods ES		681	681	681	681	862	126.6 C	947	139.1 C	1042	153.0 C	1147	168.4 C	1249	183.4 C	1350	198.2 C	1412	207.3 C	1446	212.3 C	1459	214.2 C	1446	212.3 C	1405	206.3 C
New ES #45	NS	0	0	0	0																						
Northfield ES		700	700	700	700	744	106.3	739	105.6	742	106.0	753	107.6	750	107.1	737	105.3	736	105.1	748	106.9	753	107.6	778	111.1	779	111.3
St Johns Lane ES		612	612	612	612	718	117.3 C	730	119.3 C	734	119.9 C	739	120.8 C	762	124.5 C	789	128.9 C	821	134.2 C	856	139.9 C	852	139.2 C	857	140.0 C	863	141.0 C
Waverly ES	A	738	738	738	738	686	93.0	671	90.9	659	89.3	632	85.6	611	82.8	607	82.2	607	82.2	622	84.3	624	84.6	632	85.6	641	86.9
Region Totals		**4072**	**4072**	**4072**	**4072**	**4544**	**111.6**	**4633**	**113.8**	**4763**	**117.0 C**	**4850**	**119.1 C**	**4940**	**121.3 C**	**5018**	**123.2 C**	**5136**	**126.1 C**	**5224**	**128.3 C**	**5231**	**128.5 C**	**5282**	**129.7 C**	**5283**	**129.7 C**
Southeastern																											
Atholton ES		424	424	424	424	455	107.3	457	107.8	460	108.5	447	105.4	418	98.6	416	98.1	414	97.6	414	97.6	412	97.2	415	97.9	418	98.6
Bollman Bridge ES		666	666	666	666	707	106.2	717	107.7	741	111.3	757	113.7	761	114.3	772	115.9 C	784	117.7 C	776	116.5 C	768	115.3 C	767	115.2 C	768	115.3 C
Forest Ridge ES		713	713	713	713	701	98.3	713	100.0	756	106.0	776	108.8	813	114.0	852	119.5 C	894	125.4 C	918	128.8 C	952	133.5 C	953	133.7 C	945	132.5 C
Gorman Crossing ES		735	735	735	735	760	103.4	792	107.8	798	108.6	836	113.7	839	114.1	830	112.9	803	109.3	803	109.3	809	110.1	790	107.5	774	105.3
Guilford ES		465	465	465	465	432	92.9	434	93.3	413	88.8	410	88.2	414	89.0	415	89.2	451	97.0	484	104.1	488	104.9	482	103.7	483	103.9
Hammond ES		653	653	653	653	644	98.6	649	99.4	644	98.6	661	101.2	705	108.0	792	121.3 C	830	127.1 C	874	133.8 C	923	141.3 C	971	148.7 C	1038	159.0 C
Laurel Woods ES		640	640	640	640	528	82.5	514	80.3	491	76.7	482	75.3	469	73.3	462	72.2	459	71.7	449	70.2	467	73.0	473	73.9	479	74.8
New ES #43	NS	0	0	0	0																						
Region Totals		**4296**	**4296**	**4296**	**4296**	**4227**	**98.4**	**4276**	**99.5**	**4303**	**100.2**	**4369**	**101.7**	**4419**	**102.9**	**4539**	**89.3**	**4635**	**91.2**	**4718**	**92.8**	**4819**	**94.8**	**4851**	**95.4**	**4905**	**96.5**
Western																											
Bushy Park ES		788	788	788	788	571	72.5	550	69.8	546	69.3	507	64.3	499	63.3	483	61.3	478	60.7	490	62.2	494	62.7	514	65.2	551	69.9
Clarksville ES		612	612	612	612	408	66.7	414	67.6	409	66.8	413	67.5	429	70.1	409	66.8	410	67.0	416	68.0	422	69.0	425	69.4	425	69.4
Dayton Oaks ES		788	788	788	788	591	75.0	588	74.6	594	75.4	606	76.9	582	73.9	588	74.6	588	74.6	590	74.9	569	72.2	565	71.7	563	71.4
Fulton ES		788	788	788	788	920	116.8 C	984	124.9 C	1051	133.4 C	1099	139.5 C	1111	141.0 C	1123	142.5 C	1119	142.0 C	1087	137.9 C	1053	133.6 C	1018	129.2 C	980	124.4 C
Lisbon ES		527	527	527	527	451	85.6	440	83.5	430	81.6	424	80.5	417	79.1	421	79.9	425	80.6	460	87.3	482	91.5	506	96.0	519	98.5
Pointers Run ES		744	744	744	744	705	94.8	699	94.0	711	95.6	755	101.5	795	106.9	814	109.4	824	110.8	830	111.6	824	110.8	799	107.4	770	103.5
Triadelphia Ridge ES		581	581	581	581	569	97.9	571	98.3	555	95.5	573	98.6	578	99.5	580	99.8	578	99.5	575	99.0	575	99.0	573	98.6	568	97.8
West Friendship ES		414	414	414	414	334	80.7	326	78.7	352	85.0	347	83.8	370	89.4	399	96.4	405	97.8	410	99.0	403	97.3	404	97.6	406	98.1
Region Totals		**5242**	**5242**	**5242**	**5242**	**4549**	**86.8**	**4572**	**87.2**	**4648**	**88.7**	**4724**	**90.1**	**4781**	**91.2**	**4817**	**91.9**	**4827**	**92.1**	**4858**	**92.7**	**4822**	**92.0**	**4804**	**91.6**	**4782**	**91.2**
Countywide Totals		26081	26081	26081	26081	25314	**97.1**	25626	**98.3**	26216	**100.5**	26726	**102.5**	27213	**104.3**	27715	**103.1**	28216	**105.0**	28750	**107.0**	29008	**108.0**	29348	**106.1**	29630	**107.1**

'A' includes additions as reflected in FY 2018 CIP for Grades K-5

'NS' New School proposed in FY 2018 Capital Budget

Post-Measures

Aggregate Plan

ELEMENTARY SCHOOLS - Data for Demonstrative Purposes Only

Capacity Utilization Rates with Proposed FY 2019 Capital Budget Projects - Not Test for APFO

Chart reflects May 2017 Projections, Board of Education's FY 2019 Requested capacities and estimated redistricting based on the 2017 Feasibility Study

	Capacity				2018-19		2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29	
Columbia - East	**2018**	**2019**	**2020**	**2021**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**
Cradlerock ES	398	398	398	398	418	105.0	412	103.5	398	100.0	390	98.0	367	92.2	380	95.5	383	96.2	386	97.0	392	98.5	396	99.5	402	101.0
Jeffers Hill ES	421	421	421	421	439	104.3	439	104.3	430	102.1	437	103.8	432	102.6	434	103.1	434	103.1	441	104.8	450	106.9	455	108.1	460	109.3
Phelps Luck ES	616	616	616	616	584	94.8	612	99.4	637	103.4	653	106.0	663	107.6	676	109.7	682	110.7	690	112.0	713	115.7 C	720	116.9 C	727	118.0 C
Stevens Forest ES	399	399	399	399	396	99.2	394	98.7	400	100.3	400	100.3	407	102.0	403	101.0	402	100.8	405	101.5	413	103.5	417	104.5	419	105.0
Talbott Springs ES	377	377	377	540	396	105.0	394	104.5	399	105.8	398	73.7	394	73.0	392	72.6	396	73.3	399	73.9	405	75.0	408	75.6	412	76.3
Thunder Hill ES	509	509	509	509	545	107.1	525	103.1	511	100.4	514	101.0	507	99.6	499	98.0	504	99.0	509	100.0	510	100.2	515	101.2	521	102.4
Region Totals	**2720**	**2720**	**2720**	**2883**	**2778**	**102.1**	**2776**	**102.1**	**2775**	**102.0**	**2792**	**96.8**	**2770**	**96.1**	**2784**	**96.6**	**2801**	**97.2**	**2830**	**98.2**	**2883**	**100.0**	**2911**	**101.0**	**2941**	**102.0**
Columbia - West																										
Bryant Woods ES	361	361	361	361	314	87.0	330	91.4	343	95.0	359	99.4	379	105.0	401	111.1	417	115.5 C	434	120.2 C	453	125.5 C	472	130.7 C	484	134.1 C
Clemens Crossing ES	521	521	521	521	497	95.4	520	99.8	545	104.6	549	105.4	562	107.9	577	110.7	587	112.7	610	117.1 C	627	120.3 C	640	122.8 C	641	123.0 C
Longfellow ES	512	512	512	512	552	107.8	539	105.3	532	103.9	523	102.1	528	103.1	527	102.9	524	102.3	534	104.3	540	105.5	546	106.6	551	107.6
New ES #44 NS	0	0	0	0																						
Running Brook ES	515	515	515	515	447	86.8	476	92.4	501	97.3	548	106.4	592	115.0	633	122.9 C	664	128.9 C	696	135.1 C	737	143.1 C	771	149.7 C	799	155.1 C
Swansfield ES	621	621	621	621	652	105.0	652	105.0	664	106.9	662	106.6	678	109.2	683	110.0	687	110.6	695	111.9	705	113.5	713	114.8	724	116.6 C
Region Totals	**2530**	**2530**	**2530**	**2530**	**2462**	**97.3**	**2517**	**99.5**	**2585**	**102.2**	**2641**	**104.4**	**2739**	**108.3**	**2821**	**111.5**	**2879**	**113.8**	**2969**	**117.4 C**	**3062**	**121.0 C**	**3142**	**94.7**	**3199**	**96.4**
Northeastern																										
Bellows Spring ES	751	751	751	751	587	78.2	598	79.6	627	83.5	647	86.2	674	89.7	697	92.8	720	95.9	732	97.5	710	94.5	704	93.7	698	92.9
Deep Run ES	750	750	750	750	604	80.5	643	85.7	689	91.9	742	98.9	780	104.0	807	107.6	826	110.1	845	112.7	842	112.3	854	113.9	857	114.3
Ducketts Lane ES	770	770	770	770	645	83.8	711	92.3	771	100.1	851	110.5	906	117.7 C	922	119.7 C	933	121.2 C	919	119.4 C	913	118.6 C	911	118.3 C	896	116.4 C
Elkridge ES	760	760	760	760	829	109.1	796	104.7	786	103.4	771	101.4	740	97.4	720	94.7	739	97.2	780	102.6	808	106.3	853	112.2	869	114.3
Ilchester ES	653	653	653	653	626	95.9	604	92.5	598	91.6	596	91.3	613	93.9	661	101.2	696	106.6	738	113.0	770	117.9 C	789	120.8 C	821	125.7 C
New ES #42 NS	832	832	832	832			757	91.0	841	101.1	921	110.7	1008	121.2 C	1061	127.5 C	1102	132.5 C	1152	138.5 C	1156	138.9 C	1178	141.6 C	1206	145.0 C
Rockburn ES	653	653	653	653	591	90.5	610	93.4	652	99.8	655	100.3	659	100.9	664	101.7	692	106.0	707	108.3	700	107.2	699	107.0	701	107.4
Veterans ES *	799	799	799	799	917	114.8	927	116.0 C	937	117.3 C	930	116.4 C	917	114.8	898	112.4	908	113.6	903	113.0	904	113.1	955	119.5 C	976	122.2 C
Waterloo ES	663	663	663	663	641	96.7	616	92.9	642	96.8	641	96.7	659	99.4	660	99.5	660	99.5	670	101.1	677	102.1	680	102.6	693	104.5
Worthington ES	515	515	515	515	546	106.0	502	97.5	496	96.3	482	93.6	486	94.4	508	98.6	526	102.1	553	107.4	563	109.3	580	112.6	638	123.9 C
Region Totals	**7146**	**7146**	**7146**	**7146**	**5986**	**83.8**	**6764**	**94.7**	**7039**	**98.5**	**7236**	**101.3**	**7442**	**104.1**	**7598**	**106.3**	**7802**	**109.2**	**7999**	**111.9**	**8043**	**112.6**	**8203**	**114.8**	**8355**	**116.9 C**
Northern																										
Centennial Lane ES	647	647	647	647	738	114.1	741	114.5	744	115.0	738	114.1	741	114.5	721	111.4	718	111.0	718	111.0	713	110.2	719	111.1	727	112.4
Hollifield Station ES	732	732	732	732	760	103.8	775	105.9	808	110.4	811	110.8	801	109.4	790	107.9	817	111.6	807	110.2	799	109.2	818	111.7	833	113.8
Manor Woods ES	681	681	681	681	620	91.0	661	97.1	703	103.2	746	109.5	776	114.0	823	120.9 C	843	123.8 C	851	125.0 C	860	126.3 C	857	125.8 C	834	122.5 C
New ES #45 NS	0	0	0	0																						
Northfield ES	700	700	700	700	683	97.6	680	97.1	682	97.4	693	99.0	690	98.6	678	96.9	676	96.6	686	98.0	686	98.0	711	101.6	712	101.7
St Johns Lane ES	612	612	612	612	635	103.8	639	104.4	642	104.9	640	104.6	654	106.9	673	110.0	700	114.4	717	117.2 C	719	117.5 C	726	118.6 C	737	120.4 C
Waverly ES A	760	760	760	760	775	102.0	777	102.2	792	104.2	797	104.9	810	106.6	830	109.2	836	110.0	871	114.6	870	114.5	873	114.9	871	114.6
Region Totals	**4132**	**4132**	**4132**	**4132**	**4211**	**101.9**	**4273**	**103.4**	**4371**	**105.8**	**4425**	**107.1**	**4472**	**108.2**	**4515**	**109.3**	**4590**	**111.1**	**4650**	**112.5**	**4647**	**112.5**	**4704**	**113.8**	**4714**	**114.1**
Southeastern																										
Atholton ES	424	424	424	424	455	107.3	457	107.8	460	108.5	448	105.7	419	98.8	417	98.3	415	97.9	414	97.6	413	97.4	415	97.9	418	98.6
Bollman Bridge ES	666	666	666	666	611	91.7	620	93.1	640	96.1	654	98.2	658	98.8	667	100.2	679	102.0	671	100.8	664	99.7	666	100.0	667	100.2
Forest Ridge ES *	713	713	713	713	669	93.8	676	94.8	713	100.0	730	102.4	760	106.6	796	111.6	828	116.1 C	845	118.5 C	870	122.0 C	867	121.6 C	859	120.5 C
Gorman Crossing ES *	735	735	735	735	757	103.0	789	107.3	795	108.2	833	113.3	835	113.6	827	112.5	800	108.8	800	108.8	806	109.7	788	107.2	770	104.8
Guilford ES	465	465	465	465	480	103.2	485	104.3	462	99.4	459	98.7	462	99.4	463	99.6	500	107.5	533	114.6	538	115.7 C	533	114.6	534	114.8
Hammond ES	653	653	653	653	646	98.9	650	99.5	646	98.9	663	101.5	707	108.3	794	121.6 C	832	127.4 C	876	134.2 C	924	141.5 C	972	148.9 C	1040	159.3 C
Laurel Woods ES	640	640	640	640	660	103.1	652	101.9	639	99.8	635	99.2	630	98.4	627	98.0	636	99.4	633	98.9	658	102.8	665	103.9	672	105.0
New ES #43 NS	0	0	0	0																						
Region Totals	**4296**	**4296**	**4296**	**4296**	**4278**	**99.6**	**4329**	**100.8**	**4355**	**101.4**	**4422**	**102.9**	**4471**	**104.1**	**4591**	**90.3**	**4690**	**92.3**	**4772**	**93.9**	**4873**	**95.8**	**4906**	**96.5**	**4960**	**97.6**
Western																										
Bushy Park ES	788	788	788	788	801	101.6	775	98.4	778	98.7	737	93.5	738	93.7	735	93.3	733	93.0	747	94.8	749	95.1	772	98.0	808	102.5
Clarksville ES	543	543	543	543	525	96.7	523	96.3	514	94.7	534	98.3	571	105.2	567	104.4	578	106.4	582	107.2	586	107.9	583	107.4	574	105.7
Dayton Oaks ES	769	769	769	769	630	81.9	658	85.6	653	84.9	714	92.8	695	90.4	706	91.8	705	91.7	711	92.5	689	89.6	680	88.4	673	87.5
Fulton ES	826	826	826	826	921	111.5	985	119.2 C	1052	127.4 C	1100	133.2 C	1112	134.6 C	1124	136.1 C	1120	135.6 C	1087	131.6 C	1054	127.6 C	1019	123.4 C	981	118.8 C
Lisbon ES	527	527	527	527	451	85.6	441	83.7	431	81.8	424	80.5	417	79.1	422	80.1	426	80.8	461	87.5	482	91.5	507	96.2	519	98.5
Pointers Run ES	744	744	744	744	702	94.4	694	93.3	701	94.2	722	97.0	732	98.4	738	99.2	742	99.7	773	103.9	772	103.8	764	102.7	758	101.9
Triadelphia Ridge ES	581	581	581	581	571	98.3	573	98.6	578	99.5	603	103.8	606	104.3	610	105.0	607	104.5	601	103.4	604	104.0	600	103.3	595	102.4
West Friendship ES	414	414	414	414	311	75.1	335	80.9	375	90.6	406	98.1	464	112.1	518	125.1 C	554	133.8 C	584	141.1 C	582	140.6 C	572	138.2 C	565	136.5 C
Region Totals	**5192**	**5192**	**5192**	**5192**	**4912**	**94.6**	**4984**	**96.0**	**5082**	**97.9**	**5240**	**100.9**	**5335**	**102.8**	**5420**	**104.4**	**5465**	**105.3**	**5546**	**106.8**	**5518**	**106.3**	**5497**	**105.9**	**5473**	**105.4**
Countywide Totals	26016	26016	26016	26179	24627	**94.7**	25643	**98.6**	26207	**100.7**	26756	**102.2**	27229	**104.0**	27729	**102.8**	28227	**104.7**	28766	**106.7**	29026	**107.6**	29363	**105.8**	29642	**106.8**

'A' includes additions as reflected in FY 2019 CIP for Grades K-5

'NS' New School proposed in FY 2019 Capital Budget

* Capacity includes reclaimed classroom space from repurposing community rooms.

Pre-Measures

MIDDLE SCHOOLS - Data for Demonstrative Purposes Only

Capacity Utilization Rates with Board of Education's Approved FY 2018 Capital Budget Projects - Not Test for APFO

Chart reflects May 2017 Projections, Board of Education's FY 2018 approved capacities, and no redistricting.

		Capacity				2018-19		2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29	
Columbia - East		**2018**	**2019**	**2020**	**2021**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**
Lake Elkhorn MS		643	643	643	643	609	94.7	605	94.1	603	93.8	585	91.0	591	91.9	557	86.6	553	86.0	532	82.7	546	84.9	553	86.0	557	86.6
Oakland Mills MS		506	506	506	506	499	98.6	512	101.2	506	100.0	497	98.2	495	97.8	513	101.4	506	100.0	501	99.0	495	97.8	496	98.0	496	98.0
Region MS Totals		1149	1149	1149	1149	1108	96.4	1117	97.2	1109	96.5	1082	94.2	1086	94.5	1070	93.1	1059	92.2	1033	89.9	1041	90.6	1049	91.3	1053	91.6
Columbia - West																											
Harpers Choice MS		506	506	506	506	572	113.0	573	113.2	567	112.1	585	115.6 C	562	111.1	570	112.6	573	113.2	590	116.6 C	596	117.8 C	590	116.6 C	597	118.0 C
Wilde Lake MS	R	760	760	760	760	590	77.6	634	83.4	652	85.8	673	88.6	705	92.8	732	96.3	792	104.2	847	111.4	891	117.2 C	911	119.9 C	936	123.2 C
Region MS Totals		1266	1266	1266	1266	1162	91.8	1207	95.3	1219	96.3	1258	99.4	1267	100.1	1302	102.8	1365	107.8	1437	113.5	1487	117.5 C	1501	118.6 C	1533	121.1 C
Northeastern																											
Bonnie Branch MS		662	662	662	662	747	112.8	732	110.6	696	105.1	670	101.2	681	102.9	697	105.3	703	106.2	702	106.0	719	108.6	732	110.6	761	115.0
Elkridge Landing MS		779	779	779	779	704	90.4	710	91.1	688	88.3	720	92.4	734	94.2	747	95.9	732	94.0	716	91.9	740	95.0	767	98.5	789	101.3
Ellicott Mills MS	A	701	701	701	701	897	128.0 C	943	134.5 C	919	131.1 C	906	129.2 C	857	122.3 C	858	122.4 C	827	96.5	810	94.5	801	93.5	814	95.0	854	99.6
Mayfield Woods MS		798	798	798	798	745	93.4	809	101.4	843	105.6	864	108.3	843	105.6	858	107.5	900	112.8	929	116.4 C	1003	125.7 C	1020	127.8 C	1057	132.5 C
Thomas Viaduct MS		701	701	701	701	662	94.4	716	102.1	798	113.8	839	119.7 C	877	125.1 C	973	138.8 C	1103	157.3 C	1247	177.9 C	1327	189.3 C	1379	196.7 C	1427	203.6 C
Region MS Totals		3641	3641	3641	3641	3755	103.1	3910	107.4	3944	108.3	3999	109.8	3992	109.6	4133	113.5	4265	112.3	4404	116.0 C	4590	120.9 C	4712	124.1 C	4888	128.7 C
Northern																											
Burleigh Manor MS		779	779	779	779	808	103.7	820	105.3	859	110.3	858	110.1	865	111.0	886	113.7	925	118.7 C	965	123.9 C	971	124.6 C	976	125.3 C	971	124.6 C
Dunloggin MS	A	565	565	565	565	627	111.0	650	115.0 C	658	116.5 C	694	122.8 C	711	107.4	730	110.3	720	108.8	704	106.3	698	105.4	712	107.6	717	108.3
Patapsco MS		643	643	643	643	691	107.5	686	106.7	697	108.4	735	114.3	764	118.8 C	769	119.6 C	776	120.7 C	775	120.5 C	803	124.9 C	811	126.1 C	815	126.7 C
Region MS Totals		1987	1987	1987	1987	2126	107.0	2156	108.5	2214	111.4	2287	115.1 C	2340	112.3	2385	114.4	2421	116.2 C	2444	117.3 C	2472	118.6 C	2499	119.9 C	2503	120.1 C
Southeastern																											
Hammond MS		604	604	604	604	551	91.2	570	94.4	608	100.7	612	101.3	661	109.4	693	114.7	706	116.9 C	705	116.7 C	722	119.5 C	732	121.2 C	743	123.0 C
Murray Hill MS		662	662	662	662	706	106.6	738	111.5	791	119.5 C	769	116.2 C	754	113.9	737	111.3	781	118.0 C	778	117.5 C	774	116.9 C	751	113.4	746	112.7
Patuxent Valley MS		760	760	760	760	680	89.5	668	87.9	692	91.1	656	86.3	649	85.4	654	86.1	672	88.4	702	92.4	721	94.9	737	97.0	737	97.0
Region MS Totals		2026	2026	2026	2026	1937	95.6	1976	97.5	2091	103.2	2037	100.5	2064	101.9	2084	102.9	2159	106.6	2185	107.8	2217	109.4	2220	109.6	2226	109.9
Western																											
Clarksville MS		643	643	643	643	515	80.1	532	82.7	524	81.5	503	78.2	477	74.2	476	74.0	477	74.2	510	79.3	493	76.7	501	77.9	495	77.0
Folly Quarter MS		662	662	662	662	621	93.8	639	96.5	634	95.8	628	94.9	616	93.1	605	91.4	608	91.8	599	90.5	602	90.9	590	89.1	592	89.4
Glenwood MS		545	545	545	545	520	95.4	548	100.6	544	99.8	534	98.0	502	92.1	492	90.3	477	87.5	484	88.8	506	92.8	517	94.9	539	98.9
Lime Kiln MS		701	701	701	701	737	105.1	773	110.3	777	110.8	789	112.6	829	118.3 C	836	119.3 C	848	121.0 C	856	122.1 C	899	128.2 C	921	131.4 C	911	130.0 C
Mount View MS		798	798	798	798	822	103.0	840	105.3	857	107.4	886	111.0	906	113.5	929	116.4 C	969	121.4 C	971	121.7 C	1007	126.2 C	1000	125.3 C	1017	127.4 C
Region MS Totals		3349	3349	3349	3349	3215	96.0	3332	99.5	3336	99.6	3340	99.7	3330	99.4	3338	99.7	3379	100.9	3420	102.1	3507	104.7	3529	105.4	3554	106.1
Countywide Totals		13418	13418	13418	13418	13303	99.1	13698	102.1	13913	103.7	14003	104.4	14079	104.2	14312	105.9	14648	107.1	14923	109.2	15314	112.0	15510	113.5	15757	115.3

'A' includes additions as reflected in FY 2018 CIP for Grades 6-8

'R' = Replacement school scheduled to open August 2017

Post-Measures

Aggregate Plan

MIDDLE SCHOOLS - Data for Demonstrative Purposes Only

Capacity Utilization Rates with Proposed FY 2019 Capital Budget Projects - Not Test for APFO

Chart reflects May 2017 Projections, Board of Education's FY 2019 Requested capacities and estimated redistricting based on the 2017 Feasibility Study.

		Capacity				2018-19		2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29	
Columbia - East		**2018**	**2019**	**2020**	**2021**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**
Lake Elkhorn MS		643	643	643	643	698	108.6	699	108.7	702	109.2	683	106.2	688	107.0	662	103.0	662	103.0	650	101.1	669	104.0	680	105.8	688	107.0
Oakland Mills MS		506	506	506	506	510	100.8	521	103.0	514	101.6	505	99.8	505	99.8	519	102.6	514	101.6	507	100.2	501	99.0	503	99.4	503	99.4
Region MS Totals		1149	1149	1149	1149	1208	105.1	1220	106.2	1216	105.8	1188	103.4	1193	103.8	1181	102.8	1176	102.3	1157	100.7	1170	101.8	1183	103.0	1191	103.7
Columbia - West																											
Harpers Choice MS		506	506	506	506	502	99.2	505	99.8	500	98.8	515	101.8	494	97.6	501	99.0	504	99.6	518	102.4	524	103.6	518	102.4	523	103.4
Wilde Lake MS		760	760	760	760	651	85.7	690	90.8	707	93.0	730	96.1	758	99.7	784	103.2	840	110.5	894	117.6 C	934	122.9 C	951	125.1 C	977	128.6 C
Region MS Totals		1266	1266	1266	1266	1153	91.1	1195	94.4	1207	95.3	1245	98.3	1252	98.9	1285	101.5	1344	106.2	1412	111.5	1458	115.2 C	1469	116.0 C	1500	118.5 C
Northeastern																											
Bonnie Branch MS		701	701	701	701	786	112.1	772	110.1	734	104.7	706	100.7	714	101.9	730	104.1	734	104.7	731	104.3	747	106.6	761	108.6	791	112.8
Elkridge Landing MS		779	779	779	779	775	99.5	788	101.2	768	98.6	804	103.2	816	104.7	832	106.8	821	105.4	809	103.9	842	108.1	870	111.7	896	115.0 C
Ellicott Mills MS	A*	701	701	701	857	768	109.6	808	115.3 C	786	112.1	776	90.5	733	85.5	734	85.6	708	82.6	695	81.1	689	80.4	700	81.7	734	85.6
Mayfield Woods MS		798	798	798	798	716	89.7	773	96.9	809	101.4	826	103.5	808	101.3	824	103.3	868	108.8	901	112.9	968	121.3 C	985	123.4 C	1020	127.8 C
Thomas Viaduct MS		701	701	701	701	552	78.7	603	86.0	677	96.6	719	102.6	756	107.8	844	120.4 C	962	137.2 C	1090	155.5 C	1162	165.8 C	1209	172.5 C	1252	178.6 C
Region MS Totals		3680	3680	3680	3836	3597	97.7	3744	101.7	3774	102.6	3831	99.9	3827	99.8	3964	103.3	4093	106.7	4226	110.2	4408	114.9	4525	118.0 C	4693	122.3 C
Northern																											
Burleigh Manor MS		779	779	779	779	779	100.0	791	101.5	829	106.4	828	106.3	834	107.1	855	109.8	892	114.5	931	119.5 C	936	120.2 C	940	120.7 C	936	120.2 C
Dunloggin MS	A	565	565	565	565	611	108.1	637	112.7	643	113.8	675	119.5 C	685	103.5	703	106.2	691	104.4	674	101.8	668	100.9	680	102.7	688	103.9
Patapsco MS		643	643	643	643	664	103.3	661	102.8	672	104.5	710	110.4	736	114.5	742	115.4 C	747	116.2 C	747	116.2 C	768	119.4 C	777	120.8 C	780	121.3 C
Region MS Totals		1987	1987	1987	1987	2054	103.4	2089	105.1	2144	107.9	2213	111.4	2255	108.2	2300	110.4	2330	111.8	2352	112.9	2372	113.8	2397	115.0 C	2404	115.4 C
Southeastern																											
Hammond MS		604	604	604	604	551	91.2	570	94.4	608	100.7	612	101.3	661	109.4	693	114.7	706	116.9 C	705	116.7 C	722	119.5 C	732	121.2 C	743	123.0 C
Murray Hill MS		662	662	662	662	637	96.2	666	100.6	716	108.2	698	105.4	685	103.5	671	101.4	713	107.7	710	107.3	708	106.9	687	103.8	683	103.2
Patuxent Valley MS		760	760	760	760	749	98.6	740	97.4	767	100.9	727	95.7	718	94.5	720	94.7	740	97.4	770	101.3	787	103.6	801	105.4	800	105.3
Region MS Totals		2026	2026	2026	2026	1937	95.6	1976	97.5	2091	103.2	2037	100.5	2064	101.9	2084	102.9	2159	106.6	2185	107.8	2217	109.4	2220	109.6	2226	109.9
Western																											
Clarksville MS		643	643	643	643	643	100.0	667	103.7	658	102.3	639	99.4	622	96.7	620	96.4	626	97.4	658	102.3	654	101.7	667	103.7	660	102.6
Folly Quarter MS		662	662	662	662	713	107.7	733	110.7	729	110.1	725	109.5	716	108.2	707	106.8	713	107.7	706	106.6	711	107.4	697	105.3	702	106.0
Glenwood MS		545	545	545	545	551	101.1	579	106.2	575	105.5	565	103.7	531	97.4	521	95.6	506	92.8	513	94.1	535	98.2	546	100.2	567	104.0
Lime Kiln MS		701	701	701	701	614	87.6	646	92.2	652	93.0	665	94.9	702	100.1	712	101.6	723	103.1	734	104.7	770	109.8	790	112.7	783	111.7
Mount View MS		798	798	798	798	833	104.4	849	106.4	867	108.6	895	112.2	917	114.9	938	117.5 C	978	122.6 C	980	122.8 C	1019	127.7 C	1016	127.3 C	1031	129.2 C
Region MS Totals		3349	3349	3349	3349	3354	100.1	3474	103.7	3481	103.9	3489	104.2	3488	104.2	3498	104.4	3546	105.9	3591	107.2	3689	110.2	3716	111.0	3743	111.8
Countywide Totals		13457	13457	13457	13613	13303	98.9	13698	101.8	13913	103.4	14003	102.9	14079	102.7	14312	104.4	14648	106.8	14923	108.8	15314	111.7	15510	113.1	15757	114.9

'A' includes additions as reflected in FY 2019 CIP for Grades 6-8

* Capacity includes reclaimed classroom space from repurposing community rooms.

Pre-Measures

HIGH SCHOOLS - Data for Demonstrative Purposes Only

Capacity Utilization Rates with Board of Education's Approved FY 2018 Capital Budget Projects - Not Test for APFO

Chart reflects May 2017 Projections, Board of Education's FY 2018 approved capacities, and no redistricting

	Capacity				2018-19		2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29	
Columbia - East	**2018**	**2019**	**2020**	**2021**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**
Oakland Mills HS	1400	1400	1400	1400	1141	81.5	1187	84.8	1225	87.5	1302	93.0	1354	96.7	1353	96.6	1345	96.1	1336	95.4	1315	93.9	1303	93.1	1298	92.7
Columbia - West																										
Wilde Lake HS	1424	1424	1424	1424	1371	96.3	1389	97.5	1420	99.7	1418	99.6	1442	101.3	1474	103.5	1494	104.9	1520	106.7	1543	108.4	1597	112.1	1621	113.8
Northeastern																										
Howard HS	1420	1420	1420	1420	1943	136.8	2018	142.1	2043	143.9	2034	143.2	2057	144.9	2059	145.0	2049	144.3	2060	145.1	2069	145.7	2071	145.8	2043	143.9
Long Reach HS	1488	1488	1488	1488	1776	119.4	1833	123.2	1896	127.4	1981	133.1	2079	139.7	2166	145.6	2230	149.9	2291	154.0	2396	161.0	2527	169.8	2672	179.6
New HS #13 NS	0	0	0	0																						
Region HS Totals	2908	2908	2908	2908	3719	127.9	3851	132.4	3939	135.5	4015	138.1	4136	142.2	4225	93.4	4279	94.6	4351	96.2	4465	98.7	4598	101.7	4715	104.2
Northern																										
Centennial HS	1360	1360	1360	1360	1672	122.9	1750	128.7	1792	131.8	1811	133.2	1850	136.0	1879	138.2	1891	139.0	1896	139.4	1916	140.9	1937	142.4	1963	144.3
Marriotts Ridge HS	1615	1615	1615	1615	1340	83.0	1386	85.8	1414	87.6	1446	89.5	1502	93.0	1518	94.0	1558	96.5	1602	99.2	1604	99.3	1655	102.5	1670	103.4
Mt Hebron HS	1400	1400	1400	1400	1594	113.9	1623	115.9	1648	117.7	1678	119.9	1709	122.1	1720	122.9	1756	125.4	1815	129.6	1812	129.4	1820	130.0	1822	130.1
Region HS Totals	4375	4375	4375	4375	4606	105.3	4759	108.8	4854	110.9	4935	112.8	5061	115.7	5117	117.0	5205	119.0	5313	121.4	5332	121.9	5412	123.7	5455	124.7
Southeastern																										
Hammond HS	1220	1220	1220	1220	1347	110.4	1373	112.5	1348	110.5	1392	114.1	1423	116.6	1444	118.4	1515	124.2	1534	125.7	1575	129.1	1635	134.0	1715	140.6
Western																										
Atholton HS	1460	1460	1460	1460	1526	104.5	1526	104.5	1559	106.8	1569	107.5	1588	108.8	1650	113.0	1651	113.1	1688	115.6	1704	116.7	1730	118.5	1801	123.4
Glenelg HS	1420	1420	1420	1420	1188	83.7	1169	82.3	1151	81.1	1177	82.9	1155	81.3	1169	82.3	1167	82.2	1141	80.4	1122	79.0	1122	79.0	1108	78.0
Reservoir HS	1551	1551	1551	1551	1589	102.5	1635	105.4	1707	110.1	1758	113.3	1797	115.9	1821	117.4	1832	118.1	1852	119.4	1858	119.8	1873	120.8	1927	124.2
River Hill HS	1488	1488	1488	1488	1202	80.8	1179	79.2	1182	79.4	1170	78.6	1158	77.8	1176	79.0	1145	76.9	1126	75.7	1118	75.1	1108	74.5	1126	75.7
Region HS Totals	5919	5919	5919	5919	5505	93.0	5509	93.1	5599	94.6	5674	95.9	5698	96.3	5816	98.3	5795	97.9	5807	98.1	5802	98.0	5833	98.5	5962	100.7
Countywide Totals	17246	17246	17246	17246	17689	102.6	18068	104.8	18385	106.6	18736	108.6	19114	110.8	19429	103.0	19633	104.1	19861	105.3	20032	106.2	20378	108.0	20766	110.1

'NS' New School proposed in FY 2018 Capital Budget

Post-Measures

Aggregate Plan

HIGH SCHOOLS - Data for Demonstrative Purposes Only

Capacity Utilization Rates with Proposed FY 2019 Capital Budget Projects - Not Test for APFO

Chart reflects May 2017 Projections, Board of Education's FY 2019 Requested capacities and estimated redistricting based on the 2017 Feasibility Study

	Capacity				2018-19		2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29	
Columbia - East	**2018**	**2019**	**2020**	**2021**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**	**Proj**	**% Util.**
Oakland Mills HS	1400	1400	1400	1400	1343	95.9	1395	99.6	1440	102.9	1525	108.9	1601	114.4	1638	117.0	1673	119.5	1703	121.6	1746	124.7	1804	128.9	1871	133.6
Columbia - West																										
Wilde Lake HS	1424	1424	1424	1424	1415	99.4	1437	100.9	1474	103.5	1480	103.9	1509	106.0	1540	108.1	1562	109.7	1586	111.4	1606	112.8	1659	116.5	1683	118.2
Northeastern																										
Howard HS	1420	1420	1420	1420	1574	110.8	1634	115.1	1662	117.0	1662	117.0	1683	118.5	1682	118.5	1676	118.0	1687	118.8	1696	119.4	1698	119.6	1676	118.0
Long Reach HS	1488	1488	1488	1488	1649	110.8	1699	114.2	1735	116.6	1777	119.4	1841	123.7	1893	127.2	1928	129.6	1965	132.1	2025	136.1	2105	141.5	2188	147.0
New HS #13 NS	0	0	0	0																						
Region HS Totals	2908	2908	2908	2908	3223	110.8	3333	114.6	3397	116.8	3439	118.3	3524	121.2	3575	122.9	3604	79.7	3652	80.7	3721	82.3	3803	84.1	3864	85.4
Northern																										
Centennial HS	1360	1360	1360	1360	1462	107.5	1533	112.7	1573	115.7	1593	117.1	1625	119.5	1653	121.5	1665	122.4	1669	122.7	1687	124.0	1706	125.4	1726	126.9
Marriotts Ridge HS	1615	1615	1615	1615	1516	93.9	1568	97.1	1600	99.1	1630	100.9	1690	104.6	1711	105.9	1748	108.2	1795	111.1	1800	111.5	1853	114.7	1873	116.0
Mt Hebron HS	1400	1400	1400	1400	1423	101.6	1450	103.6	1474	105.3	1501	107.2	1531	109.4	1540	110.0	1575	112.5	1629	116.4	1627	116.2	1634	116.7	1638	117.0
Region HS Totals	4375	4375	4375	4375	4401	100.6	4551	104.0	4647	106.2	4724	108.0	4846	110.8	4904	112.1	4988	114.0	5093	116.4	5114	116.9	5193	118.7	5237	119.7
Southeastern																										
Hammond HS	1220	1220	1220	1220	1217	99.8	1237	101.4	1227	100.6	1262	103.4	1283	105.2	1311	107.5	1353	110.9	1370	112.3	1397	114.5	1438	117.9	1500	123.0
Western																										
Atholton HS	1460	1460	1460	1460	1361	93.2	1379	94.5	1396	95.6	1436	98.4	1465	100.3	1502	102.9	1514	103.7	1531	104.9	1542	105.6	1561	106.9	1607	110.1
Glenelg HS	1420	1420	1420	1420	1551	109.2	1536	108.2	1516	106.8	1542	108.6	1526	107.5	1542	108.6	1539	108.4	1514	106.6	1493	105.1	1491	105.0	1483	104.4
Reservoir HS	1551	1551	1551	1551	1589	102.5	1635	105.4	1707	110.1	1758	113.3	1797	115.9	1821	117.4	1832	118.1	1852	119.4	1858	119.8	1873	120.8	1927	124.2
River Hill HS	1488	1488	1488	1488	1589	106.8	1565	105.2	1581	106.3	1570	105.5	1563	105.0	1596	107.3	1568	105.4	1560	104.8	1555	104.5	1556	104.6	1594	107.1
Region HS Totals	5919	5919	5919	5919	6090	102.9	6115	103.3	6200	104.7	6306	106.5	6351	107.3	6461	109.2	6453	109.0	6457	109.1	6448	108.9	6481	109.5	6611	111.7
Countywide Totals	17246	17246	17246	17246	17689	102.6	18068	104.8	18385	106.6	18736	108.6	19114	110.8	19429	112.7	19633	104.1	19861	105.3	20032	106.2	20378	108.0	20766	110.1

PUBLIC SCHOOL ENROLLMENT
ACTUAL FOR 1973-2015 AND ESTIMATED FOR 2016-2027

	Year	Elementary Enrollment	K-5 Change	Middle Enrollment	6-8 Change	High Enrollment	9-12 Change	Sp. Ed. School Enrollment	Sp Ed. Change	K-12 Enrollment	Change
ACTUAL ENROLLMENTS	1973	10,481	-	5,289	-	6,177	-	30	-	21,977	-
	1974	10,798	317	5,652	363	6,638	461	35	5	23,123	1,146
	1975	10,891	93	6,025	373	7,032	394	44	9	23,992	869
	1976	11,069	178	6,117	92	7,410	378	61	17	24,657	665
	1977	11,246	177	6,175	58	7,957	547	62	1	25,440	783
	1978	10,968	-278	6,080	-95	8,488	531	70	8	25,606	166
	1979	10,627	-341	6,163	83	8,530	42	80	10	25,400	-206
	1980	10,261	-366	6,337	174	8,547	17	83	3	25,228	-172
	1981	9,856	-405	6,409	72	8,468	-79	112	29	24,845	-383
	1982	9,486	-370	6,245	-164	8,387	-81	106	-6	24,224	-621
	1983	9,414	-72	5,988	-257	8,458	71	103	-3	23,963	-261
	1984	9,808	394	5,597	-391	8,723	265	124	21	24,252	289
	1985	10,439	631	5,496	-101	8,900	177	143	19	24,978	726
	1986	11,135	696	5,551	55	8,737	-163	173	30	25,596	618
	1987	12,155	1,020	5,727	176	8,675	-62	191	18	26,748	1,152
	1988	13,225	1,070	5,776	49	8,441	-234	147	-44	27,589	841
	1989	14,160	935	6,235	459	8,305	-136	136	-11	28,836	1,247
	1990	15,001	841	6,603	368	8,248	-57	150	14	30,002	1,166
	1991	15,805	804	7,058	455	8,527	279	70	-80	31,460	1,458
	1992	16,456	651	7,382	324	8,858	331	60	-10	32,756	1,296
	1993	17,155	699	7,958	576	9,107	249	58	-2	34,278	1,522
	1994	17,767	612	8,510	552	9,611	504	62	4	35,950	1,672
	1995	18,226	459	8,843	333	10,181	570	73	11	37,323	1,373
	1996	18,795	569	9,066	223	10,713	532	82	9	38,656	1,333
	1997	19,241	446	9,293	227	11,387	674	89	7	40,010	1,354
	1998	19,849	608	9,669	376	12,020	633	95	6	41,633	1,623
	1999	20,395	546	10,177	508	12,481	461	103	8	43,156	1,523
	2000	20,821	426	10,672	495	12,927	446	105	2	44,525	1,369
	2001	21,000	179	11,138	466	13,479	552	115	10	45,732	1,207
	2002	21,012	12	11,446	308	14,080	601	112	-3	46,650	918
	2003	20,792	-220	11,689	243	14,629	549	101	-11	47,211	561
	2004	20,498	-294	11,754	65	15,235	606	95	-6	47,582	371
	2005	20,412	-86	11,716	-38	15,580	345	87	-8	47,795	213
	2006	20,318	-94	11,889	173	15,858	278	90	3	48,155	360
	2007	20,550	232	11,740	-149	16,094	236	96	6	48,480	325
	2008	20,811	261	11,748	8	16,231	137	98	2	48,888	408
	2009	21,292	481	11,649	-99	16,657	426	85	-13	49,683	795
	2010	21,814	522	11,472	-177	16,614	-43	91	6	49,991	308
	2011	22,246	432	11,523	51	16,627	13	93	2	50,489	498
	2012	22,735	489	11,483	-40	16,660	33	91	-2	50,969	480
	2013	23,327	592	11,890	407	16,378	-282	86	-5	51,681	712
	2014	23,698	371	12,276	386	16,438	60	99	13	52,511	830
	2015	24,245	547	12,715	439	16,574	136	100	1	53,634	1,123
	2016	24,582	337	12,897	182	16,768	194	101	1	54,348	714
PROJECTIONS	2017	24,937	692	13,079	364	17,235	661	99	-1	55,350	1,716
	2018	25,314	377	13,303	224	17,689	454	99	0	56,405	1,055
	2019	25,626	312	13,698	395	18,068	379	99	0	57,491	1,086
	2020	26,216	590	13,913	215	18,385	317	99	0	58,613	1,122
	2021	26,726	510	14,003	90	18,736	351	99	0	59,564	951
	2022	27,213	487	14,079	76	19,114	378	99	0	60,505	941
	2023	27,715	502	14,312	233	19,429	315	99	0	61,555	1,050
	2024	28,216	501	14,648	336	19,633	204	99	0	62,596	1,041
	2025	28,750	534	14,923	275	19,861	228	99	0	63,633	1,037
	2026	29,008	258	15,314	391	20,032	171	99	0	64,453	820
	2027	29,348	340	15,510	196	20,378	346	99	0	65,335	882
	2028	29,630	282	15,757	247	20,766	388	99	0	66,252	917
	2029	29,837	207	15,783	26	21,229	463	99	0	66,948	696

Notes: (1) All "actual" enrollments are head count as of September 30th.
(2) "Change" column indicates change from prior year.
(3) Preschool enrollments are not included in these figures.
(4) Cedar Lane School's projected enrollment is based on Cedar Lane School's September 30, 2014 enrollment

Facility Use, Acreage, and Capital Projects

HCPSS Elementary Schools	Acreage	Current Relocatables	Original Construction Cost	Initially Complete	Renovations (R), Additions (A), Conversion (C), Projects
Atholton ES	12.31	3	$ 447,569	1961	1980(A), 2001(R), 2002(R), 2006, 2007
Bellows Spring ES	40.00	5	$ 15,105,663	2003	2009(A), 2011(A)
Bollman Bridge ES	16.95	2	$ 6,274,000	1988	1994(A), 2008(C),2013(R/A)
Bryant Woods ES	9.25	4	$ 695,406	1968	1983, 1984(A), 2004(R), 2007
Bushy Park ES	19.20	-	$ 24,000,000	2007	(Replacement) replaced Old Bushy Park with a new school
Centennial Lane ES	11.22	5	$ 1,101,140	1973	1987(A), 2007(R), 2008(A)
Clarksville ES	10.69	1	$ 435,986	1964	1980(A), 1986 HVAC, 2002(R), 2006
Clemens Crossing ES	10.80	3	$ 1,853,590	1979	1988(A), 2009(R)
Cradlerock ES	33.16	3	$ 4,249,000	1976	1998(A), 2001(R), 2003(R), 2007, 1996 Dasher Green Head Start
Dayton Oaks ES**	22.74	-	$ 21,804,000	2006	New school 2006
Deep Run ES	11.67	6	$ 6,403,575	1990	1998(A), 2009(A), 2016®
Ducketts Lane ES	10.03	9	$ 34,447,000	2013	New school 2013
Elkridge ES	48.581 shared	4	$ 7,139,588	1992	1998, 2009(A)
Forest Ridge ES	20.85	5	$ 6,050,000	1992	2001/2 (R)/(A), 2009(A)
Fulton ES	99.0 shared	-	$ 6,156,161	1997	2003(A)/(R), 2006
Gorman Crossing ES	15.00	2	$ 5,766,716	1998	2007,2013(A)
Guilford ES	11.00	5	$ 216,278	1954	1959(R), 1982, 1986(A), 1989, 2006
Hammond ES	35.00 shared	1	$ 2,381,673	1971	(includes Hammond MS & Hammond ES) 1987, 1988/9, 1996/7 (A), 2007, 2011(R/A)
Hollifield Station ES	14.50	3	$ 6,017,889	1997	2002(R)/(A), 2009(A)
Ilchester ES	27.22 shared	3	$ 6,430,404	1996	2000/1, 2008(A)
Jeffers Hill ES	10.00	2	$ 1,747,200	1975	1998/1999(R)
Laurel Woods ES	27.00	2	$ 1,658,399	1973	1987(A), 2004(R), 2005(ROOFING PROJECT), 2008(A)
Lisbon ES	22.55	1	$ 2,056,000	1976	1988(A), 2006
Longfellow ES	9.50	-	$ 775,481	1970	1986(R), 1994(A), 2008(A)
Manor Woods ES	43.23	1	$ 5,900,000	1994	2004(R)
Northfield ES	10.00	1	$ 20,330,000	1968	1986(A), 2007, 2011(R/A)
Phelps Luck ES	10.00	2	$ 1,036,792	1972	1989, 1999(A), 2007,2013(R/A)
Pointers Run ES	13.69	9	$ 6,645,000	1991	2000, 2001/2, 2006, 2008(A)
Rockburn ES	8.74	1	$ 5,849,000	1993	2004(A), 2007
Running Brook ES	9.00	3	$ 776,406	1970	1984(A)/(REMODELING), 2004 (ROOF REPLACEMENT), 2006, 2014(A)
St. John's Lane ES	10.00	7	$ 235,985	1954	1988(A), 1959, 1966, 1975(MODERNIZ)1988, 1995, 2000(A)/(R), 2009(A)
Stevens Forest ES	10.00	5	$ 764,941	1972	1995(A),2013(R/A)
Swansfield ES	10.00	12	$ 764,941	1972	1988(A), 1998(R), 2008(A)
Talbott Springs ES	10.00	11	$ 1,224,800	1973	1999(SPRINKLERS), 2000(A) & (R), 2008(A)
Thunder Hill ES	14.93	3	$ 14,515,430	1970	1987, 1988(A), 1988, 1989, 2007, 2012(R/A)
Triadelphia Ridge ES	78.3 shared	-	$ 6,219,488	1998	2005(A), 2006
Veterans ES	23.66	5	$ 19,000,000	2007	New school 2007
Waterloo ES	10.00	4	$ 435,221	1964	1987(A)/(MODERNIZATION), 1998(A), 2009(R)
Waverly ES	11.49	9	$ 6,669,587	1990	2007
West Friendship ES	17.85	-	unknown	1925	(7 rm school (1925)) 1950, 1962, 1971(MODERNIZATION), 1978(A), 2004(R), 2005(ROOF)
Worthington ES	19.69	1	$ 2,385,850	1976	1989, 1998, 2007, 2008(R)

* Estimated Investment: based on available records; in process of updating data.

**Dayton Oaks shares 12.66 acres with Recreation and Parks play fields.

Facility Use, Acreage, and Capital Projects

HCPSS Middle Schools	Acreage	Current Relocatables	Original Construction Cost	Initially Complete	Renovations (R), Additions (A), Conversion (C), Projects
Bonnie Branch MS	27.22 shared	2	$ 7,819,520	1999	1999(A)
Burleigh Manor MS	27.00	1	$ 8,107,000	1992	
Clarksville MS	20.43	5	$ 5,662,361	1979	2004, 2006(A), 2008®, 2010(Masonry)
Dunloggin MS	20.00	5	$ 1,963,323	1973	1999(R)
Elkridge Landing MS	48.58	2	$ 9,000,000	1995	
Ellicott Mills MS	16.22	3	$ 9,430,537	1939	(Replacement) 1957, 1962, 1973, 2001
Folly Quarter MS	78.3 shared	-	$ 11,077,000	2003	
Glenwood MS	30.00	6	$ 1,179,168	1967	1999(R), 2000(R), 1986(Air Conditioning), 2016 (HVAC)
Hammond ES/MS	35.00 shared	3	$ 22,650,672	1971	includes Hammond MS & Hammond ES, 2011
Harper's Choice MS	19.67	5	$ 1,974,697	1973	1999(R), 2000
Lake Elkhorn MS	33.16 shared	1	$ 4,244,500	1976	includes Dasher Green ES & Owen Brown MS
Lime Kiln MS	99.0 shared	-	$ 8,420,400	1999	2005(A)
Mayfield Woods MS	27.00	2	$ 8,501,354	1991	
Mount View MS	35.75	2	$ 8,617,000	1993	
Murray Hill MS	25.00	6	$ 7,858,000	1997	
Oakland Mills MS	20.00	-	$ 1,803,876	1972	1998 (R)
Patapsco MS	21.13	2	$ 1,391,791	1969	1974, 1996, 2003(R)/(A), 2004 (R)/(A)
Patuxent Valley MS	30.00	6	$ 8,261,000	1989	2017 (R)
Thomas Viaduct MS	20.21	-	$ 34,755,000	2014	
Wilde Lake MS	21.00	9	$ 1,323,314	1969	1974, 1998(R), Replacement(2017)

HCPSS High Schools	Acreage	Current Relocatables	Original Construction Cost	Initially Complete	Renovations (R), Additions (A), Projects
Atholton HS	36.28	-	$ 1,423,493	1966	1972, 1977, 1978, 1988, 1987(A), 1997(R), 2003(R)/(A),
Centennial HS	43.00	4	$ 6,337,867	1977	1998(R), 2002(R)/(A), 2011(A)
Glenelg HS	40.94	-	$ 56,345,257	1958	1963, 1967, 1969, 1971, 1972(R), 1986(A), 1988(A)/(R), 2003, 2008(A), 2009(Auditorium), 2011(HVA
Hammond HS	33.14	4	$ 6,321,000	1976	1996(A), 1998®, 2011(A)
Howard HS	41.00	15	$ 698,781	1951	1960, 1964,1971, 1975, 1977, 2001(A)/(R), 2002(R), 2004, 2006, 2009(Windows)
Long Reach HS	50.00	4	$ 20,373,000	1996	
Marriotts Ridge HS	42.40	-	$ 34,115,895	2005	
Mt. Hebron HS	40.05	4	$ 55,560,000	1965	1968,1972,1976, 1977-1978,1983(MODERNIZATION), 1997-99(A), 2004(R), 2005(R), 2011
Oakland Mills HS	28.60	-	$ 3,579,000	1973	1991-92(R), 1998(R), 2004(A)
Reservoir HS	99.0 shared	5	$ 27,224,000	2002	
River Hill HS	64.2	-	$ 21,473,000	1994	
Wilde Lake HS	31.25	-	$ 21,202,391	1996	(Replacement)

HCPSS Countywide Schools	Acreage	Current Relocatables	Original Construction Cost	Initially Complete	Renovations (R), Additions (A), Projects
Applications & Research Lab	45.48 shared	-	$ 1,502,581	1968	1970, 1974, 1986, 1997/1998(R),2002(NEW ROOF), 2006
Cedar Lane Special	99.0 shared	-	$ 18,663,069	2005	2005(A)
Homewood	45.48 shared	1	$ 8,620,912	2002	

HCPSS Other Facilities	Acreage	Current Relocatables	Original Construction Cost	Initially Complete	Renovations (R), Additions (A), Projects
Admin. Building(Harriett Tubman)	3.58	-	$ 256,664	1948	1953, 1956
Admin. Building(Central Office)	45.48 shared	4	$ 3,657,660	1980	
Old Bushy Park	12.00 shared	-	$ 2,931,991	1976	1988(A), school replaced 2007
Faulkner Ridge Resource Center	9.01	-	$ 750,174	1969	
Old Cedar Lane	11	-	$ 3,839,731	1981	

ELEMENTARY SCHOOLS - MAY 2017 APFO Test

Capacity Utilization Rates with Board of Education's Approved FY 2018 Capital Budget Projects

Chart reflects May 2016 Projections, Board of Education's Requested FY 2018 capacities, and proposed redistricting associated with Capital Projects.

		Capacity				2020-21			2021-22			2022-23			2023-24			2024-25			2025-26			2026-27			2027-28			2028-29			2029-30		
Columbia - East		2020	2021	2022	2023	Proj	% Util.		Proj	% Util.		Proj	% Util.		Proj	% Util.		Proj	% Util.		Proj	% Util.		Proj	% Util.		Proj	% Util.		Proj	% Util.		Proj	% Util.	
Cradlerock ES		398	398	398	398	442	111.1		442	111.1		439	110.3		440	110.6		455	114.3		468	117.6	C	465	116.8	C	463	116.3	C	461	115.8	C	460	115.6	C
Jeffers Hill ES		421	421	421	421	440	104.5		439	104.3		437	103.8		439	104.3		441	104.8		450	106.9		455	108.1		462	109.7		468	111.2		474	112.6	
Phelps Luck ES		616	616	616	616	588	95.5		608	98.7		624	101.3		632	102.6		636	103.2		643	104.4		655	106.3		666	108.1		672	109.1		680	110.4	
Stevens Forest ES		399	399	399	399	413	103.5		412	103.3		415	104.0		416	104.3		415	104.0		423	106.0		428	107.3		433	108.5		444	111.3		447	112.0	
Talbott Springs ES		377	377	377	377	457	121.2	C	453	120.2	C	449	119.1	C	453	120.2	C	466	123.6	C	462	122.5	C	469	124.4	C	476	126.3	C	485	128.6	C	493	130.8	C
Thunder Hill ES		509	509	509	509	571	112.2		572	112.4		564	110.8		561	110.2		572	112.4		577	113.4		585	114.9		594	116.7	C	602	118.3	C	618	121.4	C
Region Totals		**2720**	**2720**	**2720**	**2720**	**2911**	**107.0**		**2926**	**107.6**		**2928**	**107.6**		**2941**	**108.1**		**2985**	**109.7**		**3023**	**111.1**		**3057**	**112.4**		**3094**	**113.8**		**3132**	**115.1**	C	**3172**	**116.6**	C
Columbia - West																																			
Bryant Woods ES		361	361	361	361	412	114.1		410	113.6		411	113.9		412	114.1		415	115.0	C	423	117.2	C	428	118.6	C	430	119.1	C	434	120.2	C	436	120.8	C
Clemens Crossing ES		521	521	521	521	590	113.2		593	113.8		609	116.9	O^CIP	611	117.3	C	608	116.7	C	605	116.1	C	611	117.3	C	634	121.7	C	652	125.1	C	671	128.8	C
Longfellow ES		512	512	512	512	423	82.6		420	82.0		413	80.7		413	80.7		414	80.9		421	82.2		424	82.8		430	84.0		433	84.6		439	85.7	
Running Brook ES		515	515	515	515	724	140.6	O^CIP	806	156.5	O^CIP	868	168.5	O^CIP	945	183.5	C	1001	194.4	C	1044	202.7	C	1076	208.9	C	1099	213.4	C	1124	218.3	C	1133	220.0	C
Swansfield ES	A	621	621	621	621	597	96.1		587	94.5		597	96.1		601	96.8		602	96.9		609	98.1		617	99.4		623	100.3		630	101.4		637	102.6	
Region Totals		**2530**	**2530**	**2530**	**2530**	**2746**	**108.5**		**2816**	**111.3**		**2898**	**114.5**		**2982**	**117.9**	C	**3040**	**120.2**	C	**3102**	**122.6**	C	**3156**	**124.7**	C	**3216**	**127.1**	C	**3273**	**129.4**	C	**3316**	**131.1**	C
Northeastern																																			
Bellows Spring ES		751	751	751	751	926	123.3	O^CIP	964	128.4	O^CIP	969	129.0	O^CIP	975	129.8	O^CIP	971	129.3	O^CIP	953	126.9	O^CIP	925	123.2	O^CIP	890	118.5	O^CIP	858	114.2		835	111.2	
Deep Run ES		772	772	772	772	872	113.0		880	114.0		866	112.2		877	113.6		878	113.7		881	114.1		892	115.5	C	910	117.9	C	923	119.6	C	936	121.2	C
Ducketts Lane ES		770	770	770	770	1204	156.4	O^CIP	1296	168.3	O^CIP	1370	177.9	O^CIP	1404	182.3	O^CIP	1448	188.1	O^CIP	1470	190.9	O^CIP	1510	196.1	O^CIP	1536	199.5	O^CIP	1586	206.0	C	1629	211.6	C
Elkridge ES		760	760	760	760	843	110.9		828	108.9		810	106.6		812	106.8		823	108.3		877	115.4	C	882	116.1	C	907	119.3	C	938	123.4	C	944	124.2	C
Ilchester ES		653	653	653	653	595	91.1		660	101.1		687	105.2		717	109.8		724	110.9		722	110.6		707	108.3		681	104.3		652	99.8		651	99.7	
New ES #42	NS	788	788	788	788																														
Rockburn ES		653	653	653	653	678	103.8		681	104.3		722	110.6		747	114.4		803	123.0	O^CIP	837	128.2	O^CIP	888	136.0	O^CIP	945	144.7	O^CIP	984	150.7	C	1009	154.5	C
Veterans ES		821	821	821	821	937	114.1		916	111.6		912	111.1		900	109.6		906	110.4		887	108.0		881	107.3		913	111.2		947	115.3	C	951	115.8	C
Waterloo ES		663	663	663	663	572	86.3		554	83.6		554	83.6		554	83.6		551	83.1		565	85.2		572	86.3		579	87.3		588	88.7		610	92.0	
Worthington ES		590	590	590	590	439	74.4		444	75.3		452	76.6		462	78.3		478	81.0		498	84.4		501	84.9		489	82.9		501	84.9		496	84.1	
Region Totals		**7221**	**7221**	**7221**	**7221**	**7066**	**97.9**		**7223**	**100.0**		**7342**	**101.7**		**7448**	**103.1**		**7582**	**105.0**		**7690**	**106.5**		**7758**	**107.4**		**7850**	**108.7**		**7977**	**110.5**		**8061**	**111.6**	
Northern																																			
Centennial Lane ES		647	647	647	647	786	121.5	C	785	121.3	C	799	123.5	C	786	121.5	C	795	122.9	C	801	123.8	C	805	124.4	C	818	126.4	C	828	128.0	C	837	129.4	C
Hollifield Station ES		694	694	694	694	823	118.6	C	825	118.9	C	833	120.0	C	818	117.9	C	831	119.7	C	833	120.0	C	869	125.2	C	908	130.8	C	947	136.5	C	991	142.8	C
Manor Woods ES		681	681	681	681	1225	179.9	O^CIP	1368	200.9	O^CIP	1487	218.4	O^CIP	1606	235.8	O^CIP	1677	246.3	O^CIP	1693	248.6	O^CIP	1692	248.5	O^CIP	1651	242.4	O^CIP	1574	231.1	O^CIP	1490	218.8	O^CIP
Northfield ES		700	700	700	700	715	102.1		717	102.4		724	103.4		718	102.6		738	105.4		762	108.9		771	110.1		818	116.9	C	813	116.1	C	817	116.7	C
St Johns Lane ES		612	612	612	612	721	117.8	C	722	118.0	C	737	120.4	C	747	122.1	C	739	120.8	C	754	123.2	C	787	128.6	C	809	132.2	C	817	133.5	C	831	135.8	C
Waverly ES	A	738	738	738	738	637	86.3		615	83.3		606	82.1		607	82.2		606	82.1		627	85.0		643	87.1		653	88.5		659	89.3		676	91.6	
Region Totals		**4072**	**4072**	**4072**	**4072**	**4907**	**120.5**	C	**5032**	**123.6**	C	**5186**	**127.4**	C	**5282**	**129.7**	C	**5386**	**132.3**	C	**5470**	**134.3**	C	**5567**	**136.7**	C	**5657**	**138.9**	C	**5638**	**138.5**	C	**5642**	**138.6**	C
Southeastern																																			
Atholton ES		424	424	424	424	479	113.0		475	112.0		480	113.2		490	115.6	C	501	118.2	C	494	116.5	C	501	118.2	C	509	120.0	C	516	121.7	C	527	124.3	C
Bollman Bridge ES		666	666	666	666	739	111.0		753	113.1		781	117.3	C	805	120.9	C	819	123.0	C	827	124.2	C	829	124.5	C	840	126.1	C	844	126.7	C	860	129.1	C
Forest Ridge ES		713	713	713	713	909	127.5	C	936	131.3	C	978	137.2	C	1030	144.5	C	1062	148.9	C	1085	152.2	C	1103	154.7	C	1102	154.6	C	1100	154.3	C	1088	152.6	C
Gorman Crossing ES		735	735	735	735	780	106.1		797	108.4		807	109.8		795	108.2		774	105.3		778	105.9		796	108.3		786	106.9		784	106.7		790	107.5	
Guilford ES		465	465	465	465	471	101.3		476	102.4		470	101.1		530	114.0		542	116.6	C	542	116.6	C	537	115.5	C	537	115.5	C	537	115.5	C	542	116.6	C
Hammond ES		653	653	653	653	704	107.8		749	114.7		815	124.8	C	844	129.2	C	876	134.2	C	918	140.6	C	929	142.3	C	948	145.2	C	975	149.3	C	988	151.3	C
Laurel Woods ES		640	640	640	640	532	83.1		540	84.4		545	85.2		547	85.5		553	86.4		554	86.6		571	89.2		576	90.0		583	91.1		588	91.9	
Region Totals		**4296**	**4296**	**4296**	**4296**	**4614**	**107.4**		**4726**	**110.0**		**4876**	**113.5**		**5041**	**117.3**	C	**5127**	**119.3**	C	**5198**	**121.0**	C	**5266**	**122.6**	C	**5298**	**123.3**	C	**5339**	**124.3**	C	**5383**	**125.3**	C
Western																																			
Bushy Park ES		788	788	788	788	551	69.9		527	66.9		520	66.0		502	63.7		503	63.8		524	66.5		523	66.4		560	71.1		605	76.8		613	77.8	
Clarksville ES		612	612	612	612	364	59.5		374	61.1		368	60.1		367	60.0		366	59.8		364	59.5		365	59.6		361	59.0		361	59.0		358	58.5	
Dayton Oaks ES		788	788	788	788	587	74.5		581	73.7		565	71.7		552	70.1		539	68.4		527	66.9		516	65.5		507	64.3		498	63.2		533	67.6	
Fulton ES		788	788	788	788	982	124.6	C	1013	128.6	C	1004	127.4	C	992	125.9	C	971	123.2	C	939	119.2	C	923	117.1	C	892	113.2		864	109.6		844	107.1	
Lisbon ES		527	527	527	527	461	87.5		450	85.4		456	86.5		448	85.0		451	85.6		478	90.7		524	99.4		538	102.1		555	105.3		563	106.8	
Pointers Run ES		744	744	744	744	827	111.2		882	118.5	C	887	119.2	C	899	120.8	C	886	119.1	C	869	116.8	C	851	114.4		829	111.4		815	109.5		800	107.5	
Triadelphia Ridge ES		581	581	581	581	634	109.1		646	111.2		647	111.4		657	113.1		657	113.1		655	112.7		645	111.0		641	110.3		640	110.2		644	110.8	
West Friendship ES		414	414	414	414	304	73.4		291	70.3		319	77.1		336	81.2		337	81.4		336	81.2		341	82.4		345	83.3		347	83.8		347	83.8	
Region Totals		**5242**	**5242**	**5242**	**5242**	**4710**	**89.9**		**4764**	**90.9**		**4766**	**90.9**		**4753**	**90.7**		**4710**	**89.9**		**4692**	**89.5**		**4688**	**89.4**		**4673**	**89.1**		**4685**	**89.4**		**4702**	**89.7**	
Countywide Totals		26081	26081	26081	26081	26954	**103.3**		27487	**105.4**		27996	**107.3**		28447	**109.1**		28830	**110.5**		29175	**111.9**		29492	**113.1**		29788	**114.2**		30044	**115.2**		30276	**116.1**	

A: capacity includes additions as reflected in FY 2018 Capital Budget for Grades K-5 in 2018.

NS: New school scheduled to open in August 2018.

C: Constrained for future development

O^CIP - Open based on proposed redistricting associated with a capital improvement project

MIDDLE SCHOOLS - MAY 2017 APFO Test

Capacity Utilization Rates with Board of Education's Approved FY 2018 Capital Budget Projects

Chart reflects May 2016 Projections, Board of Education's Requested FY 2018 capacities, and proposed redistricting associated with Capital Projects.

	Capacity				2020-21			2021-22			2022-23			2023-24			2024-25			2025-26			2026-27			2027-28			2028-29			2029-30		
Columbia - East	**2020**	**2021**	**2022**	**2023**	**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**		**Proj**	**% Util.**	
Lake Elkhorn MS	643	643	643	643	542	84.3		542	84.3		543	84.4		542	84.3		556	86.5		562	87.4		576	89.6		579	90.0		583	90.7		579	90.0	
Oakland Mills MS	506	506	506	506	511	101.0		501	99.0		512	101.2		522	103.2		510	100.8		509	100.6		509	100.6		515	101.8		518	102.4		525	103.8	
Region MS Totals	**1149**	**1149**	**1149**	**1149**	**1053**	**91.6**		**1043**	**90.8**		**1055**	**91.8**		**1064**	**92.6**		**1066**	**92.8**		**1071**	**93.2**		**1085**	**94.4**		**1094**	**95.2**		**1101**	**95.8**		**1104**	**96.1**	
Columbia - West																																		
Harpers Choice MS	506	506	506	506	639	126.3	C	660	130.4	C	630	124.5	C	627	123.9	C	615	121.5	C	616	121.7	C	617	121.9	C	613	121.1	C	620	122.5	C	626	123.7	C
Wilde Lake MS	760	760	760	760	669	88.0		700	92.1		739	97.2		755	99.3		821	108.0		877	115.4	C	922	121.3	C	950	125.0	C	956	125.8	C	971	127.8	C
Region MS Totals	**1266**	**1266**	**1266**	**1266**	**1308**	**103.3**		**1360**	**107.4**		**1369**	**108.1**		**1382**	**109.2**		**1436**	**113.4**		**1493**	**117.9**		**1539**	**121.6**		**1563**	**123.5**		**1576**	**124.5**		**1597**	**126.1**	
Northeastern																																		
Bonnie Branch MS	662	662	662	662	757	114.4		737	111.3		750	113.3		779	117.7	C	790	119.3	C	805	121.6	C	813	122.8	C	833	125.8	C	844	127.5	C	865	130.7	C
Elkridge Landing MS	779	779	779	779	679	87.2		703	90.2		707	90.8		738	94.7		735	94.4		742	95.3		754	96.8		781	100.3		811	104.1		817	104.9	
Ellicott Mills MS A	701	701	701	701	905	129.1	C	921	131.4	C	902	128.7	C	899	128.2	C	857	100.0		825	96.3		809	94.4		824	96.1		875	102.1		901	105.1	
Mayfield Woods MS	798	798	798	798	906	113.5		948	118.8	C	963	120.7	C	969	121.4	C	995	124.7	C	978	122.6	C	989	123.9	C	974	122.1	C	984	123.3	C	989	123.9	C
Thomas Viaduct MS	701	701	701	701	895	127.7	C	923	131.7	C	949	135.4	C	1037	147.9	C	1125	160.5	C	1210	172.6	C	1245	177.6	C	1282	182.9	C	1292	184.3	C	1292	184.3	C
Region MS Totals	**3641**	**3641**	**3641**	**3641**	**4142**	**113.8**		**4232**	**116.2**		**4271**	**117.3**		**4422**	**121.5**		**4502**	**118.6**		**4560**	**120.1**		**4610**	**121.4**		**4694**	**123.6**		**4806**	**126.6**		**4864**	**128.1**	
Northern																																		
Burleigh Manor MS	779	779	779	779	897	115.1	C	929	119.3	C	949	121.8	C	986	126.6	C	1025	131.6	C	1076	138.1	C	1096	140.7	C	1138	146.1	C	1156	148.4	C	1164	149.4	C
Dunloggin MS A	565	565	662	662	652	115.4	C	673	119.1	C	674	101.8		689	104.1		672	101.5		667	100.8		654	98.8		675	102.0		701	105.9		713	107.7	
Patapsco MS	643	643	643	643	727	113.1		765	119.0	C	758	117.9	C	762	118.5	C	758	117.9	C	778	121.0	C	793	123.3	C	799	124.3	C	802	124.7	C	799	124.3	C
Region MS Totals	**1987**	**1987**	**2084**	**2084**	**2276**	**114.5**		**2367**	**119.1**		**2381**	**114.3**		**2437**	**116.9**		**2455**	**117.8**		**2521**	**121.0**		**2543**	**122.0**		**2612**	**125.3**		**2659**	**127.6**		**2676**	**128.4**	
Southeastern																																		
Hammond MS	604	604	604	604	694	114.9		737	122.0	C	799	132.3	C	818	135.4	C	836	138.4	C	876	145.0	C	886	146.7	C	895	148.2	C	880	145.7	C	896	148.3	C
Murray Hill MS	662	662	662	662	766	115.7	C	756	114.2		712	107.6		712	107.6		747	112.8		752	113.6		781	118.0	C	769	116.2	C	784	118.4	C	757	114.4	
Patuxent Valley MS	760	760	760	760	746	98.2		707	93.0		744	97.9		768	101.1		782	102.9		785	103.3		815	107.2		851	112.0		863	113.6		879	115.7	C
Region MS Totals	**2026**	**2026**	**2026**	**2026**	**2206**	**108.9**		**2200**	**108.6**		**2255**	**111.3**		**2298**	**113.4**		**2365**	**116.7**		**2413**	**119.1**		**2482**	**122.5**		**2515**	**124.1**		**2527**	**124.7**		**2532**	**125.0**	
Western																																		
Clarksville MS	643	643	643	643	619	96.3		575	89.4		537	83.5		508	79.0		533	82.9		537	83.5		549	85.4		544	84.6		539	83.8		529	82.3	
Folly Quarter MS	662	662	662	662	667	100.8		668	100.9		662	100.0		670	101.2		688	103.9		686	103.6		684	103.3		668	100.9		667	100.8		674	101.8	
Glenwood MS	545	545	545	545	602	110.5		593	108.8		560	102.8		565	103.7		575	105.5		605	111.0		606	111.2		608	111.6		620	113.8		622	114.1	
Lime Kiln MS	701	701	701	701	801	114.3		830	118.4	C	838	119.5	C	854	121.8	C	864	123.3	C	892	127.2	C	899	128.2	C	892	127.2	C	860	122.7	C	849	121.1	C
Mount View MS	798	798	798	798	829	103.9		866	108.5		912	114.3		958	120.1	C	996	124.8	C	1004	125.8	C	1039	130.2	C	1036	129.8	C	1050	131.6	C	1063	133.2	C
Region MS Totals	3349	3349	3349	3349	3518	105.0		3532	105.5		3509	104.8		3555	106.2		3656	109.2		3724	111.2		3777	112.8		3748	111.9		3736	111.6		3737	111.6	
Countywide Totals	**13418**	**13418**	**13515**	**13515**	**14503**	**108.1**		**14734**	**109.8**		**14840**	**109.8**		**15158**	**112.2**		**15480**	**113.2**		**15782**	**115.4**		**16036**	**117.3**		**16226**	**118.7**		**16405**	**120.0**		**16510**	**120.8**	

A: capacity includes additions as reflected in FY 2018 Capital Budget for Grades 6-8 between 2018 and 2025.

C: Constrained for future development

Partially and Fully Funded Projects in Process

Project Name	Project Number	Appropriation	Proposed Completion	Project Status
Planning				
Talbott Springs ES Replacement	E1043	$ 1,000,000	2021	Planning.
Oakland Mills MS Renovation*	E1036	$ -	2021	Planning.
Construction				
Waverly ES Renovation/Addition*	E0973	$ 32,455,000	2018	Under construction.
New ES #42	E1028	$ 35,741,000	2018	Under construction.

* Planning funds appropriated under E-0980.

Facilities Constructed With Assistance From Maryland School Construction Funds (1980–2017)

Completion (School year)	Elementary	Middle	High	Special
1980–1981				
1981–1982				Cedar Lane
1988–1989	Bollman Bridge			
1989–1990		Patuxent Valley		
1990–1991	Deep Run			
	Waverly			
1991–1992	Pointers Run	Mayfield Woods		
1992–1993	Elkridge	Burleigh Manor		
	Forest Ridge			
1993–1994	Rockburn	Mount View		
1994–1995	Manor Woods		River Hill	
1995–1996		Elkridge Landing		
1996–1997	Ilchester		Long Reach	
			Wilde Lake Replacement	
1997–1998	Fulton	Murray Hill		
	Hollifield Station			
1998–1999	Gorman Crossing			
	Triadelphia Ridge			
1999–2000		Bonnie Branch		
		Lime Kiln		
2001–2002		Ellicott Mills Replacement		
2002–2003			Reservoir	Homewood
2003–2004	Bellows Spring	Folly Quarter		
2005–2006			Marriotts Ridge	Cedar Lane
2006–2007	Dayton Oaks			
2007–2008	Veterans			
	Bushy Park Replacement			
2013–2014	Ducketts Lane			
2014–2015		Thomas Viaduct		
2016-2017		Wilde Lake MS*		

* Replacement School

Additions/Renovations Constructed with Assistance From Maryland School Construction Funds (1980–2017)

Completion (School year)	Elementary	Middle	High	Special
1980–1981	Atholton			
1981–1982	Clarksville			
1983–1984	Guilford	Waterloo		
1985–1986			Mt. Hebron	
1986–1987	Guilford			School of Technology
1987–1988			Atholton	
1991–1992			Oakland Mills	
1994–1995	Northfield	Owen Brown		
	Centennial Lane			
	Dasher Green			
1995–1996		Wilde Lake		
		Oakland Mills		
1996–1997	Hammond		Hammond	
1998–1999	Swansfield	Dunloggin		
	Jeffers Hill			
	Waterloo			
2000–2001	Ilchester			
	Pointers Run			
	St. John's Lane			
	Talbott Springs			
2001–2002	Forest Ridge			
	Pointers Run			
2002–2003	Atholton		Centennial	
	Clarksville			
	Hollifield Station			
2003–2004	Fulton	Patapsco	Atholton	
2004–2005	Manor Woods	Clarksville	Mt. Hebron	
	Rockburn		Oakland Mills	
2006–2007	Clarksville		Howard	
	Fulton			
	Pointers Run			
	Triadelphia Ridge			
	All Day K			
2007–2008	All Day K			
	Waverly			
	Centennial Lane			
	Clarksville			
2008–2009	All Day K	Clarksville	Glenelg	
	Centennial Lane			
	Worthington			
2009–2010	All Day K			
	Clemens Crossing			
	Waterloo			
2010–2011	Northfield			
2011–2012	Hammond	Hammond	Hammond	
	Bellows Spring		Centennial	
2012–2013	Thunder Hill			
2013–2014	Bollman Bridge			
	Gorman Crossing			
	Phelps Luck			
	Stevens Forest			
2014–2015	Running Brook			
2015–2016	Longfellow		Atholton	
	Laurel Woods			
2016–2017		Patuxent Valley MS		

Glossary of Terms

ADA: Americans with Disabilities Act.

ADDITION (SCHOOL): Any type of space that adds capacity or provides space for a new program.

BUILDING: A structure, either permanent or relocatable, consisting of constructed walls, a roof, and a floor. A structure that has the same floors, ceiling, and walls and is not separated by an open air space is considered one building.

> PERMANENT: A structure built with a fixed foundation that has permanently attached walls, a roof, and a floor that cannot be moved or transported either as a unit or in sections.
>
> RELOCATABLE: A building or portion of a building made up of prefabricated units that may be disassembled and reassembled, or a single unit of construction consisting of walls, roof, and floor that is movable as a unit either on wheels or by truck. Mobile, demountable, dividable, modular, and portable buildings are types of relocatable units.

CAFETORIUM: A space within an educational facility that is used as both a cafeteria and an auditorium.

CAPACITY: Number of students that may be housed in a facility at any given time based on a utilization percentage of the total number of existing satisfactory student stations.

CIP: Capital Improvement Program.

CLASSROOM: An instructional space requiring no special design or equipment and used for housing general programs such as language arts, social studies, and mathematics.

CLEAN AIR ACT: This program includes projects to convert or replace cooling equipment in school facilities so that they will no longer use ozone-depleting refrigerants.

COMAR: Code of Maryland Regulations.

COURTYARD: A large open space, usable by the student body or faculty, enclosed or surrounded by buildings.

COVERED WALKWAY: Enclosed or unenclosed covered passageways connected to a building outside the exterior walls.

EDUCATIONAL FACILITIES: Buildings and equipment, structures, and special educational use areas that are built, installed, or established to serve primarily educational purposes and secondarily social and recreational purposes of the community.

FEASIBILITY STUDY: The examination and analysis of information related to projected educational facilities to determine whether they are reasonable and possible.

FY: Fiscal Year.

G.S.F.: Gross Square Feet.

GYMNASIUM: An instructional area designed or adapted specifically for physical education activities. Regular or special classrooms connected to, or contained in, gymnasiums are recorded individually as regular or special classrooms and not as part of the gymnasium.

HVAC: Heating, ventilation, air conditioning, and refrigeration.

KINDERGARTEN CLASSROOM: A special classroom designed or provided with special built-in equipment for use by a group or class organized to provide educational experiences for children preceding the first grade. Room must not be located above the first floor and must have self-contained rest rooms.

Glossary of Terms

LABORATORY: An instructional area designed for and furnished with specialized equipment to serve the needs of a particular program of study. Included in this category are science laboratories, language laboratories, reading laboratories, and vocational/technology laboratories.

LEED: Leadership in Energy and Environmental Design is a green building certification program.

LIMITED RENOVATION (LR): Includes projects that upgrade or replace a minimum of five major building systems and include widespread educational or architectural enhancements in schools or part(s) of schools that have been in use for more than 15 years. A limited renovation upgrades an existing building and site, or a portion of a building and site, to achieve many, but not all, of the current educational, building performance, and aesthetic qualities of a new school. A limited renovation allows further participation by the state within 15 years after the project is placed in service for projects that were not included in the original awarded scope of the Limited Renovation.

MAINTENANCE AND REPAIRS: The upkeep of educational and ancillary plants, including, but not limited to, roof or roofing replacement short of complete replacement of membrane or structure; repainting of interior or exterior surfaces; resurfacing of floors; repair or replacement of glass; repair of hardware, furniture, equipment, electrical fixtures, and plumbing fixtures; and repair or resurfacing of parking lots, roads, and walkways. "Maintenance and repair" will not include renovations except for the replacement of equipment with new equipment of equal systems meeting current code requirements, provided that the replacement item neither places increased demand upon utilities services or structural supports nor adversely affects the function of safety to life systems.

MEDIA CENTER: An area specifically designed or adapted as a place for studying, reading, and the custody, circulation, and administration of a collection of books, manuscripts, and periodicals kept for use by the student body.

MULTIPURPOSE ROOM: An instructional area designed or adapted specifically for two or more of the combined functions that might normally be used for assemblies, physical education, lunch, music, clubs, audiovisual work, and library services. Separate cafetoriums are not classified as multipurpose rooms.

MUSIC ROOM: An instructional area designed or provided with special built-in equipment for learning activities involving choral and instrumental music.

NEW CONSTRUCTION: Any construction of a building or unit of a building in which the entire work is new or an entirely new addition connected to an existing building or which adds additional square footage to the space inventory.

N.S.F.: Net Square Feet.

PARCEL: The unique acreage of contiguous land. Typically consists of a plot of land that is not divided by a county, city, state, or federally owned or maintained road or highway.

PROJECT FEASIBILITY STUDY: A project and site evaluation study to determine the suitability of the site for the project in question. A pre-design architectural study which may look at various scenarios before an architect is engaged to design the renovation or new construction.

PUBLIC SCHOOL CONSTRUCTION PROGRAM (PSCP): The Maryland Public School Construction Program funds the cost of constructing certain school capital improvements or portions thereof up to the extent of the approvals by the Board of Public Works and consistent with the current regulations, subject to annual appropriations.

Glossary of Terms

RENOVATION: The rejuvenating or upgrading of existing facilities by installation or replacement of materials and equipment and includes, but is not limited to, interior or exterior reconditioning of facilities and spaces; air-conditioning, heating, and/or ventilation equipment; fire alarm systems; emergency lighting; electrical systems; and complete roofing or roof replacement, including replacement of membrane or structure. (In this context, the term "materials" does not include instructional materials.) PSCP distinguishes between different types of renovations, depending upon their scope.

REPLACEMENT: Projects to replace the majority or the entirety of an existing school where the cost of renovation is prohibitive, or site/building layout and other technical factors make renovation of the entire structure infeasible. Replacement may include expansion to increase capacity, and must typically be justified on the basis of a feasibility study.

RESOURCE ROOM: An instructional space used primarily to enhance and support, not supplant, instruction received in regular or special classrooms. Generally designed to accommodate fewer students than other classrooms.

ROOM: A space enclosed on all sides. Alcoves or recesses are not considered separate rooms and should be included in the NSF of the room where such spaces are found.

SITE: A space of ground occupied or to be occupied by an educational facility or program.

SITE DEVELOPMENT: Site development means work that must be performed on an unimproved site in order to make it usable for the desired purpose; or, work incidental to new construction or to make an addition usable.

SITE IMPROVEMENT: The work that must be performed on an existing site to improve its utilization, correct health and safety deficiencies meet special program needs or provide additional service areas. Site improvement incident to construction is the work that must be performed on a site as an accompaniment to the construction of an addition to an educational facility or for a modernization project.

USGBC: U.S. Green Building Council administers the LEED building program which certifies green buildings.

BOARD OF EDUCATION

POLICY 6020

SCHOOL PLANNING/SCHOOL CONSTRUCTION PROGRAMS

Effective: August 14, 2014

I. Policy Statement

The Board of Education is responsible for providing safe, engaging and supportive educational and work environments for all students and staff. The Board recognizes the continuing need to plan, design, and construct new educational facilities and to renovate or make additions to existing schools that are in accordance with all applicable code, as well as Maryland and federal law. Fulfilling this responsibility requires a comprehensive program that monitors population trends, enrollment trends, educational program spatial requirements, cost/benefit considerations, technologies that support environmentally responsible construction, and an annual six-year capital improvement program.

II. Purpose

The purpose of the policy is to establish guidelines for the administration of the School Planning and the School Construction programs.

III. Definitions

Within the context of this policy, the following definitions apply:

A. Architect/Engineering Firm (A/E) – A designation usually reserved by law for a person or organization professionally qualified and duly licensed to perform architectural and/or engineering services including, but not necessarily limited to, analysis of project requirements; creation and development of the project design; preparation of drawings, specifications, and bidding requirements; and general administration of the construction contract.

B. Beneficial Occupancy – The use by the owner of a project or portion thereof before all the terms of the contract are complete.

C. Bid – The price a contractor commits to for constructing a project.

D. Bid Procedures – Criteria to determine the award of a contract pursuant to Policy 4050 Procurement of Capital Materials, Supplies, Equipment and Services.

E. Bonds – General obligation documents issued by the county to borrow money to fund capital projects.

F. Capital Improvement Program (CIP) – All capital improvements listed as part of the Board's annual approved capital budget.

G. Capital Improvement Project – Any physical betterment or improvement and any preliminary studies and surveys relative thereto, including but not limited to, any property of a permanent nature, and equipment needed in connection with such improvement when first erected or acquired.

H. Change Order – A written document to the contractor signed by the owner and engineer or architect, issued after the execution of the contract, authorizing a change in the work or an adjustment in the contract sum.

I. Construction Manager (CM) – A person or organization hired to coordinate and manage the construction phases of a project with the objective of minimizing project construction time and cost while maintaining the quality, function, and aesthetics of the building.

J. Design Stages – The three phases of an architect's basic services, which include:

1. Schematic Design (SD) – the first phase of the architect's basic services. In this phase, the architect meets with the project planning team to ascertain the requirements of the project and prepares schematic design studies consisting of drawings and other documents illustrating the scale and relationship of the project components for approval by the Board. A statement of probable construction cost is also submitted at this time.

2. Design Development (DD) – the second phase of the architect's basic services. In this phase the architect prepares, from the approved schematic design studies, the design development documents for approval by the Board. These design documents consist of drawings and other documents to fix and describe the size and character of the entire project as to structural, mechanical and electrical systems, materials and other essentials as may be appropriate. The architect also submits to the Board a further statement of probable construction costs.

3. Construction Documents (CD) – the third phase of the architect's basic services. In this phase the architect prepares, from the approved design development documents, the working drawings, specifications, and necessary bidding information for approval by the Board. A final cost estimate is prepared before the project is bid.

K. Facility Design – Plans, elevations, sections, and other drawings and specifications that may be necessary for a building or other structure.

L. Facility Planning – Educational and architectural planning and analysis used to produce and design the concept for school projects.

M. Final Occupancy – The point at which all or a designated portion of a building complies with the provisions of a contract and all applicable county and state statutes and regulations.

N. Interagency Committee on School Construction (IAC) – The state agency responsible for the review/approval of construction documents and funding of schools or school construction projects.

O. Office of Safety, Environment and Risk Management – The office that is responsible for reviewing and monitoring the design and construction phases related to environmental initiatives, such as Integrated Pest Management (IPM), Indoor Air Quality (IAQ), and Asbestos Abatement.

P. Office of School Construction – The office that is responsible for all phases of planning, design and construction of new schools as well as additions to and comprehensive modernization of existing schools, from planning through occupancy.

Q. Office of School Planning – The office that is responsible for projecting needs based on demographics for the purpose of assisting the Superintendent in the development of the Capital Improvement Program.

R. Punch List – List made near the completion of work, indicating items to be furnished or work to be performed by the contractor or subcontractor in order to complete the work as specified in the contract documents.

S. State of Maryland Public School Construction Program (PSCP) – Program that provides for the funding of public school construction.

T. Sustainable Design – Design that seeks to reduce negative impacts on the environment and the health and comfort of building occupants, thereby improving building performance. The objectives of sustainability are to reduce consumption of non-renewable resources, minimize waste, and create healthy, productive environments.

U. Warranty/Guarantee Period – Period of time in which the quality of work and/or satisfactory performance is guaranteed.

IV. Standards

A. This policy and associated implementation procedures apply to the capital improvement projects that are listed as part of the Board's annual approved capital budget requiring contracts and consultant agreements.

B. The Howard County Public School System (HCPSS) employs sustainable design construction that supports educational program needs and creates a safe and nurturing environment for students and staff within allotted budgetary resources.

C. The school planning/school construction program involves a sequential plan of action and is divided into ten general categories, each requiring professionally trained and experienced staff to plan and carry out the requirements of the program consistent with the Superintendent's Safety Guidelines for Renovation and Construction Projects and all applicable regulations.

1. Long-Range Planning and Student Population Projection

   a. This category involves the annual projection of pupil population and general population growth by the Office of School Planning. Short-range demographic studies to support the Capital Improvement Program, school attendance area studies, transportation planning, and other special needs are also included.

   b. By state regulation the Board is also required to develop, maintain, and annually update a master plan for the school system for submission to the IAC. This plan has as its basis a variety of population studies which guide the decision making for school facilities on both a long and short-term basis.

2. Capital Improvement Program

   a. The Capital Improvement Program is a projection of the school facility needs for the next fiscal year (Capital Budget) and the following five-year period. The Capital Improvement Program is based on needs to support the educational program of the system with new schools, modernizations, and other construction projects.

   b. The local Capital Improvement Program serves as the basis for state funding requests through the Interagency Committee for School Construction and the State of Maryland Public School Construction Program.

3. Site Selection

   Procedures for site selection and summarization of site size criteria for elementary, middle and high schools are addressed in Policy 6000 Site Selection and Acquisition. As part of the selection process, the Office of School Construction produces studies including site layouts and environmental assessments.

4. Architect/Engineering Firm and Construction Manager Selection

   Procedures for architectural/engineering and construction management services selection are addressed in Policy 6030 Procurement of Architectural/Engineering and Construction Management Services.

5. Facility Planning and Facility Design

   The facility planning and design process allows for orderly and systematic design of school facilities. This process is conducted using either the Board-approved General Elementary Educational Specifications for New Schools, General Educational Specifications for New Howard County Middle Schools, General Educational Specifications High Schools, or the Board approved Guidelines Manual for Renovations and Modernizations of Existing Schools as the basic references for the facility in question. These documents describe the basic educational philosophy, instructional program, and spatial requirements needed to implement the planning and construction program.

6. Bid and Award

   The bid and award procedures for school construction projects conform to those used for the procurement of other goods and services which are addressed in Policy 4050. In addition, these procedures comply with the requirements of the State of Maryland Public School Construction Program.

7. Contract and Construction Administration

   The Office of School Construction is responsible for monitoring construction work and administering the schedule, budget, and change orders that affect the scope and/or cost of the work. A school construction progress report which includes these topics is submitted monthly to the Board.

   In accordance with the provisions of Policy 6030, a construction manager may be hired to manage the construction process.

8. Official Acceptance of Capital Improvement Projects

   Capital improvement projects may be designed to be accepted in stages or upon total completion of work, based on staff recommendation to and approval by the Board.

9. Post-Acceptance Evaluation

   Use, occupancy, and evaluation by staff may occur only after the project has been officially accepted. The Board will receive a final report following the walk-through.

10. Temporary and Relocatable Facilities

    Relocatable classroom units should be considered under the following conditions and within the context of Policy 6010 School Attendance Areas:

    a. Where school population growth occurs
    b. Where school capacity is near maximum
    c. When boundary lines are adjusted
    d. Where population is projected to remain high for at least one year
    e. Where school construction or renovation projects require the provision of swing space to accommodate the student population and minimize the impact on instruction.

    Where excess population is projected to remain beyond four years, consideration should be given to an addition or new construction.

D. To the extent possible, school facilities and sites should be available for after school use by the community. The possibility of joint use development of school and recreational facilities, including joint construction of school and recreational space, is encouraged on a case-by-case basis.

V. Compliance

A. The Superintendent/Designee is responsible for the administration of the school planning and construction programs.

B. The Office of School Planning and the Office of School Construction are responsible for collaboration in order to obtain the efficient implementation of this policy.

C. For Capital Improvement Projects, the Principal is responsible for communicating project information to the parent community in a timely manner.

VI. Delegation of Authority

The Superintendent is authorized to develop appropriate procedures to implement this policy.

VII. References

A. Legal

The Annotated Code of Maryland, Education Article
- § 3-602.1 (requirements to design high performance buildings)
- § 4-115 (right to acquire land, school sites or buildings)
- § 4-116 (land use approval procedures)
- § 4-117 (construction and remodeling conformance to state and county building codes)
- § 5-301 (Board of Public Works role and procedures in school construction)
- § 5-302 (composition and role of the IAC in school construction)
- § 5-303 (procedure for determining the cost of renovating existing schools)
- § 5-312 (state funding support related to high performance buildings)
- § 7-108 (guidelines for community use of public school facilities)
- § 7-109 (use of public school facilities as day care centers)

COMAR 13A.01.02.03 (requirements for obtaining State Superintendent's approval for school construction projects)

COMAR 15.05.02 (regulations pertaining to integrated Pest Management and Notification of Pesticide Use in a Public School Building or on School Grounds)

Americans with Disabilities Act (ADA)

Occupational Safety and Health Act (OSHA)

Maryland Occupational Safety and Health Act (MOSHA)

B. Other Board Policies

Policy 4050	Procurement of Capital Materials, Supplies, Equipment, and Services
Policy 6000	Site Selection and Acquisition
Policy 6010	School Attendance Areas
Policy 6030	Procurement of Architectural/Engineering and Construction Management Services

C. Other

General Elementary Educational Specifications for New Schools

General Educational Specifications for New Howard County Middle Schools

General Educational Specifications High Schools

Guidelines Manual for Renovations and Modernizations of Existing Schools

Safety Guidelines for Renovation and Construction Projects

VIII. History

ADOPTED: September 4, 1968
REVIEWED:
MODIFIED: August 14, 2014
REVISED: September 13, 1990
January 14, 2010
EFFECTIVE: August 14, 2014

POLICY 6020-PR

IMPLEMENTATION PROCEDURES

SCHOOL PLANNING/SCHOOL CONSTRUCTION PROGRAMS

Effective: July 1, 2010

These procedures apply to the construction of new schools and the modernization/renovation of existing facilities that are included in the Board's Capital Improvement Program.

I. Long-range Planning and Student Population Projection

The Office of School Planning will:

A. Gather enrollment, population, and housing data from appropriate sources

B. Provide an annual projection using the cohort survival method or other established demographic methodology

C. Provide an annual report of projection accuracy to the Board of Education.

II. Capital Improvement Program

The Office of School Planning and the Office of School Construction will:

A. Develop the Capital Improvement Program based on population growth and anticipated needs of that population

B. Present the Board's requested six-year Capital Improvement Program, which includes a request for the next fiscal year (capital budget) and the following five-year period

C. Prepare the State of Maryland Public School Construction Program (PSCP) budget funding request

D. Incorporate the state budget request with the Board six-year Capital Improvement Program to determine the annual county Capital Improvement Program request

E. Select and analyze site(s).

III. Site Selection

Site selection and acquisition is recommended to the Board after being analyzed for appropriateness for a school. (See Policy 6000 Site Selection and Acquisition.)

IV. Architect/Engineering Firm and Construction Manager Selection

Procurement of architectural/engineering and construction management services are recommended to and approved by the Board in compliance with Policy 6030 Procurement of Architectural/Engineering and Construction Management Services.

V. Facility Planning and Facility Design

A facility planning team is convened, consisting of school and community members, personnel from the Office of School Construction, a designee from the Office of Safety, Environment and Risk Management, other central office personnel, the project architect, and others who may be named by the Superintendent/Designee. The planning team provides input to the architect in developing a series of three design studies that meets Board policy as well as the objectives of the applicable educational specifications or renovation guidelines.

The series of three design studies is as follows:

A. Schematic Design Phase

1. Planning team named by the Superintendent/Designee
2. Description of conceptual design
3. Initial cost analysis
4. Presentation to and approval by the Board.

B. Design Development Phase

1. Description of the design
2. Detailed layouts of subject areas
3. Cost analysis
4. Presentation to and approval by the Board.

C. Construction Documents Phase

1. Description of the final design
2. Cost analysis and cost reduction
3. Final review of drawings and specifications
4. Presentation to and approval by the Board
5. Preparation of bid documents.

The above steps may be combined. In each phase, the effect on the occupants, the building structure, and/or systems is considered. Each phase is submitted for review and approval by the Board and the Interagency Committee on School Construction (IAC). Copies of the Howard County Public School System (HCPSS) response to the design

submission review letters from the IAC approving agencies will also be submitted to the Board

VI. Bid and Award

Pursuant to Policy 4050 Procurement of Capital Materials, Supplies, Equipment, and Services, these procedures call for a publicly announced bid period during which interested bidders examine the bid documents and submit a sealed bid by the date and time required. The bid documents are opened in public and the price submitted for each bid item is read aloud. At a subsequent meeting of the Board, the results of the bid are presented and a recommendation to award to the lowest responsible and responsive bidder is made.

The final decision is made by the Board. Upon submission of all documents, bonds, and other matters required in the contract, a formal contract is signed.

VII. Contract and Construction Administration

A. Office of School Construction

The project architect serves as the Board's representative and administers the contract, answers technical questions, approves submittals, and initiates change orders and requests for proposals subject to the Board's approval. The Office of School Construction coordinates the completion schedule with the principal/designee and other school system personnel to ensure that furniture and equipment deliveries, technology services, and food services satisfy the requirements for their respective sections. Prior to the opening of school, the Office of School Construction monitors each project to resolve any last minute problems and continues this supervision during the warranty period.

The Office of School Construction supervises the construction, budget, schedule, and quality of work, administers change order requests, and administers the warranty period. When school projects are technically complex, have a very short construction time, or require staff attention beyond the time available, a construction manager may be hired to manage the construction process.

B. Office of Safety, Environment and Risk Management

The Office of Safety, Environment and Risk Management monitors the design and construction phases at regular intervals and in response to specific concerns. Consistent with all statutory requirements, monitoring includes Integrated Pest Management (IPM), Indoor Air Quality (IAQ), and abatement of potentially hazardous materials.

VIII. Official Acceptance of Capital Improvement Projects

New facilities and other Capital Improvement Projects may be accepted in several ways. If conditions permit, the school system will wait until all major and minor building system corrections are fully complete and all minor repairs, deficiencies and discrepancies (punch list items) have been corrected. The project architect will then certify that the building is complete and has been constructed according to the drawings and specifications. This marks the beginning of the warranty period for the building. School facilities are typically scheduled so that all construction will be complete and the building ready for acceptance in early summer. Final inspection and acceptance involves a review of the project at substantial completion of construction, which includes listing items to be adjusted, corrected, or completed by the contractor's "punch list." In most cases, the project is complete except for minor system work and completion of the punch list items by late summer.

The Office of School Construction is responsible for certifying, as applicable, beneficial occupancy, final occupancy, move-in, punch list, and warranty/guarantee.

IX. Post-Acceptance Evaluation

A. After project acceptance, furnishings and movable equipment can be installed, supplies can be delivered and stored, and the staff can occupy the facility for operation. At this time, the construction project enters into a one year guarantee and a two year mechanical/electrical guarantee period during which time discrepancies in the workmanship, materials, and equipment supplied under the contract are noted and corrected. Some specifically identified warranties/guarantees may be longer than one to two years.

B. Following the move-in, the Office of School Construction works closely with the school administration and maintenance personnel to correct any problems that arise during the warranty period.

C. After the first instructional year following construction, a walk-through of the facility is conducted to evaluate the success of the facility as a teaching environment and the success of the educational concepts in the General Elementary Educational Specifications for New Schools, or General Educational Specifications for New Howard County Middle Schools, or General Educational Specifications High Schools or Guidelines Manual for Renovations and Modernizations of Existing Schools in effect at the time the project was designed. The facility is also evaluated as to use of materials, building systems, construction quality, and other aspects pertaining to the building.

D. A walk-through of the building by a representative team of stakeholders may include a:

1. Teacher representative
2. Administration personnel
3. Custodian
4. PTA representative
5. School facilities representative(s)
6. Designee from Safety, Environment and Risk Management.

X. Temporary and Relocatable Facilities

Placement of temporary and relocatable portable facilities is determined by and implemented as follows:

A. Presentation of current population projections

B. Identification of where new units are needed

C. Evaluation of site plans

D. Evaluation of cost implications

E. Presentation to and approval by the Board

F. Reassignment or procurement of units

G. Installation of units

H. Post installation inspection by the Office of School Construction.

ADOPTED: September 13, 1990
AMENDED: January 14, 2010
EFFECTIVE: July 1, 2010