

2019 Howard County Legislative Work Session  
Supporting Documentation

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# Section 1

## Planning Process



**I. Policy Statement**

The Board of Education of Howard County, with the advice of the Superintendent, establishes school attendance areas to provide quality, equitable educational opportunities to all students and to balance the capacity utilization of all schools. The Board recognizes that school openings, closings, additions, program changes, population growth and other demographic changes may require that school attendance areas be adjusted. The Board also recognizes the value of diverse and inclusive school populations when establishing attendance areas. The Board believes that staff analyses and recommendations, as well as public advice and comment, are integral to its deliberations and decisions related to school attendance areas.

**II. Purpose**

The purpose of this policy is to define the conditions and process by which school attendance area adjustments will be developed and adopted.

**III. Definitions**

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

- A. Attendance Area Committee (AAC) – Committee comprised of community members appointed by the Superintendent to provide feedback to the Superintendent on the proposed attendance area adjustment plans in staff reports.
- B. Continuity of Operations Plan (COOP) – Procedures to ensure that the capability exists to continue essential functions during and after an extended emergency.
- C. Demographic Characteristics – Features in the composition of a school’s population that includes, but is not limited to the racial/ethnic composition of a school’s student population, as well as the percentage of students participating in Free and Reduced-Priced Meals (FARMS) and English for Speakers of Other Languages (ESOL) programs.
- D. Diversity – Recognizing, accepting, and respecting that individuals come from many different life experiences with various frames of reference and perspectives. While diversity values unique perspectives and individual differences, it also values the commonalities we all share. Diversity includes, but is not limited to race/ethnicity, gender, gender identity, socioeconomic status, sexual orientation, language, culture, religion/beliefs, mental and physical ability, age, and national origin.

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- E. Equitable – Just or fair access, opportunities, and supports needed to help students, families, and staff reach their full potential by removing barriers to success that individuals face. It does not mean equal or everyone having the same things.
  - F. Extended Emergency – A severe or long-term emergency that affects an individual school, multiple schools, or the entire school system.
  - G. Feed – The flow of students from one school level to the next.
  - H. Free and Reduced-Priced Meals (FARMS) – A federal program available to students whose households meet the federal income eligibility guidelines to receive free or reduced-priced meals.
  - I. Howard County Emergency Operations Plan – A comprehensive emergency management plan incorporating all aspects of pre-emergency preparedness and post-emergency response, recovery, and mitigation.
  - J. HCPSS System-Level Emergency Operations Plan (EOP) – A multi-hazard approach for the school system to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk to the people, property, and operations of the school system.
  - K. Inclusive – Making sure all individuals are engaged participants in the learning environment and community. All students, families, and staff members feel valued, respected, appreciated and involved. Individuals see their unique identities reflected in all facets of education including staffing curriculum, instruction, and activities.
  - L. Long-Range Enrollment – Each school’s student population projections for the upcoming 10 years.
  - M. Permanent School Facility – School building that is constructed with brick, concrete and steel, with a wooden or fabricated steel frame; a lasting structure designed and intended for support, enclosure, shelter or protection of people and for the delivery of instruction. Excluded from this definition are relocatables which are temporary and can be moved to alternative locations.
  - N. Planning Region – A geographic area of Howard County made up of one or more schools used by the HCPSS Office of School Planning for long-range planning purposes.
  - O. Program Capacity – The number of students that can be reasonably accommodated in a school, based on the permanent school facility (relocatables are excluded) and the educational program offered. Program capacity is calculated based at the below rates:
    - 1. Elementary schools: the product of the Board-approved student-to-teacher ratio and the number of teaching stations identified in the capital budget.

2. Middle schools: 95% of the product of the Board-approved student-to-teacher ratio and the number of teaching stations identified in the capital budget.
  3. High schools: 80% or 85% of the product of the Board-approved student-to-teacher ratio and the number of teaching stations in the capital budget.
- P. Projections – Estimated student enrollment for future school years.
- Q. Regional Program – A countywide educational program located at one or more, but not all schools that is designed to provide a particular type of educational leadership or intervention to students. Regional programs may include, but are not limited to Regional Academic Life Skills, Preschool Program, including Parent-Assisted Learning at Schools, Pre-Kindergarten, Elementary School Model Full-day Pre-Kindergarten, Early Beginnings, Regional Emotional Disabilities, Multiple Intensive Needs Classroom, Junior Reserve Officer Training Course (JROTC) and Elementary School Primary Learner Program.
- R. School Attendance Area – Geographic area from which a school’s students are drawn.
- S. Target Utilization – Enrollment between 90% and 110% utilization of the program capacity of a permanent school facility.
- T. Utilization – The comparison of a permanent school facility’s program capacity and its enrollment or projected future enrollment.

#### IV. Standards

- A. The Board will consider school attendance area adjustments whenever one or more of the following conditions exist:
1. A new school or addition is scheduled to open.
  2. An existing permanent school facility is significantly damaged, deemed unusable, or otherwise scheduled to close.
  3. School attendance area projections are outside the target utilization.
  4. The program capacity of a school building is altered.
  5. The road network(s) within one or more school attendance areas is altered.
  6. A unique circumstance that prompts adjustments to promote efficiencies, provide for the welfare of students, or adapt for shifts in program delivery.
- B. The Board, Superintendent/Designee and the AAC will consider the impact of the following factors in the review or development of any school attendance area

adjustment plan. While each of these factors will be considered, it may not be feasible to reconcile each and every school attendance area adjustment with each and every factor.

1. Facility Utilization. Where reasonable, school attendance area utilization should stay within the target utilization for as long a period of time as possible through the consideration of:
  - a. Efficient use of available space. For example, maintain a building's program capacity utilization between 90% and 100%.
  - b. Long-range enrollment, capital plans and capacity needs of school infrastructures (e.g., cafeterias, restrooms and other shared core facilities).
  - c. Fiscal responsibility by minimizing capital and operating costs.
  - d. The number of students that walk or receive bus service and the distance and time bused students travel.
  - e. Location of regional programs, maintaining an equitable distribution of programs across the county.
2. Community Stability. Where reasonable, school attendance areas should promote a sense of community in both the geographic place (e.g., neighborhood or place in which a student lives) and the promotion of a student from each school level through the consideration of:
  - a. Feeds that encourage keeping students together from one school to the next. For example, avoiding feeds of less than 15% at the receiving school.
  - b. Areas that are made up of contiguous communities or neighborhoods.
  - ~~c. Frequency with which any one student is reassigned, making every attempt to not move a student more than once at any school level or the same student more frequently than once every five years.~~
3. Demographic Characteristics of Student Population. Where reasonable, school attendance areas should promote the creation of a diverse and inclusive student body at both the sending and receiving schools through the consideration of:
  - a. The racial/ethnic composition of the student population.
  - b. The socioeconomic composition of the school population as measured by participation in the federal FARMS program.

- c. Academic performance of students in both the sending and receiving schools as measured by current standardized testing results.
- d. The level of English learners as measured by enrollment in the English for Speakers of Other Languages (ESOL) program.
- e. Number of students moved, taking into account the correlation between the number of students moved, the outcomes of other standards achieved in Section IV.B. and the length of time those results are expected to be maintained.
- f. Other reliable demographic and diversity indicators, where feasible.

C. Board of Education's Deliberations

- 1. The Superintendent/Designee will submit attendance area considerations to the Board for discussion and recommendation.
- 2. If attendance area adjustments are considered under Section IV.A., the Board will notify the public of its decision for the Superintendent to proceed or not to proceed with the formation of the AAC and attendance area adjustment recommendations.
- 3. The Superintendent/Designee will submit to the Board attendance area adjustment recommendations, which include data on each of the factors in Section IV.B. for which measurement can be obtained.
- 4. The Board, in accordance with Policy 2040 Public Participation in Meetings of the Board, will hold a public hearing(s) regarding the school attendance area adjustment plan(s) submitted by the Superintendent. In addition, and as necessary, work session(s) will be scheduled to consider public hearing testimony. The Board may schedule additional hearings and/or work sessions at its discretion.
- 5. The Board may direct the Superintendent to provide additional information and/or develop other alternative plans for its consideration at any time. The Board may also propose alternative plans at any time.
- 6. The Board may consider exemptions for rising fifth, eighth, and eleventh grade students to continue attending schools in an area that is proposed for attendance area adjustments. Attendance area adjustments will not affect rising twelfth grade students.
- 7. The Board will take final action on school attendance area adjustments at a public meeting. The Board reserves the right to adopt or to modify any alternatives and/or recommendations presented to it by the Superintendent/Designee or the citizens of Howard County proposed previously or during the Board's deliberations and vote.

**D. Community Input**

1. The Superintendent will, when directed by the Board, form an AAC in accordance with the Implementation Procedures of this policy for the purpose of advising the Superintendent during the planning phase of the attendance area adjustment process. In the case of an extended emergency situation, the Superintendent/Designee will propose an attendance area adjustment.
2. The Board will provide opportunities for public input in accordance with Policy 2040 Public Participation in Meetings of the Board.
3. Members of the public may submit school attendance area adjustment plans to the Board and/or the Superintendent/Designee.

- E. The Board may alter these provisions, upon a majority vote of the Board, when an extended emergency as defined by Policy 3010 Emergency Preparedness and Response occurs or other extraordinary circumstances warrant such an alternation.

**V. Responsibilities**

- A. The Superintendent/Designee will prepare and provide enrollment projections and attendance area considerations on an annual basis to the Board.
- B. The Board will determine whether any conditions exist that prompt the consideration of school attendance area adjustments and, when applicable, recommend formation of the AAC. The Superintendent/Designee will assist the AAC in completing its review and comment process.
- C. All AAC meetings are subject to the Maryland Open Meetings Act. Staff will take summary notes of the AAC meeting and make these summary notes available to the public.
- D. The Superintendent/Designee will communicate the Board's action on attendance area adjustments to the principals, PTA presidents and SGA presidents of each affected school, the president of the PTA Council of Howard County and the chairman of the Community Advisory Council to the Board.
- E. Principals will communicate attendance area adjustments to the parents of students in areas affected by the Board's action.

**VI. Delegation of Authority**

The Superintendent is authorized to develop appropriate procedures for the implementation of this policy.



**VII. References**

- A. Legal
  - The Annotated Code of Maryland, Education Article, Section 4-109, Establishment of Public School
  - Maryland Open Meetings Act
- B. Other Board Policies
  - Policy 2040 Public Participation in Meetings of the Board
  - Policy 2050 Advisory Committees to Staff and Schools
  - Policy 3010 Emergency Preparedness and Response
  - Policy 5200 Pupil Transportation
  - Policy 6000 Site Selection and Acquisition
  - Policy 6020 School Planning/School Construction Programs
  - Policy 6070 Discontinuation of School Use
  - Policy 9000 Student Residency, Eligibility, Enrollment, and Assignment
- C. Relevant Data Sources
- D. Other

**VIII. History**

ADOPTED: April 15, 2004  
REVIEWED: July 1, 2011  
MODIFIED: November 29, 2018  
REVISED: April 28, 2005  
            April 16, 2009  
            January 26, 2017  
EFFECTIVE: November 29, 2018



**POLICY 6010-IP  
IMPLEMENTATION PROCEDURES**

**SCHOOL ATTENDANCE AREAS**

Effective: November 29, 2018

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**I. Definitions**

Within the context of these implementation procedures, the following definition applies:

Projection – Anticipated student enrollment counts developed using data that includes, but is not limited to historical cohort survival ratios, birth rates, new housing units, housing resales, apartment turnover and net migration.

**II. Development and Consideration of School Attendance Area Adjustment Plans**

The long-range school facilities planning process is conducted on an annual basis according to the county's and state's capital budget process. The timing, sequence, and/or steps may be adjusted based on budgetary and operational needs, to account for holidays and other considerations. The development and consideration of proposed school attendance area adjustment plans will take place in the following manner:

Determine Proposed Scope:

- A. Calendar Year 1 - June-November  
After the presentation of the staff report or after any approval of changes in the attendance areas, the Superintendent and the Board of Education will consult with each other to define the proposed scope (i.e. open a new school only or comprehensive plan for all three levels) of the upcoming year's attendance area adjustments and develop a communication plan. The proposed scope may be adjusted during the review and approval process.

Review and Approval Process:

- B. Calendar Year 2 - January/February  
The Office of School Planning will provide the Superintendent with enrollment projections by school annually and develop attendance area considerations per Policy 6010. The considerations will address capacity projects in the capital budget and will be the basis for short- and long-range attendance area plans.
- C. Calendar Year 2 - April  
The Office of School Planning will solicit and interview candidates for the potential Attendance Area Committee (AAC) and nominate candidates for appointment by the Superintendent.

- D.     Calendar Year 2 - June  
The Superintendent/Designee presents projections, attendance area considerations and planning issues to the Board and interested citizens.
- If the Board approves proceeding with attendance area adjustments, the Superintendent will charter such a committee to review proposed attendance area adjustment plans. The Board will notify the public of its decision for the Superintendent to proceed or not to proceed with the formation of the AAC and attendance area adjustment recommendations.
- E.     Calendar Year 2 - June  
If an AAC is created, the Office of School Planning staff will provide training to the AAC. Training will include, but is not limited the following:
1.    Review of Policy 6010 and its standards used to establish an attendance area adjustment plan.
  2.    Review the AAC's responsibilities in the attendance area adjustment plan process, including training on the Maryland Open Meetings Act.
- F.     Calendar Year 2 - June/July  
With assistance from the Office of School Planning, the AAC will review any attendance area adjustments in the staff report, and make a committee recommendation to the Superintendent to assist the Superintendent in developing a recommendation to the Board.
- G.     Calendar Year 2 - July  
The Office of School Planning will facilitate regional meetings to obtain public comment regarding proposed attendance area adjustments. The Office of School Planning will solicit public input through various mechanisms.
- H.     Calendar Year 2 - July/August  
The Office of School Planning will advise the Superintendent on capacity needs for the upcoming budget process during capital budget preparations.
- I.     Calendar Year 2 - August  
After receipt of input from the AAC and the public, the Superintendent will propose attendance area adjustments to the Board.
- J.     Calendar Year 2 - August-November  
Board public hearing(s), work session(s) and adoption of attendance area adjustments.
- K.     Calendar Year 2 - December  
The Superintendent/Designee and Board will assess the attendance area adjustment process. Modifications to this process will be made, as needed, prior to the beginning of the next attendance area adjustment.

### Implementation

- L. Calendar Year 2 - December – Year 3 - January  
After the Board has made any final decision(s) regarding attendance area adjustments, the approved attendance area maps are developed, the school locator is updated, and transportation routes are updated. The Superintendent will communicate the Board's action to the principals, PTA presidents and SGA presidents of each affected school, the president of the PTA Council of Howard County and the chairman of the Community Advisory Council to the Board. The Superintendent/Designee will assist school-based administrators and staff with articulating students affected by attendance area adjustments. Principals will communicate attendance area adjustments to the parents of students in areas affected by the Board's action.
- M. Calendar Year 3 - January  
Capital Budget review by the Board.
- N. Calendar Year 3 - May  
Capital Budget review and approval by County Council.
- O. Calendar Year 3 –September  
Attendance Area Adjustment effective.

### **III. Attendance Area Committee Make-up and Responsibilities**

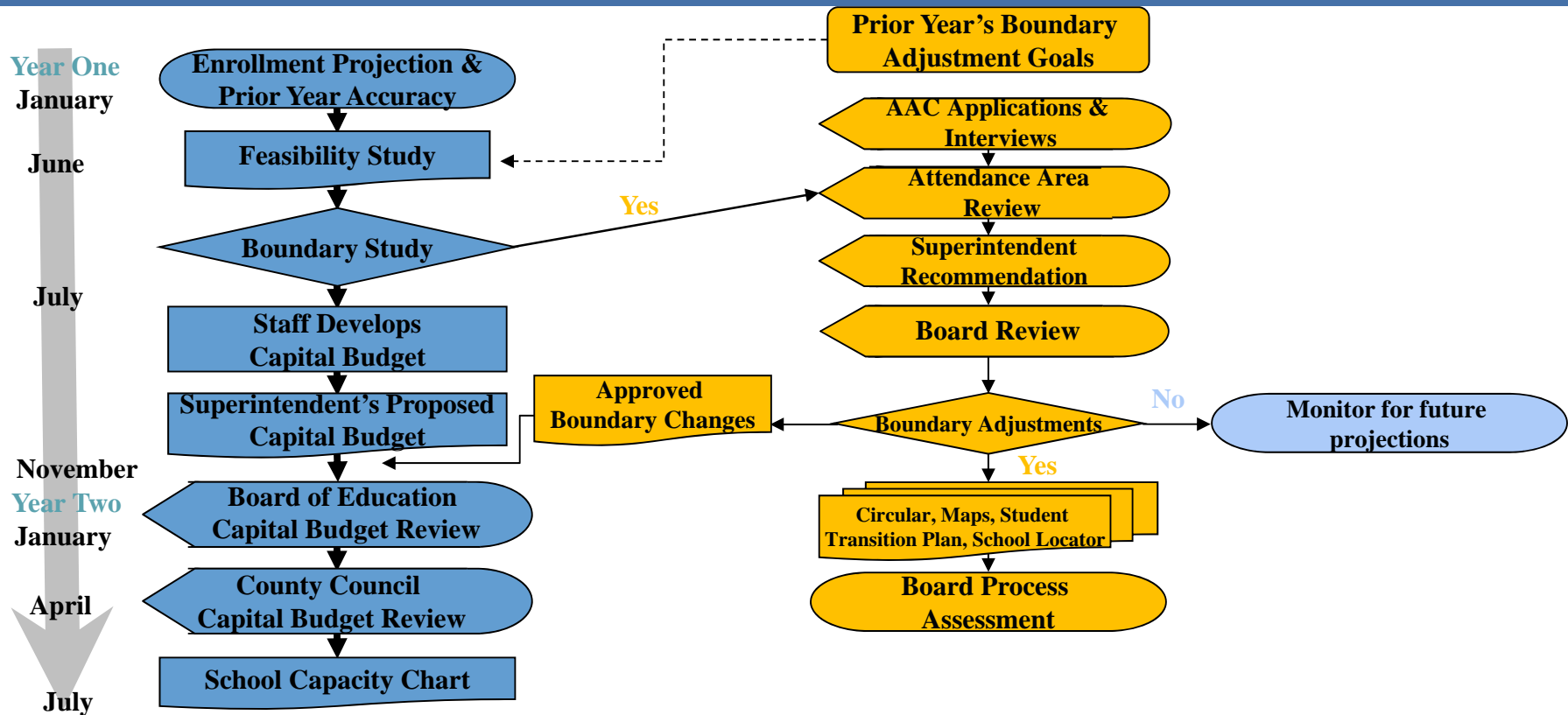
- A. The AAC shall consist of 10 to 15 members. Consideration will be given to providing representation from each of the Howard County Public School System's (HCPSS) planning regions. Representation may include, but is not limited to the following:
  - 1. At least one member from the Howard County Association of Student Councils.
  - 2. At least one member from each of the HCPSS six planning regions.
  - 3. At least three, but no more than eight at-large citizen members, with consideration toward identifying members of the community based on the attendance area/planning region(s) affected by the proposed attendance area adjustment.
  - 4. Of those AAC members selected, no more than six members will have been members of a previous AAC.
  - 5. Members may not serve on more than two consecutive AACs.
- B. The AAC, after receiving training, will work in collaboration with the Office of School Planning staff and the Superintendent/Designee to provide feedback on the

proposed attendance area adjustment plans in the staff report. The basis for the review will be enrollment projections and the Policy 6010 Standards set forth in Section IV.B.

**IV. History**

ADOPTED: April 28, 2005  
REVIEWED: July 1, 2011  
MODIFIED: November 29, 2018  
REVISED: January 26, 2017  
EFFECTIVE: November 29, 2018

# Planning Considerations Timeline



## Boundary Review Process – 2017

2017 Boundary Review	
March	<b>Purchased SchoolSite</b> (projection and scenario testing software)
June	<b>Option 1 – Feasibility Study – Outcome: 54 school within target by 2018-19</b>
	Redistrict 8,800 students
	32 ES, 19 MS, 11 HS
	Immediate relief of crowding, Equity in resource allocation
August	<b>Option 2 – AAC Recommendation – Outcome: 57 school within target by 2018-19</b>
	Redistrict 6,500 students
	31 ES, 19 MS, 11 HS
	Immediate relief of crowding, Equity in resource allocation
September	<b>Option 3 – AAC Recommendation 2 – Outcome: 51 school within target by 2018-19</b>
	Redistrict 5,600 students
	32 ES, 17 MS, 10 HS
	Immediate relief of crowding, Equity in resource allocation
October	<b>Option 4 – Superintendent’s Plan – Outcome: most schools within target by 2022</b>
	Redistrict 2,100 students (1,900 ES, 300 MS)
	20 ES, 9 MS, 0 HS (JumpStart with reassignment from home school from HoHS, LRHS and CHS)
	Expands educational opportunities; near and long term crowding relief
	Programmatic Initiatives introduced: middle/high career development academy, open HS 13; regional language immersion centers, ES #43 open in SY 2023-24; JumpStart introduced.
October	<b>Cooperative Strategies independently verified data from WHIFFER.</b>
October	Board Memo regarding HS #13 boundaries. <i>Confidential student data redacted.</i>
November	<b>Board Approved Plan</b>
	Redistrict 1,375 students (1,100 ES, 275 MS)
	11 ES, 8 MS, 0 HS (JumpStart with reassignment from home school from HoHS, LRHS and CHS)
	Board exemptions include rising 8 <sup>th</sup> graders, students with IEPs/Section 504 plans and students in military families:
	<a href="http://www.boarddocs.com/mabe/hcpssmd/Board.nsf/goto?open&amp;id=ASRRFW6CD61C">http://www.boarddocs.com/mabe/hcpssmd/Board.nsf/goto?open&amp;id=ASRRFW6CD61C</a>

## Relieving HS Overcrowding – Summary of 2018 Process

2018 Relieve HS Overcrowding	
<b>June 7</b>	<b>Feasibility Study</b> - New enrollment projection/capacity utilizations of schools; Considers strategies for the 2018-2029 planning period
Recommend	No boundary adjustment process in summer 2018 for SY 2019-2020
	Continue to implement JumpStart; Develop options to expand program; Monitor trailing siblings
	Monitor need for relocatable classroom placement
	Continue to set up and implement new projection and scenario testing tool
Outcomes	Board directed the Superintendent to provide comprehensive options in order to relieve overcrowding, specifically at the high school level and attendance areas for High School #13
	Additionally, after the Board Redistricting Committee made recommendations, the Board requested that the Policy 6010 be updated, as well as review “minor redistricting” which reassigns undeveloped parcels that have future projected students, but no current students.
<b>August 23</b>	<b>Options to Relieve HS Overcrowding</b> – Provide comprehensive options to relieve HS overcrowding
Opportunities	JumpStart Trailing Siblings - After data analysis, consider MRHS to provide relief to CHHS and MHHS
	Boundary Adjustments – Immediate guaranteed relief, no capital cost, families may be affected again 2023/24, Policy Review and updates to projection/scenario testing tools underway
	Open Enrollment – Voluntary, immediate, no guaranteed result
	Rising 9th Grade Class(es) – Immediate guaranteed relief; Approx. 500 students; Temporary (4 cohorts affected) and Permanent (1 cohort affected) options; HoHS class goes to MRHS or WLHS based on MS feed
	9th Grade Academy – Faulkner Ridge; SY2021-22; Mid-term–Rising HoHS 9th graders
Outcome	Hold a Public Hearing
<b>September 11</b>	<b>Public Hearing</b> - Receive feedback from the Public Hearing on Options to Relieve HS Overcrowding
<b>September 20</b>	<b>Options to Relieve High School Overcrowding (WS)</b> – Receive feedback from the Board regarding which opportunities were being considered for implementation.
Outcomes	Remove options 4, 5, 6 (rising 9 <sup>th</sup> grade and 9 <sup>th</sup> grade academy options)
	Include options that better accommodate students at Howard HS and Centennial HS
	Include review of open enrollment options
	Review expansion of JumpStart
	Deal with small feeds leftover from last year’s redistricting
	Provide information on development polygons
	<b>Motion failed:</b> Explore redistricting options for SY 2019 to be presented at October 2 meeting
<b>October 2</b>	<b>Options to Relieve High School Overcrowding (WS/A)</b> – Provide information Board Requested
Recommend	Staggered start times not recommended due to contractual concerns/fiscal constraints.
	Open enrollment/directed open enrollment with a programmatic option. Continue to support Policy 9000, applications for out-of-attendance area assignment should be directed to the Superintendent. Continue to plan programmatic options. Do not recommend implementation of a Fine Arts program for the SY2019-20.
	Small feeds, redistricting options to address feeds less than 15%. Staff does not recommend pursuing redistricting to align small feeds for SY2019-20.
	Expansion of Jumpstart Continue JumpStart and trailing sibling options and plan for incremental expansion as funding and support allows.
	“Development polygons” Staff will continue to review and adjust planning polygons as needed, according to development pattern, and to accommodate the planning process. The creation of individual polygons for each development, as it occurs, is not recommended.
Outcomes	Develop programming options further
	By consensus, staff to bring redistricting scenarios to the Board for review
<b>October 11</b>	<b>Options to Relieve High School Overcrowding (WS)</b> - Provide program options and redistricting scenarios to the Board



Opportunities	Reduce daily student load - Shuttle to Howard Community College (HCC); Additional courses at ARL (Finance, PLTW Aerospace, and Health) and work-based experience options (GT intern/mentor, Apprenticeship, Site-based, and Work Release)
	Directed Open Enrollment - Transfer to WLHS for Arts or MRHS for PLTW
	Reassignment from Centennial HS or Howard HS to either Glenelg HS or Marriotts Ridge HS by applying for reassignment based on overcrowding
	<p><b>Boundary changes</b> - Considerations – Update reflecting 2018 projections; Align to Board’s Final Approved boundaries for SY 2018-2019; Minimize # of small feeds; Restore walk areas; No elementary or middle school moves</p> <p><b>Boundary plans provided</b> - 2017 Feasibility Study Plan (updated); 2017 Attendance Area Committee Plan I &amp; II (August &amp; September – updated); Community plan as identified by Board members (updated); Resident plan identified by Board member (updated); Long Reach HS small feeds (new, requested by Board member)</p>
Outcomes	Do not consider involuntary moves except for small feeds
	Evaluate voluntary opportunities for small feeds at the high school level
	<i>Reverse part of first motion:</i> Not consider redistricting of the small feeds
	Continue to look at the issue of development polygons to incorporate into how the Board assigns students to attendance areas
<b>October 18</b>	<b>Options to Relieve High School Overcrowding</b> - Evaluate voluntary opportunities for small feeds at the high school level and further development of programmatic options
Outcomes	Board approved several motions regarding the reduction of student load at particular high schools. <a href="http://www.boarddocs.com/mabe/hcpsmd/Board.nsf/goto?open&amp;id=B5FLWH588C17">http://www.boarddocs.com/mabe/hcpsmd/Board.nsf/goto?open&amp;id=B5FLWH588C17</a>

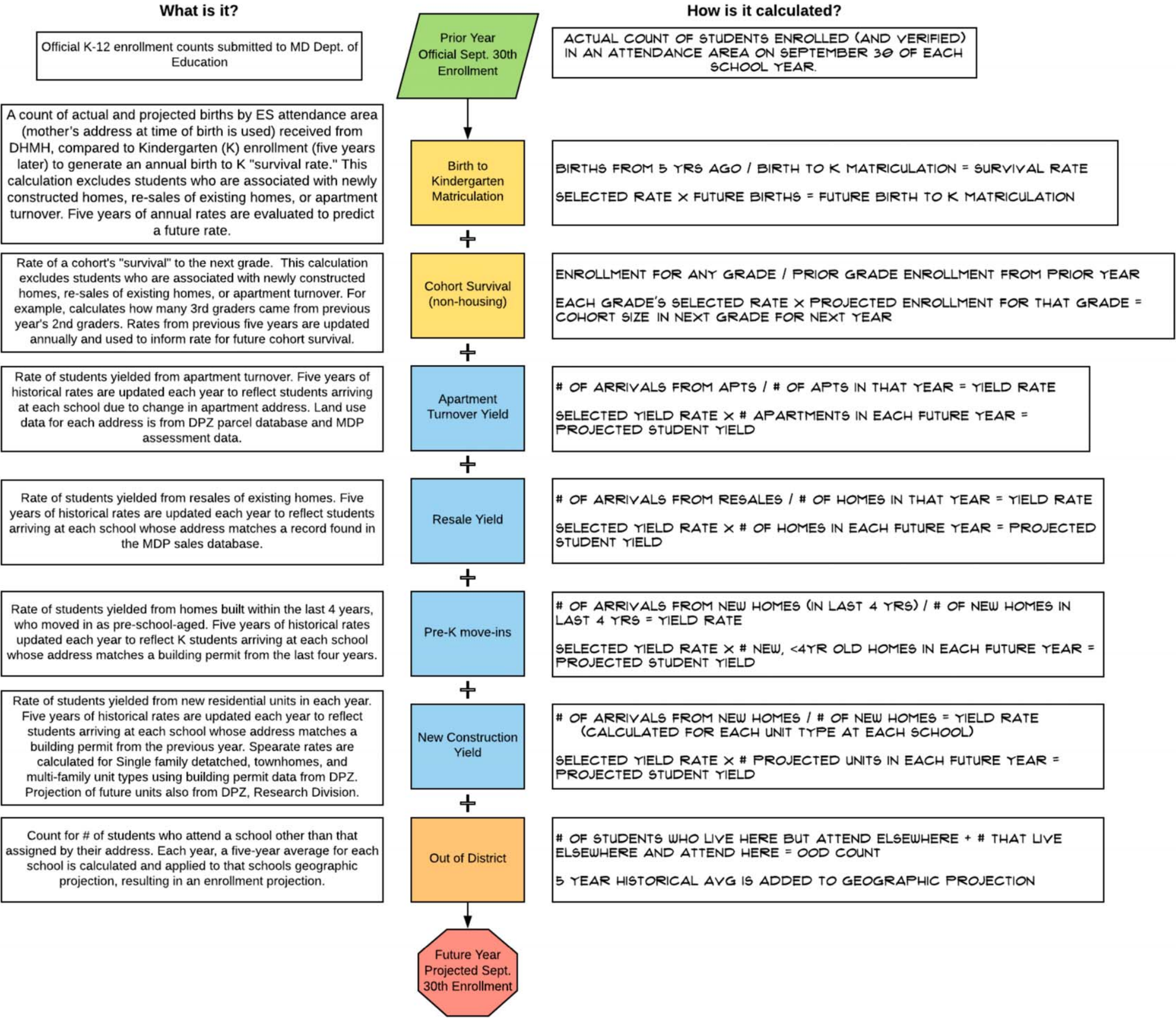
HCPSS Enrollment Projection Methodology

The Office of School Planning (OSP) produces an updated enrollment projection every year, compiling updated data including projected housing construction, historical and projected births, housing resales, and student population characteristics. The data are provided by Howard County Department of Planning and Zoning (DPZ), MD Department of Health and Mental Hygiene (DHMH), MD Department of Planning (MDP), and HCPSS Student Information System.

Since Howard County is rapidly growing, OSP supplements the industry-standard cohort survival method by incorporating student yield rates for housing transactions that could generate new students. At each step in our process, the goal is to use historical data to select the rate that performs best at predicting the future, while considering local knowledge, development and planning trends, and historical accuracy. Our system includes tools to help determine which data points have historically been the best indicators of future enrollment.

In 2013 and 2015, Dejong-Richter (now known as Cooperative Strategies) reviewed the OSP's projection methodology. This review concluded that OSP enrollment projection methods are valid, producing accurate results compared to other methods and surrounding districts. These findings were presented to the Board of Education.

The modified cohort survival method used by OSP begins with prior year official enrollment (green box). Moving up the diagram, factors are added starting with the non-housing factors (cohort survival), then the housing factors and out of district, leading to a projection for September 30th of the following year and beyond. Middle and High School projections are developed in the same fashion, substituting rising 6th and 9th grade cohorts for K, and excluding Pre-K move-ins.





**BOARD OF EDUCATION OF HOWARD COUNTY  
MEETING AGENDA ITEM**

**TITLE:** Projection Accuracy Report **DATE:** February 22, 2018

**PRESENTER(S):** Renée M. Kamen, Manager, School Planning

**OVERVIEW:**

Accurate student enrollment projections are critical to the Howard County Public School System (HCPSS). The annual Operating and Capital Budgets as well as any school attendance area adjustments are developed using student enrollment projections. School Planning develops K-12 enrollment projections by school, by grade annually for seventy-three Howard County elementary, middle and high schools. Each year at this time, the Office of School Planning provides the Board with the accuracy analysis, which compares the actual September 30 enrollment with what was projected. Projections vary each year based on changes in enrollment, as well as birth and housing data. A description of how projections are developed is attached (Attachment 1).

As of September 30, 2017, the countywide K-12 enrollment of the HCPSS is 55,391. The projection developed in the spring of 2017 for the same timeframe was 55,251, a 140 student difference (Attachment 2). Approximately 84 percent of the projections by school had error rates at or below 5 percent. Approximately 40 percent of the projections by school were within 10 students of the actual student enrollment (Attachments 3 and 4). The mean absolute percentage error (MAPE) by school was 2.9 percent. The key findings are that the error rates for the 2017 projection compare favorably with the experience of the past decade and demonstrate the model is providing consistent estimates.

**RECOMMENDATION/FUTURE DIRECTION:**

Continue using existing projection methodology.

**SUBMITTED**

**BY:**

Renée M. Kamen,  
Manager School Planning

**APPROVAL/CONCURRENCE:**

Michael J. Martirano, Ed.D.  
Interim Superintendent

Karalee Turner-Little  
Assistant Superintendent  
for Administrative Affairs

Anissa Brown Dennis  
Chief Operating Officer

Bruce Gist  
Executive Director  
Capital Planning & Operations

# ATTACHMENT 1

## Projection Methodology

### INTRODUCTION

The student enrollment projections analyzed in this report were generated in the spring of 2017, presented in the 2017 Feasibility Study and used in the FY 2019 Capital Budget, FY 2020–2024 Capital Improvement Program, and the FY 2019–2028 Long-Range Master Plan. Additionally, the projections are used to develop the Operating Budget, determine staffing and resource allocations, inform the attendance area adjustment planning process and implementation, and create the Adequate Public Facility Open/Closed Chart.

Student enrollment projections are developed annually and are provided by school, by grade. The projections 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 purpose of this report is to inform the Board of Education and public about the projection methodology and accuracy for SY 2017 – 2018.

### PROJECTION METHODOLOGY

The projection methodology used by the HCPSS is based on historic *cohort survival ratios*. For the purposes of the school system, a *cohort* is a group of students at a specific grade level. This methodology looks at past student population patterns within the county to construct *survival ratios* in projecting a particular grade's migration through the school system. Cohort-survival ratios project 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. Figure 1 below illustrates a cohort-survival ratio. In the example below, the rate of 1.15 can be used to predict how many second graders will result from the previous year's first graders. This rate, which is collected over multiple years is then multiplied by the current year's student population at the first grade level to project the following year's second grade student population. This calculation is done for each grade level, at each school. The cohort survival ratios are calculated based on actual addresses and are aggregated by school attendance area to maintain comparability regardless of any changes in school attendance area boundaries.

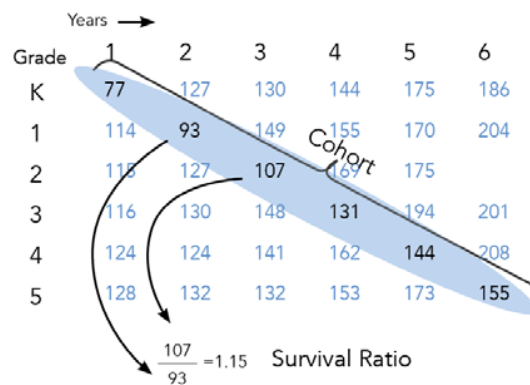


Figure 1: Example Cohort Survival Ratio

In addition to the calculation and application of cohort survival ratios, the HCPSS utilizes many data points in order to project student population, including live birth data, first-time sales of newly-constructed homes, resales of existing homes, apartment turnover, and enrollment at regional programs. Each data point is projected separately based on specific, appropriate methodologies for each category. School Planning uses historical live birth data to create a birth to kindergarten survival ratio and projected birth data to inform later parts of the projection. School Planning identifies the reasons for each student's most recent enrollment or withdrawal based on housing transactions and enrollment transactions reports. Up to five years of historical data are used to calculate ratios of students yielded from existing and newly-constructed housing and then aggregated by school attendance area. This ratio is applied to future years in the projection, based on existing residential housing unit allocations and projected housing allocations for future new construction. The historical ratios of students yielded from resale of existing housing and apartment turnover are also compiled and included in the development of the projections by school attendance area. Students with no change in housing or school assignment are included in the survival ratio.

Regional programs (e.g., JROTC) that impact enrollment are added to the projection at the receiving school and removed from the projection at the sending school. These variables are combined to project enrollment for each school for September 30 of each future year.

## **ANALYSIS**

For the 2017-2018 school year, the countywide one-year accuracy error rate for grades K–12 was 0.3 percent (see Attachment 2), and each organization level (elementary, middle and high schools) was also less than one (1) percent. Of the seventy-three schools for which HCPSS provides annual projections, approximately 84 percent had error rates at or below 5 percent. Approximately 40 percent of the schools were within 10 students of the actual student enrollment (Attachments 3 and 4). The mean absolute percentage error (MAPE) by school was 2.9 percent. Attached to this report are the Projection Accuracy tables for all schools.

Figure 2 below shows the historical projection accuracy of the K–12 countywide enrollment for the first year projection. Over the past 10 years, the countywide error rate has ranged from 0.09% to 1.1%. The accuracy of the 2017 projection is within this range. The labels on the charts indicate the difference between the enrollment and projection.



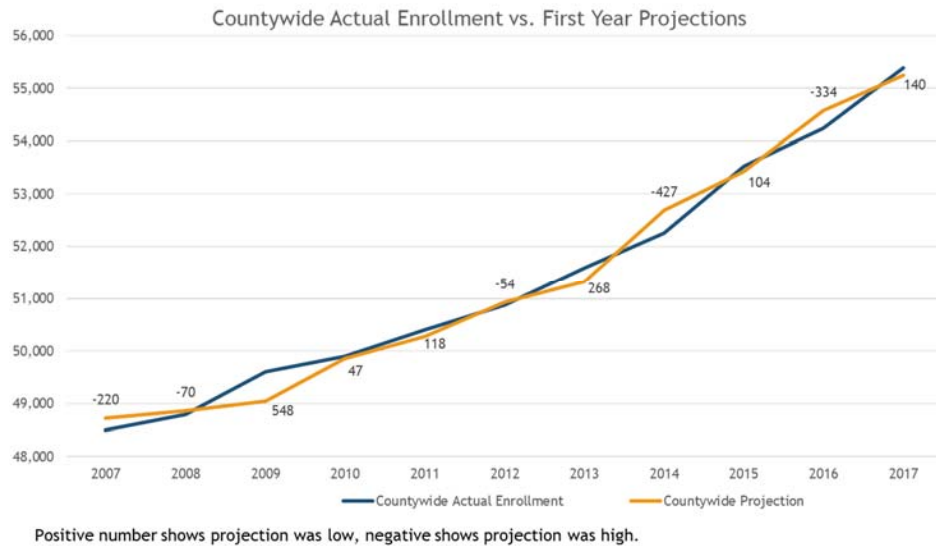


Figure 2: Countywide First Year Projection Accuracy

Elementary, middle and high school accuracy is below. The charts below show the first year projection compared to actual enrollment. At the elementary school level, the error rate ranged between 0.16 percent and 1.4 percent over the last 10 years. During the same timeframe, the middle school level error rate ranged between 0.03 percent and 0.77 percent and the high school level error rate ranged between 0.01 percent and 1.3 percent.

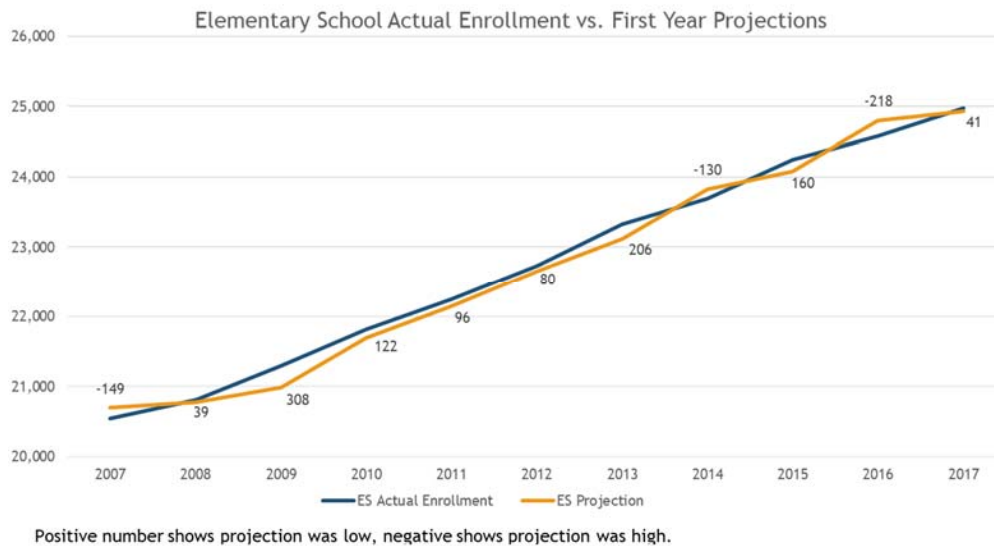
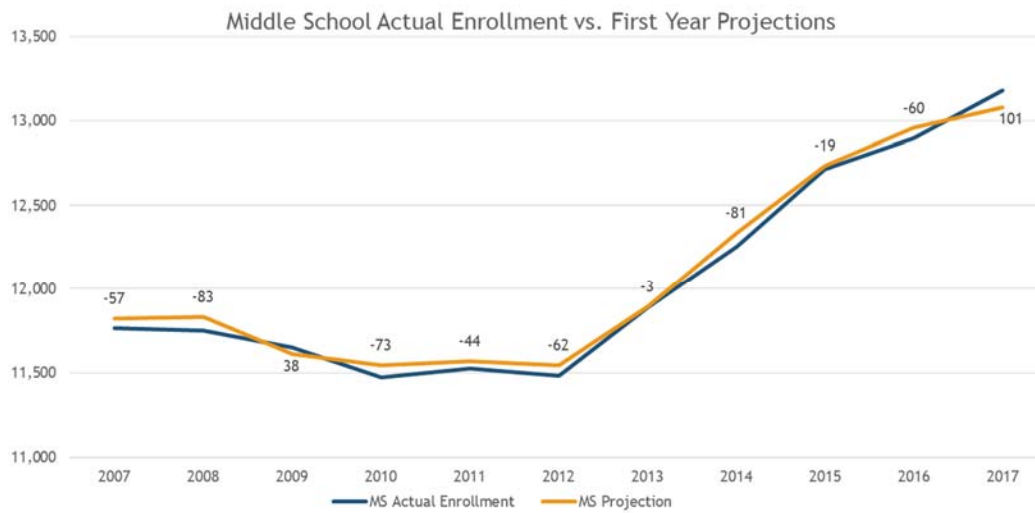
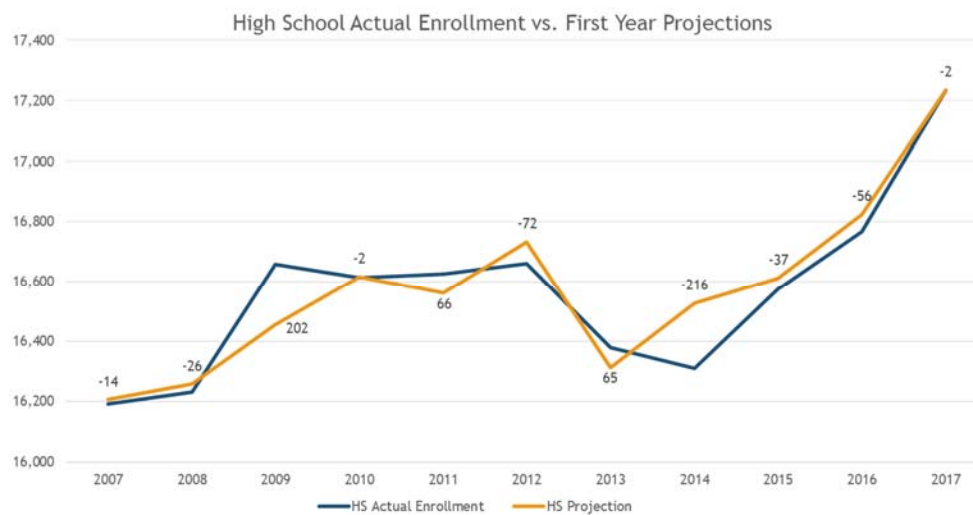


Figure 3: Elementary School Level First Year Projection Accuracy



Positive number shows projection was low, negative shows projection was high.

*Figure 4: Middle School Level First Year Projection Accuracy*



Positive number shows projection was low, negative shows projection was high.

*Figure 5: High School Level First Year Projection Accuracy*

## ATTACHMENT 2

### ENROLLMENT - PROJECTION<sup>(1)</sup> 1 year COMPARISON - 2017

Countywide - Grades K-12			Error Rate <sup>(2)</sup>	
Year	Actual	Proj	Diff <sup>(3)</sup>	% <sup>(4)</sup>
2008	48790	48860	-70	0.1%
2009	49598	49050	+548	1.1%
2010	49900	49853	+47	0.1%
2011	50396	50278	+118	0.2%
2012	50878	50932	-54	0.1%
2013	51595	51327	+268	0.5%
2014	52412	52691	-279	0.5%
2015	53534	53430	+104	0.2%
2016	54247	54581	-334	0.6%
<b>2017</b>	<b>55391</b>	<b>55251</b>	<b>+140</b>	<b>0.3%</b>

Elementary - Grades K-5			Error Rate <sup>(2)</sup>	
Year	Actual	Proj	Diff <sup>(3)</sup>	% <sup>(4)</sup>
2008	20811	20772	+39	0.2%
2009	21292	20984	+308	1.4%
2010	21814	21692	+122	0.6%
2011	22246	22150	+96	0.4%
2012	22735	22655	+80	0.4%
2013	23327	23121	+206	0.9%
2014	23698	23828	-130	0.5%
2015	24245	24085	+160	0.7%
2016	24582	24800	-218	0.9%
<b>2017</b>	<b>24978</b>	<b>24937</b>	<b>+41</b>	<b>0.2%</b>

Middle - Grades 6-8			Error Rate <sup>(2)</sup>	
Year	Actual	Proj	Diff <sup>(3)</sup>	% <sup>(4)</sup>
2008	11748	11831	-83	0.7%
2009	11649	11611	+38	0.3%
2010	11472	11545	-73	0.6%
2011	11523	11567	-44	0.4%
2012	11483	11545	-62	0.5%
2013	11890	11893	-3	0.0%
2014	12276	12336	-60	0.5%
2015	12715	12734	-19	0.1%
2016	12897	12957	-60	0.5%
<b>2017</b>	<b>13180</b>	<b>13079</b>	<b>+101</b>	<b>0.8%</b>

High - Grades 9-12			Error Rate <sup>(2)</sup>	
Year	Actual	Proj	Diff <sup>(3)</sup>	% <sup>(4)</sup>
2008	16231	16257	-26	0.2%
2009	16657	16455	+202	1.2%
2010	16614	16616	-2	0.0%
2011	16627	16561	+66	0.4%
2012	16660	16732	-72	0.4%
2013	16378	16313	+65	0.4%
2014	16438	16527	-89	0.5%
2015	16574	16611	-37	0.2%
2016	16768	16824	-56	0.3%
<b>2017</b>	<b>17233</b>	<b>17235</b>	<b>-2</b>	<b>0.0%</b>

(1) These charts compare the actual student enrollment counts from September 30th of each year to what was projected for that year. The projections were prepared approximately a year in advance of the actual.

(2) The error rate is a demonstration of the performance of the enrollment projection model's performance at the countywide (system total), organizational (elementary, middle and high school) and school levels.

(3) The difference is shown under the column "Diff".

(4) The percentage error is shown under the column "%".



# ATTACHMENT 3

## ELEMENTARY SCHOOLS<sup>(1)</sup> - 2017

School	Grades K-5		Error Rate <sup>(2)</sup>	
	Actual	Proj	Diff <sup>(3)</sup>	% <sup>(4)</sup>
Atholton ES	457	458	-1	0.2%
Bellows Spring ES	745	711	+34	4.6%
Bollman Bridge ES	628	709	-81	12.9%
Bryant Woods ES	397	418	-21	5.3%
Bushy Park ES	601	599	+2	0.3%
Centennial Lane ES	765	745	+20	2.6%
Clarksville ES	432	428	+4	0.9%
Clemens Crossing ES	550	542	+8	1.5%
Cradlerock ES	468	430	+38	8.1%
Dayton Oaks ES	615	611	+4	0.7%
Deep Run ES	758	772	-14	1.8%
Ducketts Lane ES	891	867	+24	2.7%
Elkridge ES	847	826	+21	2.5%
Forest Ridge ES	693	719	-26	3.8%
Fulton ES	878	871	+7	0.8%
Gorman Crossing ES	775	700	+75	9.7%
Guilford ES	410	436	-26	6.3%
Hammond ES	651	644	+7	1.1%
Hollifield Station ES	808	783	+25	3.1%
Ilchester ES	613	604	+9	1.5%
Jeffers Hill ES	428	444	-16	3.7%
Laurel Woods ES	573	547	+26	4.5%
Lisbon ES	455	438	+17	3.7%
Longfellow ES	408	416	-8	2.0%
Manor Woods ES	794	798	-4	0.5%
Northfield ES	748	730	+18	2.4%
Phelps Luck ES	548	586	-38	6.9%
Pointers Run ES	720	704	+16	2.2%
Rockburn ES	643	677	-34	5.3%
Running Brook ES	456	497	-41	9.0%
St Johns Lane ES	703	690	+13	1.8%
Stevens Forest ES	390	408	-18	4.6%
Swansfield ES	602	618	-16	2.7%
Talbott Springs ES	457	447	+10	2.2%
Thunder Hill ES	544	567	-23	4.2%
Triadelphia Ridge ES	553	550	+3	0.5%
Veterans ES	858	872	-14	1.6%
Waterloo ES	580	555	+25	4.3%
Waverly ES	694	684	+10	1.4%
West Friendship ES	327	336	-9	2.8%
Worthington ES	515	500	+15	2.9%
<b>Elementary School Level Total</b>	<b>24978</b>	<b>24937</b>	<b>+41</b>	<b>0.2%</b>

(1) These charts compare the actual student enrollment counts from September 30th of each year to what was projected for that year. The projections were prepared approximately a year in advance of the actual.

(2) The error rate is a demonstration of the performance of the enrollment projection model's performance at the elementary school level.

(3) The difference is shown under the column "Diff".

(4) The percentage error is shown under the column "%".

# ATTACHMENT 4

## MIDDLE & HIGH SCHOOLS<sup>(1)</sup> - 2017

School	Grades 6-8		Error Rate <sup>(2)</sup>	
	Actual	Proj	Diff <sup>(3)</sup>	% <sup>(4)</sup>
Bonnie Branch MS	717	721	-4	0.6%
Burleigh Manor MS	808	795	+13	1.6%
Clarksville MS	552	528	+24	4.3%
Dunloggin MS	631	614	+17	2.7%
Elkridge Landing MS	694	704	-10	1.4%
Ellicott Mills MS	853	890	-37	4.3%
Folly Quarter MS	663	636	+27	4.1%
Glenwood MS	496	526	-30	6.0%
Hammond MS	554	552	+2	0.4%
Harpers Choice MS	596	563	+33	5.5%
Lake Elkhorn MS	548	564	-16	2.9%
Lime Kiln MS	734	730	+4	0.5%
Mayfield Woods MS	714	711	+3	0.4%
Mount View MS	820	811	+9	1.1%
Murray Hill MS	701	669	+32	4.6%
Oakland Mills MS	472	464	+8	1.7%
Patapsco MS	707	710	-3	0.4%
Patuxent Valley MS	620	627	-7	1.1%
Thomas Viaduct MS	689	645	+44	6.4%
Wilde Lake MS	611	619	-8	1.3%
<b>Middle School Level Total</b>	<b>13180</b>	<b>13079</b>	<b>+101</b>	<b>0.8%</b>

School	Grades 9-12		Error Rate <sup>(2)</sup>	
	Actual	Proj	Diff <sup>(3)</sup>	% <sup>(4)</sup>
Atholton HS	1485	1471	+14	0.9%
Centennial HS	1616	1609	+7	0.4%
Glenelg HS	1174	1141	+33	2.8%
Hammond HS	1311	1332	-21	1.6%
Howard HS	1920	1942	-22	1.1%
Long Reach HS	1654	1663	-9	0.5%
Marriotts Ridge HS	1335	1296	+39	2.9%
Mt Hebron HS	1571	1573	-2	0.1%
Oakland Mills HS	1175	1176	-1	0.1%
Reservoir HS	1535	1514	+21	1.4%
River Hill HS	1160	1220	-60	5.2%
Wilde Lake HS	1297	1298	-1	0.1%
<b>High School Level Total</b>	<b>17233</b>	<b>17235</b>	<b>-2</b>	<b>0.0%</b>

(1) These charts compare the actual student enrollment counts from September 30th of each year to what was projected for that year. The projections were prepared approximately a year in advance of the actual.

(2) The error rate is a demonstration of the performance of the enrollment projection model's performance at the middle and high school levels.

(3) The difference is shown under the column "Diff".

(4) The percentage error is shown under the column "%".



**BOARD OF EDUCATION OF HOWARD COUNTY  
MEETING AGENDA ITEM**

**TITLE:** Adequate Public Facilities Ordinance (APFO) Chart **DATE:** May 17, 2018

**PRESENTER(S):** Renée Kamen, Manager, School Planning

**OVERVIEW:** The Adequate Public Facilities Ordinance (APFO) School Capacity chart is utilized as part of the growth management process of Howard County for new residential developments. County code requires that the school system provide an annual report identifying the capacity utilization for each elementary (Grade K-5) and middle (Grade 6-8) school as well as elementary school regions. The attached School Capacity charts list elementary and middle schools and elementary regions as "C" (constrained) to new future residential development if the enrollment projection developed for the FY 2019 Capital Budget and Capital Improvement Program/Redistricting Process exceeds 115 percent of capacity as listed and funded in the most recent Capital Improvement Program. Individual elementary or middle schools that show a capacity utilization of less than 115 percent are considered "open" for new residential development. Constrained schools are indicated in the chart with the letter "C" and open schools are left blank.

An update to Adequate Public Facilities Ordinance (Bill 1-2018 with amendments) was adopted by the County Council on February 5, 2018. While most of the ordinance is in effect now, changes to the meaning of "Open" for the School Capacity chart (elementary schools and elementary regions at 105%, middle schools at 110%, and high schools at 115%) will change for any chart adopted by the County Council after January 1, 2019.

**Attachments:**

- 1 - School Capacity Charts
- 2 - Supplemental data required by County Council Bill 1-2018

**RECOMMENDATION/FUTURE DIRECTION:** Approve the Schools Capacity chart and attached supplemental data for submittal to the Howard County Council.

**SUBMITTED BY:** Renée Kamen  
Manager, School Planning

**APPROVAL/CONCURRENCE:** Michael Martirano, Ed. D.  
Interim Superintendent

Karalee Turner-Little  
Assistant Superintendent for  
Administrative Affairs

Anissa Brown Dennis  
Chief Operating Officer

Bruce Gist  
Executive Director  
Capital Planning and Operations

# ELEMENTARY SCHOOLS - MAY 2018 APFO School Capacity Chart

## Capacity Utilization Rates with Board of Education's Approved FY 2019 Capital Budget Projects

Chart reflects May 2017 Projections, Board of Education's Requested FY 2019 capacities, and effects of approved redistricting for the 2018-19 school year.

Capacity					2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29		2029-30		2030-31											
	2021	2022	2023	2024	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.										
Columbia - East																																		
Cradlerock ES	398	398	398	398	374	94.0	351	88.2	363	91.2	363	91.2	368	92.5	374	94.0	377	94.7	383	96.2	388	97.5	394	99.0										
Jeffers Hill ES	421	421	421	421	437	103.8	432	102.6	434	103.1	434	103.1	441	104.8	450	106.9	455	108.1	460	109.3	468	111.2	474	112.6										
Phelps Luck ES	597	597	597	597	654	109.5	664	111.2	676	113.2	682	114.2	691	115.7	C	714	119.6	C	720	120.6	C	727	121.8	C	735	123.1	C	740	124.0	C				
Stevens Forest ES	399	399	399	399	410	102.8	424	106.3	420	105.3	416	104.3	422	105.8	434	108.8	436	109.3	438	109.8	441	110.5	442	110.8										
Talbott Springs ES	A	540	540	540	449	83.1	436	80.7	439	81.3	447	82.8	444	82.2	449	83.1	454	84.1	461	85.4	466	86.3	479	88.7										
Thunder Hill ES	509	509	509	509	513	100.8	507	99.6	499	98.0	504	99.0	508	99.8	509	100.0	515	101.2	521	102.4	531	104.3	537	105.5										
Region Totals	2864	2864	2864	2864	2837	99.1	2814	98.3	2831	98.8	2846	99.4	2874	100.3	2930	102.3	2957	103.2	2990	104.4	3029	105.8	3066	107.1										
Columbia - West																																		
Bryant Woods ES	361	361	361	361	416	115.2	C	404	111.9	406	112.5	404	111.9	410	113.6	C	414	114.7	C	418	115.8	C	421	116.6	C	427	118.3	C						
Clemens Crossing ES	521	521	521	521	546	104.8	568	109.0	595	114.2	605	116.1	C	651	125.0	C	671	128.8	C	685	131.5	C	695	133.4	C	696	133.6	C	693	133.0	C			
Longfellow ES	512	512	512	512	385	75.2	C	392	76.6	C	390	76.2	C	388	75.8	C	396	77.3	C	401	78.3	C	406	79.3	C	412	80.5	C	418	81.6	C			
Running Brook ES	515	515	515	515	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	1109	215.3	C			
Swansfield ES	694	694	694	694	644	92.8	658	94.8	663	95.5	665	95.8	673	97.0	C	682	98.3	C	688	99.1	C	700	100.9	C	708	102.0	C	718	103.5	C				
Region Totals	2603	2603	2603	2603	2692	103.4	2793	107.3	2887	110.9	2944	113.1	3057	117.4	C	3149	121.0	C	3229	124.0	C	3296	126.6	C	3352	128.8	C	3396	130.5	C				
Northeastern																																		
Bellows Spring ES	751	751	751	751	797	106.1	845	112.5	875	116.5	C	900	119.8	C	908	120.9	C	879	117.0	C	864	115.0	C	850	113.2	C	840	111.9	C	820	109.2			
Deep Run ES	750	750	750	750	781	104.1	803	107.1	834	111.2	855	114.0	878	117.1	C	869	115.9	C	880	117.3	C	889	118.5	C	899	119.9	C	910	121.3	C				
Ducketts Lane ES	694	694	694	694	777	112.0	839	120.9	C	854	123.1	C	866	124.8	C	870	125.4	C	851	122.6	C	840	121.0	C	814	117.3	C	807	116.3	C	803	115.7	C	
Elkridge ES	760	760	760	760	770	101.3	739	97.2	C	719	94.6	C	738	97.1	C	780	102.6	C	807	106.2	C	852	112.1	C	868	114.2	C	878	115.5	C	887	116.7	C	
Hanover Hills ES	NS	810	810	810	1009	124.6	C	1085	134.0	C	1121	138.4	C	1152	142.2	C	1178	145.4	C	1204	148.6	C	1240	153.1	C	1278	157.8	C	1315	162.3	C	1361	168.0	C
Ilchester ES	584	584	584	584	527	90.2	546	93.5	592	101.4	622	106.5	663	113.5	696	119.2	C	708	121.2	C	736	126.0	C	726	124.3	C	726	124.3	C	709	121.4	C		
Rockburn ES	609	609	609	609	628	103.1	635	104.3	650	106.7	691	113.5	715	117.4	C	711	116.7	C	719	118.1	C	727	119.4	C	737	121.0	C	740	121.5	C				
Veterans ES	799	799	799	799	900	112.6	886	110.9	874	109.4	882	110.4	869	108.8	867	108.5	923	115.5	C	944	118.1	C	940	117.6	C	949	118.8	C						
Waterloo ES	663	663	663	663	539	81.3	552	83.3	551	83.1	547	82.5	556	83.9	562	84.8	568	85.7	584	88.1	590	89.0	597	90.0										
Worthington ES	515	515	515	515	402	78.1	408	79.2	423	82.1	442	85.8	471	91.5	481	93.4	492	95.5	547	106.2	548	106.4	541	105.0										
Region Totals	6935	6935	6935	6935	7130	102.8	7338	105.8	7493	108.0	7695	111.0	7888	113.7	7927	114.3	8086	116.6	C	8237	118.8	C	8280	119.4	C	8317	119.9	C						
Northern																																		
Centennial Lane ES	647	647	647	647	738	114.1	741	114.5	721	111.4	718	111.0	C	718	111.0	713	110.2	718	111.0	726	112.2	C	731	113.0	C	731	113.0	C	741	114.5	C			
Hollifield Station ES	732	732	732	732	841	114.9	827	113.0	814	111.2	842	115.0	C	834	113.9	830	113.4	851	116.3	C	869	118.7	C	892	121.9	C	920	125.7	C					
Manor Woods ES	681	681	681	681	766	112.5	800	117.5	C	833	122.3	C	856	125.7	C	890	130.7	C	903	132.6	C	898	131.9	C	875	128.5	C	844	123.9	C	809	118.8	C	
Northfield ES	700	700	700	700	753	107.6	750	107.1	737	105.3	736	105.1	748	106.9	753	107.6	778	111.1	779	111.3	782	111.7	790	112.9										
St Johns Lane ES	612	612	612	612	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	874	142.8	C	884	144.4	C
Waverly ES	A	788	788	788	831	105.5	844	107.1	C	876	111.2	892	113.2	909	115.4	C	910	115.5	C	913	115.9	C	913	115.9	C	916	116.2	C	914	116.0	C			
Region Totals	4160	4160	4160	4160	4668	112.2	4724	113.6	4770	114.7	4865	116.9	C	4955	119.1	C	4961	119.3	C	5015	120.6	C	5025	120.8	C	5039	121.1	C	5058	121.6	C			
Southeastern																																		
Atholton ES	424	424	424	424	447	105.4	418	98.6	416	98.1	414	97.6	414	97.6	412	97.2	415	97.9	418	98.6	C	420	99.1	C	423	99.8	C							
Bollman Bridge ES	666	666	666	666	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	781	117.3	C	783	117.6	C		
Forest Ridge ES	713	713	713	713	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	928	130.2	C	918	128.8	C		
Gorman Crossing ES	735	735	735	735	836	113.7	839	114.1	830	112.9	803	109.3	803	109.3	809	110.1	790	107.5	774	105.3	763	103.8	763	103.8										
Guilford ES	465	465	465	465	410	88.2	414	89.0	415	89.2	451	97.0	484	104.1	488	104.9	482	103.7	483	103.9	495	106.5	495	106.5										
Hammond ES	653	653	653	653	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	1107	169.5	C	1155	176.9	C		
Laurel Woods ES	640	640	640	640	482	75.3	469	73.3	462	72.2	459	71.7	449	70.2	467	73.0	473	73.9	479	74.8	486	75.9	491	76.7										
Region Totals	4296	4296	4296	4296	4369	101.7	4419	102.9	4539	105.7	4635	107.9	4718	109.8	4819	112.2	4851	112.9	4905	114.2	4980	115.9	C	5028	117.0	C								
Western																																		
Bushy Park ES	744	744	744	744	507	68.1	499	67.1	483	64.9	478	64.2	490	65.9	494	66.4	514	69.1	551	74.1	561	75.4	559	75.1										
Clarksville ES	543	543	543	543	413	76.1	429	79.0	409	75.3	410	75.5	416	76.6	422	77.7	425	78.3	425	78.3	430	79.2	433	79.7										
Dayton Oaks ES	675	675	675	675	606	89.8	582	86.2	588	87.1	588	87.1	590	87.4	569	84.3	565	83.7	563	83.4	597	88.4	647	95.9										
Fulton ES	826	826	826	826	1099	133.1	C	1111	134																									

**MIDDLE SCHOOLS - MAY 2018 APFO School Capacity Chart**  
**Capacity Utilization Rates with Board of Education's Approved FY 2019 Capital Budget Projects**

Chart reflects May 2017 Projections, Board of Education's Requested FY 2019 capacities, and effects of approved redistricting for the 2018-19 school year.

Capacity					2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29		2029-30		2030-31										
Columbia - East	2021	2022	2023	2024	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	585	91.0	591	91.9	557	86.6	553	86.0	532	82.7	546	84.9	553	86.0	557	86.6	559	86.9	565	87.9									
Oakland Mills MS	506	506	506	506	497	98.2	495	97.8	513	101.4	506	100.0	501	99.0	495	97.8	496	98.0	496	98.0	497	98.2	505	99.8									
Region MS Totals	1149	1149	1149	1149	1082	94.2	1086	94.5	1070	93.1	1059	92.2	1033	89.9	1041	90.6	1049	91.3	1053	91.6	1056	91.9	1070	93.1									
Columbia - West																																	
Harpers Choice MS	506	506	506	506	534	105.5	511	101.0	517	102.2	520	102.8	534	105.5	540	106.7	534	105.5	539	106.5	546	107.9	555	109.7									
Wilde Lake MS	760	760	760	760	724	95.3	756	99.5	785	103.3	845	111.2	903	118.8	C	947	124.6	C	967	127.2	C	994	130.8	C	1042	137.1	C						
Region MS Totals	1266	1266	1266	1266	1258	99.4	1267	100.1	1302	102.8	1365	107.8	1437	113.5	1487	117.5	1501	118.6	1533	121.1	1562	123.4	1597	126.1									
Northeastern																																	
Bonnie Branch MS	701	701	701	701	670	95.6	681	97.1	697	99.4	703	100.3	702	100.1	719	102.6	732	104.4	761	108.6	781	111.4	803	114.6									
Elkridge Landing MS	779	779	779	779	760	97.6	773	99.2	787	101.0	774	99.4	761	97.7	788	101.2	817	104.9	841	108.0	824	105.8	838	107.6									
Ellicott Mills MS	A 701	701	701	857	906	129.2	C	857	122.3	C	858	122.4	C	827	96.5	810	94.5	814	95.0	854	99.6	856	99.9	891	104.0								
Mayfield Woods MS	798	798	798	798	875	109.6	855	107.1	872	109.3	918	115.0	C	949	118.9	C	1022	128.1	C	1038	130.1	C	1074	134.6	C	1044	130.8	C	1054	132.1	C		
Thomas Viaduct MS	701	701	701	701	788	112.4	826	117.8	C	919	131.1	C	1043	148.8	C	1182	168.6	C	1260	179.7	C	1311	187.0	C	1358	193.7	C	1347	192.2	C	1351	192.7	C
Region MS Totals	3680	3680	3680	3836	3999	108.7	3992	108.5	4133	112.3	4265	111.2	4404	114.8	4590	119.7	4712	122.8	4888	127.4	4852	126.5	4937	128.7									
Northern																																	
Burleigh Manor MS	779	779	779	779	857	110.0	864	110.9	885	113.6	923	118.5	C	963	123.6	C	969	124.4	C	973	124.9	C	968	124.3	C	971	124.6	C	986	126.6	C		
Dunloggin MS	A 565	565	565	662	694	122.8	C	711	125.8	C	730	129.2	C	720	108.8	704	106.3	698	105.4	712	107.6	717	108.3	714	107.9	727	109.8						
Patapsco MS	643	643	643	643	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	801	124.6	C	802	124.7	C
Region MS Totals	1987	1987	1987	2084	2286	115.0	2339	117.7	2384	120.0	2419	116.1	2442	117.2	2470	118.5	2496	119.8	2500	120.0	2486	119.3	2515	120.7									
Southeastern																																	
Hammond MS	604	604	604	604	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	773	128.0	C	841	139.2	C		
Murray Hill MS	662	662	662	662	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	747	112.8	736	111.2					
Patuxent Valley MS	760	760	760	760	656	86.3	649	85.4	654	86.1	672	88.4	702	92.4	721	94.9	737	97.0	737	97.0	763	100.4	764	100.5									
Region MS Totals	2026	2026	2026	2026	2037	100.5	2064	101.9	2084	102.9	2159	106.6	2185	107.8	2217	109.4	2220	109.6	2226	109.9	2283	112.7	2341	115.5									
Western																																	
Clarksville MS	643	643	643	643	657	102.2	636	98.9	635	98.8	638	99.2	672	104.5	664	103.3	675	105.0	668	103.9	677	105.3	677	105.3									
Folly Quarter MS	662	662	662	662	628	94.9	616	93.1	605	91.4	608	91.8	599	90.5	602	90.9	590	89.1	592	89.4	601	90.8	613	92.6									
Glenwood MS	545	545	545	545	534	98.0	502	92.1	492	90.3	477	87.5	484	88.8	506	92.8	517	94.9	539	98.9	524	96.1	529	97.1									
Lime Kiln MS	701	701	701	701	635	90.6	670	95.6	677	96.6	687	98.0	694	99.0	728	103.9	747	106.6	738	105.3	723	103.1	716	102.1									
Mount View MS	798	798	798	798	887	111.2	907	113.7	930	116.5	C	971	121.7	C	973	121.9	C	1009	126.4	C	1003	125.7	C	1020	127.8	C	1019	127.7	C	1040	130.3	C	
Region MS Totals	3349	3349	3349	3349	3341	99.8	3331	99.5	3339	99.7	3371	101.0	3422	102.2	3509	104.8	3532	105.5	3557	106.2	3544	105.8	3575	106.7									
Countywide Totals	13457	13457	13457	13710	14003	104.1	14079	104.6	14312	106.4	14648	106.8	14923	108.8	15314	111.7	15510	113.1	15757	114.9	15783	115.1	16035	117.0									

A: capacity includes additions as reflected in FY 2019 Capital Budget for Grades 6-8 between 2019 and 2026.

C: Constrained for future development

## Attachment 2

As required by the newly adopted County Council Bill 1-2018, additional supplemental information:

### I. State and Local Capacities of the Facility

#### State and Local Capacity Chart for SY 2018/19

Name	State	Local
Atholton ES	419	424
Bellows Spring ES	720	751
Bollman Bridge ES	694	666
Bryant Woods ES	362	361
Bushy Park ES	910	744
Centennial Lane ES	544	647
Clarksville ES	581	543
Clemens Crossing ES	544	521
Cradlerock ES	556	398
Dayton Oaks ES	910	675
Deep Run ES	740	750
Ducketts Lane ES	785	694
Elkridge ES	819	760
Forest Ridge ES	660	713
Fulton ES	564	826
Gorman Crossing ES	618	735
Guilford ES	522	465
Hammond ES	525	653
Hanover Hills ES	TBD	810
Hollifield Station ES	564	732
Ilchester ES	564	584
Jeffers Hill ES	435	421
Laurel Woods ES	544	640
Lisbon ES	504	527
Longfellow ES	468	512
Manor Woods ES	564	681
Northfield ES	544	700
Phelps Luck ES	578	597
Pointers Run ES	564	744
Rockburn ES	847	609
Running Brook ES	471	515
St Johns Lane ES	619	612
Stevens Forest ES	320	399
Swansfield ES	601	694
Talbott Springs ES	500	377
Thunder Hill ES	386	509
Triadelphia Ridge ES	564	581
Veterans ES	922	799
Waterloo ES	726	663
Waverly ES	678	788
West Friendship ES	394	414
Worthington ES	589	515

Name	State	Local
Bonnie Branch MS	732	701
Burleigh Manor MS	795	779
Clarksville MS	619	643
Dunloggin MS	619	565
Elkridge Landing MS	760	779
Ellicott Mills MS	816	701
Folly Quarter MS	732	662
Glenwood MS	640	545
Hammond MS	679	604
Harpers Choice MS	619	506
Lake Elkhorn MS	765	643
Lime Kiln MS	732	701
Mayfield Woods MS	773	798
Mount View MS	760	798
Murray Hill MS	685	662
Oakland Mills MS	598	506
Patapsco MS	598	643
Patuxent Valley MS	770	760
Thomas Viaduct	754	701
Wilde Lake MS	590	760

Name	State	Local
Atholton HS	1543	1460
Centennial HS	1091	1360
Glenelg HS	944	1420
Hammond HS	1434	1220
Howard HS	1051	1420
Long Reach HS	1434	1488
Marriotts Ridge HS	1434	1615
Mt Hebron HS	1408	1400
Oakland Mills HS	1135	1400
Reservoir HS	1339	1551
River Hill HS	1483	1488
Wilde Lake HS	1434	1424

## II. The date of the last redistricting which impacted the attendance area of that school

Most Recent Redistricting			
	In effect		In effect
Atholton ES	2012	Bonnie Branch MS	2014
Bellows Spring ES	2018	Burleigh Manor MS	2018
Bollman Bridge ES	2012	Clarksville MS	2018
Bryant Woods ES	2007	Dunloggin MS	2006
Bushy Park ES	2002	Elkridge Landing MS	2018
Centennial Lane ES	2007	Ellicott Mills MS	2014
Clarksville ES	2006	Folly Quarter MS	2006
Clemens Crossing ES	2018	Glenwood MS	2004
Cradlerock ES	2004	Hammond MS	2014
Dayton Oaks ES	2012	Harpers Choice MS	2018
Deep Run ES	2018	Lake Elkhorn MS	2014
Ducketts Lane ES	2018	Lime Kiln MS	2018
Elkridge ES	2013	Mayfield Woods MS	2018
Forest Ridge ES	2012	Mount View MS	2018
Fulton ES	2012	Murray Hill MS	2014
Gorman Crossing ES	2012	Oakland Mills MS	2003
Guilford ES	2012	Patapsco MS	2006
Hammond ES	2012	Patuxent Valley MS	2014
Hanover Hills ES	2018	Thomas Viaduct MS	2018
Hollifield Station ES	2013	Wilde Lake MS	2018
Ilchester ES	2013		
Jeffers Hill ES	2013		
Laurel Woods ES	2012		
Lisbon ES	1998		
Longfellow ES	2003		
Manor Woods ES	2018		
Northfield ES	2013		In effect
Phelps Luck ES	2013	Atholton HS	2002
Pointers Run ES	2018	Centennial HS	2006
Rockburn ES	2018	Glenelg HS	2010
Running Brook ES	2007	Hammond HS	2005
St Johns Lane ES	2013	Howard HS	2005
Stevens Forest ES	2013	Long Reach HS	2005
Swansfield ES	1987	Marriotts Ridge HS	2010
Talbott Springs ES	2013	Mt Hebron HS	2006
Thunder Hill ES	2013	Oakland Mills HS	2005
Triadelphia Ridge ES	2018	Reservoir HS	2002
Veterans ES	2013	River Hill HS	2010
Waterloo ES	2013	Wilde Lake HS	2004
Waverly ES	2018		
West Friendship ES	2018		
Worthington ES	2007		

### III. For any projected increase in enrollment, an indication of what portions of the increase are attributed to sales or rental turnover of existing residential units, new development, and other factors

These charts are based on the projection developed in the Spring of 2017, the same projections that inform the May 2018 School Capacity Chart. The impact of attendance area adjustments (for the 2018/19 school year) is excluded from these charts because the housing data made available in January 2017 was based on the existing attendance areas. The projections were developed prior to the creation of the Hanover Hills ES attendance area in November 2017.

#### Elementary Schools

	Official 2016 Enrollment	Projected 2017 Enrollment	Projected Enrollment Change	Projected 2017 Student Yield Breakdown			
				Apt Turnover	Resale	New Construction	Other Factors
Atholton ES	435	458	23	4.0	12.6	0.0	6.4
Bellows Spring ES	667	711	44	4.0	-0.4	43.1	-2.7
Bollman Bridge ES	665	709	44	38.7	6.9	48.2	-49.7
Bryant Woods ES	379	418	39	11.7	3.3	24.3	-0.3
Bushy Park ES	590	599	9	0.0	32.2	16.5	-39.7
Centennial Lane ES	739	745	6	14.0	25.0	2.7	-35.7
Clarksville ES	430	428	-2	4.5	17.5	10.9	-35.0
Clemens Crossing ES	531	542	11	0.0	14.7	5.9	-9.6
Cradlerock ES	457	430	-27	6.2	5.6	0.0	-38.8
Dayton Oaks ES	621	611	-10	0.0	30.0	10.7	-50.7
Deep Run ES	738	772	34	22.2	9.2	0.5	2.1
Ducketts Lane ES	826	867	41	25.2	10.0	11.6	-5.8
Elkridge ES	817	826	9	18.7	12.2	38.4	-60.3
Forest Ridge ES	703	719	16	3.0	14.1	1.5	-2.6
Fulton ES	832	871	39	0.0	15.6	24.1	-0.6
Gorman Crossing ES	666	700	34	3.4	17.8	15.5	-2.7
Guilford ES	440	436	-4	14.4	5.5	3.3	-27.2
Hammond ES	640	644	4	7.0	15.3	3.3	-21.6
Hollifield Station ES	744	783	39	33.6	6.5	17.5	-18.6
Ilchester ES	653	604	-49	0.0	5.7	6.1	-60.8
Jeffers Hill ES	455	444	-11	9.0	6.0	0.0	-26.0
Laurel Woods ES	541	547	6	25.0	5.1	0.9	-25.0
Lisbon ES	446	438	-8	0.0	11.5	4.4	-23.9
Longfellow ES	419	416	-3	11.0	3.1	0.2	-17.3
Manor Woods ES	759	798	39	21.8	21.4	40.1	-44.4
Northfield ES	710	730	20	10.2	26.1	0.9	-17.3
Phelps Luck ES	585	586	1	24.0	7.2	0.0	-30.2
Pointers Run ES	735	704	-31	0.0	27.5	5.2	-63.7
Rockburn ES	636	677	41	4.0	13.4	12.8	10.7
Running Brook ES	470	497	27	32.2	2.2	27.3	-34.7
St Johns Lane ES	701	690	-11	4.7	20.9	1.2	-37.8
Stevens Forest ES	398	408	10	31.0	2.0	0.5	-23.5
Swansfield ES	601	618	17	26.0	-3.3	0.0	-5.7
Talbott Springs ES	447	447	0	11.7	2.0	0.5	-14.1
Thunder Hill ES	558	567	9	18.3	6.0	0.0	-15.3
Triadelphia Ridge ES	560	550	-10	0.0	20.1	12.2	-42.2
Veterans ES	861	872	11	31.3	16.9	4.1	-41.3
Waterloo ES	567	555	-12	20.0	6.7	0.5	-39.2
Waverly ES	707	684	-23	1.1	25.2	0.3	-49.6
West Friendship ES	326	336	10	0.0	20.6	6.0	-16.5
Worthington ES	527	500	-27	0.0	5.1	8.2	-40.3
Projected enrollment increase							
Additional factors contributing to a schools' enrollment projection:							
Size of cohort rising to next level							
Cohort survival rates within school							
Births (5 yrs ago) in attendance area							
Birth to Kindergarten survival rate							
Out of District students (can be +/-)							
Students who moved into an attendance area between 8th-5							
Adjustment based on prior years' projection accuracy							
This projection was developed prior to the creation of an attendance							
area for Hanover Hills ES, and does not include projections							
for that school.							
This projection was developed prior to redistricting approved							
November 2017, and is based on attendance areas in use for SY 17-18.							



### Middle Schools

	Projected 2017 Student Yield Breakdown						
	2016 Enrollment	Projected 2017 Enrollment	Projected Enrollment Change	Apt Turnover	Resale	New Construction	Other Factors
Bonnie Branch MS	713	721	8	-0.7	9.3	0.6	-1.3
Burleigh Manor MS	819	795	-24	-6.7	11.6	7.7	-36.6
Clarksville MS	560	528	-32	0.0	4.5	4.7	-41.3
Elkridge Landing MS	698	704	6	-0.4	7.2	14.3	-15.1
Ellicott Mills MS	828	890	62	1.3	10.4	3.9	46.4
Folly Quarter MS	615	636	21	0.0	17.7	8.9	-5.5
Glenwood MS	517	526	9	0.0	11.6	6.7	-9.3
Hammond MS	590	552	-38	-4.6	3.7	2.0	-39.1
Harpers Choice MS	565	563	-2	-3.0	-1.8	0.3	2.5
Lake Elkhorn MS	529	564	35	-0.5	-0.7	0.0	36.2
Dunloggin MS	617	614	-3	1.0	0.7	1.9	-6.5
Lime Kiln MS	727	730	3	0.0	12.0	10.8	-19.8
Mayfield Woods MS	682	711	29	-1.0	-5.7	5.3	30.4
Mount View MS	792	811	19	-0.5	19.5	13.9	-13.8
Murray Hill MS	669	669	0	2.5	4.2	6.7	-13.3
Oakland Mills MS	443	464	21	-3.7	0.2	1.1	23.3
Patapsco MS	685	710	25	-6.8	4.1	5.5	22.2
Patuxent Valley MS	639	627	-12	-5.1	-1.4	19.8	-25.4
Thomas Viaduct MS	630	645	15	-2.6	4.0	16.2	-2.6
Wilde Lake MS	554	619	65	-10.3	1.4	29.3	44.5

Projected enrollment increase

Additional factors contributing to a schools' enrollment projection:

Size of cohort rising to next level

Cohort survival rates within school

Out of District students (can be +/-)

Adjustment based on prior years' projection accuracy

**This projection was developed prior to redistricting approved November 2017, and is based on attendance areas in use for SY 17-18.**

#### IV. For any school designated as open on the school capacity chart based on a capital improvement project or proposed redistricting associated with a capital improvement project:

- A. Current and future funding assumptions for the capital improvement project(s);
- B. Future redistricting assumptions associated with the capital improvement project
- C. An explanation of any capacity utilization changes based on (a) or (b).

Talbott Springs ES is open for new residential development on this chart based on additional seats proposed for the school in September 2021. The Board Requested FY 2019 – 2027 Long Range Master Plan as approved by the Board on March 5, 2018, is attached. The final adoption of the FY 2019 Capital Budget is scheduled for May 31, 2018.

## FY 2019-2028 Long-Range Master Plan

Board of Education's Requested

March 5, 2018

(In Thousands)

Capacity	Project	County Project	Occupancy	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
100	Waverly ES Phase I & II Renovation/Addition*	E0973	Aug 2018	\$ 36,769	\$ 4,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40,769
832	New ES #42	E1028	Aug 2018	35,741	8,132	-	-	-	-	-	-	-	-	-	43,873
640	Talbott Springs ES Replacement School	E1043	Aug 2021	1,000	8,156	18,250	12,218	2,000	-	-	-	-	-	-	41,624
1,615	New HS #13	E1035	Aug 2023	-	6,732	25,315	25,415	25,515	25,115	15,972	-	-	-	-	124,064
200	Hammond HS Renovation/Addition	E1024	Aug 2023	-	6,000	18,695	18,795	18,895	19,995	15,147	-	-	-	-	97,527
788	New ES #43	E1039	Aug 2023	-	-	6,000	11,500	15,215	17,927	8,000	-	-	-	-	58,642
97	Dunloggin MS Renovation/Addition	TBD	Aug 2024	-	-	-	2,000	10,694	12,671	9,534	4,000	-	-	-	38,899
156	Ellicott Mills MS Addition	E1037	Aug 2024	-	-	-	-	-	1,000	6,415	1,000	-	-	-	8,415
-	Oakland Mills MS Renovation*	E1036	Aug 2026	-	-	-	-	-	-	9,003	14,404	10,603	2,000	-	36,010
150	Clarksville ES Addition	TBD	Aug 2026	-	-	-	-	-	-	2,000	7,000	1,000	-	-	10,000
788	New ES #44	E1040	Aug 2027	-	-	-	-	-	-	5,705	15,881	21,175	15,881	-	58,642
TBD	MS/HS Career Development Center	TBD	Aug 2028	-	-	-	-	-	-	11,232	22,566	30,850	31,686	22,566	118,900
788	New ES #45	E1041	Aug 2029	-	-	-	-	-	-	-	-	5,705	15,881	21,175	42,761
	Systemic Renovations/Modernizations	TBD		-	28,655	15,650	17,644	18,007	18,841	18,298	17,598	17,000	18,000	20,000	189,693
	Roofing Projects	TBD		-	12,500	5,000	1,000	5,000	1,000	1,000	5,000	5,000	5,000	5,000	45,500
	Playground Equipment	E0990		2,930	-	250	250	250	250	250	500	500	500	500	6,180
	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	8,000
	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	6,600
	Planning and Design	E1038		600	300	300	300	300	300	300	300	300	300	300	3,600
	Barrier Free	E0989		5,603	-	200	200	200	200	200	200	200	200	200	7,403
	<b>TOTALS</b>			<b>\$ 86,843</b>	<b>\$ 79,725</b>	<b>\$ 97,660</b>	<b>\$ 96,322</b>	<b>\$ 105,076</b>	<b>\$ 106,299</b>	<b>\$ 112,056</b>	<b>\$ 100,049</b>	<b>\$ 103,933</b>	<b>\$ 101,048</b>	<b>\$ 81,341</b>	<b>\$ 1,070,352</b>

\* Partial planning funds received in Systemic Renovation Project

Ten-Year Long-Range Master Plan = \$983,509



**BOARD OF EDUCATION OF HOWARD COUNTY  
MEETING AGENDA ITEM**

**TITLE:** Adequate Public Facilities Ordinance (APFO) Chart Amendment **DATE:** June 7, 2018

**PRESENTER(S):** Renée Kamen, Manager, School Planning

**OVERVIEW:** The Adequate Public Facilities Ordinance (APFO) School Capacity Chart is utilized as part of the growth management process of Howard County for new residential developments. The Board of Education approved a School Capacity Chart on May 17, 2018.

Subsequently, the Board of Education also approved changes in the planning timeline for Talbott Springs ES project, thus moving the planned occupancy date from 2021-22 to 2022-23. This change is in the Board's Approved Capital Budget, dated May 31, 2018.

The Board's previously approved School Capacity Chart showed Talbott Springs ES as "open" in the test year of 2021-22 due to the replacement school schedule. The revised schedule leaves the school as "constrained" for new residential development in 2021-22.

The revised elementary school chart is attached. The adjustment for the planned occupancy date also changes the response to Section IV of CB-1-2018. The previously provided middle school chart remains unchanged.

**Attachments:**

1. Revised Elementary School Capacity Chart
2. Revised Capital Planning Assumptions

**RECOMMENDATION/FUTURE DIRECTION:** Approve the amended Elementary School Capacity Chart.

**SUBMITTED BY:** \_\_\_\_\_  
Renée Kamen  
Manager, School Planning

**APPROVAL/CONCURRENCE:** \_\_\_\_\_  
Michael Martirano, Ed. D.  
Interim Superintendent

\_\_\_\_\_  
Karalee Turner-Little  
Assistant Superintendent for  
Administrative Affairs

\_\_\_\_\_  
Anissa Brown Dennis  
Chief Operating Officer

\_\_\_\_\_  
Bruce Gist  
Executive Director  
Capital Planning and Operations

### ELEMENTARY SCHOOLS - JUNE 2018 APFO School Capacity Chart

Capacity Utilization Rates with Board of Education's Approved FY 2019 Capital Budget Projects

Chart reflects May 2017 Projections, Board of Education's Requested FY 2019 capacities, and effects of approved redistricting for the 2018-19 school year.

Capacity					2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29		2029-30		2030-31									
	2021	2022	2023	2024	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.								
Columbia - East	2021	2022	2023	2024	2837	105.0	2814	98.3	2831	98.8	2846	99.4	2874	100.3	2930	102.3	2957	103.2	2990	104.4	3029	105.8	3066	107.1								
Cradlerock ES	398	398	398	398	374	94.0	351	88.2	363	91.2	363	91.2	368	92.5	374	94.0	377	94.7	383	96.2	388	97.5	394	99.0								
Jeffers Hill ES	421	421	421	421	437	103.8	432	102.6	434	103.1	434	103.1	441	104.8	450	106.9	455	108.1	460	109.3	468	111.2	474	112.6								
Phelps Luck ES	597	597	597	597	654	109.5	664	111.2	676	113.2	682	114.2	691	115.7	C	714	119.6	C	720	120.6	C	727	121.8	C	735	123.1	C	740	124.0	C		
Stevens Forest ES	399	399	399	399	410	102.8	424	106.3	420	105.3	416	104.3	422	105.8	434	108.8	436	109.3	438	109.8	441	110.5	442	110.8								
Talbot Springs ES	A	377	540	540	540	119.1	C	436	80.7	439	81.3	447	82.8	444	82.2	449	83.1	454	84.1	461	85.4	466	86.3	479	88.7							
Thunder Hill ES	509	509	509	509	513	100.8	507	99.6	499	98.0	504	99.0	508	99.8	509	100.0	515	101.2	521	102.4	531	104.3	537	105.5								
Region Totals	2701	2864	2864	2864	2837	105.0	2814	98.3	2831	98.8	2846	99.4	2874	100.3	2930	102.3	2957	103.2	2990	104.4	3029	105.8	3066	107.1								
Columbia - West	361	361	361	361	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	421	116.6	C	427	118.3	C			
Bryant Woods ES	521	521	521	521	546	104.8	568	109.0	595	114.2	605	116.1	C	651	125.0	C	671	128.8	C	685	131.5	C	695	133.4	C	696	133.6	C	693	133.0	C	
Clemens Crossing ES	512	512	512	512	385	75.2	392	76.6	390	76.2	388	75.8	396	77.3	401	78.3	406	79.3	412	80.5	418	81.6	424	82.8								
Longfellow ES	515	515	515	515	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	215.3	C	1134	220.2	C	
Running Brook ES	694	694	694	694	644	92.8	658	94.8	663	95.5	665	95.8	673	97.0	682	98.3	688	99.1	700	100.9	708	102.0	718	103.5								
Swansfield ES	Region Totals	2603	2603	2603	2692	103.4	2793	107.3	2887	110.9	2944	113.1	3057	117.4	C	3149	121.0	C	3229	124.0	C	3296	126.6	C	3352	128.8	C	3396	130.5	C		
Northeastern	751	751	751	751	797	106.1	845	112.5	875	116.5	C	900	119.8	C	908	120.9	C	879	117.0	C	864	115.0	C	850	113.2	840	111.9	820	109.2			
Bellows Spring ES	750	750	750	750	781	104.1	803	107.1	834	111.2	855	114.0	878	117.1	889	118.5	899	119.9	910	121.3	910	121.3										
Deep Run ES	694	694	694	694	777	112.0	839	120.9	C	854	123.1	C	866	124.8	C	870	125.4	C	851	122.6	C	840	121.0	C	814	117.3	807	116.3	803	115.7	C	
Ducketts Lane ES	760	760	760	760	770	101.3	739	97.2	719	94.6	738	97.1	780	102.6	807	106.2	852	112.1	868	114.2	878	115.5	887	116.7								
Elkridge ES	810	810	810	810	1009	124.6	C	1085	134.0	C	1121	138.4	C	1152	142.2	C	1178	145.4	C	1204	148.6	C	1240	153.1	C	1278	157.8	C	1315	162.3	C	
Hanover Hills ES	584	584	584	584	527	90.2	546	93.5	592	101.4	622	106.5	663	113.5	696	119.2	C	708	121.2	C	736	126.0	C	726	124.3	C	709	121.4	C			
Ilchester ES	609	609	609	609	628	103.1	635	104.3	650	106.7	691	113.5	715	117.4	C	711	116.7	C	719	118.1	C	727	119.4	C	737	121.0	C	740	121.5	C		
Rockburn ES	799	799	799	799	900	112.6	886	110.9	874	109.4	882	110.4	869	108.8	867	108.5	923	115.5	C	944	118.1	C	940	117.6	C	949	118.8	C				
Veterans ES	663	663	663	663	539	81.3	552	83.3	551	83.1	547	82.5	556	83.9	562	84.8	568	85.7	584	88.1	590	89.0	597	90.0								
Waterloo ES	515	515	515	515	402	78.1	408	79.2	423	82.1	442	85.8	471	91.5	481	93.4	492	95.5	547	106.2	548	106.4	541	105.0								
Worthington ES	Region Totals	6935	6935	6935	7130	102.8	7338	105.8	7493	108.0	7695	111.0	7888	113.7	7927	114.3	8086	116.6	C	8237	118.8	C	8280	119.4	C	8317	119.9	C				
Northern	647	647	647	647	738	114.1	741	114.5	721	111.4	718	111.0	718	111.0	713	110.2	718	111.0	726	112.2	731	113.0	741	114.5								
Centennial Lane ES	732	732	732	732	841	114.9	827	113.0	814	111.2	842	115.0	C	834	113.9	830	113.4	851	116.3	C	869	118.7	C	892	121.9	C	892	121.9	C			
Hollifield Station ES	681	681	681	681	766	112.5	800	117.5	C	833	122.3	C	856	125.7	C	890	130.7	C	903	132.6	C	898	131.9	C	875	128.5	C	844	123.9	C		
Manor Woods ES	700	700	700	700	753	107.6	750	107.1	737	105.3	736	105.1	748	106.9	753	107.6	778	111.1	779	111.3	782	111.7	790	112.9								
Northfield ES	612	612	612	612	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	874	142.8	C	
St Johns Lane ES	A	788	788	788	831	105.5	844	107.1	876	111.2	892	113.2	909	115.4	C	910	115.5	C	913	115.9	C	913	115.9	C	916	116.2	C	914	116.0	C		
Waverly ES	Region Totals	4160	4160	4160	4668	112.2	4724	113.6	4770	114.7	4865	116.9	C	4955	119.1	C	4961	119.3	C	5015	120.6	C	5025	120.8	C	5039	121.1	C	5058	121.6	C	
Southeastern	424	424	424	424	447	105.4	418	98.6	416	98.1	414	97.6	414	97.6	412	97.2	415	97.9	418	98.6	420	99.1	423	99.8								
Atholton ES	666	666	666	666	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	781	117.3	C	783	117.6	C
Bollman Bridge ES	713	713	713	713	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	928	130.2	C	918	128.8	C
Forest Ridge ES	735	735	735	735	836	113.7	839	114.1	830	112.9	803	109.3	803	109.3	809	110.1	790	107.5	774	105.3	763	103.8	763	103.8								
Gorman Crossing ES	465	465	465	465	410	88.2	414	89.0	415	89.2	451	97.0	484	104.1	488	104.9	482	103.7	483	103.9	495	106.5	495	106.5								
Guilford ES	653	653	653	653	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	1107	169.5	C	1155	176.9	C
Hammond ES	640	640	640	640	482	75.3	469	73.3	462	72.2	459	71.7	449	70.2	467	73.0	473	73.9	479	74.8	486	75.9	491	76.7								
Laurel Woods ES	Region Totals	4296	4296	4296	4369	101.7	4419	102.9	4539	105.7	4635	107.9	4718	109.8	4819	112.2	4851	112.9	4905	114.2	4980	115.9	C	5028	117.0	C						
Western	744	744	744	744	507	68.1	499	67.1	483	64.9	478	64.2	490	65.9	494	66.4	514	69.1	551	74.1	561	75.4	559	75.1								
Bushy Park ES	543	543	543	543	413	76.1	429	79.0	409	75.3	410	75.5	416	76.6	422	77.7	425	78.3	425	78.3	430	79.2	433	79.7								
Clarksville ES	675	675	675	675	606	89.8	582	86.2	588	87.1	588	87.1	590	87.4	569	84.3	565	83.7	563	83.4	597	88.4	647	95.9								
Dayton Oaks ES	826	826	826	826	1099	133.1	C	1111	134																							

## ATTACHMENT 2

### Revised Capital Planning Assumptions

**IV. For any school designated as open on the school capacity chart based on a capital improvement project or proposed redistricting associated with a capital improvement project:**

- A. Current and future funding assumptions for the capital improvement project(s);**
- B. Future redistricting assumptions associated with the capital improvement project**
- C. An explanation of any capacity utilization changes based on (a) or (b).**

~~Talbott Springs ES is open for new residential development on this chart based on additional seats proposed for the school in September 2021. No capital improvements are associated with any schools designated as “open” on the school capacity chart for Test Year 2021-22. The Board Requested Approved FY 2019 – 2027 Long Range Master Plan as approved by the Board on March 5, 2018~~ May 31, 2018, is attached.

## County Council Of Howard County, Maryland

2018 Legislative Session

Legislative Day No. 8

### Resolution No. 83 -2018

Introduced by: The Chairperson at the request of the County Executive

A RESOLUTION adopting the School Capacity Chart, pursuant to the Adequate Public Facilities Act of Howard County, to designate the school regions, elementary schools, and middle schools constrained for new residential development during each of the following years as based on the definition of program capacity as defined by Howard County Public School System policy.

Introduced and read first time June 4, 2018.

By order

Jessica Feldmark  
Jessica Feldmark, Administrator

Read for a second time at a public hearing on June 18, 2018.

Tabled 7/2/18

By order

Jessica Feldmark  
Jessica Feldmark, Administrator

This Resolution was read the third time and was Adopted ☒, Adopted with amendments ☐, Failed ☐, Withdrawn ☐, by the County Council

on July 27, 2018.

Certified By

Jessica Feldmark  
Jessica Feldmark, Administrator

NOTE: [[text in brackets]] indicates deletions from existing law; TEXT IN SMALL CAPITALS indicates additions to existing law; Strike-out indicates material deleted by amendment; Underlining indicates material added by amendment.



1           **WHEREAS**, Section 16.1103(c)(1) of the Howard County Code (the Adequate  
2 Public Facilities Act of Howard County) provides for a School Capacity Chart that is  
3 consistent with the Housing Unit Allocation Chart and that indicates the school regions,  
4 elementary schools, and middle schools that are open for new residential development and  
5 those that are constrained for new residential development during each of the following  
6 years as based on the definition of program capacity as defined by Howard County Public  
7 School System policy; and

8  
9           **WHEREAS**, Section 16.1103(c) further provides that the County Council shall  
10 adopt or amend the School Capacity Chart by Resolution whenever the Council adopts or  
11 amends the Housing Unit Allocation Chart; and

12  
13           **WHEREAS**, as required by Council Bill No. 1-2018, Section 16.1103(c) also  
14 provides that the School Capacity Chart shall be accompanied by a report that contains  
15 information related to capacities, redistricting, any projected increases in enrollment and  
16 related reasons for the increase, and information related to proposed redistricting or a  
17 capital improvement project's impact on a school's "open" designation; and

18  
19           **WHEREAS**, immediately preceding adoption of this Resolution, the County  
20 Council has adopted the Housing Unit Allocation Chart; and

21  
22           **WHEREAS**, the Department of Planning and Zoning has received the School  
23 Capacity Chart, based on the Housing Unit Allocation Chart, from the Board of Education  
24 and has submitted it to the Council for adoption.

25  
26           **NOW, THEREFORE, BE IT RESOLVED** by the County Council of Howard  
27 County, Maryland this 27<sup>th</sup> day of July, 2018 that the County Council adopts  
28 the School Capacity Charts (Attachment 1) and the information required by Section  
29 16.1103(c) (Attachment 2), as attached to this Resolution and incorporated herein.

## ELEMENTARY SCHOOLS — MAY 2018 APFO School Capacity Chart

Capacity Utilization Rates with Board of Education's Approved FY 2019 Capital Budget Projects

Chart reflects May 2017 Projections, Board of Education's Requested FY 2019 capacities, and effects of approved redistricting for the 2018-19 school year.

	Capacity				2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29		2029-30		2030-31	
	2021	2022	2023	2024	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.
<b>Columbia—East</b>	3021	3022	3023	3024	3027	94.0	354	88.2	363	91.2	363	91.2	368	92.5	374	94.0	377	94.7	383	96.2	388	97.5	394	99.0
Cradlerock-ES	308	308	308	308	374	103.8	432	102.6	434	103.1	434	103.1	441	104.8	450	106.9	455	108.1	460	109.3	468	111.2	474	112.6
Jeffers Hill-ES	421	421	421	421	437	103.8	432	102.6	434	103.1	434	103.1	441	104.8	450	106.9	455	108.1	460	109.3	468	111.2	474	112.6
Phelps Luck-ES	597	597	597	597	654	109.5	664	111.2	676	113.2	682	114.2	691	115.7	714	119.6	720	120.6	727	121.8	735	123.1	740	124.0
Stevens Forest-ES	399	399	399	399	440	102.8	424	106.3	420	105.3	416	104.3	422	105.8	434	108.8	436	109.3	438	109.8	441	110.5	442	110.8
Talbot Springs-ES	540	540	540	540	449	83.1	436	80.7	439	81.3	447	82.8	444	82.2	449	83.1	454	84.1	461	85.4	466	86.3	479	88.7
Thunder Hill-ES	509	509	509	509	513	100.8	507	99.6	499	98.0	504	99.0	508	99.8	509	100.0	515	101.2	521	102.4	531	104.3	537	105.5
<b>Region Totals</b>	2864	2864	2864	2864	2837	99.1	2814	98.3	2831	98.8	2846	99.4	2874	100.3	2930	102.3	2967	103.2	2990	104.4	3029	105.8	3066	107.1
<b>Columbia—West</b>	361	361	361	361	416	115.2	404	111.0	406	112.5	404	111.0	410	113.6	414	114.7	418	115.8	418	115.8	421	116.6	427	118.3
Bryant Woods-ES	524	524	524	524	546	104.8	568	109.0	595	114.2	605	116.1	651	126.0	671	128.8	685	131.6	695	133.4	696	133.6	693	133.0
Glemons Crossing-ES	512	512	512	512	385	75.2	392	76.6	390	76.2	388	75.8	396	77.3	404	78.3	406	79.3	412	80.5	418	81.6	424	82.8
Longfellow-ES	542	542	542	542	704	136.1	771	149.7	833	161.7	882	171.3	927	180.0	981	190.5	1032	200.4	1071	208.0	1109	216.3	1134	220.2
Running Brook-ES	515	515	515	515	644	108.6	658	110.8	663	111.6	665	111.8	673	113.0	682	114.8	689	116.1	700	118.0	708	119.8	718	122.0
Swansfield-ES	694	694	694	694	644	92.8	658	94.5	663	95.5	665	95.8	673	97.0	682	98.3	688	99.1	700	100.9	708	102.0	718	103.5
<b>Region Totals</b>	2603	2603	2603	2603	2592	103.4	2793	107.3	2887	110.8	2844	113.1	3057	117.4	3149	121.4	3229	124.6	3296	126.6	3362	128.6	3396	130.6
<b>Northeastern</b>	751	751	751	751	797	106.1	845	112.5	875	116.5	900	119.8	908	120.9	970	127.9	984	130.0	980	129.8	840	111.0	820	109.2
Bellows Spring-ES	750	750	750	750	781	104.1	803	107.7	834	111.2	855	114.0	878	117.1	900	120.0	920	122.7	939	125.2	959	127.7	980	130.7
Deep Run-ES	694	694	694	694	777	112.0	839	120.9	884	127.4	886	127.4	870	125.4	851	122.5	840	121.0	814	117.3	807	116.3	803	115.7
Duckette Lane-ES	694	694	694	694	777	112.0	839	120.9	884	127.4	886	127.4	870	125.4	851	122.5	840	121.0	814	117.3	807	116.3	803	115.7
Elkridge-ES	760	760	760	760	770	101.3	739	97.3	719	94.6	738	97.1	780	102.6	807	106.2	852	112.1	868	114.2	878	115.6	887	116.7
Harbor Hill-ES	840	840	840	840	1009	120.6	1085	129.0	1121	133.4	1178	140.2	1204	143.6	1204	143.6	1240	148.1	1278	153.4	1315	158.9	1361	168.0
Ilchester-ES	584	584	584	584	627	107.2	646	110.6	652	111.6	663	113.6	683	117.1	696	119.2	708	121.2	736	126.0	726	124.2	740	124.4
Rockburn-ES	609	609	609	609	628	103.1	635	104.3	650	106.7	691	113.5	716	117.4	741	121.7	749	122.1	737	120.4	737	120.4	740	121.6
Veterans-ES	799	799	799	799	900	112.6	886	110.9	874	109.4	882	110.4	869	108.8	867	108.5	923	115.6	944	118.1	940	117.6	949	118.8
Waterloo-ES	663	663	663	663	539	81.3	552	83.3	551	83.1	547	82.5	556	83.0	562	84.8	568	85.7	584	88.1	590	89.0	597	90.0
Werthington-ES	515	515	515	515	402	78.1	408	79.2	423	82.1	442	85.8	471	91.5	481	93.4	492	95.5	517	100.0	548	106.4	541	105.0
<b>Region Totals</b>	6936	6936	6936	6936	7130	102.8	7338	106.5	7493	108.0	7695	111.0	7888	113.7	7927	114.3	8086	116.6	8237	118.8	8418	121.4	8317	119.8
<b>Northern</b>	647	647	647	647	738	114.1	741	114.5	721	111.4	718	111.0	718	111.0	713	110.2	718	111.0	726	112.2	731	112.9	741	114.5
Centennial Lane-ES	647	647	647	647	738	114.1	741	114.5	721	111.4	718	111.0	718	111.0	713	110.2	718	111.0	726	112.2	731	112.9	741	114.5
Hollifield Station-ES	732	732	732	732	841	114.0	827	112.0	814	111.2	842	115.0	834	113.0	830	113.4	851	116.3	869	118.7	892	121.0	920	126.7
Manor Woods-ES	681	681	681	681	766	112.5	800	117.5	833	122.3	856	125.7	880	130.7	903	132.6	908	133.0	875	128.5	844	123.0	809	118.8
Northfield-ES	700	700	700	700	753	107.6	750	107.1	737	105.3	736	105.1	748	106.9	753	107.6	778	111.1	779	111.1	782	111.7	790	112.9
St. Johns Lane-ES	612	612	612	612	739	120.8	762	124.5	789	128.9	821	134.2	856	139.8	882	143.8	897	146.0	893	144.0	874	142.8	884	144.4
Waverly-ES	788	788	788	788	831	105.6	844	107.1	876	111.2	892	113.2	909	115.4	910	115.5	913	115.9	913	115.9	916	116.3	914	116.0
<b>Region Totals</b>	4160	4160	4160	4160	4558	114.2	4724	113.6	4770	114.7	4865	116.9	4955	119.1	4961	119.3	5015	120.6	5026	120.8	5039	121.1	5058	121.8
<b>Southeastern</b>	424	424	424	424	447	105.4	448	105.6	446	105.1	444	104.7	444	104.7	442	104.2	445	104.9	448	105.6	450	106.1	453	106.8
Atholton-ES	666	666	666	666	757	113.7	761	114.3	772	115.4	784	117.7	776	116.5	768	115.3	767	115.2	768	115.3	781	117.3	793	117.6
Bolman Bridge-ES	713	713	713	713	776	108.9	813	114.0	852	119.5	894	125.4	918	128.8	952	133.5	963	134.7	945	132.5	928	130.2	918	128.8
Forest Ridge-ES	735	735	735	735	836	113.7	839	114.1	830	112.9	803	109.3	803	109.3	809	110.1	790	107.5	774	105.3	763	103.8	763	103.8
Guilford-ES	465	465	465	465	449	96.6	444	95.5	415	88.2	451	97.0	484	104.1	488	104.9	482	103.7	483	103.9	495	106.5	495	106.5
Hammond-ES	653	653	653	653	661	101.2	705	108.0	702	107.3	830	127.1	874	133.8	923	141.3	974	148.7	1038	159.0	1107	169.5	1155	176.0
Laurel Woods-ES	640	640	640	640	482	75.3	469	73.3	462	72.2	459	71.7	449	70.2	467	73.0	473	73.9	479	74.8	486	75.9	491	76.7
<b>Region Totals</b>	4296	4296	4296	4296	4359	101.7	4418	102.9	4539	105.7	4636	107.9	4718	109.8	4819	112.2	4861	113.8	4905	114.2	4980	116.9	5028	117.0
<b>Western</b>	744	744	744	744	507	68.1	499	67.1	483	64.9	478	64.2	490	65.9	494	66.4	514	69.1	551	74.1	561	75.4	559	75.1
Buety Park-ES	543	543	543	543	413	76.1	429	79.0	409	75.3	410	75.5	416	76.6	422	77.7	425	78.3	429	78.9	430	79.2	433	79.7
Clarkville-ES	675	675	675	675	606	89.8	582	86.2	588	87.1	588	87.1	590	87.4	569	84.3	565	83.7	563	83.4	597	88.4	647	95.9
Dayton Oaks-ES	826	826	826	826	1099	133.1	1144	139.5	1123	136.0	1119	135.6	1087	131.6	1053	127.5	1018	123.2	980	118.6	948	114.8	936	113.3
Fulton-ES	527	527	527	527	424	80.5	417	79.1	421	79.8	425	80.6	460	87.3	482	91.5	506	96.0						



**ELEMENTARY SCHOOLS - JUNE 2018 APFO School Capacity Chart**  
 Capacity Utilization Rates with Board of Education's Approved FY 2019 Capital Budget Projects

Chart reflects May 2017 Projections, Board of Education's Requested FY 2019 capacities, and effects of approved redistricting for the 2018-19 school year.

		Capacity				2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29		2029-30		2030-31	
		2021	2022	2023	2024	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.
Columbia - East																									
		398	398	398	398	374	94.0	351	88.2	363	91.2	363	91.2	368	92.5	374	94.0	377	94.7	383	96.2	388	97.5	394	99.0
		421	421	421	421	437	103.8	432	102.6	434	103.1	434	103.1	441	104.8	450	106.9	455	108.1	460	109.3	468	111.2	474	112.6
		597	597	597	597	654	109.5	664	111.2	676	113.2	682	114.2	691	115.7	714	119.6	720	120.6	727	121.8	735	123.1	740	124.0
		399	399	399	399	410	102.8	424	106.3	420	105.3	416	104.3	422	105.6	434	108.8	436	109.3	438	109.8	441	110.5	442	110.8
		377	377	377	377	449	119.1	436	115.6	439	116.2	447	118.8	444	117.8	449	119.5	454	121.0	461	122.9	466	124.2	479	126.7
		509	509	509	509	513	100.8	507	99.6	499	98.0	504	99.0	508	99.8	509	100.0	515	101.2	521	102.4	531	104.3	537	105.5
		2701	2864	2864	2864	2837	105.0	2814	98.3	2831	98.8	2846	99.4	2874	100.3	2930	102.3	2957	103.2	2990	104.4	3029	105.8	3066	107.1
Columbia - West																									
		361	361	361	361	416	115.2	404	111.9	406	112.5	404	111.9	410	113.6	414	114.7	418	115.8	421	116.6	426	117.6	427	118.3
		521	521	521	521	546	104.8	568	109.0	595	114.2	605	116.1	651	125.0	671	128.8	685	131.6	695	133.4	696	133.6	693	133.0
		512	512	512	512	385	75.2	392	76.6	390	76.2	388	75.8	396	77.3	401	78.3	406	79.3	412	80.5	418	81.6	424	82.8
		515	515	515	515	701	136.1	771	149.7	833	161.7	882	171.3	927	180.0	981	190.5	1032	200.4	1071	208.0	1109	215.3	1134	220.2
		694	694	694	694	644	92.8	658	94.8	663	95.5	665	95.8	673	97.0	682	98.3	688	99.1	700	100.9	708	102.0	718	103.5
		2603	2603	2603	2603	2692	103.4	2793	107.3	2887	110.9	2944	113.1	3057	117.4	3149	121.0	3229	124.0	3296	126.6	3352	128.8	3396	130.6
Northeastern																									
		751	751	751	751	797	106.1	845	112.5	875	116.5	900	119.8	908	120.9	979	129.0	1008	133.0	1038	137.0	1068	140.0	1098	144.0
		750	750	750	750	781	104.1	803	107.1	834	111.2	855	114.0	878	117.1	899	119.9	920	122.8	941	125.6	962	128.4	983	131.2
		694	694	694	694	777	112.0	839	120.9	854	123.1	866	124.6	870	125.4	881	126.6	890	127.8	898	128.8	907	129.9	916	131.0
		760	760	760	760	770	101.3	739	97.2	719	94.6	738	97.1	780	102.6	807	106.2	832	110.0	858	113.2	878	115.5	887	116.7
		810	810	810	810	1009	124.6	1085	134.0	1121	138.4	1152	142.2	1178	145.4	1204	148.6	1240	153.1	1278	157.8	1315	162.3	1361	168.0
		584	584	584	584	527	90.2	546	93.5	592	101.4	622	106.5	663	113.5	696	119.2	708	121.2	736	126.0	762	131.0	789	135.0
		609	609	609	609	628	103.1	635	104.3	650	106.7	691	113.5	715	117.4	741	122.0	768	126.6	795	131.1	822	135.2	849	139.3
		799	799	799	799	900	112.6	886	110.9	874	109.4	882	110.4	869	108.6	867	108.5	863	107.9	854	106.5	840	104.0	826	102.6
		663	663	663	663	539	81.3	552	83.3	551	83.1	547	82.5	556	83.9	582	88.0	588	88.5	584	88.1	590	88.9	597	90.0
		515	515	515	515	402	78.1	408	79.2	423	82.1	442	85.6	471	91.5	481	93.4	492	95.5	504	97.6	516	99.7	528	101.8
		6935	6935	6935	6935	7130	102.8	7338	105.8	7493	108.0	7695	111.0	7888	113.7	7927	114.3	8086	116.6	8237	118.8	8280	119.4	8317	119.9
Northern																									
		647	647	647	647	738	114.1	741	114.5	721	111.4	718	111.0	718	111.0	713	110.2	718	111.0	726	112.2	731	113.0	741	114.5
		732	732	732	732	841	114.9	827	113.0	814	111.2	842	115.0	834	113.9	830	113.4	851	116.3	869	118.7	892	121.9	920	125.7
		681	681	681	681	766	112.5	800	117.5	833	122.3	856	125.7	890	130.7	903	132.6	898	131.9	875	128.5	844	123.9	809	118.8
		700	700	700	700	753	107.6	750	107.1	737	105.3	736	105.1	748	106.9	753	107.6	778	111.1	779	111.3	782	111.7	790	112.9
		612	612	612	612	739	120.8	762	124.5	789	128.9	821	134.2	856	139.9	862	139.2	857	140.0	863	141.0	874	142.8	884	144.4
		788	788	788	788	831	105.5	844	107.1	876	111.2	892	113.2	909	115.4	910	115.5	913	115.9	916	116.2	914	116.0	914	116.0
		4160	4160	4160	4160	4668	112.2	4724	113.6	4770	114.7	4865	116.9	4955	119.1	4961	119.3	5015	120.6	5025	120.8	5039	121.1	5058	121.6
Southeastern																									
		424	424	424	424	447	105.4	418	98.6	416	98.1	414	97.6	414	97.6	412	97.2	415	97.9	418	98.6	420	99.1	423	99.8
		666	666	666	666	757	113.7	781	114.3	772	115.9	784	117.7	776	116.5	788	118.3	767	115.2	768	115.3	781	117.3	783	117.6
		713	713	713	713	776	108.8	813	114.0	852	119.5	894	125.4	918	128.8	952	133.5	963	134.7	945	132.5	928	130.2	918	128.8
		735	735	735	735	836	113.7	839	114.1	830	112.9	803	109.3	803	109.3	809	110.1	790	107.5	774	105.3	763	103.8	763	103.8
		465	465	465	465	410	88.2	414	89.0	415	89.2	451	97.0	484	104.1	488	104.9	482	103.7	483	103.9	495	106.5	495	106.5
		653	653	653	653	861	131.8	705	108.0	792	121.3	830	127.1	874	133.8	923	141.3	971	148.7	1038	159.0	1107	169.5	1155	176.9
		640	640	640	640	482	75.3	469	73.3	462	72.2	459	71.7	449	70.2	467	73.0	473	73.9	479	74.8	486	75.9	491	76.7
		4296	4296	4296	4296	4369	101.7	4419	102.9	4539	105.7	4635	107.9	4718	109.8	4819	112.2	4851	112.9	4905	114.2	4980	115.9	5028	117.0
Western																									
		744	744	744	744	507	68.1	499	67.1	483	64.9	478	64.2	490	65.9	494	66.4	514	69.1	551	74.1	561	75.4	559	75.1
		543	543	543	543	413	76.1	429	79.0	409	75.3	410	75.5	416	76.6	422	77.7	425	78.3	425	78.3	430	79.2	433	79.7
		675	675	675	675	606	89.8	582	86.2	588	87.1	588	87.1	590	87.4	569	84.3	565	83.7	563	83.4	557	82.4	547	80.9
		826	826	826	826	1099	133.1	1111	134.5	1123	136.0	1119	135.5	1087	131.6	1053	127.5	1018	123.2	980	118.6	948	114.8	936	113.3
		527	527	527	527	424	80.5	417	79.1	421	79.9	425	80.6	460	87.3	482	91.5	506	96.0	519	98.5	515	97.7	510	96.8
		744	744	744	744	878	118.0	919	123.5	940	126.3	953	128.1	959	128.9	952	128.0	932	125.3	904	121.5	874	117.5	849	114.4
		581	581	581	581	679	116.9	713	122.7	745	128.2	754	129.6	751	129.3	752	129.4	746	128.4	738	127.0	732	126.0	724	124.6
		414	414	414	414	423	102.2	453	109.4	484	116.9	499	120.5	505	122.0	497	120.0	497	120.0	496	119.8	494	119.3	486	117.4
		5054	5054	5054	5054	5029	99.5	5123	101.4	5193	102.8														

MIDDLE SCHOOLS - MAY 2018 APFO School Capacity Chart

Capacity Utilization Rates with Board of Education's Approved FY 2019 Capital Budget Projects

Chart reflects May 2017 Projections, Board of Education's Requested FY 2019 capacities, and effects of approved redistricting for the 2018-19 school year.

	Capacity				2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29		2029-30		2030-31			
	2021	2022	2023	2024	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.		
Columbia - East	643	643	643	643	585	91.0	591	91.9	557	86.6	553	86.0	532	82.7	546	84.9	553	86.0	557	86.6	559	86.9	565	87.9		
Lake Elkhorn MS	506	506	506	506	497	98.2	495	97.8	513	101.4	506	100.0	501	99.0	495	97.8	496	98.0	496	98.0	497	98.2	505	99.8		
Oakland Mills MS	1149	1149	1149	1149	1082	94.2	1086	94.5	1070	93.1	1059	92.2	1033	89.9	1041	90.6	1049	91.3	1053	91.6	1056	91.9	1070	93.1		
Region MS Totals	1149	1149	1149	1149	1082	94.2	1086	94.5	1070	93.1	1059	92.2	1033	89.9	1041	90.6	1049	91.3	1053	91.6	1056	91.9	1070	93.1		
Columbia - West																										
Harpers Choice MS	506	506	506	506	534	105.5	511	101.0	517	102.2	520	102.8	534	105.5	540	106.7	534	105.5	539	106.5	546	107.9	555	109.7		
Wilke Lake MS	760	760	760	760	724	95.3	756	99.5	785	103.3	845	111.2	903	118.8	C	947	124.6	C	967	127.2	C	994	130.8	C		
Region MS Totals	1266	1266	1266	1266	1258	99.4	1267	100.1	1302	102.8	1365	107.8	1437	113.6	1487	117.5	1501	118.6	1533	121.1	1562	123.4	1597	126.1		
Northeastern																										
Bonnie Branch MS	701	701	701	701	670	95.6	681	97.1	697	99.4	703	100.3	702	100.1	719	102.6	732	104.4	761	108.6	781	111.4	803	114.6		
Elkridge Landing MS	779	779	779	779	760	97.6	773	99.2	787	101.0	774	99.4	781	97.7	788	101.2	817	104.9	841	108.0	824	105.8	838	107.6		
Ellicott Mills MS	A 701	701	701	701	906	129.2	C	857	122.3	C	858	122.4	C	827	96.5	810	94.5	801	93.5	854	99.6	856	99.9	891	104.0	
Mayfield Woods MS	798	798	798	798	875	109.6	855	107.1	872	109.3	918	115.0	C	949	118.9	C	1022	128.1	C	1038	130.1	C	1044	130.8	C	
Thomas Viaduct MS	701	701	701	701	788	112.4	826	117.8	C	919	131.1	C	1043	148.8	C	1182	168.6	C	1260	179.7	C	1311	187.0	C		
Region MS Totals	3680	3680	3680	3636	3999	108.7	3992	108.5	4133	112.3	4265	111.2	4404	114.8	4590	119.7	4712	122.8	4888	127.4	4852	126.5	4937	128.7		
Northern																										
Burleigh Manor MS	779	779	779	779	857	110.0	864	110.9	885	113.6	923	118.5	C	963	123.6	C	969	124.4	C	973	124.9	C	968	124.3	C	
Dunloggin MS	565	565	565	562	694	122.8	C	711	125.8	C	730	129.2	C	720	108.8	704	106.3	698	105.4	712	107.6	717	108.3	714	107.9	
Patapsco MS	A 643	643	643	643	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
Region MS Totals	1987	1987	1987	2084	2286	116.0	2339	117.7	2384	120.0	2419	116.1	2442	117.2	2470	118.5	2496	119.8	2500	120.0	2486	119.3	2515	120.7		
Southeastern																										
Hammond MS	604	604	604	604	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	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	747	112.8
Patuxent Valley MS	760	760	760	760	656	86.3	649	85.4	654	86.1	672	88.4	C	702	92.4	721	94.9	737	97.0	737	97.0	737	97.0	763	100.4	
Region MS Totals	2026	2026	2026	2026	2037	100.5	2064	101.9	2084	102.9	2159	106.6	2185	107.8	2217	109.4	2220	109.6	2226	109.9	2283	112.7	2341	115.5		
Western																										
Clarksville MS	643	643	643	643	657	102.2	636	98.9	635	98.8	638	99.2	672	104.5	664	103.3	675	105.0	668	103.9	677	105.3	677	105.3		
Folly Quarter MS	662	662	662	662	628	94.9	616	93.1	605	91.4	608	91.8	599	90.5	602	90.9	590	89.1	592	89.4	601	90.8	613	92.6		
Glenwood MS	545	545	545	545	534	98.0	502	92.1	492	90.3	477	87.5	484	88.8	506	92.8	517	94.9	539	98.9	524	96.1	529	97.1		
Lime Kiln MS	701	701	701	701	635	90.6	670	95.6	677	96.6	687	98.0	694	99.0	728	103.9	747	106.6	738	105.3	723	103.1	716	102.1		
Mount View MS	798	798	798	798	887	111.2	907	113.7	930	116.5	C	971	121.7	C	973	121.9	C	1009	126.4	C	1003	125.7	C	1020	127.8	
Region MS Totals	3349	3349	3349	3349	3341	99.8	3331	99.5	3339	99.7	3381	101.0	3422	102.2	3509	104.8	3532	105.5	3557	106.2	3544	105.8	3575	106.7		
Countywide Totals	13457	13457	13457	13710	14003	104.1	14079	104.6	14312	106.4	14648	106.8	14923	108.8	15314	111.7	15510	113.1	15757	114.9	15783	115.1	16035	117.0		

A: capacity includes additions as reflected in FY 2019 Capital Budget for Grades 6-8 between 2019 and 2026.

C: Constrained for future development

## Attachment 2

As required by the newly adopted County Council Bill 1-2018, additional supplemental information:

### I. State and Local Capacities of the Facility

#### State and Local Capacity Chart for SY 2018/19

Name	State	Local
Atholton ES	419	424
Bellows Spring ES	720	751
Bollman Bridge ES	694	666
Bryant Woods ES	362	361
Bushy Park ES	910	744
Centennial Lane ES	544	647
Clarksville ES	581	543
Clemens Crossing ES	544	521
Cradlerock ES	556	398
Dayton Oaks ES	910	675
Deep Run ES	740	750
Ducketts Lane ES	785	694
Elkridge ES	819	760
Forest Ridge ES	660	713
Fulton ES	564	826
Gorman Crossing ES	618	735
Guilford ES	522	465
Hammond ES	525	653
Hanover Hills ES	TBD	810
Hollifield Station ES	564	732
Ilchester ES	564	584
Jeffers Hill ES	435	421
Laurel Woods ES	544	640
Lisbon ES	504	527
Longfellow ES	468	512
Manor Woods ES	564	681
Northfield ES	544	700
Phelps Luck ES	578	597
Pointers Run ES	564	744
Rockburn ES	847	609
Running Brook ES	471	515
St Johns Lane ES	619	612
Stevens Forest ES	320	399
Swansfield ES	601	694
Talbott Springs ES	500	377
Thunder Hill ES	386	509
Triadelphia Ridge ES	564	581
Veterans ES	922	799
Waterloo ES	726	663
Waverly ES	678	788
West Friendship ES	394	414
Worthington ES	589	515

Name	State	Local
Bonnie Branch MS	732	701
Burleigh Manor MS	795	779
Clarksville MS	619	643
Dunloggin MS	619	565
Elkridge Landing MS	760	779
Ellicott Mills MS	816	701
Folly Quarter MS	732	662
Glenwood MS	640	545
Hammond MS	679	604
Harpers Choice MS	619	506
Lake Elkhorn MS	765	643
Lime Kiln MS	732	701
Mayfield Woods MS	773	798
Mount View MS	760	798
Murray Hill MS	685	662
Oakland Mills MS	598	506
Patapsco MS	598	643
Patuxent Valley MS	770	760
Thomas Viaduct	754	701
Wilde Lake MS	590	760

Name	State	Local
Atholton HS	1543	1460
Centennial HS	1091	1360
Glenelg HS	944	1420
Hammond HS	1434	1220
Howard HS	1051	1420
Long Reach HS	1434	1488
Marriotts Ridge HS	1434	1615
Mt Hebron HS	1408	1400
Oakland Mills HS	1135	1400
Reservoir HS	1339	1551
River Hill HS	1483	1488
Wilde Lake HS	1434	1424

**II. The date of the last redistricting which impacted the attendance area of that school**

Most Recent Redistricting			
	In effect		In effect
Atholton ES	2012	Bonnie Branch MS	2014
Bellows Spring ES	2018	Burleigh Manor MS	2018
Bollman Bridge ES	2012	Clarksville MS	2018
Bryant Woods ES	2007	Dunloggin MS	2006
Bushy Park ES	2002	Elkridge Landing MS	2018
Centennial Lane ES	2007	Ellicott Mills MS	2014
Clarksville ES	2006	Folly Quarter MS	2006
Clemens Crossing ES	2018	Glenwood MS	2004
Cradlerock ES	2004	Hammond MS	2014
Dayton Oaks ES	2012	Harpers Choice MS	2018
Deep Run ES	2018	Lake Elkhorn MS	2014
Ducketts Lane ES	2018	Lime Kiln MS	2018
Elkridge ES	2013	Mayfield Woods MS	2018
Forest Ridge ES	2012	Mount View MS	2018
Fulton ES	2012	Murray Hill MS	2014
Gorman Crossing ES	2012	Oakland Mills MS	2003
Guilford ES	2012	Patapsco MS	2006
Hammond ES	2012	Patuxent Valley MS	2014
Hanover Hills ES	2018	Thomas Viaduct MS	2018
Hollifield Station ES	2013	Wilde Lake MS	2018
Ilchester ES	2013		
Jeffers Hill ES	2013		
Laurel Woods ES	2012		
Lisbon ES	1998		
Longfellow ES	2003		
Manor Woods ES	2018		
Northfield ES	2013		In effect
Phelps Luck ES	2013	Atholton HS	2002
Pointers Run ES	2018	Centennial HS	2006
Rockburn ES	2018	Glenelg HS	2010
Running Brook ES	2007	Hammond HS	2005
St Johns Lane ES	2013	Howard HS	2005
Stevens Forest ES	2013	Long Reach HS	2005
Swansfield ES	1987	Marriotts Ridge HS	2010
Talbott Springs ES	2013	Mt Hebron HS	2006
Thunder Hill ES	2013	Oakland Mills HS	2005
Triadelphia Ridge ES	2018	Reservoir HS	2002
Veterans ES	2013	River Hill HS	2010
Waterloo ES	2013	Wilde Lake HS	2004
Waverly ES	2018		
West Friendship ES	2018		
Worthington ES	2007		



**III. For any projected increase in enrollment, an indication of what portions of the increase are attributed to sales or rental turnover of existing residential units, new development, and other factors**

These charts are based on the projection developed in the Spring of 2017, the same projections that inform the May 2018 School Capacity Chart. The impact of attendance area adjustments (for the 2018/19 school year) is excluded from these charts because the housing data made available in January 2017 was based on the existing attendance areas. The projections were developed prior to the creation of the Hanover Hills ES attendance area in November 2017.

**Elementary Schools**

	Official 2016 Enrollment	Projected 2017 Enrollment	Projected Enrollment Change	Projected 2017 Student Yield Breakdown			
				Apt Turnover	Resale	New Construction	Other Factors
Atholton ES	435	458	23	4.0	12.6	0.0	6.4
Bellows Spring ES	667	711	44	4.0	-0.4	43.1	-2.7
Bollman Bridge ES	665	709	44	38.7	6.9	48.2	-49.7
Bryant Woods ES	379	418	39	11.7	3.3	24.3	-0.3
Bushy Park ES	590	599	9	0.0	32.2	16.5	-39.7
Centennial Lane ES	739	745	6	14.0	25.0	2.7	-35.7
Clarksville ES	430	428	-2	4.5	17.5	10.9	-35.0
Clemens Crossing ES	531	542	11	0.0	14.7	5.9	-9.6
Cradlerock ES	457	430	-27	6.2	5.6	0.0	-38.8
Dayton Oaks ES	621	611	-10	0.0	30.0	10.7	-50.7
Deep Run ES	738	772	34	22.2	9.2	0.5	2.1
Ducketts Lane ES	826	867	41	25.2	10.0	11.6	-5.8
Elkridge ES	817	826	9	18.7	12.2	38.4	-60.3
Forest Ridge ES	703	719	16	3.0	14.1	1.5	-2.6
Fulton ES	832	871	39	0.0	15.6	24.1	-0.6
Gorman Crossing ES	666	700	34	3.4	17.8	15.5	-2.7
Guilford ES	440	436	-4	14.4	5.5	3.3	-27.2
Hammond ES	640	644	4	7.0	15.3	3.3	-21.6
Hollifield Station ES	744	783	39	33.6	6.5	17.5	-18.6
Ilchester ES	653	604	-49	0.0	5.7	6.1	-60.8
Jeffers Hill ES	455	444	-11	3.0	6.0	0.0	-26.0
Laurel Woods ES	541	547	6	25.0	5.1	0.9	-25.0
Lisbon ES	446	438	-8	0.0	11.5	4.4	-23.9
Longfellow ES	419	416	-3	11.0	3.1	0.2	-17.3
Manor Woods ES	759	798	39	21.8	21.4	40.1	-44.4
Northfield ES	710	730	20	10.2	26.1	0.9	-17.3
Phelps Luck ES	585	586	1	24.0	7.2	0.0	-30.2
Pointers Run ES	735	704	-31	0.0	27.5	5.2	-63.7
Rockburn ES	636	677	41	4.0	13.4	12.8	10.7
Running Brook ES	470	497	27	32.2	2.2	27.3	-34.7
St Johns Lane ES	701	690	-11	4.7	20.9	1.2	-37.8
Stevens Forest ES	398	408	10	31.0	2.0	0.5	-23.5
Swansfield ES	601	618	17	26.0	-3.3	0.0	-5.7
Talbott Springs ES	447	447	0	11.7	2.0	0.5	-14.1
Thunder Hill ES	558	567	9	18.3	6.0	0.0	-15.3
Triadelphia Ridge ES	560	550	-10	0.0	20.1	12.2	-42.2
Veterans ES	861	872	11	31.3	16.9	4.1	-41.3
Waterloo ES	567	555	-12	20.0	6.7	0.5	-39.2
Waverly ES	707	684	-23	1.1	25.2	0.3	-49.6
West Friendship ES	326	336	10	0.0	20.6	6.0	-16.5
Worthington ES	527	500	-27	0.0	5.1	8.2	-40.3

Projected enrollment increase

Additional factors contributing to a schools' enrollment projection:  
 Size of cohort rising to next level  
 Cohort survival rates within school  
 Births (5 yrs ago) in attendance area  
 Birth to Kindergarten survival rate  
 Out of District students (can be +/-)  
 Students who moved into an attendance area between Bth-5  
 Adjustment based on prior years' projection accuracy  
 This projection was developed prior to the creation of an attendance area for Hanover Hills ES, and does not include projections for that school.  
 This projection was developed prior to redistricting approved November 2017, and is based on attendance areas in use for SY 17-18.

### Middle Schools

	2016 Enrollment	Projected 2017 Enrollment	Projected Enrollment Change	Projected 2017 Student Yield Breakdown			
				Apt Turnover	Resale	New Construction	Other Factors
Bonnie Branch MS	713	721	8	-0.7	9.3	0.6	-1.3
Burleigh Manor MS	819	795	-24	-6.7	11.6	7.7	-36.6
Clarksville MS	560	528	-32	0.0	4.5	4.7	-41.3
Elkridge Landing MS	698	704	6	-0.4	7.2	14.3	-15.1
Ellicott Mills MS	828	890	62	1.3	10.4	3.9	46.4
Folly Quarter MS	615	636	21	0.0	17.7	8.9	-5.5
Glenwood MS	517	526	9	0.0	11.6	6.7	-9.3
Hammond MS	590	552	-38	-4.6	3.7	2.0	-39.1
Harpers Choice MS	565	563	-2	-3.0	-1.8	0.3	2.5
Lake Elkhorn MS	529	564	35	-0.5	-0.7	0.0	36.2
Dunloggin MS	617	614	-3	1.0	0.7	1.9	-6.5
Lime Kiln MS	727	730	3	0.0	12.0	10.8	-19.8
Mayfield Woods MS	682	711	29	-1.0	-5.7	5.3	30.4
Mount View MS	792	811	19	-0.5	19.5	13.9	-13.8
Murray Hill MS	669	669	0	2.5	4.2	6.7	-13.3
Oakland Mills MS	443	464	21	-3.7	0.2	1.1	23.3
Patapsco MS	685	710	25	-6.8	4.1	5.5	22.2
Patuxent Valley MS	639	627	-12	-5.1	-1.4	19.8	-25.4
Thomas Viaduct MS	630	645	15	-2.6	4.0	16.2	-2.6
Wilde Lake MS	554	619	65	-10.3	1.4	29.3	44.5

Projected enrollment increase

Additional factors contributing to a schools' enrollment projection:

Size of cohort rising to next level

Cohort survival rates within school

Out of District students (can be +/-)

Adjustment based on prior years' projection accuracy

**This projection was developed prior to redistricting approved**

**November 2017, and is based on attendance areas in use for SY 17-18.**

IV. For any school designated as open on the school capacity chart based on a capital improvement project or proposed redistricting associated with a capital improvement project:

- A. Current and future funding assumptions for the capital improvement project(s);
- B. Future redistricting assumptions associated with the capital improvement project
- C. An explanation of any capacity utilization changes based on (a) or (b).

Talbot Springs ES is open for new residential development on this chart based on additional seats proposed for the school in September 2021. No capital improvements are associated with any schools designated as "open" on the school capacity chart for Test Year 2021-22. The Board Requested Approved FY 2019 – 2027 Long Range Master Plan as approved by the Board on March 5, 2018 May 31, 2018, is attached. The final adoption of the FY 2019 Capital Budget is scheduled for May 31, 2018.



## FY 2019-2028 Long-Range Master Plan

Board of Education's Requested

March 5, 2018

(In Thousands)

Capacity	Project	County Project	Occupancy	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
100	Waverly ES Phase I & II Renovation/Addition*	E0973	Aug 2018	\$ 36,769	\$ 4,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40,769
832	New ES #42	E1028	Aug 2018	35,741	8,132	-	-	-	-	-	-	-	-	-	43,873
640	Talbott Springs ES Replacement School	E1043	Aug 2021	1,000	8,156	18,250	12,218	2,000	-	-	-	-	-	-	41,624
1,615	New HS #13	E1035	Aug 2023	-	6,732	25,315	25,415	25,515	25,115	15,972	-	-	-	-	124,064
200	Hammond HS Renovation/Addition	E1024	Aug 2023	-	6,000	18,695	18,795	18,895	19,995	15,147	-	-	-	-	97,527
788	New ES #43	E1039	Aug 2023	-	-	6,000	11,500	15,215	17,927	8,000	-	-	-	-	58,642
97	Dunloggin MS Renovation/Addition	TBD	Aug 2024	-	-	-	2,000	10,694	12,671	9,534	4,000	-	-	-	38,899
156	Ellicott Mills MS Addition	E1037	Aug 2024	-	-	-	-	-	1,000	6,415	1,000	-	-	-	8,415
-	Oakland Mills MS Renovation*	E1036	Aug 2026	-	-	-	-	-	-	9,003	14,404	10,603	2,000	-	36,010
150	Clarksville ES Addition	TBD	Aug 2026	-	-	-	-	-	-	2,000	7,000	1,000	-	-	10,000
788	New ES #44	E1040	Aug 2027	-	-	-	-	-	-	5,705	15,881	21,175	15,881	-	58,642
TBD	MS/HS Career Development Center	TBD	Aug 2028	-	-	-	-	-	-	11,232	22,566	30,850	31,686	22,566	118,900
788	New ES #45	E1041	Aug 2029	-	-	-	-	-	-	-	-	5,705	15,881	21,175	42,761
	Systemic Renovations/Modernizations	TBD		-	28,655	15,650	17,644	18,007	18,841	18,298	17,598	17,000	18,000	20,000	189,693
	Roofing Projects	TBD		-	12,500	5,000	1,000	5,000	1,000	1,000	5,000	5,000	5,000	5,000	45,500
	Playground Equipment	E0990		2,930	-	250	250	250	250	250	500	500	500	500	6,180
	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	8,000
	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	6,600
	Planning and Design	E1038		600	300	300	300	300	300	300	300	300	300	300	3,600
	Barrier Free	E0989		5,603	-	200	200	200	200	200	200	200	200	200	7,403
	<b>TOTALS</b>			<b>\$ 86,843</b>	<b>\$ 79,725</b>	<b>\$ 97,660</b>	<b>\$ 96,322</b>	<b>\$ 105,076</b>	<b>\$ 106,299</b>	<b>\$ 112,056</b>	<b>\$ 100,049</b>	<b>\$ 103,933</b>	<b>\$ 101,048</b>	<b>\$ 81,341</b>	<b>\$ 1,070,352</b>

\* Partial planning funds received in Systemic Renovation Project

Ten-Year Long-Range Master Plan = \$983,509





# Section 2

## Relocatables





**BOARD OF EDUCATION OF HOWARD COUNTY  
MEETING AGENDA ITEM**

**TITLE:** Assignment of Relocatable Classrooms **DATE:** March 22, 2018

**PRESENTER(S):** Renée M. Kamen, Manager, School Planning

**OVERVIEW:**

The Howard County Public School System uses relocatable classrooms for short-term relief of overcrowding and to serve programming. This report represents an evaluation by staff using considerations of capacity, projected enrollment, current number of relocatable classrooms and additional programs housed at a school. School Planning collaborated with School Facilities to determine the condition of current relocatables, School Construction to determine site accessibility and restraints, as well as School Administration to determine which schools are most impacted by programs and enrollment growth. The movement of one modular building, the placement of fifteen (15) new single classroom units, and the demolition of six (6) units are recommended by staff. Specific recommendations and supporting data are included as attachments to this report.

Attachment 1 – Relocatable Classroom Recommendation Summary

Attachment 2 – 2018-2019 Relocatable Classroom Assignments

Attachment 3 – Proposed Changes Relocatable Classrooms

**RECOMMENDATION/FUTURE DIRECTION:**

Approve the recommendation for placement of relocatable units for the school year 2018-2019.

**SUBMITTED**

**BY:**

Renée M. Kamen,  
Manager School Planning

**APPROVAL/CONCURRENCE:**

Michael J. Martirano, Ed.D.  
Interim Superintendent

Karalee Turner-Little  
Assistant Superintendent  
for Administrative Affairs

Anissa Brown Dennis  
Chief Operating Officer

Bruce Gist  
Executive Director  
Capital Planning & Operations

## ATTACHMENT 1

### Relocatable Classroom Recommendation Summary

#### Relocatable placements:

Centennial Lane ES	1
Fulton ES	9 (modular unit)
Ellicott Mills MS	2
Centennial HS	5
Hammond HS	1
Long Reach HS	4
<u>Mt. Hebron HS</u>	<u>2</u>
	24 units to be placed

#### Relocatable demolition:

Elkridge Landing MS	2
Centennial HS	2
Hammond HS	1
<u>Mt. Hebron HS</u>	<u>1</u>
	6

#### Relocatable source:

Move from Ducketts Lane ES	9 (modular unit)
Purchase	15 (new single units)

## ATTACHMENT 2

### 2018-2019 Relocatable Classroom Assignments

**Overview:** The primary criterion for recommending installation of a relocatable classroom is to provide immediate relief from high capacity utilization. Projected capacity utilization percentages in school year 2018–2019 are based on the recently completed enrollment projections, which will be used in the June 2018 Feasibility Study.

**Survey Results:** A survey of school principals was conducted to better understand each school’s needs and concerns. Principals requested an additional 26 relocatables to be placed (25 individual and one 9-unit modular) and 8 relocatables (7 individual and one 9-unit modular) to be removed. The estimated cost to buy and place, or remove, the relocatables by principals is approximately \$4.4 million. The current budget request is \$2.5 million. Not all of the requests can be accommodated based on budgetary limitations. School Planning collaborated with School Facilities to determine the condition of current relocatables, School Construction to determine site accessibility and restraints, as well as School Administration to understand which schools are most impacted by programs and enrollment growth, in order to recommend the placement of relocatables where the need is greatest. All schools with their current relocatable count, the proposed relocatable count, the capacity utilization, the capacity utilization with relocatables and program notes are found in Attachment 3. Below is a list of relocatables requested by principals.

School	Requested Placement	Requested Removal	Requested No change
Centennial Lane ES	1		
Deep Run ES			No change
Ducketts Lane ES		-9	
Elkridge ES			No change
Fulton ES	3		
Hollifield Station ES	1		
Manor Woods ES		-4	
Northfield ES	1		
Phelps Luck ES			No change
Talbott Springs ES		-2	
Thunder Hill ES			No change
West Friendship ES	1		
Bonnie Branch MS	6		
Hammond MS			No change
Lake Elkhorn MS	9	-1	
Mayfield Woods MS	3		
Mount View MS	1		
Patapsco MS	1		
Centennial HS	3		
Long Reach HS	4		
Oakland Mills HS			No change
<b>TOTAL</b>	<b>34</b>	<b>-16</b>	

## Recommendations and Justifications:

### **Centennial Lane ES**

Proj. % Utilized (no relocatables)	Current Relocatables	Proj. % Utilized w/Current Relocatables	Additional Relocatables	Proj. % Utilized w/Proposed Relocatables
117.0 %	5	98.1 %	1	95.0 %

*Justification: Centennial Lane ES has the second highest projected 2018/19 elementary school capacity utilization (after Talbott Springs ES, which currently has 10 relocatables placed on site) in the County (excluding existing relocatables). The school's projected capacity utilization without the relocatables is 117.0%. The population is projected to grow and the recently approved attendance area adjustments did not include relief for Centennial Lane ES. An additional relocatable is recommended.*

### **Fulton ES**

Proj. % Utilized (no relocatables)	Current Relocatables <sup>1</sup>	Proj. % Utilized w/Current Relocatables	Additional Relocatables	Proj. % Utilized w/Proposed Relocatables
116.5 %	0	116.5 %	9	91.5 %

*Justification: After Talbott Springs ES and Centennial Lane ES, Fulton ES has the next highest projected 2018/19 elementary school capacity utilization in the County (excluding existing relocatables). There is one relocatable\* on site, but it is dedicated to Recreation and Parks due to the reclamation of the Community Room inside the school. The population is expected to continue to grow. The school's projected capacity utilization without the relocatables is 116.5%. The recently approved attendance area adjustments did not include relief for Fulton ES. The placement of the 9-unit modular from Ducketts Lane ES is recommended for Fulton ES.*

### **Ellicott Mills MS**

Proj. % Utilized (no relocatables)	Current Relocatables <sup>1</sup>	Proj. % Utilized w/Current Relocatables	Additional Relocatables	Proj. % Utilized w/Proposed Relocatables
126.0 %	4	110.2 %	2	103.8 %

*Justification: Ellicott Mills MS is the highest projected 2018/19 middle school capacity utilization in the County. Student enrollment continues to grow. The reclamation of the Community Room occurred in 2016 and one relocatable (of the five on site) will continue to be dedicated for the daytime community programming. The school's projected capacity utilization without the relocatables is 126.0%. Capital improvements for additional classroom space were deferred due to fiscal restraints and the assignment of 2 new relocatables is recommended.*

### **Centennial HS**

Proj. % Utilized (no relocatables)	Current Relocatables	Proj. % Utilized w/Current Relocatables	Additional Relocatables	Proj. % Utilized w/Proposed Relocatables
120.0 %	5	109.0 %	+5 & -2 (demo)	104.6 %

*Justification: Centennial HS has the second highest projected 2018/19 high school capacity utilization (behind Howard HS, which currently has 15 relocatables placed on site) in the County (excluding existing relocatables). Currently, two relocatables require demolition. The school's projected capacity utilization without the relocatables is 120.0%. Assignment of five new relocatables is recommended (demolition of two and placement of five new units for a total of 3 more units than the current year).*

<sup>1</sup> Current Relocatables counts do not include relocatables dedicated exclusively to Howard County Recreation and Parks for daytime usage (one at each location, Forest Ridge ES, Fulton ES, Gorman Crossing ES, Veterans ES, Ellicott Mills MS).

**Hammond HS**

Proj. % Utilized (no relocatables)	Current Relocatables	Proj. % Utilized w/Current Relocatables	Additional Relocatables	Proj. % Utilized w/Proposed Relocatables
110.8 %	4	102.4 %	1 replacement	102.4 %

*Justification: Hammond HS has the fifth highest projected 2018/19 high school capacity utilization (behind Howard, Centennial HS, Long Reach HS and Mt. Hebron HS) in the County (excluding existing relocatables). Currently, one relocatable requires demolition. The school's projected capacity utilization without the relocatables is 110.8%. Assignment of a replacement of that relocatable is recommended.*

**Long Reach HS**

Proj. % Utilized (no relocatables)	Current Relocatables	Proj. % Utilized w/Current Relocatables	Additional Relocatables	Proj. % Utilized w/Proposed Relocatables
106.3 %	4	99.6 %	4	93.7 %

*Justification: Long Reach HS has the third highest projected 2018/19 high school capacity utilization (behind Howard and Centennial HS) in the County (excluding existing relocatables). The school's projected capacity utilization without the relocatables is 106.3%. Assignment of a 4 classrooms is recommended.*

**Mt Hebron HS**

Proj. % Utilized (no relocatables)	Current Relocatables	Proj. % Utilized w/Current Relocatables	Additional Relocatables	Proj. % Utilized w/Proposed Relocatables
113.6 %	4	106.0 %	+2 & -1 (demo)	104.3 %

*Justification: Mt. Hebron HS has the fourth highest projected 2018/19 high school capacity utilization (behind Howard, Centennial HS, and Long Reach HS) in the County (excluding existing relocatables). Currently, one relocatable requires demolition. The school's projected capacity utilization without the relocatables is 113.6%. Replacement of that relocatable and placement of an additional relocatable is recommended.*

**Removal of relocatables:****Elkridge Landing MS**

Proj. % Utilized (no relocatables)	Current Relocatables	Proj. % Utilized w/Current Relocatables	Reduction of Relocatables	Proj. % Utilized w/Proposed Relocatables
91.7 %	2	86.1 %	Removal of 2	91.7 %

*Justification: Currently, two relocatables require demolition. Replacement of those relocatables is not recommended. The school's projected capacity utilization without the relocatables is 91.7%.*

**Ducketts Lane ES**

Proj. % Utilized (no relocatables)	Current Relocatables	Proj. % Utilized w/Current Relocatables	Reduction of Relocatables	Proj. % Utilized w/Proposed Relocatables
97.0 %	9 (modular)	73.2 %	Removal of 9	97.0 %

*Justification: Attendance area adjustments for Ducketts Lane ES will provide relief for the 2018/19 school year. The school's projected capacity utilization without the relocatables is 97.0%.*

## ATTACHMENT 3

### Proposed Changes Relocatable Classrooms *Elementary*

School	Current Relocatables <sup>1</sup>	Proposed Relocatables	2018 Proj. % Util	2018 Proj. Util. % w/ Relocatables	Program Notes <sup>2</sup>
Atholton ES	3	3	107.5%	91.4%	Pre-K, Preschool, MINC
Bellows Spring ES	5	5	89.2%	76.5%	Pre-K, Preschool, MINC, EB, ES PL
Bollman Bridge ES	2	2	97.1%	90.4%	Title I, Pre-K, Preschool, MINC
Bryant Woods ES	4	4	108.0%	84.6%	Title I, Full-day Pre-K
Bushy Park ES	0	0	78.5%	78.5%	Pre-K, Preschool, ALS
Centennial Lane ES	5	6	117.0%	95.0%	
Clarksville ES	1	1	77.7%	74.3%	ALS
Clemens Crossing ES	3	3	90.2%	78.9%	
Cradlerock ES	2	2	116.6%	103.6%	Title I, Pre-K, Preschool
Dayton Oaks ES	0	0	89.6%	89.6%	Pre-K, Preschool, MINC, EB, ES PL
Deep Run ES	1	1	90.3%	87.4%	Title I, Pre-K, Preschool, MINC
Ducketts Lane ES	9	0	97.0%	97.0%	Pre-K, Preschool
Elkridge ES	4	4	113.9%	100.7%	Pre-K
Forest Ridge ES	4	4	96.2%	84.4%	
Fulton ES	0	9	116.5%	91.5%	Regional ED
Gorman Crossing ES	1	1	108.2%	104.6%	Pre-K, Preschool, MINC
Guilford ES	5	5	86.0%	67.8%	Title I, Pre-K
Hammond ES	1	1	98.3%	94.7%	
Hanover Hills ES	0	0	78.4%	78.4%	Pre-K, Preschool, Regional ED
Hollifield Station ES	3	3	113.0%	102.5%	
Ilchester ES	2	2	99.3%	91.5%	Pre-K, Preschool, MINC, ES PL
Jeffers Hill ES	2	2	99.5%	89.0%	
Laurel Woods ES	2	2	91.9%	85.2%	Title I, Full-day Pre-K
Lisbon ES	1	1	88.0%	84.1%	
Longfellow ES	0	0	78.5%	78.5%	Title I, Pre-K, Preschool, MINC
Manor Woods ES	5	5	92.4%	78.0%	
Northfield ES	1	1	104.4%	100.8%	
Phelps Luck ES	2	2	86.8%	80.1%	Title I, Full-day Pre-K
Pointers Run ES	9	9	113.3%	87.0%	Pre-K, Preschool, MINC, ES PL, ALS
Rockburn ES	1	1	90.8%	87.2%	Pre-K, Preschool, MINC, ALS
Running Brook ES	3	3	96.9%	84.6%	Title I, Full-day Pre-K, Preschool
St Johns Lane ES	7	7	113.6%	88.3%	
Stevens Forest ES	5	5	97.2%	74.0%	Title I, Full-day Pre-K, Regional ED
Swansfield ES	5	5	87.5%	74.1%	Title I, Pre-K
Talbott Springs ES	10	10	121.5%	73.0%	Title I, Full-day Pre-K
Thunder Hill ES	3	3	105.1%	91.6%	Regional ED
Triadelphia Ridge ES	0	0	97.2%	97.2%	EB
Veterans ES	4	4	109.8%	97.6%	EB, Pre-K, Preschool, MINC
Waterloo ES	4	4	86.1%	74.8%	Pre-K, Regional ED, Preschool, MINC
Waverly ES	9	9	107.2%	82.7%	Pre-K, ALS, Preschool, MINC, ES PL
West Friendship ES	0	0	95.2%	95.2%	
Worthington ES	1	1	93.4%	89.1%	Pre-K, Preschool, MINC
<b>Total</b>	<b>129</b>	<b>130</b>			

- Current Relocatables counts do not include relocatables dedicated exclusively to Howard County Recreation and Parks for daytime usage (one at each location, Forest Ridge ES, Fulton ES, Gorman Crossing ES, Veterans ES, Ellicott Mills MS).
- |                |  |
|----------------|--|
| ALS            | Regional Academic Life Skills  |
| Preschool      | Preschool Program, including Parent Assisted Learning at Schools                   |
| Pre-K          | Income qualifying Pre-K program. Astrisk (*) indicates 300% poverty qualification. |
| Full-day Pre-K | Elementary School Model Full-day Pre-K program                                     |
| EB             | Early Beginnings - SE services for very young children                             |
| Title I        | State approved based upon income   |
| Regional ED    | Regional Emotional Disabilities Program (draws from other schools)                 |
| MINC           | Multiple Intensive Needs Classroom (Toddler, Preschool/K, and/or Early Learner)    |
| ES PL          | Elementary School Primary Learner Program  |



# Proposed Changes Relocatable Classrooms

## Middle

School	Current Relocatables <sup>1</sup>	Proposed Relocatables	2018 Proj. % Util	2018 Proj. Util. % w/ Relocatables	Program Notes <sup>2</sup>
Bonnie Branch MS	2	2	111.0%	103.6%	
Burleigh Manor MS	1	1	103.3%	100.1%	
Clarksville MS	5	5	104.2%	87.2%	
Dunloggin MS	5	5	119.5%	97.8%	
Elkridge Landing MS	2	0	91.7%	91.7%	ALS
Ellicott Mills MS	4	6	126.0%	103.8%	Regional ED
Folly Quarter MS	0	0	95.3%	95.3%	
Glenwood MS	6	6	88.1%	69.1%	
Hammond MS	3	3	93.2%	82.9%	
Harpers Choice MS	5	5	108.1%	86.7%	
Lake Elkhorn MS	2	2	91.4%	84.8%	
Lime Kiln MS	0	0	89.6%	89.6%	ALS
Mayfield Woods MS	2	2	87.1%	82.0%	
Mount View MS	2	2	101.5%	95.5%	
Murray Hill MS	6	6	105.3%	85.8%	Regional ED
Oakland Mills MS	0	0	100.2%	100.2%	
Patapsco MS	2	2	112.8%	104.6%	
Patuxent Valley MS	0	0	86.1%	86.1%	
Thomas Viaduct MS	0	0	101.0%	101.0%	
Wilde Lake MS	0	0	82.6%	82.6%	
Total	47	47			

## High

School	Current Relocatables	Proposed Relocatables	2018 Proj. % Util	2018 Proj. Util. % w/ Relocatables	Program Notes
Atholton HS	0	0	101.3%	101.3%	
Centennial HS	5	8	120.0%	104.6%	
Glenelg HS	0	0	84.3%	84.3%	
Hammond HS	4	4	110.8%	102.4%	Regional ED
Howard HS	15	15	133.9%	105.9%	
Long Reach HS	4	8	106.3%	93.7%	
Marriotts Ridge HS	0	0	85.4%	85.4%	
Mt Hebron HS	4	5	113.6%	104.3%	Regional ED
Oakland Mills HS	0	0	87.1%	87.1%	ALS
Reservoir HS	5	5	102.7%	95.0%	Regional ED
River Hill HS	0	0	97.0%	97.0%	
Wilde Lake HS	0	0	93.7%	93.7%	
Total	37	45			

- Current Relocatables counts do not include relocatables that are used for daytime usage (one at each location, Forest Ridge ES and Ellicott Mills MS).
- Regional ED  
ALS

Regional Emotional Disabilities program  
Regional Academic Life Skills

Board Action on March 28, 2018 placed 9 relocatables at Centennial HS & 7 relocatables at Long Reach HS, which differs from the action item of this report. The relocatable chart on the following page accounts for this change.

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Name	2018 K-5 Capacity	# Relo CRs in 2018	Relo Capacity	Cap with Relos	9/30/18 K-5 Actuals	9/30/18 Util	9/30/18 Util w/ Relos	11/30/18 K-5 Actuals**	11/30/18 Util	11/30/18 Util w/ Relos
Atholton ES	424	3	75	499	445	105.0%	89.2%	441	104.0%	88.4%
Bellows Spring ES	751	5	125	876	725	96.5%	82.8%	731	97.3%	83.4%
Bollman Bridge ES	666	2	50	716	660	99.1%	92.2%	669	100.5%	93.4%
Bryant Woods ES	361	4	100	461	419	116.1%	90.9%	423	117.2%	91.8%
Bushy Park ES	744	0	0	744	593	79.7%	79.7%	598	80.4%	80.4%
Centennial Lane ES	647	6	150	797	734	113.4%	92.1%	733	113.3%	92.0%
Clarksville ES	543	1	25	568	419	77.2%	73.8%	423	77.9%	74.5%
Clemens Crossing ES	521	3	75	596	491	94.2%	82.4%	493	94.6%	82.7%
Cradlerock ES	398	3	75	473	462	116.1%	97.7%	480	120.6%	101.5%
Dayton Oaks ES	675	0	0	675	650	96.3%	96.3%	655	97.0%	97.0%
Deep Run ES	750	1	25	775	665	88.7%	85.8%	676	90.1%	87.2%
Ducketts Lane ES	694	0	0	694	563	81.1%	81.1%	569	82.0%	82.0%
Elkridge ES	760	4	100	860	865	113.8%	100.6%	875	115.1%	101.7%
Forest Ridge ES*	713	4	100	813	679	95.2%	83.5%	682	95.7%	83.9%
Fulton ES*	826	9	225	1051	918	111.1%	87.3%	933	113.0%	88.8%
Gorman Crossing ES*	735	0	0	735	810	110.2%	110.2%	814	110.7%	110.7%
Guilford ES	465	5	125	590	401	86.2%	68.0%	406	87.3%	68.8%
Hammond ES	653	1	25	678	623	95.4%	91.9%	627	96.0%	92.5%
Hanover Hills ES	810	0	0	810	651	80.4%	80.4%	654	80.7%	80.7%
Hollifield Station ES	732	3	75	807	879	120.1%	108.9%	889	121.4%	110.2%
Ilchester ES*	584	2	50	634	607	103.9%	95.7%	609	104.3%	96.1%
Jeffers Hill ES	421	2	50	471	403	95.7%	85.6%	414	98.3%	87.9%
Laurel Woods ES	640	2	50	690	569	88.9%	82.5%	577	90.2%	83.6%
Lisbon ES	527	1	25	552	451	85.6%	81.7%	454	86.1%	82.2%
Longfellow ES	512	0	0	512	420	82.0%	82.0%	421	82.2%	82.2%
Manor Woods ES	681	5	125	806	650	95.4%	80.6%	652	95.7%	80.9%
Northfield ES	700	1	25	725	747	106.7%	103.0%	740	105.7%	102.1%
Phelps Luck ES	597	2	50	647	540	90.5%	83.5%	535	89.6%	82.7%
Pointers Run ES	744	9	225	969	869	116.8%	89.7%	868	116.7%	89.6%
Rockburn ES	609	1	25	634	577	94.7%	91.0%	576	94.6%	90.9%
Running Brook ES	515	3	75	590	452	87.8%	76.6%	448	87.0%	75.9%
St Johns Lane ES	612	7	175	787	726	118.6%	92.2%	721	117.8%	91.6%
Stevens Forest ES	399	5	125	524	384	96.2%	73.3%	389	97.5%	74.2%
Swansfield ES	694	5	125	819	574	82.7%	70.1%	572	82.4%	69.8%
Talbott Springs ES	377	10	250	627	471	124.9%	75.1%	470	124.7%	75.0%
Thunder Hill ES	509	3	75	584	526	103.3%	90.1%	513	100.8%	87.8%
Triadelphia Ridge ES	581	0	0	581	563	96.9%	96.9%	562	96.7%	96.7%
Veterans ES*	799	4	100	899	863	108.0%	96.0%	872	109.1%	97.0%
Waterloo ES	663	4	100	763	565	85.2%	74.0%	566	85.4%	74.2%
Waverly ES	788	5	125	913	835	106.0%	91.5%	836	106.1%	91.6%
West Friendship ES	414	0	0	414	401	96.9%	96.9%	405	97.8%	97.8%
Worthington ES	515	1	25	540	475	92.2%	88.0%	475	92.2%	88.0%

Name	2018 K-5 Capacity	# Relo CRs in 2018	Relo Capacity	Cap with Relos	9/30/18 K-5 Actuals	9/30/18 Util	9/30/18 Util w/ Relos	11/30/18 K-5 Actuals**	11/30/18 Util	11/30/18 Util w/ Relos
Bonnie Branch MS*	701	1	25	726	751	107.1%	103.4%	747	106.6%	102.9%
Burleigh Manor MS	779	1	25	804	808	103.7%	100.5%	813	104.4%	101.1%
Clarksville MS	643	5	125	768	666	103.6%	86.7%	671	104.4%	87.4%
Dunloggin MS	565	5	125	690	661	117.0%	95.8%	651	115.2%	94.3%
Elkridge Landing MS	779	0	0	779	745	95.6%	95.6%	750	96.3%	96.3%
Ellicott Mills MS	701	7	175	876	869	124.0%	99.2%	875	124.8%	99.9%
Folly Quarter MS	662	0	0	662	660	99.7%	99.7%	661	99.8%	99.8%
Glenwood MS	545	6	150	695	492	90.3%	70.8%	490	89.9%	70.5%
Hammond MS	604	3	75	679	572	94.7%	84.2%	575	95.2%	84.7%
Harpers Choice MS	506	5	125	631	505	99.8%	80.0%	504	99.6%	79.9%
Lake Elkhorn MS	643	1	25	668	580	90.2%	86.8%	585	91.0%	87.6%
Lime Kiln MS	701	0	0	701	632	90.2%	90.2%	632	90.2%	90.2%
Mayfield Woods MS	798	2	50	848	726	91.0%	85.6%	726	91.0%	85.6%
Mount View MS	798	2	50	848	837	104.9%	98.7%	840	105.3%	99.1%
Murray Hill MS	662	6	150	812	720	108.8%	88.7%	721	108.9%	88.8%
Oakland Mills MS	506	0	0	506	519	102.6%	102.6%	518	102.4%	102.4%
Patapsco MS	643	2	50	693	712	110.7%	102.7%	715	111.2%	103.2%
Patuxent Valley MS	760	0	0	760	686	90.3%	90.3%	694	91.3%	91.3%
Thomas Viaduct MS	701	0	0	701	654	93.3%	93.3%	655	93.4%	93.4%
Wilde Lake MS	760	0	0	760	632	83.2%	83.2%	625	82.2%	82.2%
Atholton HS	1460	0	0	1460	1511	103.5%	103.5%	1503	102.9%	102.9%
Centennial HS	1360	9	225	1585	1594	117.2%	100.6%	1584	116.5%	99.9%
Glenelg HS	1420	0	0	1420	1199	84.4%	84.4%	1196	84.2%	84.2%
Hammond HS	1220	4	100	1320	1378	113.0%	104.4%	1359	111.4%	103.0%
Howard HS	1420	15	375	1795	1898	133.7%	105.7%	1894	133.4%	105.5%
Long Reach HS	1488	7	175	1663	1566	105.2%	94.2%	1559	104.8%	93.7%
Marriotts Ridge HS	1615	0	0	1615	1422	88.0%	88.0%	1418	87.8%	87.8%
Mt Hebron HS	1400	5	125	1525	1632	116.6%	107.0%	1624	116.0%	106.5%
Oakland Mills HS	1400	0	0	1400	1232	88.0%	88.0%	1212	86.6%	86.6%
Reservoir HS	1551	5	125	1676	1589	102.5%	94.8%	1587	102.3%	94.7%
River Hill HS	1488	0	0	1488	1387	93.2%	93.2%	1383	92.9%	92.9%
Wilde Lake HS	1424	0	0	1424	1316	92.4%	92.4%	1280	89.9%	89.9%
Subtotal	56452				56471			56493		
Homewood plus pending enrollment school					(incl. in home school)			134		
TOTAL					56471			56627		

\* Relocatable count reduced because room(s) are used by Recreation and Parks for programming: Forest Ridge ES (1), Fulton ES (1), Gorman Crossing ES (2), Ilchester ES (1), Veterans ES (1) and Bonnie Branch MS (1)

\*\* Homewood students are excluded from geographical home school

This chart shows kindergarten through grade 12 capacities and relocatable classroom placements as of the June 2018 Feasibility Study. Any alterations to capacities, programs, and relocatable classroom placements occurring after the June 2018 Feasibility Study will be reflected in the June 2019 Feasibility Study. Included in the K-12 Capacity are: Teaching stations equal to or greater than 660 SF (based on Renovation Guidelines), except classrooms dedicated to related arts/GT, Regional programs including Special Education, or PreK/Preschool as outlined in 2014 Capacity Study. Enrollment and projected enrollment are [K-5 Capacity calculation is based on the methodology from the 2014 ES Capacity Study.](#)

## 2018 Portable Inventory

School							
Type	School	Unit #	Unit Type	Purchased	Install	Type	Age
ES	Atholton ES	74	Williams	2001	2009	1	17
ES	Atholton ES	106	CMSI	1988		1	30
ES	Atholton ES	107	CMSI	1987	2000	1	31
ES	Bellows Springs ES	62	EMH	2002		1	16
ES	Bellows Springs ES	157	EMH	2005		1	13
ES	Bellows Springs ES	158	EMH	2005		1	13
ES	Bellows Springs ES	172	EMH	2005		1	13
ES	Bellows Springs ES	181	EMH	2012		1	6
ES	Bollman Bridge ES	182	EMH	2012		1	6
ES	Bollman Bridge ES	183	EMH	2012		1	6
MS	Bonnie Branch MS	36	Valley	2000		1	18
MS	Bonnie Branch MS	75	EMH	2002		1	16
ES	Bryant Woods ES	113	EMH	2003		1	15
ES	Bryant Woods ES	118	EMH	2004		1	14
ES	Bryant Woods ES	126	EMH	2004		1	14
ES	Bryant Woods ES	204	EMH	2014		1	4
MS	Burleigh Manor MS	212	EMH	2015		1	3
HS	Centennial HS	140	EMH	2004		1	14
HS	Centennial HS	218	EMH	2017		1	1
HS	Centennial HS	219	EMH	2017		1	1
HS	Centennial HS	194	EMH	2013	2018	1	5
HS	Centennial HS	195	EMH	2013	2018	1	5
HS	Centennial HS	196	EMH	2013	2018	1	5
HS	Centennial HS	227	EMH	2018	2018	1	0
HS	Centennial HS	228	EMH	2018	2018	1	0
HS	Centennial HS	229	EMH	2018	2018	1	0
ES	Centennial Lane ES	88	EMH	2003		1	15
ES	Centennial Lane ES	90	CMSI	1987		1	31
ES	Centennial Lane ES	149	EMH	2005		1	13
ES	Centennial Lane ES	197	EMH	2013		1	5
ES	Centennial Lane ES	198	EMH	2013		1	5
ES	Centennial Lane ES	230	EMH	2018	2018	1	0
MS	Clarksville MS	39	EMH	2002		1	16
MS	Clarksville MS	41	CMSI	1989		1	29
MS	Clarksville MS	42	CMSI	1989		1	29
MS	Clarksville MS	43	CMSI	1989		1	29
MS	Clarksville MS	48	EMH	2002		1	16
ES	Clarksville ES	82	MTI	1995	2000	1	23
ES	Clemens Crossing ES	11	Valley	2000	2000	1	18
ES	Clemens Crossing ES	175	EMH	2006	2006	1	12
ES	Clemens Crossing ES	176	EMH	2006	2006	1	12
ES	Cradlerock ES	129	EMH	2004	2004	1	14
ES	Cradlerock ES	130	EMH	2004	2004	1	14
ES	Cradlerock ES	185	EMH	2012	2012	1	6
ES	Deep Run ES	208	EMH	2014		1	4
MS	Dunloggin MS	32	Generic	1989		1	29
MS	Dunloggin MS	46	MTI	1995		1	23
MS	Dunloggin MS	47	MTI	1995		1	23
MS	Dunloggin MS	51	EMH	2003		1	15
MS	Dunloggin MS	136	EMH	2004		1	14
ES	Elkridge ES	110	MTI	1999		1	19
ES	Elkridge ES	77	EMH	2002		1	16
ES	Elkridge ES	155	EMH	2005		1	13
ES	Elkridge ES	159	EMH	2005		1	13
MS	Ellicott Mills MS	124	EMH	2004		1	14

## 2018 Portable Inventory

School							
Type	School	Unit #	Unit Type	Purchased	Install	Type	Age
MS	Ellicott Mills MS	125	EMH	2004		1	14
MS	Ellicott Mills MS	186	EMH	2012		1	6
MS	Ellicott Mills MS	209	EMH	2014		1	4
MS	Ellicott Mills MS	221	EMH	2017		1	1
MS	Ellicott Mills MS	222	EMH	2018	2018	1	0
MS	Ellicott Mills MS	223	EMH	2018	2018	1	0
ES	Forest Ridge ES	79	Williams	1990		1	28
ES	Forest Ridge ES	80	Generic	1990		1	28
ES	Forest Ridge ES	160	EMH	2005		1	13
ES	Forest Ridge ES	161	EMH	2005		1	13
ES	Forest Ridge ES	199	EMH	2013		1	5
ES	Fulton ES	220	EMH	2017		1	1
ES	Fulton ES	193	EMH	2012	2018	9	6
MS	Glenwood MS	20	MTI	1995		1	23
MS	Glenwood MS	24	MTI	1995		1	23
MS	Glenwood MS	19	Valley	1995		1	23
MS	Glenwood MS	21	Valley	2000		1	18
MS	Glenwood MS	22	MTI	1995		1	23
MS	Glenwood MS	23	Valley	2000		1	18
ES	Gorman Crossing ES	147	EMH	2004		1	14
ES	Gorman Crossing ES	165	EMH	2005		1	13
ES	Guilford ES	4	Gelco	1989		1	29
ES	Guilford ES	150	EMH	2005		1	13
ES	Guilford ES	1	Williams	1991		1	27
ES	Guilford ES	2	Williams	1991		1	27
ES	Guilford ES	3	MTI	1994		1	24
ES	Hammond ES	13	EMH	2002		1	16
MS	Hammond MS	116	EMH	2003		1	15
MS	Hammond MS	127	EMH	2004		1	14
MS	Hammond MS	128	EMH	2004		1	14
HS	Hammond HS	154	EMH	2005		1	13
HS	Hammond HS	167	EMH	2005		1	13
HS	Hammond HS	169	EMH	2005		1	13
HS	Hammond HS	233	EMH	2018	2018	1	0
MS	Harpers Choice MS	91	EMH	2003		1	15
MS	Harpers Choice MS	92	EMH	2002		1	16
MS	Harpers Choice MS	93	EMH	2003		1	15
MS	Harpers Choice MS	141	EMH	2004		1	14
MS	Harpers Choice MS	142	EMH	2004		1	14
HQ	HCPSS CO HQ	148	EMH	2005		1	13
HQ	HCPSS CO HQ	173	EMH	2005		1	13
HQ	HCPSS CO HQ	174	EMH	2005		1	13
HQ	HCPSS CO HQ	177	EMH	2008		1	10
ES	Hollifield Station ES	71	Valley	2001		1	17
ES	Hollifield Station ES	72	Valley	2001		1	17
ES	Hollifield Station ES	162	EMH	2005		1	13
MS/HS	Homewood MS/HS	201	EMH	2013		1	5
HS	Howard HS	52	EMH	2003		1	15
HS	Howard HS	81	Valley	1996		1	22
HS	Howard HS	120	EMH	2004		1	14
HS	Howard HS	121	EMH	2004		1	14
HS	Howard HS	178	Modular	2010		9	8
HS	Howard HS	205	EMH	2014		1	4
HS	Howard HS	206	EMH	2014		1	4
ES	Ilchester ES	35	Valley	2000		1	18

## 2018 Portable Inventory

School							
Type	School	Unit #	Unit Type	Purchased	Install	Type	Age
ES	Ilchester ES	184	EMH	2012		1	6
ES	Ilchester ES	210	EMH	2015		1	3
ES	Jeffers Hill ES	99	Generic	1993		1	25
ES	Jeffers Hill ES	202	EMH	2013		1	5
MS	Lake Elkhorn MS	28	EMH	2003		1	15
ES	Laurel Woods ES	132	EMH	2004		1	14
ES	Laurel Woods ES	133	EMH	2004		1	14
ES	Lisbon ES	57	Valley	2000		1	18
HS	Long Reach HS	50	EMH	2003		1	15
HS	Long Reach HS	122	EMH	2004		1	14
HS	Long Reach HS	123	EMH	2004		1	14
HS	Long Reach HS	215	EMH	2016		1	2
HS	Long Reach HS	224	EMH	2018	2018	1	0
HS	Long Reach HS	225	EMH	2018	2018	1	0
HS	Long Reach HS	226	EMH	2018	2018	1	0
ES	Manor Woods ES	25	EMH	2002		1	16
ES	Manor Woods ES	29	EMH	2003		1	15
ES	Manor Woods ES	38	EMH	2002		1	16
ES	Manor Woods ES	151	EMH	2005		1	13
ES	Manor Woods ES	168	EMH	2005		1	13
MS	Mayfield Woods MS	76	EMH	2002		1	16
MS	Mayfield Woods MS	187	EMH	2012		1	6
MS	Mount View MS	63	EMH	2002		1	16
MS	Mount View MS	64	Valley	2000		1	18
HS	Mt. Hebron HS	27	Valley	2000		1	18
HS	Mt. Hebron HS	61	EMH	2003		1	15
HS	Mt. Hebron HS	145	EMH	2004		1	14
HS	Mt. Hebron HS	231	EMH	2018	2018	1	0
HS	Mt. Hebron HS	232	EMH	2018	2018	1	0
MS	Murray Hill MS	49	EMH	2003		1	15
MS	Murray Hill MS	53	Valley	2000		1	18
MS	Murray Hill MS	60	EMH	2003		1	15
MS	Murray Hill MS	144	EMH	2004		1	14
MS	Murray Hill MS	146	EMH	2004		1	14
MS	Murray Hill MS	166	EMH	2005		1	13
ES	Northfield ES	200	EMH	2013		1	5
MS	Patapsco MS	68	Valley	1996		1	22
MS	Patapsco MS	66	Valley	2001		1	17
ES	Phelps Luck ES	134	EMH	2004		1	14
ES	Phelps Luck ES	135	EMH	2004		1	14
ES	Pointer's Run ES	45	Valley Mod	2001		9	17
HS	Reservoir HS	16	NA	2001		1	17
HS	Reservoir HS	17	NA	2000		1	18
HS	Reservoir HS	18	NA	2000		1	18
HS	Reservoir HS	152	EMH	2005		1	13
HS	Reservoir HS	153	EMH	2005		1	13
ES	Rockburn ES	30	Williams	1995		1	23
ES	Running Brook ES	111	CMSI	1988		1	30
ES	Running Brook ES	115	Valley	2002		1	16
ES	Running Brook ES	119	EMH	2004		1	14
ES	St. Johns Lane ES	14	Gelco	1993		1	25
ES	St. Johns Lane ES	131	EMH	2004		1	14
ES	St. Johns Lane ES	156	EMH	2005		1	13
ES	St. Johns Lane ES	164	EMH	2005		1	13
ES	St. Johns Lane ES	171	EMH	2005		1	13

## 2018 Portable Inventory

### School

Type	School	Unit #	Unit Type	Purchased	Install	Type	Age
ES	St. Johns Lane ES	207	EMH	2014		1	4
ES	St. Johns Lane ES	214	EMH	2016		1	2
ES	Stevens Forest ES	31	EMH	2002		1	16
ES	Stevens Forest ES	103	EMH	2003		1	15
ES	Stevens Forest ES	104	EMH	2003		1	15
ES	Stevens Forest ES	105	EMH	2003		1	15
ES	Stevens Forest ES	170	EMH	2005		1	13
ES	Swansfield ES	180	EMH	2011		5	3
ES	Talbott Springs ES	83	Generic	1985		1	33
ES	Talbott Springs ES	137	EMH	2004		1	14
ES	Talbott Springs ES	138	EMH	2004		1	14
ES	Talbott Springs ES	188	EMH	2012		1	6
ES	Talbott Springs ES	189	EMH	2012		1	6
ES	Talbott Springs ES	216	EMH	2016		5	2
ES	Thunder Hill ES	203	EMH	2014		1	4
ES	Thunder Hill ES	211	EMH	2015		1	3
ES	Thunder Hill ES	213	EMH	2016		1	2
ES	Veterans ES	54	Valley	2000		1	18
ES	Veterans ES	55	Valley	1999		1	19
ES	Veterans ES	114	EMH	2002		1	16
ES	Veterans ES	190	EMH	2012		1	6
ES	Veterans ES	191	EMH	2012		1	6
ES	Waterloo ES	70	Valley	2005		1	13
ES	Waterloo ES	78	EMH	2002		1	16
ES	Waterloo ES	143	EMH	2004		1	14
ES	Waterloo ES	192	EMH	2012		1	6
ES	Waverly ES	179	Modular	2010		5	8
ES	Worthington ES	15	MTI	1995		1	23





# Section 3

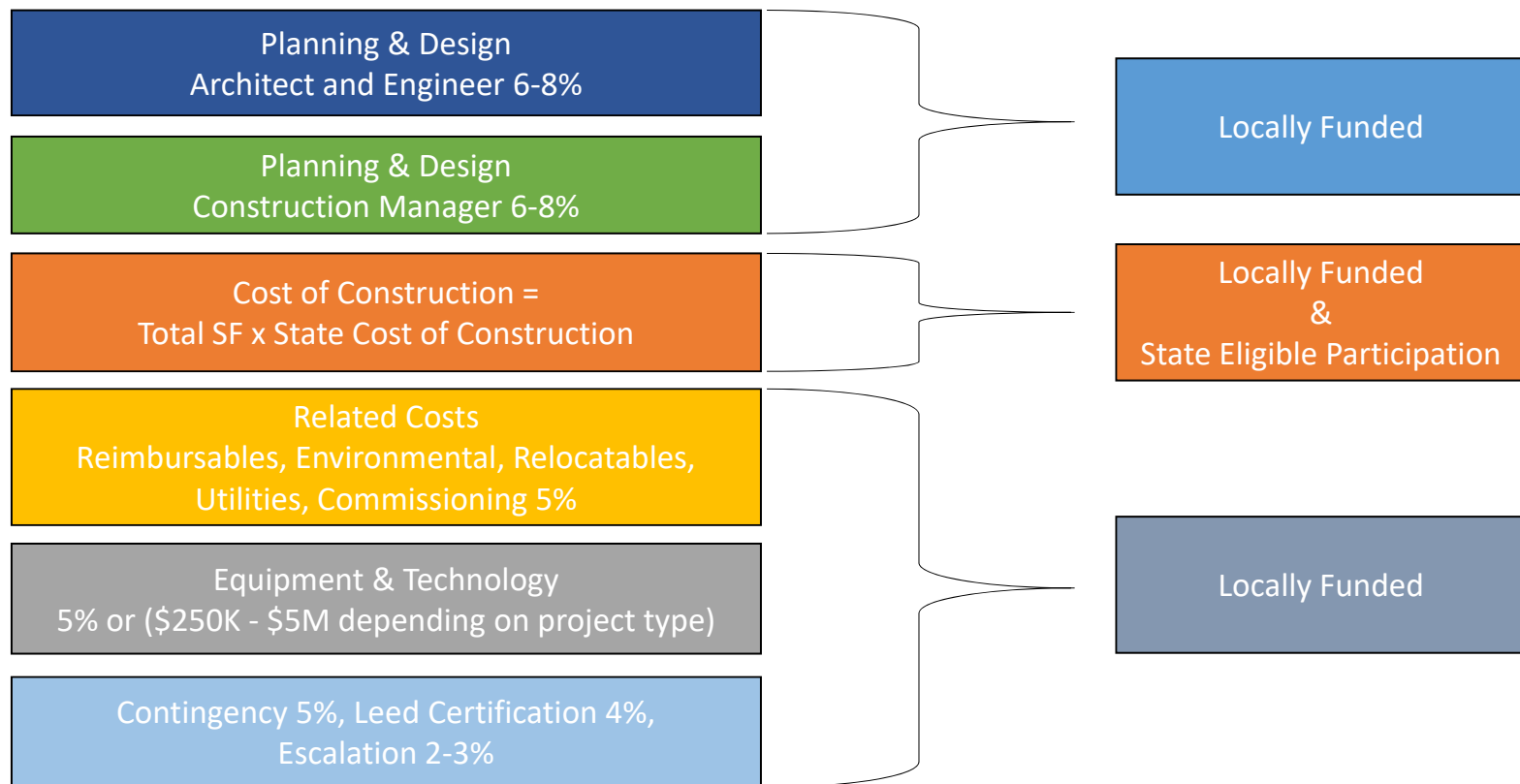
## Capital Planning and Construction



## Capital Budget Project Criteria

- The Capital Improvement Program and Capital Budget process link capital planning with attendance area planning and addresses long-range planning issues identified in the annual Feasibility Study.
- The Capital Improvement Program provides for student capacity, renovations, and various other improvements that the Comprehensive Maintenance Plan, staff, parents, and community leaders have identified as needed.
- Criteria included in the evaluation of projects include:
  - Age of Facilities
  - Systemic Condition and Capacity Concerns
  - Time since last renovation
  - State eligibility of funding
  - Curriculum, Security, and Technology Plans
  - Financial Parameters

# “Building” a Project Estimate





**BOARD OF EDUCATION OF HOWARD COUNTY  
MEETING AGENDA ITEM**

**TITLE:** FY 2020 Capital Budget Project Estimation Changes **DATE:** January 10, 2019

**PRESENTER(S):** Scott W. Washington, Director, Capital Planning and Construction

**Strategic Call To Action Alignment:** The Superintendent's Proposed FY 2020 Capital Budget supports the Strategic Call to Action (SCTA) by providing equitable educational opportunities as well as safe and healthy environments for students, staff and the community.

**OVERVIEW:** The cost estimates in the FY 2020 Superintendent's Proposed and Board Proposed Capital Budgets were developed with the same methodology used in prior budget cycles using information available at the time. HCPSS has historically been able to secure bids that prove to be lower than the State's annual estimated cost per square foot for construction. During the calculation of the initial estimates, historical pricing did not justify using the State's significantly increased per square foot cost. Based on further research and discussion with industry professionals, using the higher per square foot cost is justified for future construction projects. Other needs of the school system have been further developed since the initial estimates as well. The attached budget pages reflect the changes listed below:

- Board requested changes in the projects (ex. classroom square footage and corridor width for New HS #13);
- Changes in Talbott Springs ES replacement school design, based on Board input and State requirements;
- High school programming changes since Marriotts Ridge HS (most recent construction of prototype);
- Economic market changes, indicating higher costs for construction (New HS #13, Hammond HS Renovation/Addition and Talbott Springs ES Replacement School);
- Increases in boiler replacements to include architect and engineering fees and 3% contingency;
- Custodial capital equipment needs increases in Grounds/Fleet Infrastructure Capital Needs (Systemic Renovations);
- Increases in School Security Measures (Systemic Renovations).

Scheduled public hearings for the FY 2020 budgets are January 15 and 29, 2019, and the public can provide input on the Capital Budget at these hearings or via written testimony.

Attachment: FY 2020 Capital Budget with revised estimations for consideration by the Board

**RECOMMENDATION/FUTURE DIRECTION:**

The Board may discuss the Capital Budget and any funding request changes during the scheduled budget work sessions. Changes in the capital funding requests can be approved during the adoption of the Board Proposed Capital Budget on February 12, 2019.

**SUBMITTED BY:**

Scott W. Washington  
Director, Capital Planning  
and Construction

**APPROVAL/CONCURRENCE:**

Michael J. Martirano, Ed.D.  
Superintendent

Karalee Turner-Little  
Deputy Superintendent

Rafiu Ighile  
Chief Business and  
Technology Officer

Anissa Brown Dennis  
Chief Operating Officer

# FY 2020 Capital Budget

Board of Education's Proposed (Amendments for Consideration)

January 10, 2019

(In Thousands)

Capacity	Project	County Project	Occupancy	Approved Appropriations	Local Bonds	Codes	Total FY20 Request	Requested Project Totals Through FY20
540	Talbott Springs ES Replacement	E1043	Sept 2022	\$ 8,050	\$ 9,500	(C)	\$ 9,500	\$ 17,550
1,650	New HS #13	E1035	Sept 2023	6,732	15,600	(C)	15,600	22,332
200	Hammond HS Renovation/Addition	E1024	Sept 2023	4,000	12,500	(C)	12,500	16,500
	Systemic Renovations/Modernizations	E1044		25,455	38,115	(P,C,E)	38,115	63,570
	Roofing Projects	E1046		12,500	5,000	(P,C,E)	5,000	17,500
	Playground Equipment	E0990		2,930	250	(E)	250	3,180
	Relocatable Classrooms	E1045		1,800	3,200	(P,C,E)	3,200	5,000
	Site Acquisition & Construction Reserve	E1047		-	2,000	(P,C)	2,000	2,000
	Technology	E1048		2,750	5,500	(C,E)	5,500	8,250
	School Parking Lot Expansions	E1012		4,200	-	(P,C,E)	-	4,200
	Planning and Design	E1038		700	400	(P)	400	1,100
	Barrier Free	E0989		5,603	200	(P,C,E)	200	5,803
	<b>TOTALS</b>			<b>\$ 74,720</b>	<b>\$ 92,265</b>		<b>\$ 92,265</b>	<b>\$ 166,985</b>

(P) Planning

(C) Construction

(E) Equipment

# FY 2021-2025 Capital Improvement Program

Board of Education's Proposed (Amendments for Consideration)

January 10, 2019

(In Thousands)

Grades	Capacity	Project	County Project	Occupancy	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total
K-5	540	Talbott Springs ES Replacement	E1043	Sept 2022	\$ 14,218	\$ 9,878	\$ -	\$ -	\$ -	\$ 24,096
9-12	1,650	New HS #13	E1035	Sept 2023	32,260	32,280	32,260	19,564	-	116,364
9-12	200	Hammond HS Renovation/Addition	E1024	Sept 2023	27,955	28,075	28,156	14,494	-	98,680
K-5	600	New ES #43	E1039	Sept 2024	4,000	15,500	14,500	12,439	4,588	51,027
6-8	97	Dunloggin MS Renovation/Addition	E1049	Sept 2024	2,000	8,694	11,671	11,534	5,000	38,899
6-8	156	Ellicott Mills MS Addition	E1037	Sept 2023	-	1,000	6,415	1,000	-	8,415
6-8	-	Oakland Mills MS Renovation	E1036	Sept 2026	-	-	-	7,500	15,500	23,000
K-5	600	New ES #44	E1040	Sept 2026	-	-	4,000	15,550	14,500	34,050
9-12	250	Centennial HS Renovation/Addition	E1025	Sept 2028	-	-	-	11,333	16,367	27,700
9-12	TBD	New HS #14	TBD	Sept 2028	-	-	-	13,905	19,948	33,853
		Systemic Renovations/Modernizations	E1044		24,589	23,327	20,270	19,974	11,948	100,108
		Roofing Projects	E1046		1,000	5,000	1,000	1,000	5,000	13,000
		Playground Equipment	E0990		250	250	250	250	500	1,500
		Relocatable Classrooms	E1045		1,500	1,500	1,500	1,500	1,500	7,500
		Site Acquisition & Construction Reserve	E1047		2,000	2,000	2,000	2,000	2,000	10,000
		Technology	E1048		5,500	7,500	7,500	7,500	7,500	35,500
		School Parking Lot Expansions	E1012		-	-	-	-	600	600
		Planning and Design	E1038		400	300	300	300	300	1,600
		Barrier Free	E0989		200	200	200	200	200	1,000
		<b>TOTALS</b>			<b>\$ 115,872</b>	<b>\$ 135,504</b>	<b>\$ 130,022</b>	<b>\$ 140,043</b>	<b>\$ 105,451</b>	<b>\$ 626,892</b>

# FY 2020-2025 Long-Range Systemic Renovation Projects

Board of Education's Proposed (Amendments for Consideration)

January 10, 2019

(In Thousands)

Project	FY 2020 Local Bonds	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Totals
Modification of FY 2019 HVAC Project Scopes	\$ 4,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,000
Long Reach HS - Building Envelope	2,000	-	-	-	-	-	2,000
Applications and Research Lab Maintenance	2,500	1,500	1,500	1,500	-	-	7,000
Room Reconfigurations and Modernizations	1,000	-	-	-	-	-	1,000
Forest Ridge ES Office Reconfiguration	750	-	-	-	-	-	750
Guilford ES Exterior Windows/Doors	1,300	-	-	-	-	-	1,300
Ascend One Relocation/Renovations	3,000	-	-	-	-	-	3,000
West Friendship ES MBR/Well	3,000	3,000	-	-	-	-	6,000
Fulton ES HVAC Replacement	8,500	-	-	-	-	-	8,500
Cradlerock ES/Lake Elkhorn MS Boiler Replacement	692	-	-	-	-	-	692
Dump Trucks for Grounds Services (2)	360	-	-	-	-	-	360
Grounds/Fleet Infrastructure Capital Needs	913	752	736	645	544	543	4,133
Manor Woods ES HVAC Replacement	-	3,984	3,516	-	-	-	7,500
Elkridge Landing MS HVAC Replacement	-	5,185	4,515	-	-	-	9,700
Hammond MS Boiler Replacement	-	568	-	-	-	-	568
Forest Ridge ES Boiler Replacement	-	-	460	-	-	-	460
Bonnie Branch MS HVAC Replacement	-	-	-	5,065	4,435	-	9,500
Bonnie Branch MS Boiler Replacement	-	-	-	460	-	-	460
Hollifield Station ES HVAC Replacement	-	-	-	-	4,395	3,805	8,200
Administration Office	-	-	4,000	5,000	3,000	-	12,000
Kitchen Modernizations	300	300	300	300	300	300	1,800
Special Education/Regional Program Needs	300	300	300	300	300	300	1,800
Indoor Environmental Quality Repairs	3,500	3,000	2,000	1,000	1,000	1,000	11,500
School Security Measures	1,000	1,000	1,000	1,000	1,000	1,000	6,000
Emergency Reserve	5,000	5,000	5,000	5,000	5,000	5,000	30,000
<b>TOTALS</b>	<b>\$ 38,115</b>	<b>\$ 24,589</b>	<b>\$ 23,327</b>	<b>\$ 20,270</b>	<b>\$ 19,974</b>	<b>\$ 11,948</b>	<b>\$ 138,223</b>



## FY 2020-2029 Long-Range Master Plan

Board of Education's Proposed (Amendments for Consideration)

January 10, 2019

(In Thousands)

Capacity	Project	County Project	Occupancy	Approved Appropriations	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Total Approp. plus FY20-FY29 Request
540	Talbot Springs ES Replacement	E1043	Sept 2022	\$ 8,050	\$ 9,500	\$ 14,218	\$ 9,878	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 41,646
1,650	New HS #13	E1035	Sept 2023	6,732	15,600	32,260	32,280	32,260	19,564	-	-	-	-	-	138,696
200	Hammond HS Renovation/Addition	E1024	Sept 2023	4,000	12,500	27,955	28,075	28,156	14,494	-	-	-	-	-	115,180
600	New ES #43	E1039	Sept 2024	-	-	4,000	15,500	14,500	12,439	4,588	-	-	-	-	51,027
97	Dunloggin MS Renovation/Addition	E1049	Sept 2024	-	-	2,000	8,694	11,671	11,534	5,000	-	-	-	-	38,899
156	Ellicott Mills MS Addition	E1037	Sept 2023	-	-	-	1,000	6,415	1,000	-	-	-	-	-	8,415
-	Oakland Mills MS Renovation	E1036	Sept 2026	-	-	-	-	-	7,500	15,500	12,500	2,810	-	-	38,310
600	New ES #44	E1040	Sept 2026	-	-	-	-	4,000	15,550	14,500	12,439	6,524	-	-	53,013
250	Centennial HS Renovation/Addition	E1025	Sept 2028	-	-	-	-	-	11,333	16,367	27,278	26,187	26,186	13,093	120,444
TBD	New HS #14	TBD	Sept 2028	-	-	-	-	-	13,905	19,948	33,247	31,918	31,917	15,959	146,894
480	New ES #45	E1041	Sept 2030	-	-	-	-	-	-	-	-	4,000	11,500	12,500	28,000
	Systemic Renovations/Modernizations	E1044		25,455	38,115	24,589	23,327	20,270	19,974	11,948	17,000	18,000	19,000	20,000	237,678
	Roofing Projects	E1046		12,500	5,000	1,000	5,000	1,000	1,000	5,000	5,000	5,000	5,000	5,000	50,500
	Playground Equipment	E0990		2,930	250	250	250	250	250	500	500	500	500	500	6,680
	Relocatable Classrooms	E1045		1,800	3,200	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	18,500
	Site Acquisition & Construction Reserve	E1047		-	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	20,000
	Technology	E1048		2,750	5,500	5,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	73,750
	School Parking Lot Expansions	E1012		4,200	-	-	-	-	-	600	600	600	600	600	7,200
	Planning and Design	E1038		700	400	400	300	300	300	300	300	300	300	300	3,900
	Barrier Free	E0989		5,603	200	200	200	200	200	200	200	200	200	200	7,603
	<b>TOTALS</b>			<b>\$ 74,720</b>	<b>\$ 92,265</b>	<b>\$ 115,872</b>	<b>\$ 135,504</b>	<b>\$ 130,022</b>	<b>\$ 140,043</b>	<b>\$ 105,451</b>	<b>\$ 120,064</b>	<b>\$ 107,039</b>	<b>\$ 106,203</b>	<b>\$ 79,152</b>	<b>\$ 1,206,335</b>

Ten-Year Long-Range Master Plan = \$1,131,615



# Section 4

## Deferred Maintenance



# DEFERRED MAINTENANCE PROJECTS

11.20.18 REVISION #2

1/11/2019

TOTAL DEFERRED as of OCTOBER 2018

SHOP / Proj Mgr	Count of SHOP / Proj Mgr	Sum of Total Deferred Operating Cost	Sum of Total Deferred Capital Cost	Sum of Total Deferred IEQ Cost
Building Envelope	62	\$6,901,475	\$13,812,260	\$825,000
Carpentry	6	\$467,250	\$13,350	\$0
Custodial	1	\$40,000	\$0	\$0
Electrical	24	\$1,675,000	\$4,451,300	\$0
Elevator	1	\$0	\$100,000	\$0
Energy	2	\$160,000	\$0	\$0
Flooring	47	\$1,375,145	\$19,842,310	\$0
HVAC	74	\$10,162,000	\$433,875,365	\$0
Paint	66	\$7,715,000	\$0	\$0
Plumbing	30	\$6,761,000	\$10,714,471	\$0
Roofing	23	\$163,000	\$22,927,000	\$0
Construction	16	\$0	\$3,805,368	\$0
<b>Total</b>	<b>352</b>	<b>\$35,419,870</b>	<b>\$509,541,424</b>	<b>\$825,000</b>
			<b>Grand Total Deferred</b>	<b>\$545,786,294</b>

**Howard County Public School System  
Top Deferred Maintenance Projects**

<b>Location</b>	<b>Equipment</b>	<b>COST</b>
Cradlerock ES/Lake Elkhorn MS	3 Boilers	\$2,100,000
Bonnie Branch MS	1 Chiller	\$1,000,000
St Johns Lane ES	1 Cooling Tower	\$500,000
Glenelg HS	2 Boilers	\$1,000,000
Ellicott Mills MS	1 Chiller	\$1,000,000
ARL	2 Roof Top Units	\$250,000
Howard HS	4 Roof Top Units	\$550,000
Howard HS	Roof on ROTC	\$255,000
<b>TOTAL</b>		<b>\$6,655,000</b>

**Howard County Public School System  
Building Maintenance - Future Systemic Projects  
as of October 10, 2018**

Priority	School Site/Location	Project Description	Estimated Cost	Construction Planning	Project Completion
1	Talbott Springs ES	New Replacement School	\$36,500,000	2020-2023	2022
2	Hammond HS	Renovation, Addition & HVAC Replacement	\$29,579,160	2020-2023	2023
3	Centennial HS	Renovation, Addition & HVAC Replacement	\$40,123,870	Proposed 2024	2028
4	Oakland Mills HS	Renovation & HVAC Replacement	\$40,240,450	FY16 on CIP	
5	Oakland Mills MS	Renovation & HVAC Replacement	\$19,585,000	2023	2026
6	Dunloggin MS	Renovation, Addition & HVAC Replacement	\$21,167,700	2020	2024
7	Hollifield Station ES	Renovation & HVAC Replacement	\$8,750,000	2025	
8	Fulton ES	Renovation & HVAC Replacement	\$10,863,500	Construction Planning	
9	Elkridge Landing MS	Renovation & HVAC Replacement	\$10,767,800	Pushed Off List	
10	Manor Woods ES	Renovation & HVAC Replacement	\$7,521,000	2022	
11	Bonnie Branch MS	Renovation, Boiler & HVAC Replacement	\$11,000,000	2022	2023/24
	Ellicott Mills MS	Building Addition Only		TBD	
ARL		HVAC Renovation/Needs to be Replaced	\$23,160,000	TBD	
ARL		REPLACEMENT	\$100,000,000		
	New HS #13	Project New High School (SD #'s for 262,851 sq ft)	\$97,780,572	FY2020	2023
	New HS #14	Project New High School		FY2024	2028
	Elementary School #43	Project New Elementary School		FY2020	2024
	Elementary School #44	Project New Elementary School		FY2022	2026
	Central Office	Air Handle Units & Boilers	\$10,000,000		
<b>Total Estimated Cost for Construction</b>			<b>\$467,039,052</b>		



**Howard County Public School System  
Building Maintenance - Future Systemic Projects  
November 20, 2018 - REVISION #2 - DEFERRED**

School Site/Location	Project Description	Estimated Cost	DEFERRED
Clarksville ES	Replace galvanized piping	\$300,000	2009
Old Cedar Lane	Replace galvanized piping	\$300,000	prior to 2009
Howard HS - B HALL	Replace galvanized piping	\$300,000	prior to 2009
Clarksville ES	Door Replacements (in process - OSC)	\$424,270	
Cradlerock ES/Lake Elkhorn MS	Exterior Doors - (Scheduled Summer 2019 - OSC)	\$568,320	2014
Jeffers Hill ES	Replace Exterior doors & frames - (Scheduled 2019 - OSC)	\$406,835	2010
Lisbon ES	Door Replacements (Scheduled 2019 - OSC)	\$415,380	
Centennial HS	Exterior Door Improvememts (TBD 2019)	\$91,394	
Glenelg HS	Exterior Door Improvememts (TBD 2019)	\$155,341	2013
Hammond HS	Exterior Door Improvememts (TBD 2019)	\$136,577	
Homewood School	Exterior Door Improvememts (TBD 2019)	\$136,637	
Howard ROTC	Exterior Door Improvememts (TBD 2019)	\$37,944	
Oakland Mills HS	Exterior Door Improvememts (TBD 2019)	\$31,772	2009
River Hill HS	Exterior Door Improvememts (TBD 2019)	\$141,810	
Wilde Lake HS	Exterior Door Improvememts (TBD 2019)	\$59,088	
West Friendship ES	Replace total doors	\$450,000	2013
Worthington ES	Replace total doors	\$450,000	2013

**Howard County Public School System**  
**Building Maintenance - Future Systemic Projects**  
**November 20, 2018 - REVISION #2 - DEFERRED**

School Site/Location	Project Description	Estimated Cost	DEFERRED
Fulton ES	New control System -DDC (replace Pneumatic)	\$350,000	prior to 2009
Lime Kiln MS/Cedar Lane @LKM	Replace EMS System	\$1,000,000	2014
Patapsco MS	HVAC Control Project (Scheduled 2019)	\$350,000	2011
Lime Kiln MS	Office Rooftop Unit	\$220,000	2015
Old Bushy Park School	Gas Conversion of Boiler Burners	\$650,000	prior to 2009
Old Cedar Lane School	Replacement of HVAC Equipment	\$2,750,000	prior to 2009
Pointers Run ES	Replace Boilers w/Energy Efficient (Scheduled 2019)	\$675,000	2014
Reservoir HS	Cooling Tower Replacement New Control (DDC)	\$50,000	2016
River Hill HS	Cooling Tower, Two New Chillers	\$925,000	2014
Administration	Replacement of Skylight in main hallway	\$350,000	2012
ARL	Exterior Wall Panels	\$5,000,000	2011
Centennial HS	Stadium Concession Stand & Restrooms	\$300,000	2013
Cradlerock ES/Lake Elkhorn MS	Science Room Renovation	\$165,000	2012
Dunloggin MS	POLE Lighting Replacement	\$65,000	2015
Howard HS	Sanitary Lines-Bathroom Renovation-PH 2	\$550,000	2011
West Friendship ES	Replacement of domestic water/well system	\$5,000,000	2010

Howard County Public School System  
HVAC

Ranking	Location	Install Date	Reasoning	Year 2020	Year 2021	Year 2022	Year 2023	Year 2024
1	ARL	1986	RTU #10, leaking (32 yo) Bldg B	\$110,000				
1	ARL	1986	RTU #1, leaking (32 yo) Bldg C	\$110,000				
	ARL	1986	20- RTU's (32 yo)	\$220,000	\$220,000	\$220,000	\$220,000	\$220,000
	ARL	1992	9- RTU's (26 yo)	\$220,000	\$220,000	\$220,000	\$220,000	\$110,000
	ARL	1998	9- RTU's (20 yo)	\$220,000	\$220,000	\$220,000	\$220,000	\$110,000
	ARL	1997	3- Boilers (21 yo)	\$700,000	\$700,000		\$700,000	
	Oakland Mills HS	1973	8 AHU's-Original to building-45yo	\$220,000	\$220,000	\$220,000	\$220,000	
	Centennial HS	1977	13- AHU's (41 yo)	\$330,000	\$330,000	\$330,000	\$330,000	\$110,000
	Glenelg HS	1986	5- AHU's (32 yo)	\$220,000	\$220,000	\$110,000		
	Glenelg HS	2000	*Premature Failure --2- Boilers	\$1,000,000				
	Wilde Lake HS	1996	2- RTU's (22 yo)	\$220,000				
2	Howard HS	1996	*Need Now 4- RTU's (22 yo)	\$550,000				
	Long Reach HS	1996	2- Chillers (22 yo)	\$500,000	\$500,000			
	Long Reach HS	1996	11- AHU's & Classrm UVs (22 yo)	---	\$220,000	\$220,000	\$220,000	\$220,000
	Dunloggin MS	1994	1- Chiller (24 yo)	\$500,000				
	Dunloggin MS	1994	1- Cooling Tower (24 yo)	\$500,000				
	Elkridge Landing MS	1995	2- Boilers (23 yo)	\$500,000	\$500,000			
	Harpers Choice MS	1994	1- Chiller (24 yo)	\$500,000				
	Lime Kiln MS	1999	2- Boilers (19 yo)	\$500,000	\$500,000			
	Lime Kiln MS	1999	Office Rooftop Unit	\$220,000				
	Mayfield Woods MS	1990	2- Boilers (19 yo)	---	---	\$500,000	\$500,000	
	Murray Hill MS	1997	3- Boilers (21 yo)	\$500,000	\$500,000	\$500,000		
	Patapsco MS	1995	14- AHU's (23 yo)	\$220,000	\$220,000	\$220,000	\$220,000	\$220,000
	Atholton ES	1994	2- Boilers (24 yo)	\$500,000	\$500,000			
	Cradlerock/Lake E	1991	3- Boilers (25 yo)	\$700,000	\$700,000	\$700,000		
	Cradlerock/Lake E	2002	16- AHU's (16 yo)	---	---	\$220,000	\$220,000	\$220,000
	Gorman Crossing ES	1998	2- Boilers (20 yo)	\$500,000	\$500,000			
	Gorman Crossing ES	1998	1- Chiller (20 yo)	\$500,000				
	Hollifield Station ES	1997	2- Boilers (21 yo)	\$500,000	\$500,000			
	Hollifield Station ES	1997	1- RTU (21 yo)	\$110,000				
	Hollifield Station ES	1997	9- AHU's (21 yo)	---	\$220,000	\$220,000	\$220,000	\$220,000
	Jeffers Hill ES	1974	2- Boilers (20 yo)	\$500,000	\$500,000			
	Jeffers Hill ES	1999	8- AHU's (19 yo)	\$220,000	\$220,000	\$220,000	\$220,000	
	St John's Lane ES	1990	2- Boilers (28 yo)	\$500,000	\$500,000			
	St John's Lane ES	1995	1- Cooling Tower (23 yo)	\$500,000				
	St John's Lane ES	1999	4- RTU's (19 yo)	\$220,000	\$220,000		\$0	\$0
	River Hill HS		1- Cooling Tower	\$900,000		\$0	\$0	\$0
TOTALS				\$13,710,000	\$8,430,000	\$4,820,000	\$2,810,000	\$1,430,000
	Central Office	1980	AHU's & Boiler COST \$4,500,000 Eligible for County Funds ONLY					

BOILER REPLACEMENT PRIORITIES			YEAR 2020	YEAR 2021	YEAR 2022
Ranking	Location	# of Boilers			
1	Cradlerock / Lake Elkhorn	3	\$2,100,000		
2	Glenelg HS	2	\$1,000,000		
3	Jeffers Hill ES	2		\$1,000,000	
4	Atholton ES	2		\$1,000,000	
5	St Johns Lane ES	2		\$1,000,000	
6	Murray Hill MS	3			\$1,500,000
7	Mayfield Woods MS	2			\$1,500,000
8	Elkridge Landing MS	2			\$1,500,000
9	Like Kiln MS	2			\$1,500,000
10	Gorman Crossing ES	2			\$1,500,000
<b>TOTALS</b>			<b>\$3,100,000</b>	<b>\$3,000,000</b>	<b>\$7,500,000</b>

CHILLER REPLACEMENT PRIORITIES			YEAR 2020	YEAR 2021	YEAR 2022
Ranking	Location	# of Chillers			
1	Bonnie Branch MS	Outside	\$1,000,000		
2	Ellicott Mills MS	Outside	\$1,000,000		
3	Folly Quarter MS	1- Air Cooled Outside		\$1,000,000	
4	Harpers Choice MS	1		\$1,000,000	
5	Dunloggin MS	1			\$1,000,000
6	Long Reach HS	2			\$1,000,000
<b>TOTALS</b>			<b>\$2,000,000</b>	<b>\$2,000,000</b>	<b>\$2,000,000</b>

PRIORITIES			YEAR 2020	YEAR 2021	YEAR 2022
Ranking	Location	# of Cooling Towers			
1	St Johns Lane ES	1	\$500,000		
2	Dunloggin MS	1	\$500,000		
<b>TOTALS</b>			<b>\$1,000,000</b>		

Total Water Heaters ATs	Location	Year Installed	# Water Heaters	AGE	Equipment Notes	COST	Year Scheduled
1	Lime Kiln	1993	1	25 yo	52 gal, 660000 Btu/hr, Natural Gas	\$12,000	2020
4	Mayfield Woods	1993	1	25 yo	52 gal, 660000 Btu/hr, Natural Gas	\$12,000	2020
4	River Hill	1993	1	25 yo	30 gal, 240 V, 5500 W, Electric Heater	\$7,000	2020
4	River Hill	1993	1	25 yo	400 gal, 600000 Btu/hr, Natural Gas	\$25,000	2020
4	River Hill	1993	1	25 yo	400 gal, 600000 Btu/hr, Natural Gas	\$25,000	2020
2	Long Reach	1995	1	23 yo	840000 Btu/hr, Natural Gas	\$20,000	2020
2	Bonnie Branch	1997	1	21 yo	69 gal, 500000 Btu/hr, Natural Gas	\$15,000	2020
2	Triadelphia	1997	1	21 yo	69 gal, 500000 Btu/hr, Natural Gas	\$15,000	2020
2	Triadelphia	1997	1	21 yo	69 gal, 500000 Btu/hr, Natural Gas	\$15,000	2020
9						\$146,000	2020
2	Bonnie Branch	1999	1	19 yo	69 gal, 500000 Btu/hr, Natural Gas	\$15,000	2021
1	Ellicott Mills	2000	1	18 yo	85 gal	\$15,000	2021
2	Folly Quarter	2000	1	18 yo	85 gal	\$15,000	2021
2	Homewood	2000	1	18 yo	85 gal, 500000 Btu/hr, Natural Gas	\$15,000	2021
2	Cedar Lane	2001	1	17 yo	85 gal, 500000 Btu/hr, Natural Gas	\$15,000	2021
1	Guilford	2001	1	17 yo	140 gal, 115 V, Natural Gas	\$17,000	2021
7	Howard	2001	1	17 yo	100 gal, 399000 Btu/hr, Natural Gas	\$15,000	2021
7	Howard	2001	1	17 yo	100 gal, 399000 Btu/hr, Natural Gas	\$15,000	2021
1	Reservoir	2001	1	17 yo	130 gal, 840000 Btu/hr, Natural Gas	\$17,000	2021
9						\$139,000	2021
2	Bellow Springs	2002	1	16 yo	120 V, 500000 Btu/hr	\$15,000	2022
2	Long Reach	2002	1	16 yo	120 V, 840000 Btu/hr, Natural Gas	\$20,000	2022
1	Marriotts Ridge	2002	1	16 yo		\$20,000	2022
3	ARL	2003	1	85 gal		\$15,000	2022
3	ARL	2003	1	80 gal, 235000 Btu/hr		\$15,000	2022
3	ARL	2003	1	50 gal, Electric Heater		\$12,000	2022
1	Bryant Woods	2003	1	15 yo	125 gal, Natural Gas	\$15,000	2022
2	Homewood	2003	1	15 yo	80 gal, Natural Gas	\$15,000	2022
2	Rockburn	2003	1	15 yo	20 gal, 480 V, 6000 W	\$5,000	2022
9						\$132,000	2022

Total Water Heaters At	Location	Year Installed	# Water Heaters	AGE	Equipment Notes	COST	Year Scheduled
2	Waverly	2004	1	14 yo	100 gal	\$15,000	2023
2	Cedar Lane	2005	1	13 yo	300 gal, 600000 Btu/hr, Natural Gas	\$15,000	2023
1	Central Office	2005	1	13 yo	300 gal, 600000 Btu/hr, Natural Gas	\$15,000	2023
2	Dayton Oaks	2005	1	13 yo	85 gal, 500000 Btu/hr, Natural Gas	\$15,000	2023
2	Dayton Oaks	2005	1	13 yo	85 gal, 500000 Btu/hr, Natural Gas	\$15,000	2023
2	Bushy Park	2006	1	12 yo	85 gal, 500000 Btu/hr, Natural Gas	\$15,000	2023
2	Bushy Park	2006	1	12 yo	85 gal, 500000 Btu/hr, Natural Gas	\$15,000	2023
2	Oakland Mills High	2006	1	12 yo	530000 Btu/hr, Natural Gas	\$15,000	2023
2	St Johns	2006	1	12 yo	80 gal	\$15,000	2023
9						\$135,000	2023
2	Veterans	2006	1	12 yo	85 gal	\$15,000	2024
2	Veterans	2006	1	12 yo	85 gal	\$15,000	2024
1	Worthington	2007	1	11 yo	100 gal, 199900 Btu/hr, Natural Gas	\$15,000	2024
1	Clemens Crossing	2008	1	10 yo	100 gal, 199900 Btu/hr, Natural Gas	\$15,000	2024
3	Glenelg	2008	1	10 yo	67 gal, 12000 Btu/hr, Natural Gas	\$15,000	2024
1	Thunder Hill	2008	1	10 yo	.65 gal, 625000 Btu/hr, Natural Gas	\$15,000	2024
2	Bollman Bridge	2009	1	09 yo	120 V	\$15,000	2024
2	Fulton	2009	1	09 yo	69 gal, 500000 Btu/hr, Natural Gas	\$15,000	2024
2	Fulton	2009	1	09 yo	69 gal, 500000 Btu/hr, Natural Gas	\$15,000	2024
9						\$135,000	2024
2	Gorman Crossing	2009	1	09 yo	69 gal, 500000 Btu/hr, Natural Gas	\$15,000	2025
2	Gorman Crossing	2009	1	09 yo	69 gal, 500000 Btu/hr, Natural Gas	\$15,000	2025
2	Harpers Choice	2009	1	09 yo	90 gal, Natural Gas	\$15,000	2025
2	Jeffers Hill	2009	1	09 yo	125 gal, 160000 Btu/hr	\$15,000	2025
3	Mt Hebron	2009	1	09 yo	250 Gal, 750,000 BTU/hr, Natural gas	\$15,000	2025
3	Mt Hebron	2009	1	09 yo	250 Gal, 750,000 BTU/hr, Natural gas	\$15,000	2025
3	Mt Hebron	2009	1	09 yo	250 Gal, 100,000 BTU/hr, Natural gas	\$15,000	2025
2	Murray Hill	2009	1	09 yo	250 gal, 115 V, 800000 Btu/hr, Natural Gas	\$15,000	2025
2	Northfield	2009	1	09 yo	130 gal, 300,000 BTU/hr, Natural gas	\$15,000	2025
9						\$135,000	2025

Total Water Heaters AT	Location	Year Installed	# Water Heaters	AGE	Equipment Notes	COST	Year Scheduled
2	Northfield	2009	1	09 yo	130 gal, 300,000 BTU/hr, Natural gas		2026
1	Talbot Springs	2009	1	09 yo	125 gal, 540000 Btu/hr, Natural Gas		2026
1	West Friendship	2009	1	09 yo	125 gal, 800000 Btu/hr, Natural Gas		2026
3	Elkridge Landing	2010	1	08 yo	125 gal, 399000 Btu/hr, Natural Gas		2026
3	Elkridge Landing	2010	1	08 yo	125 gal, 399000 Btu/hr, Natural Gas		2026
3	Glenelg	2010	1	08 yo	50 gal, 480 V, 54000 W		2026
7	Howard	2010	1	07 yo	40 gal		2026
2	Manor Woods	2010	1	08 yo	100 gal, Natural Gas		2026
2	Manor Woods	2010	1	08 yo	100 gal, Natural Gas		2026
			9				2026
4	Mayfield Woods	2010	1	08 yo	120 v, 399900 Btu/hr, Natural Gas		2027
4	Mayfield Woods	2010	1	08 yo	399900 Btu/hr, Natural Gas		2027
4	Mayfield Woods	2010	1	08 yo	480 V		2027
1	Mount View	2010	1	08 yo	125 gal, 115 V, 399000 Btu/hr, Natural Gas		2027
1	Patuxent Valley	2010	1	08 yo	125 gal, 115 V, 399000 Btu/hr, Natural Gas		2027
2	St Johns	2010	1	08 yo	85 gal		2027
2	Atholton ES	2011	1	07 yo	119 gal, 208 V		2027
2	Atholton ES	2011	1	07 yo	130 gal, 399900 Btu/hr		2027
2	Bollman Bridge	2011	1	07 yo	120 V		2027
			9				2027
3	Elkridge Landing	2011	1	07 yo	100 gal		2028
2	Oakland Mills High	2011	1	07 yo	200 gal		2028
4	River Hill	2011	1	07 yo	130 gal, Natural Gas		2028
1	River Hill High	2011	1	07 yo	130 gal, Natural Gas		2028
2	Waverly	2011	1	07 yo	100 gal		2028
4	Atholton High	2012	1	06 yo	250 gal, 565000 Btu/hr, Natural Gas		2028
4	Atholton High	2012	1	06 yo	250 gal, 565000 Btu/hr, Natural Gas		2028
4	Atholton High	2012	1	06 yo	250 gal, 399000 Btu/hr, Natural Gas		2028
4	Atholton High	2012	1	06 yo	250 gal, 399000 Btu/hr, Natural Gas		2028
			9				2028
1	Clarksville ES	2012	1	06 yo	130 gal, 399000 Btu/hr, Natural Gas		2029
2	Deep Run	2012	1	06 yo	120 V, 199900 Btu/hr		2029
2	Deep Run	2012	1	06 yo	120 V, 199900 Btu/hr		2029
1	Glenwood	2012	1	06 yo	85 gal, Natural Gas		2029
1	Phelps Luck	2012	1	06 yo	126 gal, 399900 Btu/hr, Natural Gas		2029
1	Stevens Forest	2012	1	06 yo	125 gal, 399000 Btu/hr, Natural Gas		2029
2	Swansfield	2012	1	06 yo	15 gal, 120 V		2029
1	Ducketts Lane	2013	1	05 yo	125 gal, 115 V, 399000 Btu/hr, Natural Gas		2029
7	Howard	2013	1	05 yo	82 gal, 740000 Btu/hr, Natural Gas		2029
			9				2029
7	Howard	2013	1	05 yo	82 gal, 740000 Btu/hr, Natural Gas		2030
1	Centennial HS	2014	1	04 yo	117 gal		2030
3	Elkridge	2014	1	04 yo	132 gal, 800000 Btu/hr		2030
3	Glenelg	2014	1	04 yo	117 gal		2030

Total Water Heaters At	Location	Year Installed	# Water Heaters	AGE	Equipment Notes	COST	Year Scheduled
2	Hammond High	2014	1	04 yo	125 gal, 399900 Btu/hr, Natural Gas		2030
7	Howard	2014	1	04 yo	125 gal, 399900 Btu/hr, Natural Gas		2030
2	Longfellow	2014	1	04 yo	Natural Gas		2030
2	Longfellow	2014	1	04 yo	Natural Gas		2030
2	Thomas Viaduct	2014	1	04 yo	250 gal, 115 V, 399000 Btu/hr		2030
			9				2030
2	Thomas Viaduct	2014	1	04 yo	250 gal, 115 V, 399000 Btu/hr		2031
6	Cradlerock	2015	1	03 yo	80 gal		2031
6	Cradlerock	2015	1	03 yo	118 gal, 499900 Btu/hr, Natural Gas		2031
1	Lisbon	2015	1	03 yo	118 gal, 499900 Btu/hr, Natural Gas		2031
2	Swansfield	2015	1	03 yo	118 gal, Natural Gas		2031
1	Waterloo	2015	1	03 yo	120 V, 499900 Btu/hr		2031
2	Bellow Springs	2016	1	02 yo	120 V, 500000 Btu/hr, Natural Gas		2031
2	Folly Quarter	2016	1	02 yo	85 gal, Natural Gas		2031
2	Murray Hill	2016	1	02 yo	120 V, 420000 Btu/hr, Natural Gas		2031
			9				2031
2	Rockburn	2016	1	02 yo	130 gal, 800000 Btu/hr, Natural Gas		2032
3	Wilde Lake Middle	2016	1	02 yo	45 gal, 480 V		2032
3	Wilde Lake Middle	2016	1	02 yo	80 gal, 208/120 V		2032
3	Wilde Lake Middle	2016	1	02 yo	45 gal, 480 V		2032
2	Hollifield	2017	1	01 yo	500,000 Btu/hr, 85 Gal, Natural Gas		2032
2	Hollifield	2017	1	01 yo	500000 Btu/hr, 85 Gal, Natural Gas		2032
1	Dunloggin	2018	1	new	100 gal, 199,000 BTU/hr, Natural gas		2032
3	Elkridge	2018	1	new	20 gal, 480 V, 6000 W		2032



Total Water Heaters AT	Location	Year Installed	# Water Heaters	AGE	Equipment Notes	COST	Year Scheduled
6	Cradlerock	N/A	1	80 gal			2032
6	Cradlerock	N/A	1	80 gal			2033
6	Cradlerock	N/A	1	80 gal			2033
3	Elkridge	N/A	1	6 gal, 120 V, 1500 W			2033
7	Howard	N/A	1	19.9 gal			2033
2	Ilchester	N/A	1	50 gal, 500,000 Btu/hr, Natural Gas			2033
2	Ilchester	N/A	1	125 gal, 399000 Btu/hr, Natural Gas			2033
2	Lake Elkhorn	N/A	1	80 gal			2033
2	Lake Elkhorn	N/A	1	119 gal			2033
1	Oakland Mills Middle	N/A	1	n/a 250 gal, 399000 Btu/hr, Natural Gas			2033
1	Centennial Lane		1	125 gal			2034
2	Clarksville Middle		1	125 gal			2034
2	Clarksville Middle		1	400 gal, 800000 Btu/hr, Natural Gas			2034
6	Cradlerock		1	118 gal, 499900 Btu/hr, Natural Gas			2034
2	Forest Ridge		1	125 gal, 399000 Btu/hr, Natural Gas			2034
2	Forest Ridge		1	125 gal, 399000 Btu/hr, Natural Gas			2034
4	Hammond		1	500000 Btu/hr, Natural Gas			2034
4	Hammond ?		1	500000 Btu/hr, Natural Gas			2034
4	Hammond Elem/Middle		1	500000 Btu/hr, Natural Gas			2034
4	Hammond Elem/Middle		1	117 gal, 500000 Btu/hr, Natural Gas			2035
2	Hammond High		1	130 gal, 399900 Btu/hr, Natural Gas			2035
1	Hanover Hills		1	119 gal 499,900 BTU/hr, Natural gas			2035
2	Harpers Choice		1	500000 Btu/hr, Natural Gas			2035
1	Headstart		1				2035
2	Jeffers Hill		1	125 gal, 160,000 BTU/Hr, Natural gas			2035
1	Laurel Woods		1	55 gal, 3000000 Btu/hr, Natural Gas			2035
1	Old Cedar Lane		1	150 gal, 540000 Btu/hr, Natural Gas			2035
1	Patapsco		1	130			2035
2	Pointers Run		1	125 gal, 800000 Btu/hr, Natural Gas			2036
2	Pointers Run		1	52 gal, 480 V, 12000 W			2036
1	Running Brook		1	125 gal			2036
3	Wilde Lake High		1	250 gal, Natural Gas			2036
3	Wilde Lake High		1	250 gal, Natural Gas			2036
3	Wilde Lake High		1	250 gal, Natural Gas			2036

381 total AT REPLACEMENT OF 09 PER YEAR

Howard County Public School System  
Fire Alarm Panel Estimate Complete Replacement Cost

Ranking	Year Installed	Location	REASONING	Amount	Year Scheduled to Replace	TOTALS
1	1995	Elkridge Landing MS	Parts no longer available	\$250,000	2020	
2	1995	Oakland Mills MS	Parts no longer available	\$250,000	2020	
3	1997	Fulton ES	Parts no longer available	\$250,000	2020	
4	1997	Hollifield Station ES	Parts no longer available	\$250,000	2020	
5	1997	Murray Hill MS	Parts no longer available	\$250,000	2020	
6	1998	Gorman Crossing ES	Parts no longer available	\$250,000	2020	
					<b>2020</b>	<b>TOTAL \$1,500,000</b>
7	1997	Harpers Choice MS	Reached Life Expectancy	\$250,000	2021	
8	1998	Glenwood MS	Reached Life Expectancy	\$250,000	2021	
9	1998	Jeffers Hill ES	Reached Life Expectancy	\$250,000	2021	
10	2001	Atholton ES	Reached Life Expectancy	\$250,000	2021	
11	2003	West Friendship ES	Parts - Very Limited Availability	\$250,000	2021	
12	2006	Centennial Lane ES	Parts - Very Limited Availability	\$250,000	2021	
					<b>2021</b>	<b>TOTAL \$1,500,000</b>
	1992	Burleigh Manor MS	OSC - HVAC Project	\$250,000		
	2000	Pointers Run ES	OSC - HVAC Project	\$250,000		
	2000	Rockburn ES	OSC - HVAC Project	\$250,000		
	2010	Mount View MS	OSC - HVAC Project - KEEP	\$250,000		
	2000	Talbott Springs ES	OSC - Replacement	\$250,000	2022	
	1969	Faulkner Ridge				
	1981	Old Cedar Lane		\$250,000		
	1992	Elkridge ES	Reached Life Expectancy	\$250,000	2022	
	1992	Patapsco MS	Reached Life Expectancy	\$250,000	2022	
	1997	Dunloggin MS	Reached Life Expectancy	\$250,000	2022	
	1999	Lime Kiln MS/Cedar Ln	Parts - Very Limited Availability	\$250,000	2022	
	1999*	Bonnie Branch MS	Reached Life Expectancy	\$250,000	2022*	FIRE ALARM PANEL BOX ONLY REPLACED 2018
					<b>2022*</b>	<b>TOTAL \$1,250,000</b>
	2000	OLD Bushy Park		\$250,000	2023	
	2001	Ellicott Mills MS		\$250,000	2023	
	2002	Homewood		\$250,000	2023	

Howard County Public School System  
Fire Alarm Panel Estimate Complete Replacement Cost

Ranking	Year Installed	Location	REASONING	Amount	Year Scheduled to Replace	TOTALS
	2002	Reservoir HS		\$350,000	2023	
	2003	Bellows Spring ES		\$250,000	2023	
	2003	Folly Quarter MS		\$250,000	2023	
					<b>TOTAL</b>	<b>\$1,600,000</b>
	2004	Howard HS		\$350,000	2024	
					<b>TOTAL</b>	<b>\$350,000</b>
	2005	Guilford ES		\$250,000	2025	
	2005	Lisbon ES		\$250,000	2025	
	2005	Marriotts Ridge HS		\$350,000	2025	
					<b>TOTAL</b>	<b>\$850,000</b>
	2006	ARL		\$350,000	2026	
	2006	Running Brook ES		\$250,000	2026	
					<b>TOTAL</b>	<b>\$600,000</b>
	2007	Gleneig HS		\$350,000	2027	
	2007	Bushy Park ES		\$250,000	2027	
	2007	Clarksville MS		\$250,000	2027	
	2007	Veterans ES		\$250,000	2027	
	2007	Worthington ES		\$250,000	2027	
					<b>TOTAL</b>	<b>\$1,350,000</b>

Howard County Public School System  
Fire Alarm Panel Estimate Complete Replacement Cost

Ranking	Year Installed	Location	REASONING	Amount	Year Scheduled to Replace	TOTALS
	2008	Bollman Bridge ES		\$250,000	2028	
	2008	Clemens Crossing ES		\$250,000	2028	
	2008	Waterloo ES		\$250,000	2028	
					<b>2028</b>	
					<b>TOTAL</b>	<b>\$750,000</b>
	2009	Centennial HS		\$350,000	2029	
	2009	Elkridge ES		\$250,000	2029	
	2009	Hammond HS		\$350,000	2029	
	2009	Mt Hebron HS		\$350,000	2029	
					<b>2029</b>	
					<b>TOTAL</b>	<b>\$1,300,000</b>
	2010	St John's Lane ES		\$250,000	2030	
	2010	Thunder Hill ES		\$250,000	2030	
	2010	Hammond ES/MS		\$350,000	2030	
	2010	Northfield ES		\$250,000	2030	
					<b>2030</b>	
					<b>TOTAL</b>	<b>\$1,100,000</b>
	2012	Clarksville ES		\$250,000	2032	
	2012	Phelps Luck ES		\$250,000	2032	
					<b>2032</b>	
					<b>TOTAL</b>	<b>\$500,000</b>
	2013	Atholton HS		\$350,000	2033	
	2013	Forest Ridge ES		\$250,000	2033	
					<b>2033</b>	
					<b>TOTAL</b>	<b>\$600,000</b>
	2014	Oakland Mills HS		\$350,000	2034	
	2014	Bryant Woods ES		\$250,000	2034	
	2014	Deep Run ES		\$250,000	2034	
	2014	Longfellow ES		\$250,000	2034	
	2014	Stevens Forest ES		\$250,000	2034	
					<b>2034</b>	
					<b>TOTAL</b>	<b>\$1,350,000</b>

Howard County Public School System  
Fire Alarm Panel Estimate Complete Replacement Cost

Ranking	Year Installed	Location	REASONING	Amount	Year Scheduled to Replace	TOTALS
	2015	Patuxent Valley MS		\$250,000	2035	
	2015	Central Office		\$250,000	2035	
	2015	Ilchester ES		\$250,000	2035	
	2015	Laurel Woods ES		\$250,000	2035	
	2015	Wilde Lake HS		\$350,000	2035	
	2015	Ducketts Lane ES		\$250,000	2035	
					<b>2035</b>	
					<b>TOTAL</b>	<b>\$1,600,000</b>
	2016	Manor Woods ES		\$250,000	2036	
	2016	Mayfield Woods ES		\$250,000	2036	
	2016	River Hill HS		\$350,000	2036	
	2016	Swansfield ES		\$250,000	2036	
	2016	Triadelphia Ridge ES		\$250,000	2036	
	2016	Wilde Lake MS		\$250,000	2036	
	2016	Thomas Viaduct MS		\$250,000	2036	
					<b>2036</b>	
					<b>TOTAL</b>	<b>\$1,850,000</b>
	2017	Cradlerock/Lake Elkhorn		\$350,000	2037	
	2017	Long Reach HS		\$350,000	2037	
	2017	Waverly ES		\$250,000	2037	
					<b>2037</b>	
					<b>TOTAL</b>	<b>\$950,000</b>
	2018	Hanover Hills ES		\$250,000	2038	
					<b>2038</b>	
					<b>TOTAL</b>	<b>\$250,000</b>

November 20, 2018 REVISION #2

GENERATOR REPLACEMENT		
Location	COST	deferred
Dunloggin MS-replacement	\$400,000	2014
Jeffers Hill ES-replacement	\$400,000	2014

MAIN ELECTRICAL DISTRIBUTION PANEL		
Location	COST	deferred
Cradlerock ES/Lake Elkhorn MS	\$400,000	2014
Jeffers Hill ES	\$400,000	2014

Howard County Public School System  
2020 Roof Replacement

Ranking	Year Installed	Location	State/County Funded	Amount	Year Scheduled to Replace
1	1988	Harpers Choice MS	State/County Funded	\$3,200,000	2019-2020
2	1995	Atholton ES	State/County/Pending	\$1,500,000	2020
3	1997	Fulton ES	State/County/Pending	\$2,112,000	2020
4	1991	Pointer Runs ES	State/County/Pending	\$2,800,000	2021
5	1997	Murray Hill MS	State/County/Pending	\$1,500,000	2020
6	1992	Forest Ridge ES		\$1,600,000	2021
7	1997	Triadelphia ES		\$1,600,000	2022
7	2002	Reservoir HS			2022-2024
8	1993	Guilford ES	State Eligible	\$1,400,000	2024
8	1996	Worthington ES	State Eligible		2024
9	1994	Clemens Crossing ES	State Eligible		2027
10	1989	Clarksville MS	State Eligible	\$2,500,000	2028
11	1987	Waterloo ES		\$1,400,000	2028

# Howard County Public System 2020 Roof Repair

Year  
Installed Location

1980 Howard HS  
1989 Clarksville MS- proposed 2028  
1996 Worthington ES- proposed 2027  
1992 Forest Ridge ES- proposed 2021  
1994 Clemens Crossing ES- proposed 2029  
1997 Fulton ES- proposed 2020

## Reasoning

ROTC ROOF

Repairs scheduled 2028

Repairs scheduled 2024

Repairs & Maintenance

Repairs & Maintenance

Life Expectancy

Year 2020 Year 2021 Year 2022 Year 2023 Year 2024

\$255,000

\$25,000 \$25,000 \$10,000

\$25,000 \$25,000 \$25,000 \$25,000

\$25,000 \$25,000

... \$25,000 \$15,000 \$15,000

\$15,000 \$5,000

**TOTALS** **\$345,000** **\$105,000** **\$50,000** **\$40,000**



Howard County Public School System  
Masonry Wall Repair

Year School Built	Location	Reasoning	COST	Year 2020	Year 2021	Year 2022	Year 2023	Year 2024
2003	Folly Quarter MS	N/W movement/C container	\$20,000	\$20,000				
1999	Lime Kiln MS	Window issue- Hall & Stairwell	\$140,000	\$140,000				
1971	Hammond ES/MS	Throughwall flashing	\$60,000	\$60,000				
1964	Mt Hebron HS	Window head & sill flashing	\$500,000	\$500,000				
1997	ARL	Greenhouse sealant	\$55,000	...	\$55,000			
1952	Howard HS	Screen wall	\$15,000	...	\$15,000			
1954	Guilford ES	Throughwall flashing/windows	\$550,000	...	\$550,000			
1992	Elkridge ES	Screen wall repairs	\$200,000	...	\$200,000			
1992	Elkridge ES	Exterior CMU Settlement cracks	\$150,000	...	\$150,000			
<b>TOTALS</b>				\$720,000	\$970,000			

**November 20, 2018 REVISION #2 - DEFERRED**

1999	Lime Kiln MS	Efflorescence of Brick Exterior Walls	\$60,000	deferred prior to 2009
		Window Leaks, Heads & Jambs		2011
1996	Long Reach HS	(Scheduled 2019 - OSC)	\$47,800	
1994	River Hill HS	Masonry Repairs	\$32,800	2013
1996	Wilde Lake HS	Masonry Repairs	\$20,000	2009

Howard County Public School  
Expansion Joints, Foundation Window Sealant Replacement

Year Built	LOCATION	Needed Repair	COST	Year 2020	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025
1925	West Friendship		\$25,000	\$25,000					
1952	Howard High		\$75,000	\$75,000					
1954	Guilford		\$25,000	\$25,000					
1954	St Johns Lane		\$25,000	\$25,000					
1958	Glenelg High		\$75,000	\$75,000					
1964	Waterloo		\$25,000	\$25,000					
1964	Clarksville ES		\$25,000	\$25,000					
1961	Atholton ES- sched., 2020	*Add to Roofing Project	\$25,000	\$0					
<b>TOTAL</b>				<b>\$275,000</b>					
1964	Mt Hebron High		\$75,000		\$75,000				
1966	Atholton High	older section	\$75,000		\$75,000				
1967	Glenwood MS		\$50,000		\$50,000				
1968	Bryant Woods		\$25,000		\$25,000				
<b>TOTAL</b>				<b>\$225,000</b>					
1968	Northfield ES		\$25,000			\$25,000			
1969	Patapsco MS		\$50,000			\$50,000			
1970	Longfellow		\$25,000			\$25,000			
1970	Running Brook		\$25,000			\$25,000			
1970	Thunder Hill		\$25,000			\$25,000			
1971	Hammond ES/MS		\$75,000			\$75,000			
1972	Phelps Luck		\$25,000			\$25,000			
1968	ARL	Exterior resealing 2016. Bldg A, B, C. plus paint	\$174,265						
					<b>TOTAL</b>	<b>\$250,000</b>			

Howard County Public School  
Expansion Joints, Foundation Window Sealant Replacement

Year Built	LOCATION	Needed Repair	COST	Year 2020	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025
1972	Stevens Forest		\$25,000				\$25,000		
1972	Swansfield		\$25,000				\$25,000		
1972	Oakland Mills MS		\$50,000				\$50,000		
1973	Centennial Lane ES		\$25,000				\$25,000		
1973	Laurel Woods		\$25,000				\$25,000		
1973	Dunloggin MS		\$50,000				\$50,000		
				TOTAL \$200,000					
1973	Harpers Choice	*Add to Roofing Project	\$50,000					\$0	
1973	Oakland Mills High		\$75,000					\$75,000	
1974	Jeffers Hill		\$25,000					\$25,000	
1976	Bushy Park ES		\$25,000					\$25,000	
1976	Cradlerock/Lake Elkhorn		\$75,000					\$75,000	
1976	Lisbon		\$25,000					\$25,000	
1976	Worthington		\$25,000					\$25,000	
				TOTAL \$250,000					
1976	Hammond High		\$75,000						\$75,000
1977	Centennial High		\$75,000						\$75,000
1979	Clemens Crossing	*Add to Roofing Project 2027	\$25,000						\$0
1979	Clarksville MS		\$50,000						\$50,000
1988	Bollman Bridge		\$25,000						\$25,000
				TOTAL \$225,000					

Howard County Public School  
Expansion Joints, Foundation Window Sealant Replacement

School Built	LOCATION	Needed Repair	COST	Year 2026	Year 2027	Year 2028	Year 2029	Year 2030	Year 2031
1989	Patuxent Valley		\$50,000	\$50,000					
1990	Deep Run		\$25,000	\$25,000					
1990	Waverly		\$25,000	\$25,000					
1991	Pointers Run	*Add to Roofing Project-2021	\$25,000	\$0					
1991	Mayfield Woods MS		\$50,000	\$50,000					
1992	Elkridge ES		\$25,000	\$25,000					
1992	Forest Ridge	*Add to Roofing Project-2021	\$25,000	\$0					
1992	Burleigh Manor		\$50,000	\$50,000					
			<b>TOTAL</b>	<b>\$225,000</b>					
1993	Rockburn		\$25,000	\$25,000					
1993	Mount View		\$50,000	\$50,000					
1994	Manor Woods		\$25,000	\$25,000					
1994	River Hill High		\$75,000	\$75,000					
1995	Elkridge Landing MS		\$50,000	\$50,000					
1996	Ilchester		\$25,000	\$25,000					
				<b>TOTAL</b>	<b>\$250,000</b>				
1996	Long Reach High		\$75,000			\$75,000			
1996	Wilde Lake High		\$75,000			\$75,000			
1998	Gorman Crossing		\$25,000			\$25,000			
1997	Murray Hill	*Add to Roofing Project-2020	\$50,000			\$0			
1997	Fulton		\$18,000			\$18,000			
1997	Hollifield Station		\$22,300			\$22,300			
1998	Triadelphia Ridge		\$24,000			\$24,000			
					<b>TOTAL</b>	<b>\$239,300</b>			

Howard County Public School  
Expansion Joints, Foundation Window Sealant Replacement

Year Built	LOCATION	Needed Repair	COST	Year 2026	Year 2027	Year 2028	Year 2029	Year 2030	Year 2031
1999	Bonnie Branch		\$50,000				\$50,000		
1999	Lime Kiln		\$50,000				\$50,000		
1999	Cedar Lane @ LKMS		\$25,000				\$25,000		
2001	Ellicott Mills MS		\$50,000				\$50,000		
2002	Reservoir High	*Add to Roofing Project-2020	\$75,000				\$0		
				TOTAL \$175,000					
2002	Homewood		\$50,000					\$50,000	
2003	Bellow Springs		\$25,000					\$25,000	
2003	Folly Quarter MS		\$50,000					\$50,000	
2005	Marriotts Ridge High		\$75,000					\$75,000	
2006	Dayton Oaks		\$25,000					\$25,000	
2007	Veterans		\$25,000					\$25,000	
				TOTAL \$250,000					
2013	Ducketts Lane		\$25,000						\$25,000
2014	Thomas Viaduct MS		\$50,000						\$50,000
2017	Wilde Lake MS		\$50,000						\$50,000
2018	Hanover Hills ES		\$25,000						\$25,000
				TOTAL \$150,000					

Howard County Public School System  
Carpet Prioritization

Based on 12 Year Life Cycle

LOCATION	YEAR REPLACED	YEAR 2020	YEAR 2021	YEAR 2022
Fulton ES	1997	\$160,000		
Pointers Run ES	1997	\$150,000		
Triadelphia Ridge ES	1998	\$150,000		
Clarksville ES	2000	\$100,000		
Glenelg HS	2000	\$270,000		
Hammond MS	2000	\$160,000		
Jeffers Hill ES	2000	\$100,000		
	<b>TOTAL</b>	<b>\$1,090,000</b>		
Central Office	2001		\$200,000	
Atholton ES	2001		\$150,000	
Ellicott Mills MS	2001		\$150,000	
Forest Ridge ES	2001		\$100,000	
ARL	2002		\$300,000	
Centennial HS	2002		\$200,000	
Homewood School	2002		\$100,000	
		<b>TOTAL \$1,200,000</b>		
Reservoir HS	2002			\$280,000
Running Brook ES	2002			\$130,000
Bellows Spring ES	2003			\$200,000
Folly Quarter MS	2003			\$160,000
Mt. View MS	2003			\$80,000
Cedar Lane @ LKMS	2005			\$150,000
Marriotts Ridge HS	2005			\$300,000
		<b>TOTAL \$1,300,000</b>		

Howard County Public School System  
Carpet Prioritization

Based on 12 Year Life Cycle

LOCATION	YEAR REPLACED	YEAR 2023	YEAR 2024	YEAR 2025	YEAR 2026
Lisbon ES	2006	\$100,000			
Bushy Park ES	2007	\$150,000			
Centennial Lane ES	2007	\$90,000			
Elkridge Landing MS	2007	\$140,000			
Long Reach HS	2007	\$250,000			
River Hill HS	2007	\$260,000			
	<b>TOTAL</b>	<b>\$990,000</b>			
Veterans ES	2007		\$150,000		
Clarksville MS	2008		\$100,000		
Ilchester ES	2008		\$100,000		
Wilde Lake HS	2008		\$270,000		
Worthington ES	2008		\$120,000		
Clemens Crossing ES	2009		\$130,000		
Guilford ES	2009		\$240,000		
		<b>TOTAL</b>	<b>\$1,110,000</b>		
Hammond HS	2009			\$200,000	
Laurel Woods ES	2009			\$100,000	
Murray Hill MS	2009			\$160,000	
Patapsco MS	2009			\$140,000	
Waterloo ES	2009			\$130,000	
Elkridge ES	2010			\$140,000	
Oakland Mills MS	2010			\$170,000	
			<b>TOTAL</b>	<b>\$1,040,000</b>	
Bonnie Branch MS	2011				\$150,000
Bryant Woods ES	2011				\$80,000
Dunloggin MS	2011				\$150,000
Hammond ES	2011				\$100,000
Hollifield Station ES	2011				\$120,000
Mt. Hebron HS	2011				\$260,000
Northfield ES	2011				\$130,000
			<b>TOTAL</b>	<b>\$990,000</b>	

Howard County Public School System  
Carpet Prioritization

Based on 12 Year Life Cycle

LOCATION	YEAR REPLACED	YEAR 2027	YEAR 2028	YEAR 2029	YEAR 2030
St. John's Lane ES	2011	\$130,000			
Glenwood MS	2012	\$130,000			
Gorman Crossing ES	2012	\$150,000			
Harper's Choice MS	2012	\$150,000			
Lime Kiln MS	2012	\$150,000			
Oakland Mills HS	2012	\$240,000			
Stevens Forest ES	2012	\$130,000			
<b>TOTAL</b>		<b>\$1,080,000</b>			
Ducketts Lane ES	2013		\$150,000		
Howard HS	2013		\$300,000		
Phelps Luck ES	2013		\$120,000		
Thunder Hill ES	2013		\$130,000		
Bollman Bridge ES	2014		\$120,000		
Cradlerock ES	2014		\$150,000		
Lake Elkhorn MS	2014		\$120,000		
		<b>TOTAL</b>	<b>\$1,090,000</b>		
Mayfield Woods MS	2014			\$160,000	
Thomas Viaduct MS	2014			\$180,000	
Atholton HS	2015			\$300,000	
Burleigh Manor MD	2015			\$140,000	
Manor Woods ES	2015			\$100,000	
West Friendship ES	2015			\$60,000	
Deep Run ES	2016			\$130,000	
			<b>TOTAL</b>	<b>\$1,070,000</b>	
Longfellow ES	2016				\$150,000
Rockburn ES	2016				\$60,000
Patuxent Valley MS	2017				\$150,000
Wilde Lake MS	2017				\$180,000
Hanover Hills ES	2018				\$160,000
Swansfield ES	2018				\$140,000
Waverly ES	2018				\$170,000
			<b>TOTAL</b>	<b>\$1,010,000</b>	



## Exterior Paint Prioritization to Maintain Structural Integrity

(11-14 year cycle if schedule is followed)

School	Yr. Last Painted	Year 2020	Year 2021	Year 2022	Year 2023
Dayton Oaks ES	2006	\$15,000			
River Hill HS	2006	\$26,000			
Bushy Park ES	2007	\$15,000			
Elkridge ES	2007	\$12,000			
Hollifield Station ES	2007	\$12,000			
Veterans ES	2007	\$15,000			
Central Office	2007	\$20,000			
		<b>\$115,000 TOTAL</b>			
Bellows Spring ES	2009		\$12,000		
Laurel Woods ES	2010		\$12,000		
Murray Hill MD	2010		\$15,000		
Oakland Mills MS	2010		\$15,000		
Gorman Crossing ES	2011		\$12,000		
Hammond ES	2011		\$12,000		
Ilchester ES	2011		\$12,000		
		<b>\$90,000 TOTAL</b>			
Manor Woods ES	2011			\$12,000	
Northfield ES	2011			\$15,000	
St. John's Lane ES	2011			\$12,000	
Glenelg HS	2011			\$12,000	
Marriotts Ridge HS	2011			\$12,000	
Mt. Hebron HS	2011			\$12,000	
Dunloggin MS	2011			\$15,000	
		<b>\$90,000 TOTAL</b>			
Forest Ridge ES	2012				\$12,000
Fulton ES	2012				\$12,000
Guilford ES	2012				\$10,000
Pointers Run ES	2012				\$12,000
Rockburn ES	2012				\$12,000
Talbott Springs ES	2012				\$12,000
Long Reach HS	2012				\$26,000
		<b>\$96,000</b>			

## Exterior Paint Prioritization to Maintain Structural Integrity

School	Yr. Last Painted	Year 2024	Year 2025	Year 2026	Year 2027
Elkridge Landing MS	2012	\$15,000			
Hammond MS	2012	\$15,000			
Harper's Choice MD	2012	\$15,000			
Mt. View MS	2012	\$18,000			
Cedar Lane @ Lime Kiln	2012	\$15,000			
Clarksville ES	2013	\$12,000			
Ducketts Lane ES	2013	\$15,000			
		<b>\$105,000 TOTAL</b>			
Phelps Luck ES	2013		\$12,000		
Stevens Forest ES	2013		\$12,000		
Thunder Hill ES	2013		\$12,000		
Howard HS	2013		\$26,000		
Bollman Bridge ES	2014		\$12,000		
Centennial Lane ES	2014		\$12,000		
Cradlerock ES	2014		\$12,000		
		<b>\$98,000 TOTAL</b>			
Triadelphia Ridge ES	2014			\$12,000	
Worthington ES	2014			\$12,000	
Oakland Mills HS	2014			\$24,000	
Reservoir HS	2014			\$26,000	
Clarksville MS	2014			\$15,000	
Folly Quarter MS	2014			\$18,000	
Lake Elkhorn MS	2014			\$15,000	
		<b>\$122,000 TOTAL</b>			
Patapsco MS	2014				\$20,000
Thomas Viaduct MS	2014				\$18,000
Administration Building	2014				\$15,000
Atholton ES	2015				\$12,000
Clemens Crossing ES	2015				\$12,000
Waterloo ES	2015				\$12,000
West Friendship ES	2015				\$12,000
Atholton HS	2015				\$25,000
		<b>\$126,000</b>			

## Howard County Public School System

## Exterior Paint Prioritization to Maintain Structural Integrity

(11-14 year cycle if schedule is followed)

School	Yr. Last Painted	Year 2028	Year 2029	Year 2030	
Bonnie Branch MS	2015	\$18,000			
Burleigh Manor MS	2015	\$18,000			
Ellicott Mills MD	2015	\$18,000			
Glenwood MD	2015	\$15,000			
Lime Kiln MD	2015	\$18,000			
Mayfield Woods MD	2015	\$18,000			
Homewood	2015	\$12,000			
		<b>\$117,000 TOTAL</b>			
Deep Run ES	2016		\$12,000		
Longfellow ES	2016		\$12,000		
Applications & Research Laborato	2016		\$30,000		
Patuxent Valley MD	2017		\$18,000		
Wilde Lake MD	2017		\$18,000		
Bryant Woods ES	2018		\$12,000		
Hanover Hills ES	2018		\$12,000		
			<b>\$114,000 TOTAL</b>		
Jeffers Hill ES	2018			\$12,000	
Lisbon ES	2018			\$12,000	
Running Brook ES	2018			\$12,000	
Swansfield ES	2018			\$12,000	
Waverly ES	2018			\$12,000	
Centennial HS	2018			\$26,000	
Hammond HS	2018			\$26,000	
Wilde Lake HS	2018			\$26,000	
				<b>\$138,000 TOTAL</b>	

## Interior Paint Prioritization to Maintain Aesthetic Appearance - Estimated Cost

LOCATION	Level	Yr. Last Painted	YEAR 2020	YEAR 2021	YEAR 2022	YEAR 2023	YEAR 2024
Clarksville	Elementary	2004	\$160,000				
Cedar Lane	Special	2005	\$180,000				
Fulton	Elementary	2005	\$117,000				
Glenelg	High	2005	\$300,000				
Long Reach	High	2005	\$300,000				
			<b>\$1,057,000</b>	<b>TOTAL</b>			
Marriotts Ridge	High	2005		\$300,000			
Dayton Oaks	Elementary	2006		\$167,000			
Elkridge Landing	Middle	2006		\$135,000			
Forest Ridge	Elementary	2006		\$113,000			
Lisbon	Elementary	2006		\$160,000			
				<b>\$875,000</b>	<b>TOTAL</b>		
Mt. View	Middle	2006			\$300,000		
Pointers Run	Elementary	2006			\$167,000		
River Hill	High	2006			\$135,000		
Rockburn	Elementary	2006			\$113,000		
Running Brook	Elementary	2006			\$160,000		
					<b>\$875,000</b>	<b>TOTAL</b>	
Talbott Springs	Elementary	2006				\$145,000	
Administration - UI & ML	Special	2007				\$215,000	
Bollman Bridge	Elementary	2007				\$175,000	
Bushy Park	Elementary	2007				\$185,000	
Elkridge	Elementary	2007				\$168,000	
						<b>\$888,000</b>	<b>TOTAL</b>
Ellicott Mills	Middle	2007				\$145,000	
Hollifield Station	Elementary	2007				\$270,000	
Homewood	Special	2007				\$175,000	
Northfield	Elementary	2007				\$185,000	
Veterans	Elementary	2007				\$168,000	
						<b>\$943,000</b>	<b>TOTAL</b>

## Interior Paint Prioritization to Maintain Aesthetic Appearance - Estimated Cost

LOCATION	Level	Yr. Last Painted	YEAR 2025	YEAR 2026	YEAR 2027	YEAR 2028	YEAR 2029
Wilde Lake	High	2007	\$300,000				
Centennial	High	2008	\$225,000				
Clarksville	Middle	2008	\$135,000				
Folly Quarter	Middle	2008	\$192,000				
Oakland Mills	High	2008	\$225,000				
			<b>\$1,077,000</b>	<b>TOTAL</b>			
Patapsco	Middle	2008	\$300,000				
Reservoir	High	2008	\$225,000				
Triadelphia Ridge	Elementary	2008	\$135,000				
Bellows Spring	Elementary	2009	\$192,000				
Clemens Crossing	Elementary	2009	\$225,000				
			<b>\$1,077,000</b>	<b>TOTAL</b>			
Hammond	High	2009		\$225,000			
Lime Kiln	Middle	2009		\$192,000			
Waterloo	Elementary	2009		\$122,000			
Applications & Research Labor	Special	2010		\$170,000			
Bryant Woods	Elementary	2010		\$90,000			
				<b>\$799,000</b>	<b>TOTAL</b>		
Jeffers Hill	Elementary	2010			\$225,000		
Laurel Woods	Elementary	2010			\$192,000		
Murray Hill	Middle	2010			\$122,000		
Oakland Mills	Middle	2010			\$170,000		
Dunloggin	Middle	2011			\$90,000		
					<b>\$799,000</b>	<b>TOTAL</b>	
Gorman Crossing	Elementary	2011				\$138,000	
Hammond	Elementary	2011				\$158,000	
Ilchester	Elementary	2011				\$148,000	
Manor Woods	Elementary	2011				\$143,000	
Mt. Hebron	High	2011				\$300,000	
						<b>\$887,000</b>	<b>TOTAL</b>

## Interior Paint Prioritization to Maintain Aesthetic Appearance - Estimated Cost

LOCATION	Level	Yr. Last Painted	YEAR 2030	YEAR 2031	YEAR 2032	YEAR 2033	YEAR 2034
St. John's Lane	Elementary	2011	\$ 148,000				
Guilford	Elementary	2012	\$ 100,000				
Hammond	Middle	2012	\$ 145,000				
Harper's Choice	Middle	2012	\$ 130,000				
Ducketts Lane	Elementary	2013	\$ 175,000				
			<b>\$698,000</b>	<b>TOTAL</b>			
Howard	High	2013	\$ 254,000				
Phelps Luck	Elementary	2013	\$ 128,000				
Thunder Hill	Elementary	2013	\$ 138,000				
Centennial Lane	Elementary	2014	\$ 138,000				
Cradlerock	Elementary	2014	\$ 138,000				
			<b>\$ 796,000</b>	<b>TOTAL</b>			
Lake Elkhorn	Middle	2014		\$165,000			
Stevens Forest	Elementary	2014		\$138,000			
Thomas Viaduct	Middle	2014		\$172,000			
Worthington	Elementary	2014		\$113,000			
Atholton	Elementary	2015		\$150,000			
				<b>\$738,000</b>	<b>TOTAL</b>		
Atholton	High	2015			\$300,000		
Bonnie Branch	Middle	2015			\$195,000		
Burleigh Manor	Middle	2015			\$175,000		
Mayfield Woods	Middle	2015			\$175,000		
West Friendship	Elementary	2015			\$98,000		
					<b>\$943,000</b>	<b>TOTAL</b>	
Deep Run	Elementary	2016				\$145,000	
Glenwood	Middle	2016				\$105,000	
Longfellow	Elementary	2016				\$103,000	
Patuxent Valley	Middle	2017				\$175,000	
Wilde Lake	Middle	2017				\$172,000	
						<b>\$700,000</b>	<b>TOTAL</b>

# Section 5

## Appendix





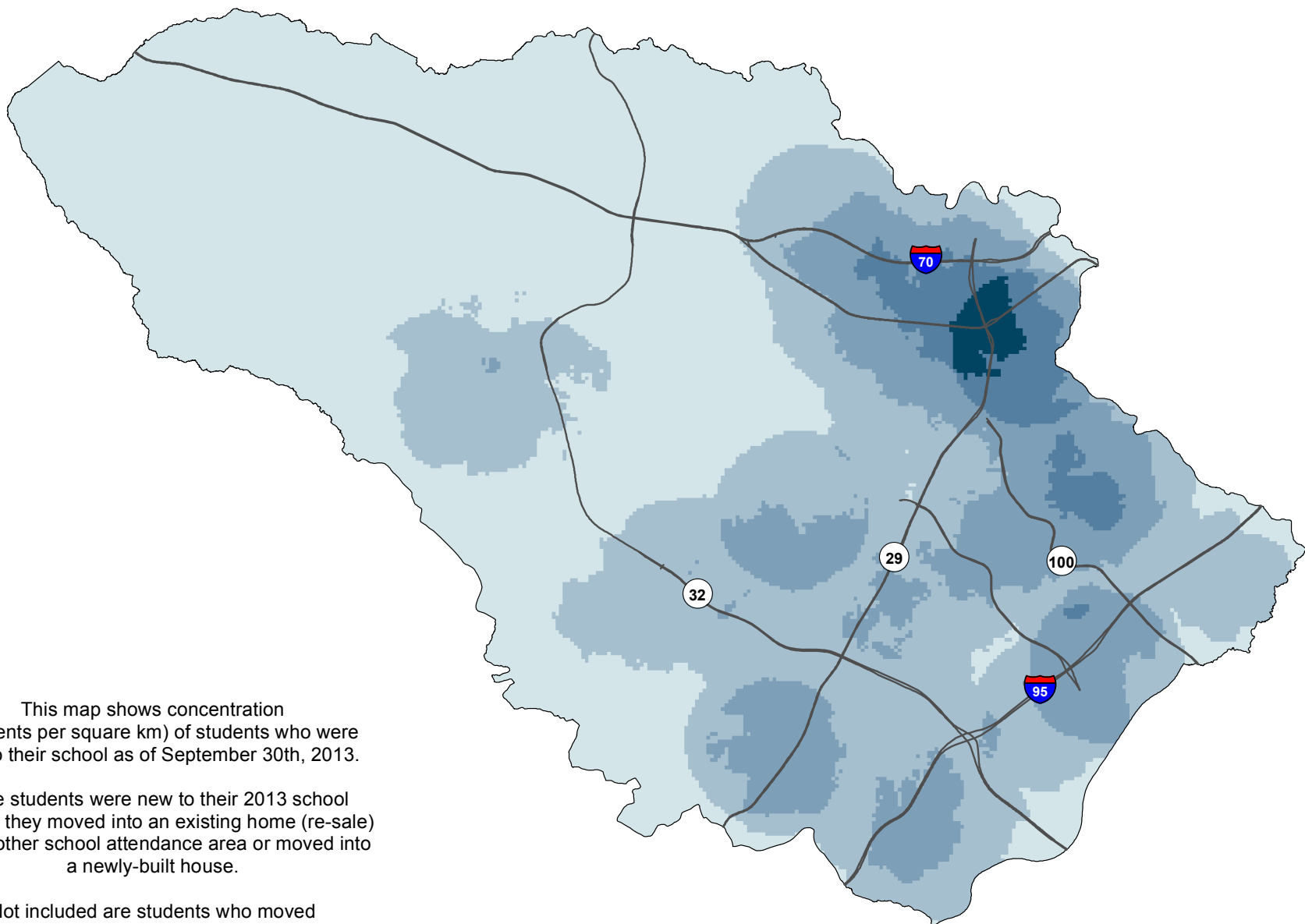
## Glossary of Attendance Area Adjustment Terms:

1. Attendance Area Committee (AAC) – Committee comprised of community members appointed by the Superintendent to provide feedback to the Superintendent on the proposed attendance area adjustment plans in staff reports.
2. Demographic Characteristics – Features in the composition of a school’s population that includes, but is not limited to the racial/ethnic composition of a school’s student population, as well as the percentage of students participating in Free and Reduced-Priced Meals (FARMS) and English for Speakers of Other Languages (ESOL) programs.
3. Feed – The flow of students from one school level to the next.
4. Free and Reduced-Priced Meals (FARMS) – A federal program available to students whose households meet the federal income eligibility guidelines to receive free or reduced-priced meals.
5. Long-Range Enrollment – Each school’s student population projections for the upcoming 10 years.
6. Permanent School Facility – School building that is constructed with brick, concrete and steel, with a wooden or fabricated steel frame; a lasting structure designed and intended for support, enclosure, shelter or protection of people and for the delivery of instruction. Excluded from this definition are relocatables which are temporary and can be moved to alternative locations.
7. Planning Region – A geographic area of Howard County made up of one or more schools used by the HCPSS Office of School Planning for long-range planning purposes.
8. Program Capacity – The number of students that can be reasonably accommodated in a school, based on the permanent school facility (relocatables are excluded) and the educational program offered. Program capacity is calculated based at the below rates:
  - a. Elementary schools: the product of the Board-approved student-to-teacher ratio and the number of teaching stations identified in the capital budget.
  - b. Middle schools: 95% of the product of the Board-approved student-to-teacher ratio and the number of teaching stations identified in the capital budget.
  - c. High schools: 80% or 85% of the product of the Board-approved student-to-teacher ratio and the number of teaching stations in the capital budget.
9. Projections – Estimated student enrollment for future school years. Anticipated student enrollment counts developed using data that includes, but is not limited to historical cohort survival ratios, birth rates, new housing units, housing resales, apartment turnover and net migration
10. Regional Program – A countywide educational program located at one or more, but not all schools that is designed to provide a particular type of educational leadership or intervention to students. Regional programs may include, but are not limited to Regional Academic Life Skills, Preschool Program, including Parent-Assisted Learning at Schools, Pre-Kindergarten, Elementary School Model Full-day Pre-Kindergarten, Early Beginnings, Regional Emotional Disabilities, Multiple Intensive Needs Classroom, Junior Reserve Officer Training Course (JROTC) and Elementary School Primary Learner Program.
11. School Attendance Area – Geographic area from which a school’s students are drawn.
12. State Rated Capacity (SRC) – The number of students that the State’s Interagency Commission (or its designee) determines that an individual school has the physical capacity to enroll and can be reasonably accommodated in a facility. Approved capacities for the following rooms are:

<b>Elementary</b>		<b>Middle/High</b>	
Prekindergarten	20	Grade 6-12 general or specialized	25
Kindergarten	22	Career Technology	20
Grades 1-5	23	Alternative Programs	15
Special Education	10	Special Education	10

13. Target Utilization – Enrollment between 90% and 110% utilization of the program capacity of a permanent school facility.
14. Utilization – The comparison of a permanent school facility’s program capacity and its enrollment or projected future enrollment

## HCPSS New Student Concentration 2013

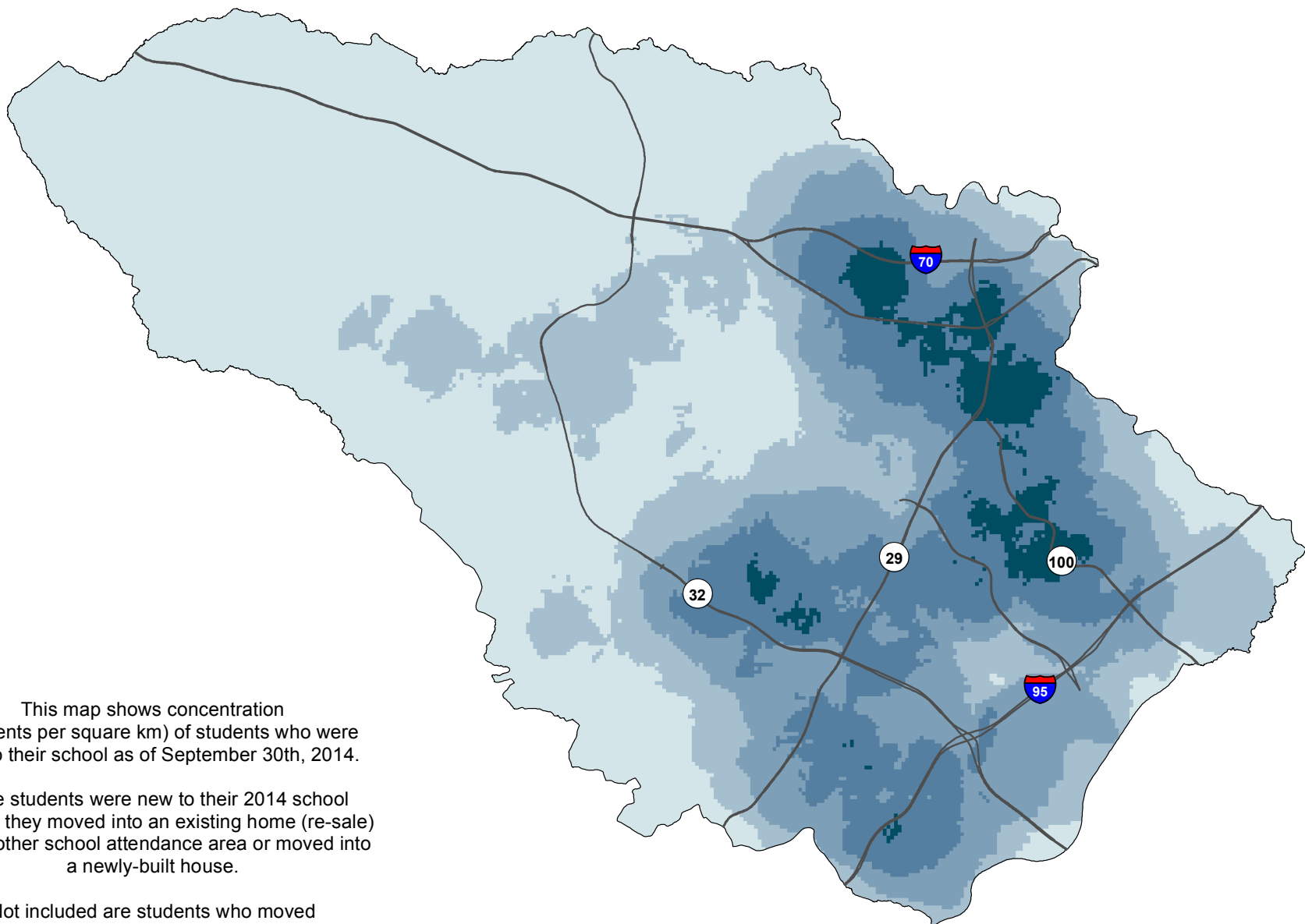


This map shows concentration (students per square km) of students who were new to their school as of September 30th, 2013.

These students were new to their 2013 school because they moved into an existing home (re-sale) from another school attendance area or moved into a newly-built house.

Not included are students who moved into apartments, who moved into their homes as pre-school aged children, or who have moved into their 2013 school for some reason other than resale of existing home or new construction.

## HCPSS New Student Concentration 2014

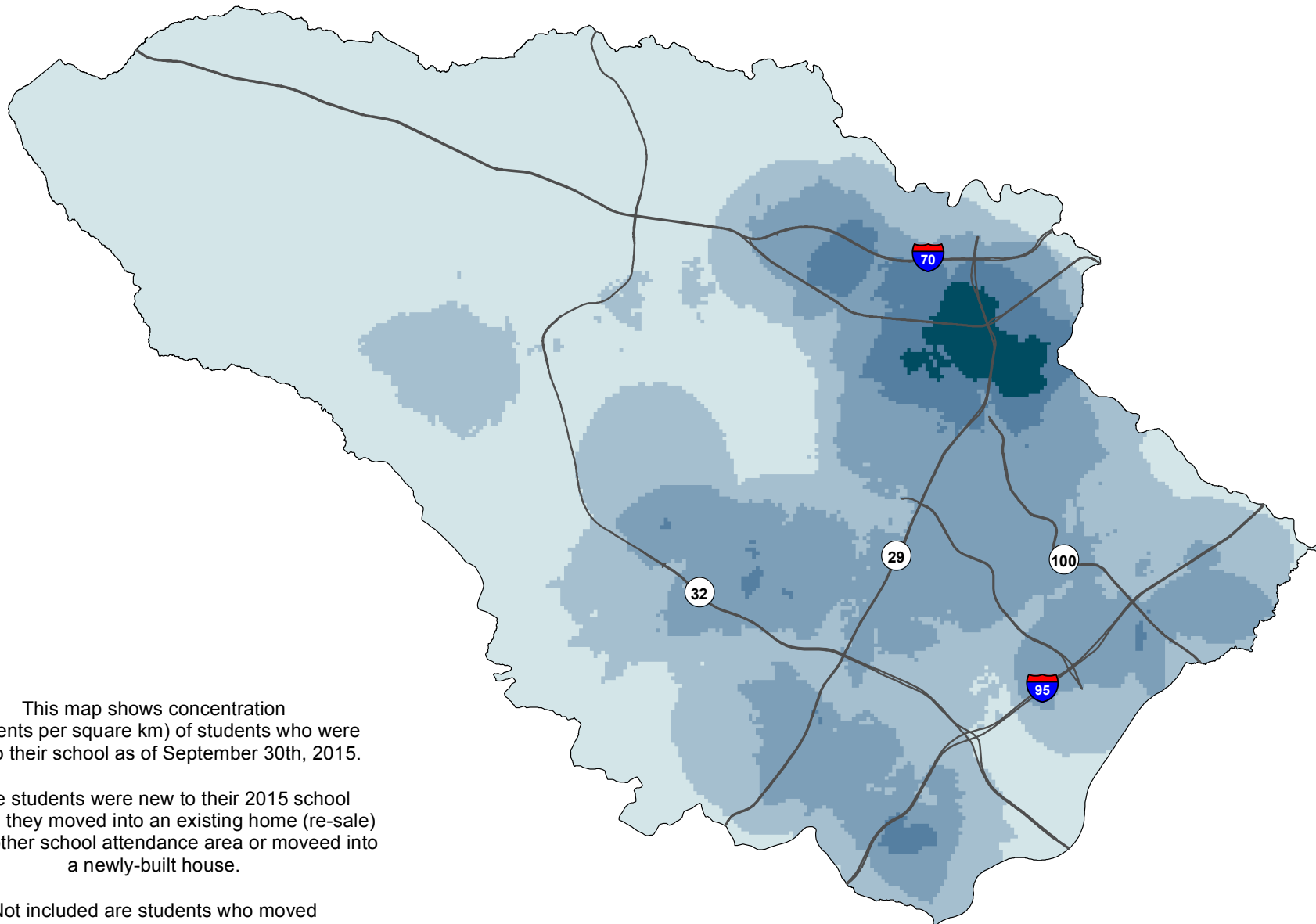


This map shows concentration (students per square km) of students who were new to their school as of September 30th, 2014.

These students were new to their 2014 school because they moved into an existing home (re-sale) from another school attendance area or moved into a newly-built house.

Not included are students who moved into apartments, who moved into their homes as pre-school aged children, or who have moved into their 2014 school for some reason other than resale of existing home or new construction.

## HCPSS New Student Concentration 2015

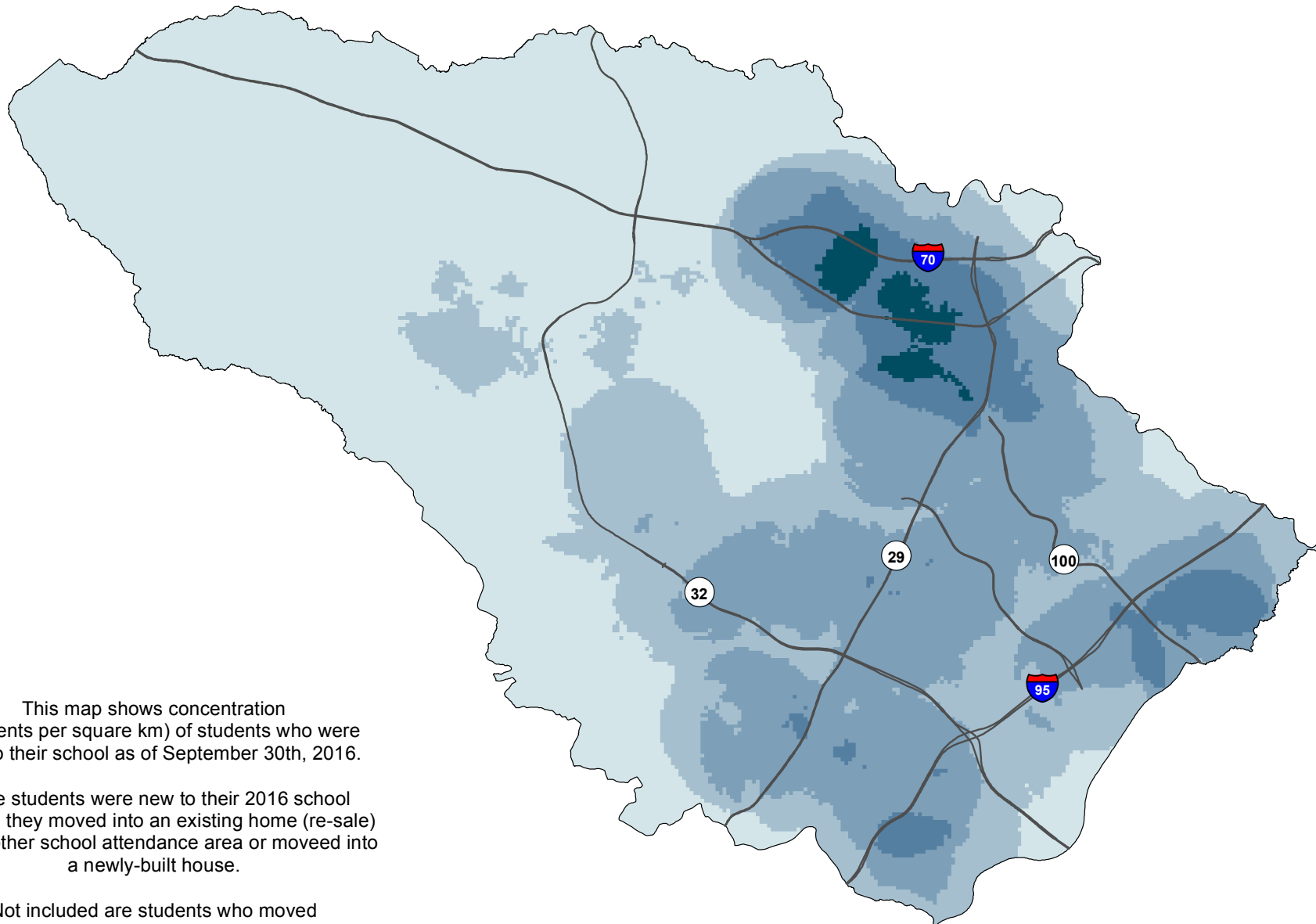


This map shows concentration (students per square km) of students who were new to their school as of September 30th, 2015.

These students were new to their 2015 school because they moved into an existing home (re-sale) from another school attendance area or moved into a newly-built house.

Not included are students who moved into apartments, who moved into their homes as pre-school aged children, or who have moved into their 2015 school for some reason other than resale of existing home or new construction.

## HCPSS New Student Concentration 2016

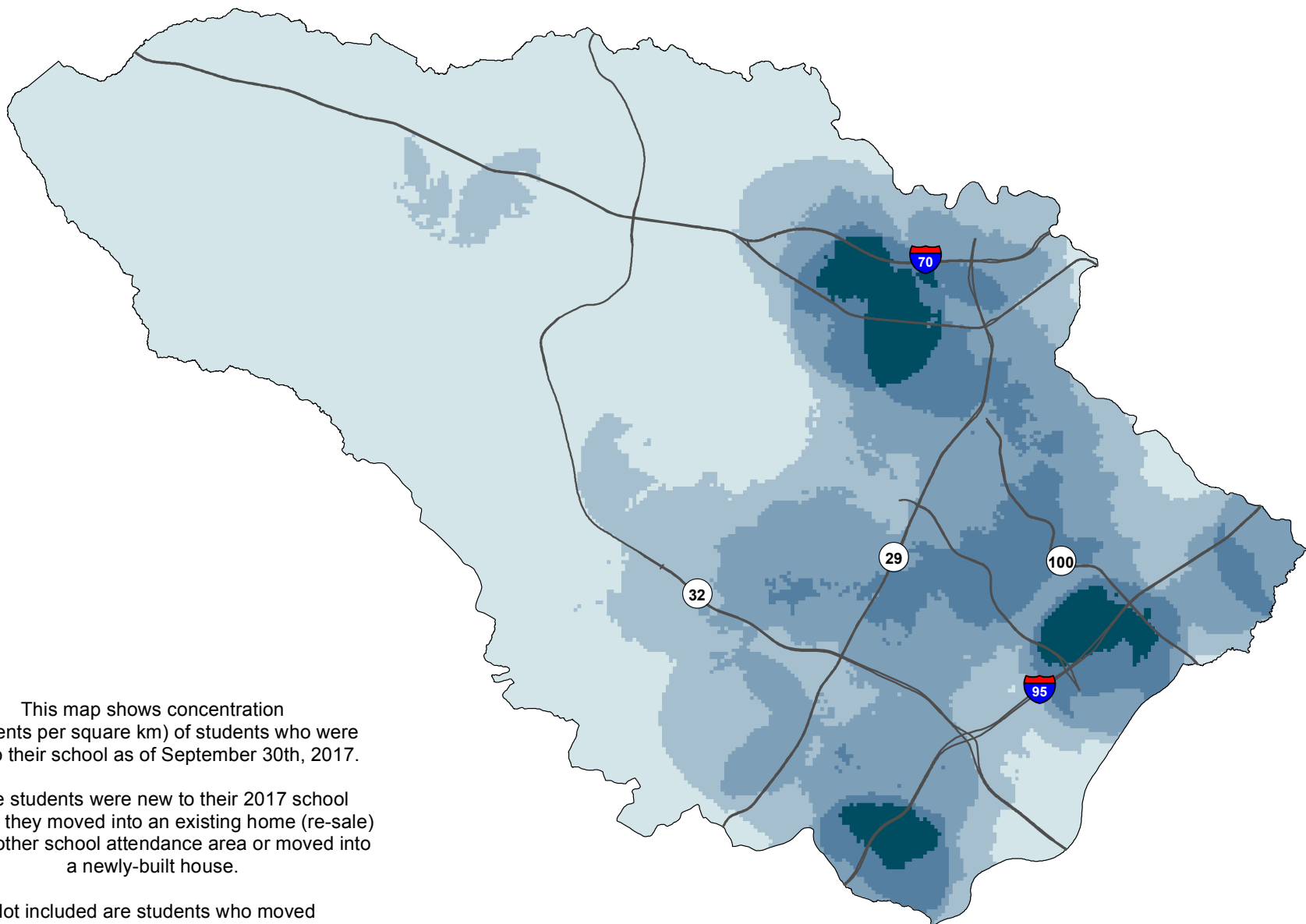


This map shows concentration (students per square km) of students who were new to their school as of September 30th, 2016.

These students were new to their 2016 school because they moved into an existing home (re-sale) from another school attendance area or moved into a newly-built house.

Not included are students who moved into apartments, who moved into their homes as pre-school aged children, or who have moved into their 2016 school for some reason other than resale of existing home or new construction.

## HCPSS New Student Concentration 2017



This map shows concentration (students per square km) of students who were new to their school as of September 30th, 2017.

These students were new to their 2017 school because they moved into an existing home (re-sale) from another school attendance area or moved into a newly-built house.

Not included are students who moved into apartments, who moved into their homes as pre-school aged children, or who have moved into their 2017 school for some reason other than resale of existing home or new construction.



September 11, 2018

MEMORANDUM

To: Members of the Board of Education

From: Michael J. Martirano, Ed.D.  
Superintendent

Subject: SchoolSite Update

The purpose of this memorandum is to update you on SchoolSite, the new projection/redistricting tool. Migrating to the new software will occur in three phases. Phase one will occur over the summer and fall 2018. This phase involves the Office of School Planning (OSP) verifying the inputs and data formats needed to properly function and create a projection. The goal for this phase is to produce two projections (one in SchoolSite and one using our existing projection system) by running the processes simultaneously in the winter months (2018-19). The purpose of running both processes is to allow the OSP to have a comparison between the software outputs and measure the accuracy of each system's projection in fall 2019.

The second phase will be implemented after the development of the 2019 projection and may begin in spring 2019. This phase involves testing the redistricting scenario portion of SchoolSite simultaneously with the WHIFFER. Phase two is dependent on the completion of the projection in phase one.

The third phase is the development of several reporting functions that are included in the WHIFFER, but not in SchoolSite. This phase will take time, as staff will need to develop these processes, format the custom reports using the Geographic Information System (GIS) and perform several tests to compare those results. Phase three is dependent on the completion of phase two. The full software should be running by spring 2020.

If you have any questions, please contact Renee Kamen, Manager, Office of School Planning at 410-313-7184.

Copy to: Executive Staff  
Board of Education Office



September 13, 2018

**MEMORANDUM**

To: Members of the Board of Education

From: Michael J. Martirano, Ed.D.  
Superintendent

Subject: Mission Road Property Update

The purpose of this memorandum is to provide an update on the status of the Mission Road property. The property acquisition and transfer remains on schedule. The updated project schedule is as follows:

<b>Project Timeline</b>	<b>Due</b>	<b>Status</b>
<b>Site Section</b>	<b>3/8/2018</b>	<b>Complete</b>
<b>Site Approval from IAC</b>	<b>5/31.2018</b>	<b>Complete</b>
<b>Planning Advisory Committee Meetings</b>	<b>7/17/2018</b>	<b>Complete</b>
Schematic Design (SD) presentation to Board of Education for Review and Approval	9/20/2018	Pending
Submit SD for State approval	9/2018	Pending
Design Development presentation to Board of Education for Review and Approval	2/2019	Pending
Property transfer from Howard County to BOE	12/2019	Pending
Construction Documents presentation to Board of Education for Review and Approval	10/2019	Pending
Bid Project	11/2019	Pending
Receive Bids	12/2019	Pending
Starts Construction	5/2020	Pending
Complete Construction	4/2023	Pending
Complete Project Commissioning	9/2023	Pending
Open School	9/2023	Pending



With regards to the other concerns recently voiced to HCPSS staff, on the Mission Road property, please see below:

- Flooding – The water went to the lowest point, which is Mission Road at the rail bridge. Part of the issue is that the site is currently being graded and does not have the full storm water management (SWM) requirements. The new school will be designed with SWM, as required by county code. The water on the site will be gathered in multiple SWM ponds where the water will be addressed with regard to quality and quantity prior to it leaving the site.
- Ownership – Currently, the Howard County Department of Public Works is completing the sales agreement and HCPSS is not directly involved with the negotiations. The latest draft purchase and sales agreement shared with HCPSS notes that the closing date shall be no later than May 31, 2019. Once purchased by the county, HCPSS will proceed with transfer of the property through the record document process and submission to the state. Please note the current owner is in the process of rough grading the overall site as part of the pending sales agreement with Howard County government.

If you have any questions, please contact Scott W. Washington, Director, Capital Planning and Construction at 410-313-6807.

Copy to: Executive Staff  
Board of Education Office



October 23, 2018

**CONFIDENTIAL  
MEMORANDUM**

Student data (Attachment 2) redacted for confidentiality.

To: Members of the Board of Education

From: Michael J. Martirano, Ed.D.  
Superintendent

Subject: HS #13 Boundary

The purpose of this memorandum is to provide you a potential HS #13 boundary. The boundary is in response to the Board motion on June 7, 2018. This boundary is the same boundary previously shared with the Board during the site selection process for HS #13. The March 2, 2018, memorandum, contained only the boundary and projected students moved. Staff is including additional demographic data in addition to the boundary, which includes notes, polygon assignments, feed report, and moved areas maps. The following criteria was used to develop the redistricting scenario:

- Consideration for target utilization (90% -110% utilization) per Policy 6010;
- Opening a new high school in 2023 with 1,650 seats; and
- Proposed Hammond HS renovation/addition (+200 seats) for the same timeframe.

This scenario does not use existing capacity at schools further west. The scenario is a conservative approach, moving as few students as possible to identify potential high school attendance areas. This scenario is preliminary. Further analysis based on Policy 6010, in its entirety, will be completed in the future and many scenarios will be tested. Projections are scheduled to be updated annually until attendance area adjustments are under review for the Board's approval the year prior to HS #13 opening.

Attached to this memorandum are the following:

- Attachment 1 - Plan Summary (excel). This attachment includes two tabs, the general notes and the resulting demographic data based on scenario implementation in 2023.
- ~~Attachment 2 - PlanPoly (excel). This document contains the polygon assignments for this scenario. This document contains unsuppressed enrollment projections and is confidential.~~
- Attachment 3 - Moved Areas (PDF). This map contains the areas moved under the scenario.
- Attachment 4 - Current HS Boundaries (PDF). This map contains an overlay of SY2018-19 high school boundaries with the HS #13 scenario.
- Attachment 5 - Current MS Boundaries (PDF). This map contains an overlay of SY2018-19 middle school boundaries with the HS #13 scenario.
- Attachment 6 - Feed Report, Percent of HS from each MS (PDF). WHIFFER report that indicates the student counts from SY 2018-19, aggregating grade 9-12 students who are in high school "X" that are from middle school "Y" based on the HS #13 scenario.

If you have any questions, please contact Anissa Brown Dennis, Chief Operating Officer.

**Attachments**

Copy to: Executive Staff  
Board of Education Office

**Notes on Plan:****HS13a - DRAFT PRELIMINARY REVIEW OF POTENTIAL HS #13 BOUNDARY STUDY****This basis of this plan was developed based on the starting point:**

Plan provided to BOE in memo of March 8 2018, as requested during the site selection process.

The basis of this plan was developed PRIOR to the Board's decision in November 2017.

**Other Comments:**

This is not a proposal or draft plan from the Office of School Planning for the 2023 opening of HS #13. This is one potential option to enable the BOE to visualize one of the possibilities for a HS #13 boundary and associated boundary adjustments. Between now and June 2022, the Office of School Planning will be updating enrollment projections and growth predictions annually to support a boundary study in Summer 2022 to create the HS #13 attendance area.

**General observations:**

- ElkrIDGE split between HS#13 and LRHS
- Howard HS able to relieve MHHS and CHS
- Howard HS has more compact boundary, while Long Reach HS and HS #13 are extended
- Additional moves at HS or MS level possible to address small feeds at:
  - Hammond HS, Howard HS, Mt. Hebron HS
- LRHS from ELMS feed addressed
- Moves no walkers
- GHS still under-utilized
- 9 of 13 HS within target:
  - o AHS at 113% (no moves in this plan)
  - o GHS at 81% (no moves in this plan)
  - o HaHS at 126% (brought to 111% with addition opening)
  - o RHS at 118% (no moves in this plan)
- Plan impacts six existing schools to create attendance area for HS #13 and balance utilization

**Centennial:** Sends 2 polygons (Wheatfields) to Howard, 4 polygons (between Rogers Ave and Rt 29) to Mt Hebron HS. Net 270 loss to Centennial.

**Hammond:** Sends 5 polygons in the TVMS feed to HS #13, which clears capacity for 6 polygons (Hopewell) into HaHS. Net loss of 44.

**Howard HS:** Sends total of 991 to HS #13 and LRHS, enabling relief of CHS and MHHS. Net change of -560.

**Long Reach HS:** Sends total of 1125 to HS #13 and OMHS, enabling relief of Howard HS. Net change of -662.

**Mt Hebron HS:** Send 6 polygons (Worthington) to HoHS, enabling relief of CHS. Net change of -160.

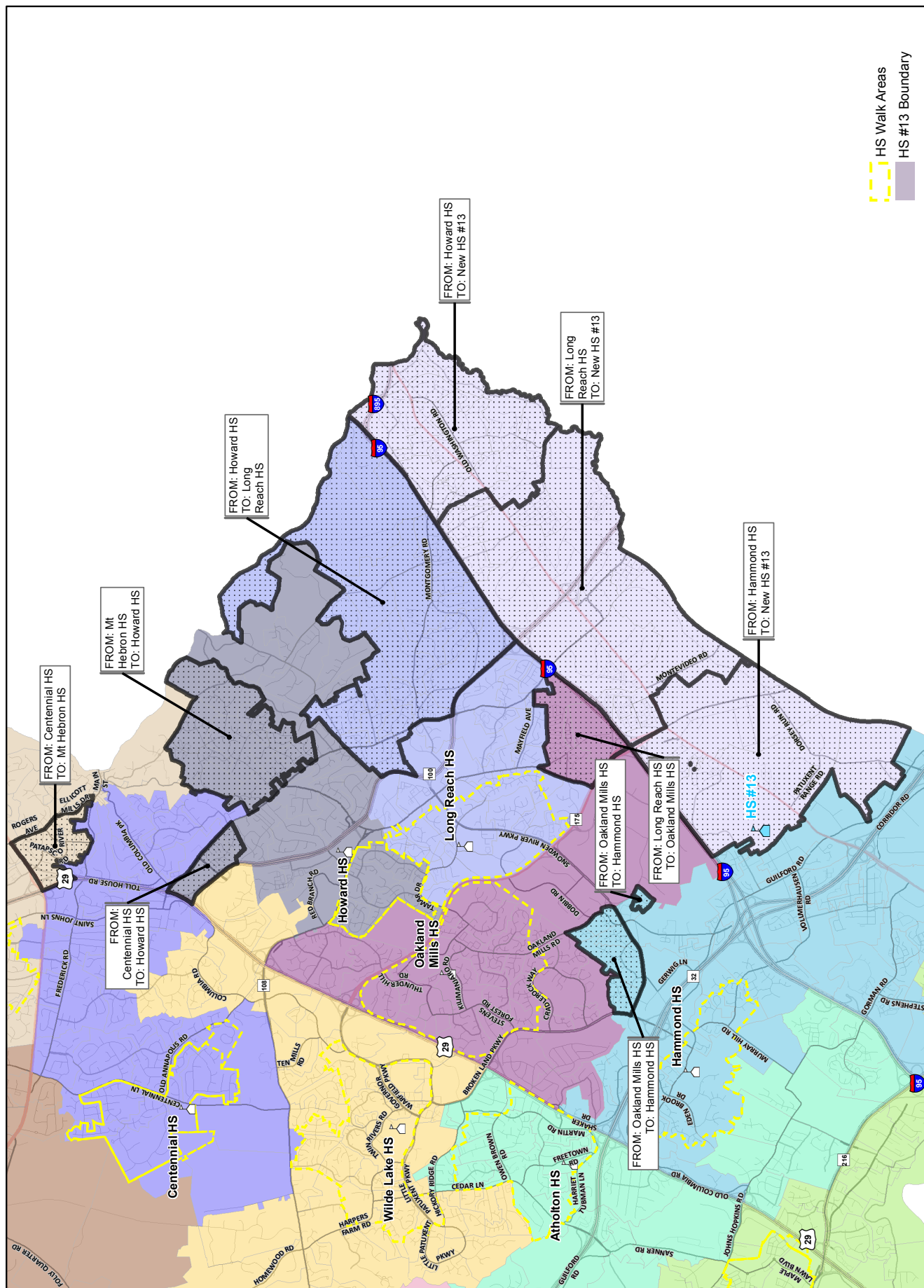
**Oakland Mills HS:** Sending Hopewell to Hammond HS enables relief of Long Reach HS (Deep Run area). Net change of +151.

**New HS #13**

- 10% Hammond HS, 34% Howard HS, 56% Long Reach HS.
- Due to school location and logical boundaries, enables relief of additional schools through back-filling.

HS13a (for SY 2023-24 only; 2019-2022 are base data - current attendance areas)

Page 124



FROM: Mt  
Hebron HS  
TO: Howard HS

FROM: Centennial HS  
TO: Howard HS

FROM: Howard HS  
TO: Long  
Reach HS

FROM: Howard HS  
TO: New HS #13

FROM: Long  
Reach HS  
TO: New HS #13

FROM: Hammond HS  
TO: New HS #13

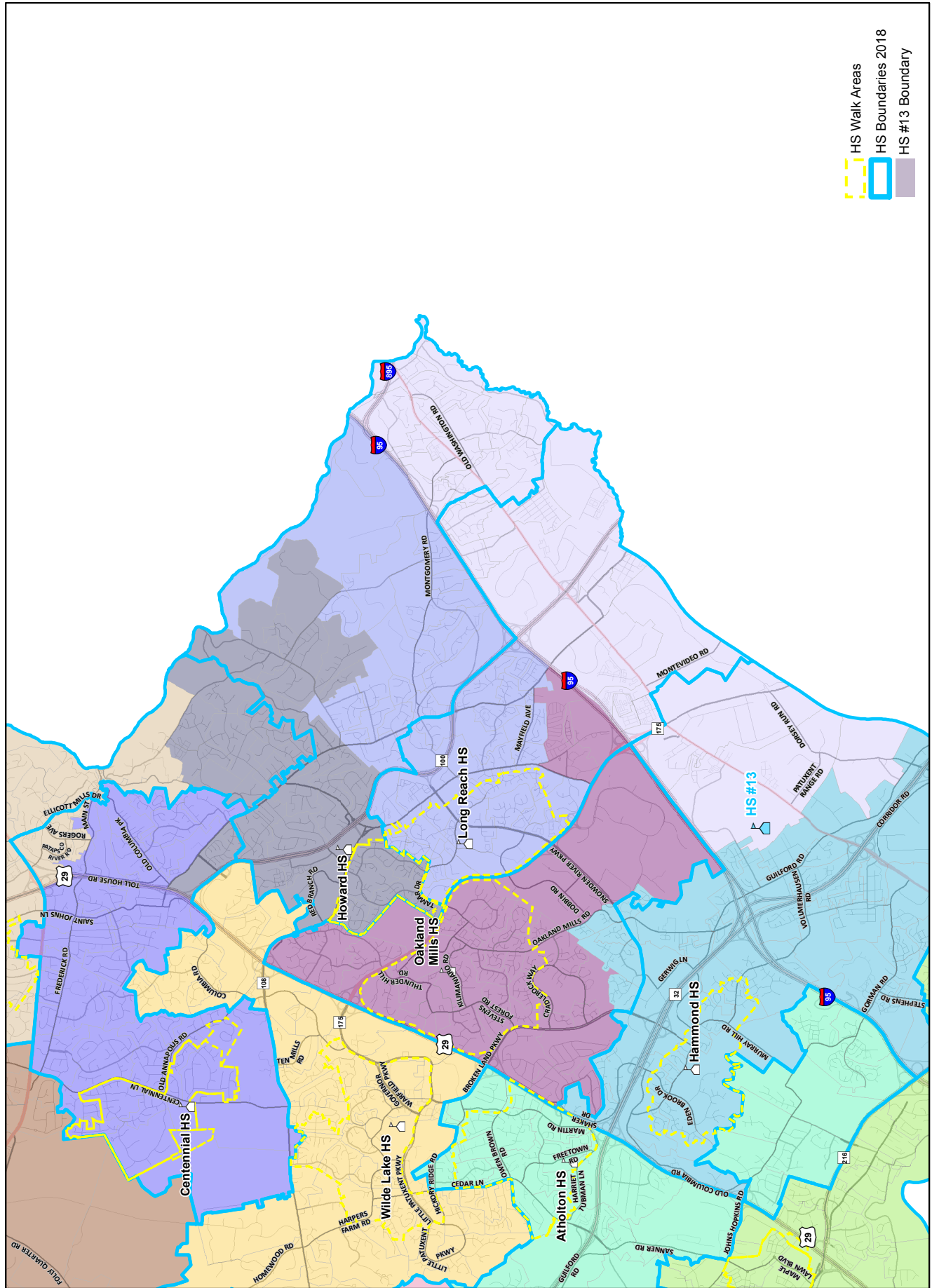
FROM: Oakland Mills HS  
TO: Hammond HS

FROM: Long Reach HS  
TO: Oakland Mills HS

FROM: Oakland Mills HS  
TO: Hammond HS

HS Walk Areas  
HS #13 Boundary





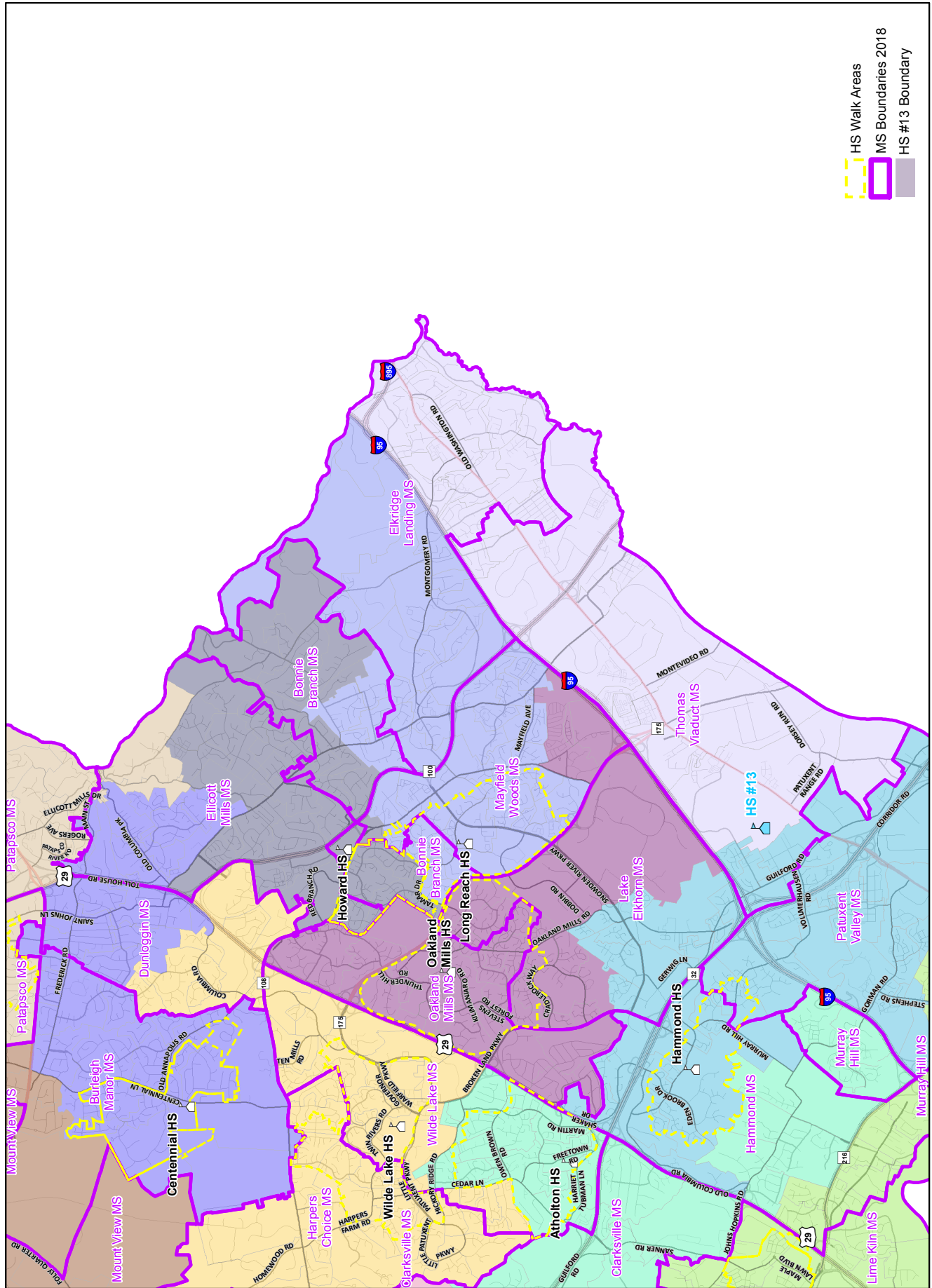
- HS Walk Areas
- HS Boundaries 2018
- HS #13 Boundary

# Preliminary Draft HS #13 Boundary Study

Created: March 8, 2018



10/23/2018



Preliminary Draft HS #13 Boundary Study  
Created: March 8, 2018

% of High from each Middle  
Grades: 9101112

<b>Atholton HS</b>	Clarksville MS	491	36.2%
	Hammond MS	163	12.0%
	Murray Hill MS	269	19.8%
	Wilde Lake MS	431	31.8%
		<b>1354</b>	<b>100%</b>
<b>Centennial HS</b>	Burleigh Manor MS	807	60.8%
	Dunloggin MS	213	16.0%
	Ellicott Mills MS	307	23.1%
		<b>1327</b>	<b>100%</b>
<b>Glenelg HS</b>	Folly Quarter MS	444	38.5%
	Glenwood MS	709	61.4%
		<b>1153</b>	<b>100%</b>
<b>Hammond HS</b>	Hammond MS	353	26.7%
	Lake Elkhorn MS	252	19.1%
	Patuxent Valley MS	620	47.0%
	Thomas Viaduct MS	94	7.1%
		<b>1319</b>	<b>100%</b>
<b>Howard HS</b>	Bonnie Branch MS	538	41.1%
	Ellicott Mills MS	759	58.1%
	Mayfield Woods MS	9	0.6%
		<b>1306</b>	<b>100%</b>
<b>Long Reach HS</b>	Bonnie Branch MS	339	24.8%
	Elkridge Landing MS	350	25.6%
	Mayfield Woods MS	677	49.5%
		<b>1366</b>	<b>100%</b>
<b>Marriotts Ridge HS</b>	Burleigh Manor MS	232	17.4%
	Mount View MS	1100	82.5%
		<b>1332</b>	<b>100%</b>
<b>Mt Hebron HS</b>	Dunloggin MS	432	30.5%
	Ellicott Mills MS	38	2.6%
	Patapsco MS	942	66.7%
		<b>1412</b>	<b>100%</b>
<b>New HS #13</b>	Elkridge Landing MS	674	51.7%
	Thomas Viaduct MS	629	48.2%
		<b>1303</b>	<b>100%</b>
<b>Oakland Mills HS</b>	Lake Elkhorn MS	465	36.4%
	Mayfield Woods MS	195	15.2%
	Oakland Mills MS	617	48.3%
		<b>1277</b>	<b>100%</b>
<b>Reservoir HS</b>	Hammond MS	192	12.6%
	Lime Kiln MS	494	32.5%
	Murray Hill MS	616	40.5%
	Patuxent Valley MS	218	14.3%
		<b>1520</b>	<b>100%</b>
<b>River Hill HS</b>	Clarksville MS	545	47.3%
	Folly Quarter MS	366	31.7%
	Lime Kiln MS	241	20.9%
		<b>1152</b>	<b>100%</b>
<b>Wilde Lake HS</b>	Dunloggin MS	156	11.4%
	Harpers Choice MS	728	53.2%
	Wilde Lake MS	482	35.2%
		<b>1366</b>	<b>100%</b>





November 1, 2018

**MEMORANDUM**

To: Members of the Board of Education

From: Michael J. Martirano, Ed.D.  
Superintendent

Subject: Redistricting Process and Timeline

The purpose of this memorandum is to inform you of the process and timeline for a 2019 school boundary review, should that option be one that you choose to explore for school year 2020-2021. Due to the on-going conversations regarding boundary adjustments, staff is taking this opportunity to outline the steps involved for a boundary review so that the Board and staff can cooperatively accomplish the Board's goals while meeting Policy 6010 School Attendance Areas.

**Projection and Boundary Adjustment Process**

The development of an enrollment projection is the first step in the process. This step is integral to the writing of the Feasibility Study, compilation of the operating and capital budgets and creation of any boundary adjustment scenarios. The timing of the projection is based on the receipt of data from the Howard County Department of Planning and Zoning (DPZ), Maryland (MD) Department of Health and Mental Hygiene (DHMH), MD Department of Planning (MDP), and HCPSS Student Information System to build the parts of the projection, which occurs by December of each year. After the projection is developed (by mid-February), the Office of School Planning (OSP) updates the scenario testing software to include the latest demographic and housing projection. The current software disburses the projection from the attendance area level to the polygon level. If a boundary review is anticipated, the OSP holds regional spring meetings, and interviews for an Attendance Area Committee (AAC). In addition to receiving community feedback and conducting interviews, the OSP finalizes a Feasibility Study to outline capacity needs and strategies. When the Board directs the Superintendent to continue the review process, the AAC is convened. The Superintendent receives feedback from County residents and the AAC in order to make a recommendation to the Board. The Board then holds Public Hearings and Work Sessions before making a final decision in mid-November. The attached timeline focuses on the boundary process only, but could easily be updated to include the capital budget process, relocatable placement, and the APFO School Capacity Chart.

## **2019 Boundary Review Process**

**Policy 6010 Impacts (November 2018):** Policy 6010 School Attendance Areas is under review based on a June 7, 2018 Board motion, following the recommendations presented by the Board's Committee on Redistricting. Recommendations include shortening the AAC process and changing the delivery date of the Superintendent's recommendation in order to lengthen the Board's review process, but not delay the approval date (Mid-November). The portions of the schedule that are based on Policy 6010 in the below table are outlined in Policy 6010 Implementation Procedures and may be affected by any changes made to Policy 6010 at the November 15, 2018 Board Meeting.

**Scenario Testing Software (2019-2020):** The current scenario testing software (Whiffer) is outdated and unsupported. The software is not meeting the standards necessary for live testing in public meetings. A new software (SchoolSite) was purchased. Implementation of the SchoolSite is underway, but many steps remain. Implementation goals include running SchoolSite's projection development and scenario testing functions alongside the current processes in school year 2018-19 to test the accuracy of the projections and scenario testing capabilities. After the testing is complete, additional reporting functions need to be developed to match the capabilities of the Whiffer. Full implementation and transition is planned for school year 2020. A memo was sent to the Board on September 11, 2018 outlining these remaining steps. In order to complete the most efficient implementation, the Office of School Planning has requested in its FY2020 budget an additional staff member and an increase of operating funds. Adherence to this schedule is dependent on full funding of FY2020 Operating budget request.

**Public Facing Redistricting Tool (2019-2020):** The Board, AAC and many county residents have expressed interest in independent scenario testing. A public facing online scenario testing tool will increase transparency and efficiency, garnering more informed and robust participation in the boundary review process. This tool would allow the Board to test many options and prepare independently for work sessions. Residents would be able to prepare testimony with data from the software. Rather than testing countless scenarios, the OSP would be able to focus on other necessary steps in the boundary review process.

The Office of Procurement posted a request for information in September 2018. Several companies responded with estimated start-up costs between \$21,000 and \$120,000 for the software. The start-up costs associated with this tool may need to span two fiscal years, FY 2019 and FY 2020. Additional costs are estimated to be between \$2,400 and \$20,000 annually. Depending on funding availability, a request for proposals can be posted to begin the procurement process.

### **Boundary adjustments are anticipated for:**

- Talbott Springs ES: review in 2021 for occupancy in 2022
- HS #13: review in 2022 for occupancy in 2023

**Next Steps:** If the Board determines that boundary adjustments are intended for implementation in school year 2020-2021, informing the Superintendent by January 2019 will allow the OSP ample time to prepare for the Spring Regional Meetings, to advertise, interview and make recommendations for the AAC, and to prepare the scenario testing systems, Whiffer and SchoolSite (for testing).

The process to review, define and create development polygons is still under review by the Board and the OSP awaits direction to proceed on further refinement of the process. We will continue to look for direction from the Board regarding voluntary small feeds.

If you have any questions, please contact Anissa Brown Dennis, Chief Operating Officer.

Attachment

Copy to:      Executive Staff  
                 Board of Education Office

Updated chart based on revised  
Policy 6010 on following page

## ATTACHMENT 1

Attendance Area Adjustment Schedule			Timeline
2019	Based on	Proposed Timeline Changes for Policy 6010	Item
Nov. 2018 - Feb. 2019	Policy 6010		Develop enrollment projections
Dec – Jan	Policy 6020		<i>Present Projection Accuracy Report to Board of Education<sup>1</sup></i>
Jan.- Feb.		<i>June-November<sup>2</sup></i>	<i>Advisement from Board to Superintendent, should boundary adjustments not associated with the opening of a new school be merited.</i>
March			<i>Prepare projection report for Board information purpose.<sup>3</sup></i>
			Prepare/update Whiffer (current software)
			Prepare/update SchoolSite (new software) to run in parallel with Whiffer for one year (beta testing)
	Outreach		Conduct Spring regional meetings (if boundary line changes are anticipated)
April	Policy 6010		Seek candidates for Attendance Area Committee (AAC)
May			Interview candidates for AAC
June	Policy 6010		Present 2019 Feasibility Study; AAC Charter and training
July	Policy 6010	<i>June/July</i>	Facilitate AAC meetings
August	Policy 6010		Facilitate AAC meetings
September	Policy 6010	<i>July</i>	Conduct regional meetings (provide info. to residents and receive feedback for Superintendent)
October	Policy 6010	<i>August</i>	Propose final attendance area recommendations by Superintendent
		<i>August - November</i>	Hold Board Public Hearings and Work Sessions on boundary adjustments
November	Policy 6010	<i>August - November</i>	Hold Board Public Hearings and Work Sessions on boundary adjustments
			Approve boundary adjustments by Board
			Develop transition plan for students affected by changes in boundaries
December	Policy 6010		Assess boundary review process by Superintendent and Board
<b>2020</b>	<b>Based on</b>		<b>Item</b>
January	Policy 6010		Update school locator, transportation routes, communicate with families, stakeholders
			Implement transition plan
March			Continue to work on implementation of SchoolSite redistricting tool reports
September	Policy 6010		Changes in boundaries effective

<sup>1</sup> Projection accuracy is generally an information item in February of each year. In an effort to increase communication and process improvements, OSP suggests an annual presentation to the Board earlier than previous years.

<sup>2</sup> Under the proposed policy, which is sent to the Board for November 15, we have added an initial step of a boundary “scope”, which is “after the presentation of the staff report or after any approval of changes in the attendance areas, the Superintendent and the Board of Education will consult with each other to define the proposed scope (i.e. open a new school only or comprehensive plan for all three levels) of the upcoming year’s attendance area adjustments and develop a communication plan. The proposed scope may be adjusted during the review and approval process.”

<sup>3</sup> A projection report would be a new document prepared by OSP for informing the Board on the upcoming Feasibility Study.

Attendance Area Adjustment Schedule/Timeline		
2019	Based on	Item
Nov '18 - Feb '19	Policy 6010	Develop enrollment projections
Dec – Jan	Policy 6020	<i>Present Projection Accuracy Report to Board of Education<sup>1</sup></i>
<i>After June/FS (no redist. scheduled) or Nov.<sup>2</sup> if redist. year.</i>		<i>Advisement from Board to Superintendent, should boundary adjustments (not associated with the opening of a new school) be merited.</i>
Feb		Finalize enrollment projections
March		<i>Prepare projection report for Board information purpose.<sup>3</sup></i>
		Prepare/update Whiffer (current software)
		Prepare/update SchoolSite (new software) to run in parallel with Whiffer for one year (beta testing)
		Present Relocatable Recommendations
	Outreach	Conduct Spring regional meetings (if boundary line changes are anticipated)
April	Policy 6010	Seek candidates for Attendance Area Committee (AAC)
May		Interview candidates for AAC
June	Policy 6010	Present 2019 Feasibility Study; AAC Charter and training
June/July	Policy 6010	Facilitate AAC meetings
July	Policy 6010	Conduct regional meetings (provide info. to residents and receive feedback for Superintendent)
August	Policy 6010	Propose final attendance area recommendations by Superintendent
August - November	Policy 6010	Hold Board Public Hearings and Work Sessions on boundary adjustments
		Approve boundary adjustments by Board
		Develop transition plan for students affected by changes in boundaries
December	Policy 6010	Assess boundary review process by Superintendent and Board
2020	Based on	Item
January	Policy 6010	Update school locator, transportation routes, communicate with families, stakeholders
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March		Continue to work on implementation of SchoolSite redistricting tool reports
September	Policy 6010	Changes in boundaries effective

<sup>1</sup> Projection accuracy is generally an information item in February of each year. In an effort to increase communication and improve the process, OSP scheduled an annual presentation to the Board in January 2018.

<sup>2</sup> Under the revised policy, which was approved by the Board November 15, 2017, a boundary review “scope” has been added. The policy includes “after the presentation of the staff report or after any approval of changes in the attendance areas, the Superintendent and the Board of Education will consult with each other to define the proposed scope (i.e. open a new school only or comprehensive plan for all three levels) of the upcoming year’s attendance area adjustments and develop a communication plan. The proposed scope may be adjusted during the review and approval process.”

<sup>3</sup> A projection report would be a new document prepared by OSP for informing the Board on the upcoming Feasibility Study.

## Demographic Data by School

Note: EOY Counts (FARMS, EL, SPED, Title 1, Attendance Rates) are from SY 2017/18. The updated SY 2018/19 data is not yet available.

September 30th 2018-2019 Counts												2017-2018 EOY Counts					
School Year	School Name	School Name	School Number	White %	Asian %	Hispanic %	American Indian/Alaskan %	Black/African American %	Native Hawaiian/Pacific Islander %	Two or More Races %	2018-2019 Sept 30 Total	2017-2018 EOY Total Enrolled Count	FARMS pct	EL pct	SPED pct	Title 1 Pct	Attendance Rate (Calculated)
2019	Elementary School	Atholton Elementary School	603	50.74	8.92	9.77	<=5	21.66	<=5	8.7	471	489	15.7	<=5	12.1	N	>=95
2019	Elementary School	Bellows Spring Elementary School	218	27.15	29.4	11.33	<=5	25.16	<=5	6.1	803	840	16.9	10.5	14.2	N	>=95
2019	Elementary School	Bollman Bridge Elementary School	620	23.24	8.78	23.38	<=5	37.43	<=5	6.89	740	755	47.8	13	12.8	Y	>=95
2019	Elementary School	Bryant Woods Elementary School	510	18.78	<=5	13.1	<=5	55.46	<=5	8.95	458	414	48.6	<=5	12.3	Y	94.9
2019	Elementary School	Bushy Park Elementary School	406	71.5	14.2	<=5	<=5	5.1	<=5	<=5	628	636	<=5	<=5	9.4	N	>=95
2019	Elementary School	Centennial Lane Elementary School	210	32.97	50	<=5	<=5	5.04	<=5	6.81	734	764	5.4	9.4	5.1	N	>=95
2019	Elementary School	Clarksville Elementary School	505	27.68	54.4	<=5	<=5	9.55	<=5	<=5	419	440	<=5	6.8	9.8	N	>=95
2019	Elementary School	Clemens Crossing Elementary School	520	48.88	14.7	8.55	<=5	16.9	<=5	10.59	491	549	8.9	<=5	<=5	N	>=95
2019	Elementary School	Cradlerock Elementary School	616	20.24	7.47	15.72	<=5	47.35	<=5	8.84	509	536	52.4	6.5	16.6	Y	>=95
2019	Elementary School	Dayton Oaks Elementary School	528	57.77	20.9	<=5	<=5	10.32	<=5	5.64	727	715	5.2	<=5	13.4	N	>=95
2019	Elementary School	Deep Run Elementary School	103	24.28	14.5	40.19	<=5	14.95	<=5	<=5	729	853	54.3	23.6	12.2	Y	>=95
2019	Elementary School	Ducketts Lane Elementary School	109	23.1	13.9	20.63	<=5	37.13	<=5	<=5	606	905	38.7	14.7	10.1	N	>=95
2019	Elementary School	Elkridge Elementary School	101	38.07	19.2	7.99	<=5	27.41	<=5	6.77	901	940	30.4	6.6	10.5	N	>=95
2019	Elementary School	Forest Ridge Elementary School	622	20.91	23.3	13.55	<=5	34.46	<=5	7.51	679	696	32.6	11.2	7.8	N	>=95
2019	Elementary School	Fulton Elementary School	525	41.39	30.4	<=5	<=5	14.16	<=5	9.15	918	881	<=5	7	9.3	N	>=95
2019	Elementary School	Gorman Crossing Elementary School	625	20.41	27.6	11.74	<=5	32.84	<=5	7.3	877	872	20	6.8	11.2	N	>=95
2019	Elementary School	Guilford Elementary School	602	18.45	17.1	13.9	<=5	44.19	<=5	6.15	439	455	47.7	6.2	7.5	Y	>=95
2019	Elementary School	Hammond Elementary School	606	37.08	13.2	11.88	<=5	29.37	<=5	8.03	623	647	23.5	6.5	9.3	N	>=95
2019	Elementary School	Hanover Hills Elementary School	111	17.15	24.9	15.56	<=5	37.18	<=5	<=5	694						
2019	Elementary School	Hollifield Station Elementary School	217	24.91	45.4	11.6	<=5	15.02	<=5	<=5	879	883	23.8	15.5	8.9	N	>=95
2019	Elementary School	Ilchester Elementary School	107	56.64	26.9	<=5	<=5	7.56	<=5	5.86	648	673	<=5	<=5	12.8	N	>=95
2019	Elementary School	Jeffers Hill Elementary School	613	20.1	12.4	20.35	<=5	38.71	<=5	8.19	403	424	31.4	9.9	6.6	N	>=95
2019	Elementary School	Laurel Woods Elementary School	618	6.26	10.5	25.37	<=5	51.57	<=5	5.77	607	630	59.4	14.3	10.5	Y	>=95
2019	Elementary School	Lisbon Elementary School	407	78.94	<=5	8.65	<=5	<=5	<=5	7.1	451	457	12.3	<=5	10.7	N	>=95
2019	Elementary School	Longfellow Elementary School	514	22.61	9.35	22.61	<=5	34.13	<=5	10.65	460	458	49.3	6.8	17.5	Y	94.8
2019	Elementary School	Manor Woods Elementary School	305	35.23	47.2	5.08	<=5	8.77	<=5	<=5	650	815	6.7	8.3	6.7	N	>=95
2019	Elementary School	Northfield Elementary School	208	47.39	27.2	6.16	<=5	9.64	<=5	8.97	747	753	8.9	5.7	7.3	N	>=95
2019	Elementary School	Phelps Luck Elementary School	612	15.46	6.7	32.3	<=5	36.6	<=5	8.76	582	590	63.9	19.2	14.1	Y	>=95
2019	Elementary School	Pointers Run Elementary School	523	47.4	31.6	<=5	<=5	11.15	<=5	5.74	924	786	5.2	<=5	12.3	N	>=95
2019	Elementary School	Rockburn Elementary School	105	52.15	19.2	6.04	<=5	14.63	<=5	7	629	745	14	<=5	16.1	N	>=95
2019	Elementary School	Running Brook Elementary School	515	18	<=5	12.6	<=5	57	<=5	7.4	500	508	50	6.7	15.7	Y	94.9
2019	Elementary School	St. John's Lane Elementary School	204	43.11	34.6	<=5	<=5	13.09	<=5	<=5	726	720	9.9	8.9	6.4	N	>=95
2019	Elementary School	Stevens Forest Elementary School	608	13.98	6.02	32.53	<=5	37.83	<=5	9.16	415	426	62	21.1	13.4	Y	>=95
2019	Elementary School	Swansfield Elementary School	517	13.64	5.66	18.14	<=5	55.57	<=5	6.82	601	640	58.8	9.1	10.9	Y	94.4
2019	Elementary School	Talbott Springs Elementary School	609	22.22	<=5	25	<=5	40.08	<=5	8.53	504	513	49.3	12.1	12.9	Y	>=95
2019	Elementary School	Thunder Hill Elementary School	605	36.12	18.1	7.98	<=5	27.76	<=5	9.51	526	547	18.1	6	9	N	>=95
2019	Elementary School	Triadelphia Ridge Elementary School	306	47.07	28.2	7.1	<=5	8.17	<=5	8.88	563	564	<=5	<=5	8.9	N	>=95
2019	Elementary School	Veterans Elementary School	219	24.68	51.3	6.65	<=5	13.95	<=5	<=5	932	929	21	9.7	12.3	N	>=95
2019	Elementary School	Waterloo Elementary School	604	33.39	22.3	6.13	<=5	30.97	<=5	6.61	620	643	26.4	9.5	20.4	N	>=95
2019	Elementary School	Waverly Elementary School	215	37.29	48.4	<=5	<=5	6.88	<=5	<=5	901	787	<=5	<=5	12.6	N	>=95
2019	Elementary School	West Friendship Elementary School	302	65.09	22	<=5	<=5	<=5	<=5	5.99	401	335	5.4	<=5	6.9	N	>=95
2019	Elementary School	Worthington Elementary School	213	42.24	39.1	5.79	<=5	6.36	<=5	6.36	535	521	<=5	<=5	7.3	N	>=95

## Demographic Data by School

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School Year	School Name	School Name	School Number	White %	Asian %	Hispanic %	American Indian/Alaskan %	Black/African American %	Native Hawaiian/Pacific Islander %	Two or More Races %	2018-2019 Sept 30 Total	2017-2018 EOY Total Enrolled Count	FARMS pct	EL pct	SPED pct	Title 1 Pct	Attendance Rate (Calculated)
2019	Middle School	Bonnie Branch Middle School	108	35.2	16.3	15.2	<=5	26.4	<=5	6.67	750	719	28	<=5	8.2	N	>=95
2019	Middle School	Burleigh Manor Middle School	216	29.7	47.9	<=5	<=5	11.63	<=5	6.19	808	806	9.2	<=5	<=5	N	>=95
2019	Middle School	Clarksville Middle School	521	44.89	40.4	<=5	<=5	5.56	<=5	<=5	666	560	<=5	<=5	5.2	N	>=95
2019	Middle School	Dunloggin Middle School	211	38.79	33	8.18	<=5	15.91	<=5	<=5	660	634	18.3	<=5	7.6	N	>=95
2019	Middle School	Elkridge Landing Middle School	106	45.83	16.9	7.8	<=5	22.72	<=5	6.32	744	697	17.4	<=5	9	N	>=95
2019	Middle School	Ellicott Mills Middle School	202	43.38	31.7	5.64	<=5	14.15	<=5	<=5	869	856	10.6	<=5	6.4	N	>=95
2019	Middle School	Folly Quarter Middle School	307	56.82	26.8	<=5	<=5	6.06	<=5	5.3	660	662	<=5	<=5	9.4	N	>=95
2019	Middle School	Glenwood Middle School	405	74.39	7.72	7.52	<=5	5.89	<=5	<=5	492	494	6.5	<=5	8.5	N	>=95
2019	Middle School	Hammond Middle School	607	44.58	12.1	7.87	<=5	26.4	<=5	8.57	572	555	17.3	<=5	7.7	N	>=95
2019	Middle School	Harper's Choice Middle School	518	18.09	8.35	15.9	<=5	50.1	<=5	7.16	503	568	45.2	5.5	10.2	N	94.3
2019	Middle School	Lake Elkhorn Middle School	617	13.84	9.52	18.17	<=5	51.21	<=5	7.27	578	550	50.7	<=5	14.2	N	94.3
2019	Middle School	Lime Kiln Middle School	526	50.16	26.9	<=5	<=5	12.18	<=5	6.01	632	738	<=5	<=5	5.4	N	>=95
2019	Middle School	Mayfield Woods Middle School	104	27.86	13.4	25.38	<=5	29.38	<=5	<=5	725	714	36.7	5.7	10.4	N	>=95
2019	Middle School	Mount View Middle School	304	49.34	35.6	<=5	<=5	5.38	<=5	5.62	837	829	<=5	<=5	<=5	N	>=95
2019	Middle School	Murray Hill Middle School	624	13.25	16	21.06	<=5	44.91	<=5	<=5	717	712	34.4	5.8	9.3	N	>=95
2019	Middle School	Oakland Mills Middle School	610	26.45	5.6	20.85	<=5	37.45	<=5	9.65	518	476	47.5	6.1	16.4	N	>=95
2019	Middle School	Patapsco Middle School	209	43.6	33.1	9.14	<=5	11.11	<=5	<=5	711	711	14.8	<=5	5.3	N	>=95
2019	Middle School	Patuxent Valley Middle School	621	20.55	16.8	17.93	<=5	38.92	<=5	5.69	686	625	36.5	5.3	7.7	N	>=95
2019	Middle School	Thomas Viaduct Middle School	110	17.76	14.2	17.92	<=5	45.33	<=5	<=5	653	693	40.5	<=5	10.1	N	>=95
2019	Middle School	Wilde Lake Middle School	512	24.68	7.64	11.15	<=5	47.13	<=5	8.28	628	609	38.8	<=5	10.8	N	>=95
2019	High School	Atholton High School	509	41.56	19.2	8.64	<=5	24.27	<=5	6.18	1504	1475	10.3	<=5	7.5	N	>=95
2019	High School	Centennial High School	214	39.5	39.7	5.16	<=5	8.93	<=5	6.29	1590	1612	11.4	<=5	5.2	N	>=95
2019	High School	Glenelg High School	404	76.21	11.3	<=5	<=5	<=5	<=5	<=5	1198	1155	<=5	<=5	5.6	N	>=95
2019	High School	Hammond High School	619	25.22	9.93	16.03	<=5	42.28	<=5	6.32	1360	1295	36.1	6.8	9.7	N	94.6
2019	High School	Howard High School	203	47.35	17	6.88	<=5	21.59	<=5	7.04	1890	1902	12.7	<=5	7.9	N	>=95
2019	High School	Long Reach High School	623	24.52	14.7	19.63	<=5	34.43	<=5	6.5	1554	1605	36.5	8.8	7.3	N	94.4
2019	High School	Marriotts Ridge High School	308	48.2	35.2	<=5	<=5	9.73	<=5	<=5	1419	1340	<=5	<=5	<=5	N	>=95
2019	High School	Mt. Hebron High School	207	42.04	30.4	8.42	<=5	14.26	<=5	<=5	1627	1566	14.7	<=5	7.3	N	94.4
2019	High School	Oakland Mills High School	611	19.74	7.24	20.81	<=5	44.41	<=5	7.73	1216	1134	44.1	6.3	12.6	N	93.7
2019	High School	Reservoir High School	527	28.02	16.2	15.5	<=5	32.64	<=5	7.34	1581	1537	25.5	<=5	8.3	N	>=95
2019	High School	River Hill High School	524	44.79	31.4	6.44	<=5	10.78	<=5	6.58	1382	1162	<=5	<=5	6.5	N	>=95
2019	High School	Wilde Lake High School	516	25.41	7.59	13.17	<=5	46.01	<=5	7.67	1291	1248	39.9	5.9	10.7	N	94.2
2019	LEA	LEA Total		35.78	22.4	11.25	<=5	24.01	<=5	6.24	57907	57203	22.7	5.7	9.6	11.8	>=95

## Students Off School Site

For at least a portion of the day for absence or program participation

### Student Attendance Rates

<u>Student Attendance</u>	<u>%</u>			<u>Enrollment</u>		
	<b>CHS</b>	<b>HOHS</b>	<b>LRHS</b>	<b>CHS</b>	<b>HOHS</b>	<b>LRHS</b>
2017-18	95.09%	95.19%	93.97%	1612	1902	1605
2016-17	96.48%	96.20%	95.42%	1510	1811	1533
2015-16	96.37%	96.52%	95.65%	1458	1753	1471

### Students off site for Programs

<u>ARL Enrollment</u>	<u>No. of Students</u>			<u>%</u>		
	<b>CHS</b>	<b>HOHS</b>	<b>LRHS</b>	<b>CHS</b>	<b>HOHS</b>	<b>LRHS</b>
2017-18	73	135	134	4.53%	7.10%	8.35%
2016-17	68	124	99	4.50%	6.85%	6.46%
2015-16	53	105	93	3.64%	5.99%	6.32%

<u>Off Site: Site Based Work Experience, Field Exp., Intern/Mentor, Work Release, Enclav</u>						
	<u>No. of Students</u>			<u>%</u>		
	<b>CHS</b>	<b>HOHS</b>	<b>LRHS</b>	<b>CHS</b>	<b>HOHS</b>	<b>LRHS</b>
2017-18	113	125	82	7.01%	6.57%	5.11%

<u>JumpStart</u>	<u>No. of Students</u>			<u>%</u>		
	<b>CHS</b>	<b>HOHS</b>	<b>LRHS</b>			
	18	64	174	1.12%	3.36%	10.84%

<u>TOTAL PROGRAMS: ARL, Off Site, JumpStart</u>						
	<b>CHS</b>	<b>HOHS</b>	<b>LRHS</b>			
2017-18	204	324	390	12.66%	17.03%	24.30%



### Impact of JumpStart on 2018/19 Projections

		Projected Utilization without JumpStart	Projected Utilization with JumpStart
Howard HS	Sending	139%	134%
Centennial HS	Sending	124%	122%
Long Reach HS	Sending	119%	107%
Oakland Mills HS	Receiving	83%	87%
River Hill HS	Receiving	81%	95%

Utilization is permanent facility only, does not include relocatables



**BOARD OF EDUCATION OF HOWARD COUNTY  
MEETING AGENDA ITEM**

**TITLE:** Class Size Report 2018-2019 **DATE:** December 18, 2018

**PRESENTER(S):** Monifa B. McKnight, Ed.D., Chief School Management and Instructional Leadership Officer

Marcia L. Leonard, Community Superintendent, Area 1

Theo L. Cramer, Ed.D., Community Superintendent, Area 2

Patrick J. Saunderson, Community Superintendent, Area 3

**Strategic Call To Action Alignment:**

Operations and practices are responsive, transparent, fiscally responsible and accountable, with students at the heart of all decisions.

**OVERVIEW:**

The Howard County Public School System (HCPSS) is committed to ensuring that each classroom has a class size that supports the academic performance of students. This report reviews data at the system level and by school to determine if expectations for class size are being met. The report reviews the staffing process and provides class size data for the current school year.

**RECOMMENDATION/FUTURE DIRECTION:**

Staff will continue to monitor class size to ensure that schools have adequate staffing for instructional programs.

**SUBMITTED BY:**

Monifa B. McKnight, Ed.D.  
Chief School Management and  
Instructional Leadership Officer

Marcia L. Leonard  
Community Superintendent, Area 1

Theo L. Cramer, Ed.D.  
Community Superintendent, Area 2

Patrick J. Saunderson  
Community Superintendent, Area 3

**APPROVAL/CONCURRENCE:**

Michael J. Martirano, Ed.D.  
Superintendent

Karalee Turner-Little  
Deputy Superintendent

## **Overview of the Staffing Process**

The Howard County Public School System (HCPSS) is committed to ensuring that each classroom has a class size that supports the academic performance of students.

Staffing is a year-long process starting in the prior year. In September, the Office of School Planning provides the Budget Office with the enrollment projections used to build the upcoming budget. Using the enrollment projections and staffing formulas, the Division of School Management and Instructional Leadership provides all instructional departments and community superintendents with the number of staff positions needed for the upcoming budget. Pool positions are included within the budget and are allocated to schools whose population increases warrant additional staffing. Differentiated staffing positions are also included within the budget to provide additional resources to schools with greater needs. These positions ensure that class sizes are maintained at appropriate levels throughout the staffing process.

In February, the Office of School Planning provides updated enrollment projections to the Division of School Management and Instructional Leadership. The Division of School Management and Instructional Leadership uses these projections and current enrollment to determine the number of positions each school will receive and provides this information to schools in late February.

In March, the community superintendents meet with each principal to review the proposed use of staffing allocations. Throughout the spring and summer the Division of School Management and Instructional Leadership closely monitors school enrollment and adjusts staffing as needed.

In August and September, the Division of School Management and Instructional Leadership meets weekly to review the enrollment of each school to determine if schools are staffed appropriately. Once the school year begins for students, every effort is made to avoid reducing staff in order to minimize disruption to students and school programs.

Throughout the year enrollment reviews take place and additional positions are allocated based on school needs. This is based on data such as class sizes, IEP service hours, and student course requests to guide allocation decisions.

The official enrollment count is taken for each school on September 30.

## Elementary School Class Size 2018-2019

The data for elementary class size reflects the average number of students in each classroom by individual school as of September 30, 2018. Classroom refers to the grouping in which students spend the majority of their day. Reading and mathematics groupings in many schools have lower average numbers of students than homeroom classes because schools often use intervention teachers and others to provide instruction in these subject areas. These teachers may include reading specialists, Title I teachers, gifted and talented resource teachers, teachers provided through differentiated staffing, and other teachers not assigned to a regular classroom.

Elementary enrollment projections are used to determine the number of classroom teachers assigned to a school. The teacher to student ratio varies by grade level and is listed below:

- Kindergarten ratio is 1:22 with an upper range of 24 students
- Grades 1 and 2 ratio is 1:20 with an upper range of 25 students
- Grades 3, 4, and 5 ratio is 1:26 with an upper range of 31 students

Class sizes in elementary schools have remained relatively constant from year to year. Schools sometimes make one class smaller or larger than another to accommodate the size of a given classroom or the particular needs of the children in a given grade. The average class size by grade of all elementary schools, comparing last year's numbers to this year's numbers, is as follows:

Grade	2017-2018	2018-2019
Kindergarten:	20.0	20.5
Grade 1:	20.3	20.9
Grade 2:	21.0	21.2
Grade 3:	24.3	24.8
Grade 4:	24.8	24.9
Grade 5:	24.4	24.8

The following tables provide additional details related to elementary class sizes:

### Table E-1

*Comparative Class Size Data*

*Kindergarten, 2017-2018, 2018-2019*

### Table E-2

*Comparative Class Size Data*

*Grades 1 and 2, 2017-2018, 2018-2019*

### Table E-3

*Comparative Class Size Data*

*Grades 3, 4, and 5, 2017-2018, 2018-2019*

**TABLE E-1  
COMPARATIVE CLASS SIZE DATA  
KINDERGARTEN CLASS RATIO 1:22 WITH AN UPPER RANGE OF 24**

School	Kindergarten			
	Total Number of Classes Kindergarten		Comparative Class Size in Kindergarten	
	17-18	18-19	17-18	18-19
Atholton	4	4	18.8	17.8
Bellows Spring	7	6	20.7	20.8
Bollman Bridge*	4	5	20.3	21.4
Bryant Woods*	3	3	22.7	22.7
Bushy Park	4	4	21.3	21.3
Centennial Lane	5	5	22.6	20.2
Clarksville	3	2	22.0	19.0
Clemens Crossing	5	4	20.6	21.8
Cradlerock*	3	4	21.3	18.8
Dayton Oaks	4	4	21.3	21.8
Deep Run*^	6	6^	20.8	19.0
Ducketts Lane	8	5	20.4	19.0
Elkridge	7	6	19.9	20.7
Forest Ridge	5	5	18.8	21.4
Fulton	7	7	21.6	20.4
Gorman Crossing	7	6	20.9	20.8
Guilford*	3	3	20.7	22.3
Hammond	5	5	18.0	19.8
Hanover Hills	n/a	5	n/a	18.6
Hollifield Station	6	6	22.7	22.5
Ilchester	4	5	21.0	21.4
Jeffers Hill	3	3	16.7	21.3
Laurel Woods*	5	4	19.2	20.0
Lisbon	3	3	22.0	22.7
Longfellow*	4	4	18.0	19.8
Manor Woods	4	5	22.5	21.4
Northfield	5	5	21.4	22.8
Phelps Luck*	5	5	16.2	22.4
Pointers Run	5	6	19.8	22.5
Rockburn	5	5	19.4	21.0
Running Brook*	4	4	18.8	18.8
St. John's Lane	5	6	21.4	20.5
Stevens Forest*	4	4	15.3	17.8
Swansfield*	5	5	19.8	20.4
Talbot Springs*	4	4	19.3	18.0
Thunder Hill	4	4	20.3	18.8
Triadelphia Ridge	3	4	23.3	19.5
Veterans	7	6	18.1	20.8
Waterloo	5	3	19.0	20.0
Waverly	5	6	19.6	20.0
West Friendship	2	3	16.5	17.3
Worthington	4	3	18.0	22.0
Total Number of Classes	191	192		
Comparative Class Sizes			20.0	20.5

\* Title I/Differentiated staffing is used to reduce class size ratios and/or provide targeted support.

^ Additional staffing was added after 9/30/2018. Ratio has been updated to reflect this change.

**TABLE E-2  
COMPARATIVE CLASS SIZE DATA  
GRADE 1 AND 2 CLASS RATIO 1:20 WITH AN UPPER RANGE OF 25**

School	Classroom Grade 1				Classroom Grade 2			
	Total Number of Classes Grade 1		Comparative Class Size Grade 1		Total Number of Classes Grade 2		Comparative Class Size Grade 2	
	17-18	18-19	17-18	18-19	17-18	18-19	17-18	18-19
Atholton	4	4	19.8	19.3	4	4	20.0	21.0
Bellows Spring	5	6	23.6	21.8	6	5	21.8	23.4
Bollman Bridge*	6	4	19.5	23.3	5	6	21.2	19.7
Bryant Woods*	4	4	18.3	19.8	3	4	21.0	18.8
Bushy Park	4	4	20.5	24.0	5	4	22.0	20.3
Centennial Lane	5	6	22.6	19.5	6	5	22.0	22.8
Clarksville	3	4	17.0	22.8	3	3	20.7	19.7
Clemens Crossing	5	4	20.4	22.0	4	5	21.0	20.4
Cradlerock *	4	4	20.8	18.0	4	4	18.3	21.0
Dayton Oaks^	5	5^	19.8	19.8	4	5	23.5	22.2
Deep Run*	6	5	21.3	21.6	5	5	22.6	21.8
Ducketts Lane	7	4	19.4	21.8	7	4	21.9	22.5
Elkridge	8	7	20.0	21.6	6	7	21.5	22.0
Forest Ridge	6	5	18.2	21.4	6	5	19.2	23.0
Fulton	7	7	22.4	23.6	7	7	19.7	23.4
Gorman Crossing	6	7	20.7	21.7	5	6	20.8	21.5
Guilford*^	3	3	22.3	19.7	3	4^	22.0	22.0
Hammond	5	5	23.2	19.0	5	5	20.6	22.2
Hanover Hills	n/a	5	n/a	22.4	n/a	5	n/a	20.0
Hollifield Station	7	7	20.7	21.1	7	7	20.6	21.9
Ilchester	4	4	22.8	22.8	5	5	21.0	18.4
Jeffers Hill	4	3	21.3	17.3	3	4	21.0	21.3
Laurel Woods*	4	5	20.0	19.6	4	4	23.5	22.5
Lisbon	3	3	23.3	23.0	3	4	22.7	17.8
Longfellow*	3	4	19.0	18.0	3	3	22.0	20.3
Manor Woods	7	3	19.9	22.3	6	5	20.7	23.0
Northfield	6	5	19.8	21.6	6	6	19.8	21.0
Phelps Luck*	5	4	19.6	22.3	5	4	18.6	22.8
Pointers Run	6	6	19.5	21.5	5	6	22.4	23.7
Rockburn	6	4	18.5	21.3	5	5	22.0	21.4
Running Brook*	4	4	18.0	18.3	4	3	20.8	22.0
St. John's Lane	5	5	21.2	23.0	6	5	20.3	23.2
Stevens Forest*	4	3	16.5	20.7	4	4	17.5	16.3
Swansfield*	4	5	22.8	18.2	5	4	20.8	21.5
Talbott Springs*	4	4	19.3	21.5	4	4	21.0	19.3
Thunder Hill	4	4	19.8	21.3	4	4	21.5	20.8
Triadelphia Ridge	4	4	17.8	19.0	5	4	19.4	19.5
Veterans	7	6	22.4	22.8	7	7	21.4	21.4
Waterloo	4	5	19.3	20.8	5	4	22.4	21.3
Waverly	5	6	22.4	21.3	6	7	22.2	21.6
West Friendship	3	3	17.3	17.7	3	3	21.3	21.7
Worthington	3	4	22.7	19.0	4	4	20.0	18.5
Total Number of Classes	199	194			197	199		
Comparative Class Sizes			20.3	20.9			21.0	21.2

\* Title I/Differentiated staffing is used to reduce class size ratios and/or provide targeted support.

^ Additional staffing was added after 9/30/2018. Ratio has been updated to reflect this change.

**TABLE E-3  
COMPARATIVE CLASS SIZE DATA  
GRADE 3, 4, AND 5 CLASS RATIO 1:26 WITH AN UPPER RANGE OF 31**

School	Classroom Grade 3				Classroom Grade 4				Classroom Grade 5			
	Total Number of Classes Grade 3		Comparative Class Size Grade 3		Total Number of Classes Grade 4		Comparative Class Size Grade 4		Total Number of Classes Grade 5		Comparative Class Size Grade 5	
	17-18	18-19	17-18	18-19	17-18	18-19	17-18	18-19	17-18	18-19	17-18	18-19
Atholton <sup>†</sup>	3	3	23.3	25.7	3	3	23.3	22.7	3 <sup>‡</sup>	3 <sup>‡</sup>	27.7	22.7
Bellows Spring	4	5	27.0	23.4	5	4	26.6	28.5	5	5	23.4	24.6
Bollman Bridge*	5	4	21.6	28.0	5	5	22.8	22.8	5	5	22.2	23.4
Bryant Woods* <sup>‡</sup>	4	3	16.8	23.0	3 <sup>‡</sup>	4	20.0	16.8	3 <sup>‡</sup>	3 <sup>‡</sup>	22.3	21.0
Bushy Park	4	4	22.0	29.3	4	4	28.5	23.8	5	5	24.4	24.0
Centennial Lane	5	5	27.6	26.8	5	5	25.6	28.0	5 <sup>‡</sup>	5	28.8	25.6
Clarksville	3	3	25.7	21.7	3	3	27.0	27.3	4	3	24.0	28.3
Clemens Crossing	4	3	21.5	22.7	4 <sup>‡</sup>	3	22.5	23.3	4	3	21.8	25.3
Cradlerock*	3	3	27.7	22.3	4	3	22.0	26.7	3	4	26.3	22.5
Dayton Oaks	5	4	22.4	26.3	4	5	28.3	23.8	5	5	23.0	26.0
Deep Run*	6	4	22.5	23.5	5	5	27.2	25.2	5	5	24.2	23.8
Ducketts Lane	6	4	26.2	22.8	6	4	27.3	24.3	5	4	26.0	26.5
Elkridge	6	5	24.2	28.8	6	6	24.2	24.2	5	6	26.2	24.8
Forest Ridge	5	4	23.4	27.0	5	5	24.4	24.4	5	5	27.2	24.2
Fulton <sup>‡</sup>	5	6	27.8	25.3	6	6	22.7	24.8	6	5 <sup>‡</sup>	25.3	28.0
Gorman Crossing	5	4	27.8	27.8	5	6	28.8	25.2	5	5	23.8	28.6
Guilford*	4	3	18.8	21.3	3	4	22.7	18.0	4	3	17.8	23.7
Hammond	5	4	25.2	24.0	4	5	24.3	24.0	5	4	23.8	26.5
Hanover Hills^	n/a	5	n/a	24.6	n/a	4	n/a	27	n/a	5^	n/a	22.4
Hollifield Station	5	6	24.6	26.7	5	5	28.6	26.6	5	6	24.6	25.5
Ilchester	4	4	26.5	27.0	4	4	26.5	26.0	5	4	24.4	26.0
Jeffers Hill	3	3	26.3	20.0	3	3	24.7	25.0	3	3	26.0	23.3
Laurel Woods*^	4	4	23.8	22.0	4	4	27.5	24.0	4	5^	24.3	23.8
Lisbon	3	3	27.0	22.3	4	3	21.5	28.3	3	4	28.0	22.8
Longfellow*	3	3	24.7	22.0	3	3	23.7	23.7	3	3	23.7	24.3
Manor Woods	5	4	28.4	27.3	6	4	26.3	29.5	6	5	24.3	27.8
Northfield	5	5	25.8	26.0	5 <sup>‡</sup>	5	26.8	26.2	5	5	28.2	27.8
Phelps Luck*	4	4	21.3	21.8	4	3	20.5	27.3	5	4	23.4	20.5
Pointers Run	5	5	25.6	27.4	5	6	28.6	26.3	5	6	24.4	28.0
Rockburn	4	4	27.8	24.0	4	4	27.5	22.8	4	4	26.8	23.8
Running Brook*	4	3	20.0	27.7	4	4	18.0	20.8	3	4	23.7	18.8
St. John's Lane <sup>‡</sup>	5	5 <sup>‡</sup>	26.4	23.8	5 <sup>‡</sup>	5 <sup>‡</sup>	24.4	25.8	5 <sup>‡</sup>	5 <sup>‡</sup>	23.8	25.0
Stevens Forest* <sup>‡</sup>	3	3	19.3	20.3	4 <sup>‡</sup>	3 <sup>‡</sup>	15.5	20.0	4	3	17.5	21.7
Swansfield*	4	4	24.0	23.0	4	4	26.8	27.0	5	4	20.8	23.5
Talbot Springs* <sup>‡</sup>	3	4	23.3	20.3	3 <sup>‡</sup>	3 <sup>‡</sup>	24.0	26.0	3 <sup>‡</sup>	3 <sup>‡</sup>	27.3	25.3
Thunder Hill	4	3	24.8	28.7	4	4	24.3	24.0	4	4	25.3	25.0
Triadelphia Ridge	4	4	25.5	25.8	4	4	27.3	28.0	4	4	26.5	29.0
Veterans	6	6	24.0	25.0	6	6	25.8	24.5	5	6	26.6	25.8
Waterloo	3	4	26.3	26.8	4	3	26.5	26.3	4	5	24.0	24.0
Waverly	5 <sup>‡</sup>	6	23.6	26.3	5	5	24.0	28.4	5	5	22.8	27.4
West Friendship	2	3	26.0	26.3	3	3	23.3	23.7	3	3	20.7	27.0
Worthington	4	3	21.0	26.0	4	3	25.5	27.0	4	4	27.3	25.0
Total Number of Classes	174	169			177	175			179	182		
Comparative Class Sizes			24.3	24.8			24.8	24.9			24.4	24.8

\* Title I/Differentiated staffing is used to reduce class size ratios and/or provide targeted support.

^ Additional staffing was added after 9/30/2018. Ratio has been updated to reflect this change.

<sup>‡</sup> At least one class is held in a portable.

**TABLE E-4  
COMPARATIVE CLASS SIZE DATA  
BY TEACHER**

	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
	Students	Students	Students	Students	Students	Students
<b>Atholton ES</b>						
Homeroom	19	20	22	25	22	23 <sup>‡</sup>
Homeroom	18	18	20	26	24	23 <sup>‡</sup>
Homeroom	17	20	21	26	22	22 <sup>‡</sup>
Homeroom	17	19	21			
<b>Bellows Springs ES</b>						
Homeroom	22	23	24	23	29	24
Homeroom	22	20	23	23	27	25
Homeroom	18	22	24	22	28	25
Homeroom	22	22	24	25	30	24
Homeroom	19	22	23	24		25
Homeroom	22	22				
<b>Bollman Bridge ES*</b>						
Homeroom	23	22	22	28	23	22
Homeroom	21	22	19	29	21	23
Homeroom	20	24	19	29	23	22
Homeroom	21	25	20	26	24	25
Homeroom	22		19		23	25
Homeroom			19			
<b>Bryant Woods ES*</b>						
Homeroom	22	21	18	23	19	21 <sup>‡</sup>
Homeroom	23	17	19	23	14	19 <sup>‡</sup>
Homeroom	23	20	19	23	17	23 <sup>‡</sup>
Homeroom		21	19		17	
<b>Bushy Park ES</b>						
Homeroom	22	24	21	29	24	23
Homeroom	21	25	20	30	22	24
Homeroom	20	23	19	29	25	25
Homeroom	22	24	21	29	24	24
Homeroom						24
<b>Centennial Lane ES</b>						
Homeroom	21	20	24	28	27	22
Homeroom	22	17	21	28	29	26
Homeroom	17	20	22	24	30	26
Homeroom	20	22	24	25	30	27
Homeroom	21	20	23	29	24	27
Homeroom		18				
<b>Clarksville ES</b>						
Homeroom	19	24	19	23	27	28
Homeroom	19	21	20	21	27	28
Homeroom		23	20	21	28	29
Homeroom		23				
<b>Clemens Crossing ES</b>						
Homeroom	22	23	20	23	23	25
Homeroom	22	22	20	22	23	26
Homeroom	22	21	20	23	24	25
Homeroom	21	22	21			
Homeroom			21			

\* Title I School

‡ Class is held in a portable.

\* Class has not been formed.



**TABLE E-4  
COMPARATIVE CLASS SIZE DATA  
BY TEACHER**

	<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>Grade 5</b>
	<b>Students</b>	<b>Students</b>	<b>Students</b>	<b>Students</b>	<b>Students</b>	<b>Students</b>
<b>Cradlerock ES*</b>						
Homeroom	19	14	23	22	26	23
Homeroom	20	19	19	22	28	23
Homeroom	18	19	23	23	28	22
Homeroom	18	20	19			22
<b>Dayton Oaks ES</b>						
Homeroom	22	22	23	25	24	26
Homeroom	22	20	22	26	22	27
Homeroom	22	18	22	27	24	24
Homeroom	21	21	22	27	24	26
Homeroom		18	22		25	27
<b>Deep Run ES*</b>						
Homeroom	22	20	21	23	26	24
Homeroom	22	22	22	24	25	24
Homeroom	24	22	22	24	25	23
Homeroom	23	23	22	23	25	25
Homeroom	23	21	22		25	23
Homeroom	.					
<b>Ducketts Lane ES</b>						
Homeroom	20	21	25	23	24	28
Homeroom	18	23	23	20	26	28
Homeroom	19	22	22	23	26	25
Homeroom	19	21	20	25	21	25
Homeroom	19					
<b>Elkridge ES</b>						
Homeroom	23	21	22	29	25	25
Homeroom	19	22	23	29	20	24
Homeroom	18	22	18	28	25	26
Homeroom	20	20	23	30	25	25
Homeroom	23	22	21	28	25	25
Homeroom	21	21	23		25	24
Homeroom		23	24			
<b>Forest Ridge ES</b>						
Homeroom	19	24	22	28	25	24
Homeroom	22	20	23	27	24	24
Homeroom	22	22	25	26	25	25
Homeroom	23	20	23	27	24	24
Homeroom	21	21	22		24	24
<b>Fulton ES</b>						
Homeroom	21	23	24	26	24	27 <sup>‡</sup>
Homeroom	21	25	25	25	25	28 <sup>‡</sup>
Homeroom	20	23	23	25	25	27 <sup>‡</sup>
Homeroom	20	22	21	26	24	30 <sup>‡</sup>
Homeroom	20	23	23	25	26	28 <sup>‡</sup>
Homeroom	21	25	25	25	25	
Homeroom	20	24	23			

\* Title I School

‡ Class is held in a portable.

\* Class has not been formed.

**TABLE E-4  
COMPARATIVE CLASS SIZE DATA  
BY TEACHER**

	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
	Students	Students	Students	Students	Students	Students
<b>Gorman Crossing ES</b>						
Homeroom	22	22	24	28	25	29
Homeroom	21	23	22	29	26	29
Homeroom	19	23	19	27	26	29
Homeroom	22	24	23	27	26	29
Homeroom	22	19	20		24	26
Homeroom	19	23	21		24	
Homeroom		20				
<b>Guilford ES*</b>						
Homeroom	23	20	22	21	18	24
Homeroom	22	22	22	22	18	24
Homeroom	22	17	22	21	18	23
Homeroom			22		18	
<b>Hammond ES</b>						
Homeroom	20	16	23	23	25	28
Homeroom	20	20	22	21	26	28
Homeroom	20	18	25	26	22	26
Homeroom	20	20	21	26	24	24
Homeroom	19	21	20		23	
<b>Hanover Hills ES</b>						
Homeroom	18	23	20	25	28	23
Homeroom	19	21	19	24	25	22
Homeroom	19	24	22	24	26	22
Homeroom	18	21	20	25	29	23
Homeroom	19	23	19	25		22
<b>Hollifield Station ES</b>						
Homeroom	23	21	22	27	26	25
Homeroom	22	22	22	26	24	27
Homeroom	23	21	22	27	26	25
Homeroom	23	21	21	28	29	26
Homeroom	22	21	22	28	28	25
Homeroom	22	21	22	24		25
Homeroom		21	22			
<b>Ilchester ES</b>						
Homeroom	21	23	19	26	24	27
Homeroom	22	22	18	27	26	27
Homeroom	22	23	20	28	27	25
Homeroom	22	23	18	27	27	25
Homeroom	20		17			
<b>Jeffers Hill ES</b>						
Homeroom	21	19	22	23	25	22
Homeroom	21	17	21	18	25	25
Homeroom	22	16	22	19	25	23
Homeroom			20			
<b>Laurel Woods ES*</b>						
Homeroom	20	20	22	24	23	23
Homeroom	22	19	23	19	25	25
Homeroom	19	19	23	22	23	24
Homeroom	19	21	22	23	25	23
Homeroom		19				24

\* Title I School

‡ Class is held in a portable.

\* Class has not been formed.

**TABLE E-4  
COMPARATIVE CLASS SIZE DATA  
BY TEACHER**

	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
	Students	Students	Students	Students	Students	Students
<b>Lisbon ES</b>						
Homeroom	23	22	19	23	27	22
Homeroom	22	24	16	22	29	24
Homeroom	23	23	16	22	29	23
Homeroom			20			22
<b>Longfellow ES*</b>						
Homeroom	20	21	20	20	23	24
Homeroom	19	17	18	23	25	23
Homeroom	21	16	23	23	23	26
Homeroom	19	18				
<b>Manor Woods ES</b>						
Homeroom	21	22	24	30	28	28
Homeroom	22	23	22	26	30	27
Homeroom	21	22	24	27	30	27
Homeroom	21		23	26	30	28
Homeroom	22		22			29
<b>Northfield ES</b>						
Homeroom	24	22	19	26	26	29
Homeroom	24	24	19	26	27	27
Homeroom	23	20	20	26	25	28
Homeroom	20	19	23	27	27	28
Homeroom	23	23	23	25	26	27
Homeroom			22			
<b>Phelps Luck ES*</b>						
Homeroom	23	21	24	22	28	20
Homeroom	23	23	22	22	27	21
Homeroom	22	21	23	21	27	21
Homeroom	23	24	22	22		20
Homeroom	21					
<b>Pointers Run ES</b>						
Homeroom	22	20	25	28	27	29
Homeroom	24	22	23	28	27	28
Homeroom	22	22	25	27	26	28
Homeroom	22	22	23	27	26	28
Homeroom	23	22	24	27	26	26
Homeroom	22	21	22		26	29
<b>Rockburn ES</b>						
Homeroom	21	23	19	25	22	23
Homeroom	20	20	22	26	21	23
Homeroom	21	22	22	24	23	24
Homeroom	23	20	22	21	25	25
Homeroom	20		22			
<b>Running Brook ES*</b>						
Homeroom	19	19	22	28	17	17
Homeroom	19	17	23	27	20	18
Homeroom	19	18	21	28	21	18
Homeroom	18	19			25	22

\* Title I School

‡ Class is held in a portable.

\* Class has not been formed.

**TABLE E-4  
COMPARATIVE CLASS SIZE DATA  
BY TEACHER**

	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
	Students	Students	Students	Students	Students	Students
<b>St. John's Lane ES</b>						
Homeroom	21	23	23	24 <sup>‡</sup>	26 <sup>‡</sup>	24
Homeroom	21	24	25	24	26	26
Homeroom	19	23	23	24	26	24
Homeroom	21	22	21	24	25	26 <sup>‡</sup>
Homeroom	21	23	24	23	26	25
Homeroom	20					
<b>Stevens Forest ES*</b>						
Homeroom	18	20	16	20	21 <sup>‡</sup>	22
Homeroom	18	21	15	21	20 <sup>‡</sup>	21
Homeroom	17	21	18	20	19 <sup>‡</sup>	22
Homeroom	18		16			
<b>Swansfield ES*</b>						
Homeroom	21	17	23	23	27	22
Homeroom	22	18	19	23	27	25
Homeroom	18	18	21	25	27	22
Homeroom	20	18	23	21	27	25
Homeroom	21	20				
<b>Talbott Springs ES*</b>						
Homeroom	18	20	21	22	27 <sup>‡</sup>	21 <sup>‡</sup>
Homeroom	18	21	19	22	25 <sup>‡</sup>	28 <sup>‡</sup>
Homeroom	17	22	22	19	26 <sup>‡</sup>	27 <sup>‡</sup>
Homeroom	19	23	15	18		
<b>Thunder Hill ES</b>						
Homeroom	18	21	21	28	25	26
Homeroom	18	23	22	31	23	23
Homeroom	20	20	22	27	25	26
Homeroom	19	21	18		23	25
<b>Triadelphia Ridge ES</b>						
Homeroom	20	17	19	26	28	29
Homeroom	19	21	19	26	28	29
Homeroom	20	18	20	25	28	29
Homeroom	19	20	20	26	28	29
<b>Veterans ES</b>						
Homeroom	22	23	22	26	26	25
Homeroom	22	23	20	26	24	26
Homeroom	21	23	22	23	24	24
Homeroom	21	23	21	25	25	27
Homeroom	19	23	22	24	23	25
Homeroom	20	22	21	26	25	28
Homeroom			22			
<b>Waterloo ES</b>						
Homeroom	21	21	23	27	26	24
Homeroom	19	21	19	26	27	24
Homeroom	20	21	24	26	26	24
Homeroom		20	19	28		24
Homeroom		21				24

\* Title I School

‡ Class is held in a portable.

\* Class has not been formed.

**TABLE E-4  
COMPARATIVE CLASS SIZE DATA  
BY TEACHER**

	<b>Kindergarten</b>	<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>Grade 5</b>
	<b>Students</b>	<b>Students</b>	<b>Students</b>	<b>Students</b>	<b>Students</b>	<b>Students</b>
<b>Waverly ES</b>						
Homeroom	20	21	21	27	29	27
Homeroom	19	22	21	28	28	27
Homeroom	20	22	22	26	29	27
Homeroom	20	21	22	27	28	28
Homeroom	20	20	21	23	28	28
Homeroom	21	22	23	27		
Homeroom			21			
<b>West Friendship ES</b>						
Homeroom	17	16	22	27	23	27
Homeroom	17	19	20	25	23	27
Homeroom	18	18	23	27	25	27
<b>Worthington ES</b>						
Homeroom	21	19	19	25	26	25
Homeroom	22	20	19	27	28	25
Homeroom	23	18	18	26	27	24
Homeroom		19	18			26

\* Title I School

‡ Class is held in a portable.

\* Class has not been formed.

## **Middle School Class Size 2018-2019**

The data for middle school class size reflects the average number of students in each classroom by individual school as of September 30, 2018. The data for middle school class size reflects the average class size in the subjects of English Language Arts, Social Studies, Science, Mathematics, and World Languages.

Middle school enrollment projections determine the number of classroom teachers assigned to a school. Currently in middle schools, the teacher to student ratio is 1:21.

Average class size remains consistent across middle schools, with school averages ranging from 21.4 to 25.8 with a countywide average of 22.8.

- Average class size in English Language Arts is 22.8
- Average class size in Social Studies is 23.4
- Average class size in Science is 23.6
- Average class size in Math is 21.4
- Average class size in World Language is 22.6

Overall the average class size in these five subjects is 22.8.

Table M-1, *Comparative Class Size Data Middle Schools*, presents class size data in five subject areas.

- A comparison of class size by academic subject for 2017-2018 and 2018-2019.
- A comparison of average class size by school for 2017-2018 and 2018-2019.
- A comparison of countywide class size by academic subject for 2017-2018 and 2018-2019.

Table M-2, *Comparative Class Size Data Middle Schools*, presents class size data in six other subjects.

- A comparison of class size for related arts by school for 2018-2019.

Table M-3, *Classes with More than 33 Students*

Districtwide, there are four classes containing more than 33 students. All of them are Physical Education classes at Elkridge Landing Middle School. These class sizes are due to an unavoidable scheduling conflict. Prior to approval, alternatives were examined and student impact assessed.

**TABLE M-1  
COMPARATIVE CLASS SIZE DATA  
MIDDLE SCHOOLS**

School	Middle School Subjects											
	English Language Arts		Social Studies		Science		Math		World Language		School Averages	
	17-18	18-19	17-18	18-19	17-18	18-19	17-18	18-19	17-18	18-19	17-18	18-19
Bonnie Branch	23.8	24.7	23.8	24.7	23.7	24.8	19.2	20.4	22.2	23.1	22.5	23.5
Burleigh Manor	23.1	23.8	25.3	25.3	27.0	26.2	24.8	21.9	23.1	23.9	24.6	24.2
Clarksville	24.0	22.9	24.0	24.6	22.1	22.9	22.1	23.3	24.6	23.0	23.3	23.3
Dunloggin	23.1	23.4	22.5	22.0	22.5	23.6	22.1	22.4	25.3	21.0	23.1	22.5
Elkridge Landing	22.7	22.9	22.9	24.7	22.9	24.7	23.3	21.6	21.9	22.5	22.7	23.3
Ellicott Mills	23.9	23.6	22.9	24.0	24.2	24.1	21.9	22.4	23.0	24.2	23.2	23.7
Folly Quarter	22.7	21.9	22.8	24.4	22.8	22.7	23.0	23.2	23.5	24.3	22.9	23.3
Glenwood	21.3	23.2	23.6	24.5	23.6	25.8	20.3	22.1	23.6	25.3	22.5	24.2
Hammond	21.2	21.0	23.1	22.0	25.2	22.9	21.9	21.4	22.5	24.6	22.8	22.4
Harper's Choice	19.6	20.7	19.8	20.1	21.2	20.1	19.5	17.7	24.9	18.1	21.0	19.4
Lake Elkhorn	18.0	17.3	21.8	19.7	21.9	19.2	18.7	17.3	22.4	21.2	20.6	18.9
Lime Kiln	23.4	22.3	25.1	25.1	25.2	25.1	23.2	22.1	23.3	24.9	24.0	23.9
Mayfield Woods	22.7	22.5	23.6	23.9	23.8	24.2	21.9	22.3	23.1	21.5	23.0	22.9
Mount View	23.1	26.0	23.3	23.9	27.2	24.6	22.9	23.5	24.1	22.3	24.1	24.1
Murray Hill	23.2	23.7	21.4	23.9	22.1	24.8	21.1	20.3	23.3	22.3	22.2	23.0
Oakland Mills	21.1	22.2	23.8	21.7	23.8	22.6	18.6	20.4	17.8	21.0	21.0	21.6
Patapsco	23.4	23.7	23.4	23.7	23.5	23.8	23.1	23.5	26.4	24.2	24.0	23.8
Patuxent Valley	21.0	24.4	22.8	23.7	22.0	23.6	20.9	21.3	23.4	22.2	22.0	23.0
Thomas Viaduct	21.3	21.6	23.0	21.9	23.0	21.9	20.0	20.2	22.7	21.1	22.0	21.3
Wilde Lake	21.6	24.1	21.8	24.3	23.4	25.2	19.0	20.9	21.5	22.4	21.5	23.4
<b>HCPSS Average Class Size</b>	<b>22.2</b>	<b>22.8</b>	<b>23.0</b>	<b>23.4</b>	<b>23.5</b>	<b>23.6</b>	<b>21.4</b>	<b>21.4</b>	<b>23.1</b>	<b>22.6</b>	<b>22.7</b>	<b>22.8</b>

**TABLE M-2  
COMPARATIVE CLASS SIZE DATA  
MIDDLE SCHOOLS**

School	Middle School Related Arts Subjects					
	ART	FACS	Health	General Music	Physical Education	Tech Ed
	<b>18-19</b>	<b>18-19</b>	<b>18-19</b>	<b>18-19</b>	<b>18-19</b>	<b>18-19</b>
Bonnie Branch	25.6	24.4	26.3	22.4	28.8	26.7
Burleigh Manor	22.3	25.2	24.1	20.5	27.1	19.5
Clarksville	18.0	20.7	27.1	22.0	33.3	22.6
Dunloggin	26.0	26.0	25.4	27.3	24.5	17.8
Elkridge Landing	26.6	25.9	24.2	24.0	26.7	26.0
Ellicott Mills	26.9	24.8	24.3	26.5	24.1	28.3
Folly Quarter	23.1	21.2	27.0	20.9	27.5	26.0
Glenwood	18.0	19.3	24.7	20.7	24.7	17.5
Hammond	20.8	18.1	21.4	24.3	22.1	22.0
Harper's Choice	17.8	18.5	19.8	17.3	20.3	17.8
Lake Elkhorn	19.7	21.4	28.7	22.9	29.0	23.3
Lime Kiln	20.8	23.2	26.4	20.6	26.3	20.1
Mayfield Woods	25.0	24.8	23.4	24.9	21.8	24.1
Mount View	21.8	28.8	23.1	19.6	27.0	21.3
Murray Hill	24.6	24.8	22.4	24.0	29.9	24.1
Oakland Mills	22.2	22.8	23.0	28.5	22.2	20.5
Patapsco	25.0	28.3	23.7	25.6	23.8	26.9
Patuxent Valley	20.0	25.0	24.5	20.7	27.5	20.0
Thomas Viaduct	22.9	25.0	21.7	21.3	26.2	22.8
Wilde Lake	23.5	25.3	24.4	19.8	23.3	24.5
<b>HCPSS Average Class Size</b>	<b>22.5</b>	<b>23.7</b>	<b>24.3</b>	<b>22.7</b>	<b>25.8</b>	<b>22.6</b>



**TABLE M-3  
CLASSES OVER 33**

<b>School</b>	<b>English Language Arts, Social Studies, Science, &amp; Math Courses</b>	<b>Other Classes*</b>
	<b>2018-2019</b>	<b>2018-2019</b>
Bonnie Branch	0	0
Burleigh Manor	0	0
Clarksville	0	0
Dunloggin	0	0
Elkridge Landing	0	4
Ellicott Mills	0	0
Folly Quarter	0	0
Glenwood	0	0
Hammond	0	0
Harper's Choice	0	0
Lake Elkhorn	0	0
Lime Kiln	0	0
Mayfield Woods	0	0
Mount View	0	0
Murray Hill	0	0
Oakland Mills	0	0
Patapsco	0	0
Patuxent Valley	0	0
Thomas Viaduct	0	0
Wilde Lake	0	0
<b>TOTAL</b>	<b>0</b>	<b>4</b>

*\* Does not include music classes.*

## High School Class Size 2018-2019

The data for high school class size reflects the average number of students in each classroom by individual school as of September 30, 2018. The data for high school class size reflects the class size in the academic subjects of English 9 and 10, Algebra I, Geometry and Algebra II, classes over 33, and comparative data for English, Social Studies, Science, Math, and World Language courses.

High school enrollment projections determine the number of classroom teachers assigned to a school. The high school teacher to student ratio is 1.4:28.

The priority of smaller class sizes in assessed classes and in ninth grade English and Mathematics classes continues to be maintained. This priority, as well as an effective staffing process, has resulted in well-balanced class sizes in all of our high schools.

Tables H-1, *Class Size – English 9*, H-2, *Class Size – English 10*, and H-3, *Class Size – Mathematics* present the following:

- Average class size for English 9 is 24.2
- Average class size for English 10 is 24.2
- Average class size for Algebra I, Geometry and Algebra II is 23.7

### Table H-4, *Classes with More than 33 Students*

Districtwide, there are two classes containing more than 33 students. They are a section of Calculus AP at Wilde Lake High School and a section of Art at Howard High School. All classes were increased due to an unavoidable scheduling conflict. Prior to approval, alternatives were examined and student impact assessed.

### Table H-5, *Comparative High School Class Size Data*

The application of the high school staffing process has enabled HCPSS to maintain a consistent class size across all high schools. The Division of School Management and Instructional Leadership continues to provide differentiated staffing to meet the unique needs of schools and the intensive support needed for students striving to meet graduation requirements.

**TABLE H-1  
CLASS SIZE – ENGLISH 9**

	English 9			English 9 Honors			English 9 GT			Humanities I GT(English)			All		
Course Number	LA-401-1			LA-402-1			LA-403-1			LA-830-1					
School	No. Sec	N	Avg	No. Sec	N	Avg	No. Sec	N	Avg	No. Sec	N	Avg	No. Sec	N	Avg
Atholton	4	95	23.8	5	149	29.8	5	124	24.8				14	368	26.3
Centennial	3	62	20.7	6	158	26.3	4	101	25.3	2	55	27.5	15	376	25.1
Glenelg	4	96	24.0	6	125	20.8	3	89	29.7				13	310	23.8
Hammond	7	167	23.9	4	97	24.3	4	93	23.3				15	357	23.8
Howard	7	156	22.3	7	178	25.4	6	133	22.2				20	467	23.4
Long Reach	9	192	21.3	5	118	23.6	2	55	27.5				16	365	22.8
Marriotts Ridge	3	72	24.0	4	95	23.8	7	195	27.9				14	362	25.9
Mt. Hebron	5	122	24.4	6	168	28.0	6	139	23.2				17	429	25.2
Oakland Mills	7	137	19.6	3	74	24.7	4	90	22.5				14	301	21.5
Reservoir	6	137	22.8	6	141	23.5	4	129	32.3				16	407	25.4
River Hill	5	102	20.4	7	171	24.4	7	196	28.0				19	469	24.7
Wilde Lake	7	149	21.3	5	116	23.2	3	66	22.0				15	331	22.1
TOTAL	67	1487	22.2	64	1590	24.8	55	1410	25.6	2	55	27.5	188	4542	24.2

**TABLE H-2**  
**CLASS SIZE - ENGLISH 10**

	English 10			English 10 Honors			English 10 GT			Humanities			All		
Course Number	LA-501-1			LA-502-1			LA-503-1			LA-831-1					
School	No. Sec	N	Avg	No. Sec	N	Avg	No. Sec	N	Avg	No. Sec	N	Avg	No. Sec	N	Avg
Atholton	4	73	18.3	6	170	28.3	5	133	26.6				15	376	25.1
Centennial	3	58	19.3	7	175	25.0	5	119	23.8	2	61	30.5	17	413	24.3
Glenelg	3	67	22.3	5	119	23.8	4	97	24.3				12	283	23.6
Hammond	6	130	21.7	5	134	26.8	3	79	26.3				14	343	24.5
Howard	7	177	25.3	8	193	24.1	5	123	24.6				20	493	24.7
Long Reach	8	172	21.5	5	130	26.0	3	77	25.7				16	379	23.7
Marriotts Ridge	3	53	17.7	5	130	26.0	6	170	28.3				14	353	25.2
Mt. Hebron	4	74	18.5	6	165	27.5	5	132	26.4				15	371	24.7
Oakland Mills	5	99	19.8	4	90	22.5	3	73	24.3				12	262	21.8
Reservoir	5	107	21.4	7	159	22.7	6	173	28.8				18	439	24.4
River Hill	3	53	17.7	4	112	28.0	4	119	29.8				11	284	25.8
Wilde Lake	6	121	20.2	5	127	25.4	3	69	23.0				14	317	22.6
TOTAL	57	1184	20.8	67	1704	25.4	52	1364	26.2	2	61	30.5	178	4313	24.2

**TABLE H-3  
CLASS SIZE – MATHEMATICS**

	Algebra I			Geometry			Geometry GT			Algebra II			Algebra II GT			All		
Course Number	MA-401-1			MA-431-1			MA-433-1			MA-461-1			MA-463-1					
School	No. Sec	N	Avg	No. Sec	N	Avg	No. Sec	N	Avg	No. Sec	N	Avg	No. Sec	N	Avg	No. Sec	N	Avg
Atholton	6	147	24.5	6	136	22.7	3	72	24.0	8	178	22.3	7	181	25.9	30	714	23.8
Centennial	6	109	18.2	6	124	20.7	4	113	28.3	11	214	19.5	6	175	29.2	33	735	22.3
Glenelg	6	125	20.8	5	129	25.8	2	63	31.5	5	130	26.0	6	178	29.7	24	625	26.0
Hammond	11	261	23.7	9	219	24.3	4	111	27.8	7	151	21.6	5	119	23.8	36	861	23.9
Howard	9	203	22.6	10	221	22.1	4	105	26.3	10	243	24.3	8	224	28.0	41	996	24.3
Long Reach	15	321	21.4	9	187	20.8	5	119	23.8	8	190	23.8	6	160	26.7	43	977	22.7
Marriotts Ridge	4	109	27.3	5	106	21.2	3	74	24.7	5	117	23.4	8	220	27.5	25	626	25.0
Mt. Hebron	10	207	20.7	7	190	27.1	3	80	26.7	9	202	22.4	6	183	30.5	35	862	24.6
Oakland Mills	10	219	21.9	7	158	22.6	4	100	25.0	7	141	20.1	6	160	26.7	34	778	22.9
Reservoir	11	250	22.7	9	187	20.8	4	94	23.5	8	203	25.4	8	201	25.1	40	935	23.4
River Hill	6	146	24.3	5	117	23.4	3	89	29.7	4	104	26.0	9	274	30.4	27	730	27.0
Wilde Lake	12	239	19.9	12	231	19.3	2	64	32.0	10	186	18.6	4	125	31.3	40	845	21.1
TOTAL	106	2336	22.0	90	2005	22.3	41	1084	26.4	92	2059	22.4	79	2200	27.8	408	9684	23.7

**TABLE H-4**  
**CLASSES OVER 33**

<b>School</b>	<b>English Language Arts, Social Studies, Science, &amp; Math Courses</b>	<b>Other Classes*</b>
	<b>2018-2019</b>	<b>2018-2019</b>
Atholton	0	0
Centennial	0	0
Glenelg	0	0
Hammond	0	0
Howard	0	1
Long Reach	0	0
Marriotts Ridge	0	0
Mt. Hebron	0	0
Oakland Mills	0	0
Reservoir	0	0
River Hill	0	0
Wilde Lake	1	0
<b>TOTAL</b>	<b>1</b>	<b>1</b>

*\* Does not include digital education, music and dance classes.*

TABLE H-5

## COMPARATIVE HIGH SCHOOL CLASS SIZE DATA BY CURRICULAR AREAS

<b>Courses</b>	<b>English</b>		<b>Social Studies</b>		<b>Science</b>		<b>Mathematics</b>		<b>World Language</b>	
<b>School</b>	<b>17-18</b>	<b>18-19</b>	<b>17-18</b>	<b>18-19</b>	<b>17-18</b>	<b>18-19</b>	<b>17-18</b>	<b>18-19</b>	<b>17-18</b>	<b>18-19</b>
Atholton	24.4	24.7	25.1	26.2	25.3	25.4	26.2	23.9	25.0	25.9
Centennial	27.5	25.3	27.4	26.0	26.5	24.0	25.9	23.8	23.1	24.4
Glenelg	23.9	24.4	26.3	25.9	21.6	22.6	25.3	25.6	23.4	22.4
Hammond	23.5	23.8	23.2	23.4	22.3	24.1	21.5	23.5	23.9	23.3
Howard	25.1	24.6	24.9	24.6	24.7	25.9	25.7	24.8	23.4	23.9
Long Reach	22.9	23.3	22.0	23.7	23.6	22.1	23.0	22.2	21.8	23.4
Marriotts Ridge	25.3	26.8	26.6	25.9	25.3	25.2	26.0	26.5	25.8	25.8
Mt. Hebron	25.0	24.9	24.2	25.6	23.6	24.9	25.1	25.3	21.1	23.8
Oakland Mills	22.0	22.7	23.9	23.3	24.0	24.3	21.8	23.0	22.8	20.4
Reservoir	25.0	25.1	24.0	26.6	23.8	24.2	24.4	24.2	23.8	23.0
River Hill	27.0	25.4	24.8	26.6	26.1	25.9	27.9	26.2	25.5	24.3
Wilde Lake	22.5	23.0	22.9	23.6	22.4	22.3	22.5	21.3	22.9	23.9
<b>TOTAL</b>	<b>24.5</b>	<b>24.5</b>	<b>24.6</b>	<b>25.1</b>	<b>24.1</b>	<b>24.2</b>	<b>24.6</b>	<b>24.2</b>	<b>23.5</b>	<b>23.7</b>





# 2017 Feasibility Study

An Annual Review of Long-Term Capital  
Planning and Attendance Area Adjustment Options



Howard County Public School System



Feasibility Study:  
An Annual Review of Long-Term Capital  
Planning and Attendance Area Adjustment Options

Acting 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  
Vacancy

*Student Member*

Griffin Diven

June 2017

Feasibility Study:  
An Annual Review of Long-Term Capital  
Planning and Attendance Area Adjustment Options

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This document is prepared in cooperation  
with the Office of Budget and Finance  
as pre-planning for the FY 2019 Capital Budget.

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

Electronic copy of the 2017 Feasibility Study can be  
found on the school system's website at [www.hcpss.org](http://www.hcpss.org).

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Feasibility Study:  
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Section 1

# Introduction

June 2017

## Introduction

Each year the Board of Education (Board) of the Howard County Public School System (HCPSS) reviews capital planning options and boundary adjustment scenarios through a feasibility study. The report has four goals:

1. Inform the long-term planning process.
2. Facilitate discussion of decisions that may lay ahead.
3. Provide strategic information to the school system.
4. Prepare for scheduled school boundary adjustments.

The annual student enrollment projection is introduced in this report, along with scenarios that are intended to provide a comprehensive look at suggested capital additions, renovations, and any attendance area adjustments that are anticipated within the ten-year Capital Improvement Program period. Plans examined in this document may only be implemented through the Board's approval of both the capital budget and any change to current school attendance areas. This report is the starting point for the annual process of developing the capital budget.

Experience has shown that by presenting this report annually, assumptions and trends can be given consideration on a regular basis and appropriate adjustments can be made to the capital budget or attendance area adjustment plans. New plans may be needed to react to population shifts or new residential development. This document makes note of scenarios that may be developed in future attendance area review processes. Full plan assessments will then be made in a future report prior to Board deliberation to show how those plans conform to Board policy.

Annual enrollment projections are used in short-term decision making, such as determining staffing and supplying schools. The allocation of relocatable classrooms is also made using projections. The projection is presented in a format similar to the Adequate Public Facilities Ordinance (APFO) chart. The "pre-measures" chart shows the effect of projected enrollment with capacity projects included in the Board Approved FY 2018 Capital Budget. The "post-measures" chart gives a preliminary view of projected enrollment with new or accelerated capital projects recommended in this report.

Projects in the Capital Improvement Program that increase student capacity will be tested in the feasibility study with an attendance area adjustment plan consistent with Board Policy 6010. Plans will be linked within and across organizational levels to form a short- and long-range attendance area adjustment plan. The Board will review the plan and set direction. In years when attendance area adjustments are anticipated, the Attendance Area Committee will evaluate the plan, providing review and comment to the Superintendent. At this time, school boundary adjustments are recommended for implementation in August of 2018 and will include the opening of New Elementary School #42 (ES #42), as well as elementary, middle and high school comprehensive adjustments.

The Office of School Planning maintains a portion of the HCPSS website with information relevant to the process. During attendance area adjustments the [School Planning page](#) is frequently updated with maps, reports, and meeting summary notes.

Feasibility Study:  
An Annual Review of Long-Term Capital  
Planning and Attendance Area Adjustment Options

Section 2

# Executive Summary

June 2017

## Executive Summary

This feasibility study is an annual report containing projected student enrollment and feasible school boundary adjustments in compliance with Policy 6010 – School Attendance Areas. Since new capacity, either as additions or new facilities, factors into these considerations, this document forms the basis for the development of the Capital Improvement Program (CIP). The following sections highlight continuing considerations included in this Feasibility Study. In September 2017, the FY 2019 Superintendent's Proposed Capital Budget will be presented, which includes the five-year CIP. The additions and new schools approved as part of the FY 2018–2027 Long-Range Master Plan are included in the assumptions for this document.

The past three years were marked with constraints to local capital funding and it is anticipated for this trend to continue. This comes despite recently approved general plan amendments and strong enrollment growth. Responding to these constraints requires adjustment to the long-range plan and perhaps school attendance area adjustments. Every effort is made during the budget process to preserve existing capacity projects. This document provides some adjustments and interim measures.

This document is a planning document and presents a single staff recommendation. The recommendation is presented for review and is not final. Other scenarios may develop in the attendance area review process, which starts in June 2017. The school boundary adjustment plans (Plans) include assessments in an attempt to show how a Plan presented compares to the fourteen (14) policy considerations found in Policy 6010. School boundary adjustments approved by the Board of Education in November of 2017 will be implemented in school year 2018–2019.

Recommendations for implementation in the 2018-2019 school year include:

1. Consider increasing the capacity for the Elementary School Education Specifications from 600 to 788.
2. Adjust elementary school boundaries to accomplish the following:
  - open New Elementary School #42 for SY 2018–2019;
  - utilize western school capacity to balance utilization in the north and West Columbia; and
  - utilize new capacities at Waverly ES and Swansfield ES to balance utilization in northern and Western Columbia areas.
3. Consider options to better utilize West Friendship ES, including an interim capital investment to help defer a new elementary school in the vicinity.
4. Consider additional capacity in the Northern region to absorb the projected population growth.
5. Adjust school boundaries at the middle school level to balance capacity utilization as well as align middle school feeds (from elementary school). Continue planning for additional capacity at Dunloggin MS and Ellicott Mills MS.
6. Adjust school boundaries at the high school levels to balance capacity utilization and align high school feeds (from middle school). Continue to plan for HS #13.

Feasibility Study:  
An Annual Review of Long-Term Capital  
Planning and Attendance Area Adjustment Options

Section 3

# Planning Considerations

This section identifies planning assumptions and considerations. The annual projection is developed with assumptions about enrollment growth that have evolved over the years. Other planning considerations involve implications for capital facilities. Some of the previous planning assumptions have been adjusted, while others have been added for this study. This section presents a discussion of the major components and adjustments included in this year's planning considerations.

June 2017

## Policy Guidance

The feasibility study is guided by Policy 6010 School Attendance Areas (Appendix A). CIP projects increasing student capacity are tested in the Feasibility Study with attendance area adjustments consistent with goals of Policy 6010. Plans developed are linked within and across organizational levels to establish short- and long-range attendance area adjustments. The Board is responsible for reviewing the Feasibility Study and sets forth the direction as appropriate through the yearly capital budget process. Policy 6010 recommends consideration of attendance area adjustments under six (6) conditions such as the opening of a school, program changes, or when projected school capacity utilization is outside the target utilization over a period of time.

School boundary adjustments are planned for SY 2018–2019. When school boundary adjustments are planned, staff refines the short- and long-range plan in the feasibility study based on the most current student enrollment projection. The Superintendent will appoint an Attendance Area Committee to test alternate scenarios consistent with the direction set by the Board and the standards and factors in Policy 6010. Plans may be presented in regional meetings and various methods will be used to collect additional input from the public. A Superintendent's plan that takes into account previous staff, committee, and community input is presented to the Board in October.

The Board evaluates the Superintendent's plan according to the standards of Policy 6010, which are found in Standards Section B in Attachment A. In the Board's deliberations, new scenarios using these considerations may be reviewed, assessed, and considered. It is unlikely that one plan can fully satisfy all considerations.



Thomas Viaduct MS opened in August of 2014

## Alignment with Strategic Plan

**Vision 2018: Fulfilling the Promise of Preparation** is the strategic plan to build an educational program that is among the best in the world. The feasibility study supports achievement Vision 2018.

The anticipation of growth trends and planning for adequate permanent or temporary space is needed to serve student needs. When attendance area changes are necessary, a student-centered transition process is provided to welcome the students to the new school. These efforts are made to ensure every student achieves academic excellence in an inspiring, engaging, and supportive environment.



Construction of New ES #42.

Crucial decisions about budget and attendance areas must be the result of an open process that includes many stakeholders. Board decisions need to be informed by both the technical guidance of staff, and the concerns and desires of the families and community. For this reason, the Office of School Planning maintains an extensive web presence and supports many meetings of committees, PTAs, and other community groups. It is also necessary that the Office serves as a liaison to various county and state agencies to communicate agency direction. These efforts ensure that families and the community are engaged and supported as partners in education.

**Figure 3.1 Strategic Plan Strategies Relevant to Feasibility Study**

1.4.6 Configure physical space to facilitate learning.
2.1.2, 3.1.3, 4.6.2 Consistently include representatives from stakeholder groups in planning processes to inform school system actions and decisions.
2.1.6 Provide timely, relevant, and easily accessible information.
3.3.2 Tailor communications to user needs.
4.4.1 Utilize technology tools that are intuitive, efficient, effective across platforms, and requirements-driven in a standardized environment.
4.4.2 Streamline and automate organizational processes in alignment with industry best practices.
4.5.1 Refine central services to streamline operations, optimize efficiency and effectiveness, and facilitate collaboration.
4.5.2, 4.6.4 Utilize consistent performance management practices to plan, evaluate, and refine initiatives.
4.5.3 Implement continuous improvement practices, including quality control and process management, in every school and division.
4.6.1 Regularly consider research-based best practices.
4.6.3 Routinely benchmark with comparison organizations to analyze current practices and identify best practices.

## Relationship to Capital Budget

Figure 3.2 Capital Budget and Attendance Area Adjustments Flow Chart

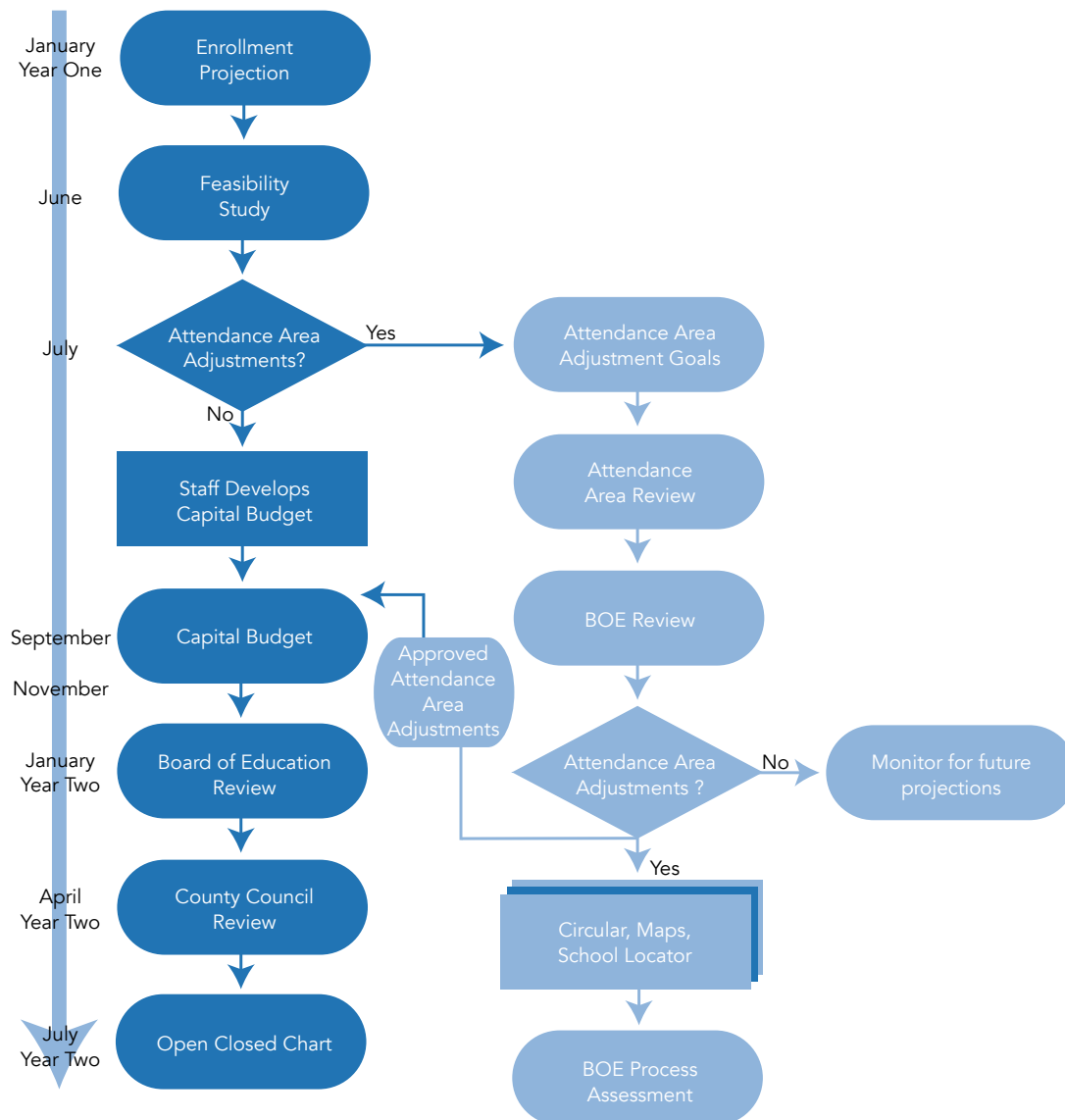


Figure 3.2 shows the school boundary adjustment process in the context of the capital budget. The feasibility study is presented as the capital budget is being prepared. The graphic shows that while school boundary adjustments may not take place annually, they are given consideration annually in the feasibility study. There are a number of ways to address enrollment growth. In some cases, new capacity or a capital project is the best solution. In other cases, a school boundary adjustment consistent with policy may allow better use of existing capacity. Sometimes a change to regional program location can open capacity. Relocatable buildings can also be used to relieve overcrowding. The process is ongoing but may be tracked through this document and the capital budget process.



## Relationship to Capital Budget

The annual capital budget contains a Capital Improvement Plan (5-year plan) and Long-Range Master Plan (10-year plan). Figure 3.3 is a copy of the FY 2018–2027 Long-Range Master Plan from FY 2018 Board Approved Capital Budget. Capital projects are shown with anticipated funding phased out over future fiscal years. The Feasibility Study evaluates enrollment trends and discusses adjustments and changes that may be reflected in the CIP and Long-Range Master Plan.

Figure 3.3 Example of Long Range Master Plan

FY 2018-2027 Long-Range Master Plan												
Board of Education's Approved												May 25, 2017
(In Thousands)												
Project	Approved Appropriations	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Total Approp. plus FY18-FY27 Request
Wilde Lake MS Replacement School	\$ 43,377	\$ 2,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 45,377
Patuxent Valley MS Renovation	28,035	1,500	-	-	-	-	-	-	-	-	-	29,535
Swansfield ES Renovation/Addition	22,495	4,407	-	-	-	-	-	-	-	-	-	26,902
Waverly ES Renovation/Phase II Addition*	13,359	17,396	3,000	-	-	-	-	-	-	-	-	33,755
New ES #42	17,333	18,658	8,132	-	-	-	-	-	-	-	-	44,123
Talbot Springs ES Replacement School	-	1,000	10,000	16,800	11,200	-	-	-	-	-	-	39,000
Oakland Mills MS Renovation*	-	-	10,000	10,828	7,000	-	-	-	-	-	-	27,828
New HS #13	-	-	-	10,950	28,250	27,200	26,500	19,325	-	-	-	112,225
New ES #43	-	-	-	5,380	20,166	22,125	8,124	-	-	-	-	55,795
Ellicott Mills MS Addition	-	-	-	-	-	-	544	5,404	-	-	-	5,948
Hammond HS Renovation	-	-	-	-	-	-	2,800	25,748	17,099	15,099	11,099	71,845
New ES #44	-	-	-	-	-	-	-	5,380	23,099	17,906	9,410	55,795
New ES #45	-	-	-	-	-	-	-	-	-	5,380	15,166	20,546
Systemic Renovations/Modernizations	239,664	16,055	34,805	30,472	31,073	32,389	59,911	40,661	42,694	44,829	47,070	619,623
Roofing Projects	45,537	-	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	90,537
Playground Equipment	2,680	250	300	300	300	300	300	300	300	300	300	5,630
Relocatable Classrooms	18,910	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	33,910
Site Acquisition & Construction Reserve	20,836	-	-	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	36,836
Technology	39,486	2,500	5,500	5,500	5,500	7,500	7,500	7,500	7,500	7,500	7,500	103,486
School Parking Lot Expansions	4,200	-	-	600	600	600	600	600	600	600	600	9,000
Planning and Design	600	-	300	300	300	300	300	300	300	300	300	3,300
Barrier Free	5,628	-	200	200	200	200	200	200	200	200	200	7,428
<b>TOTALS</b>	<b>\$ 502,140</b>	<b>\$ 65,266</b>	<b>\$ 78,737</b>	<b>\$ 89,830</b>	<b>\$ 113,089</b>	<b>\$ 99,114</b>	<b>\$ 115,279</b>	<b>\$ 113,918</b>	<b>\$ 100,292</b>	<b>\$ 100,614</b>	<b>\$ 100,145</b>	<b>\$ 1,478,424</b>

\* Partial planning funds received in Systemic Renovation Project

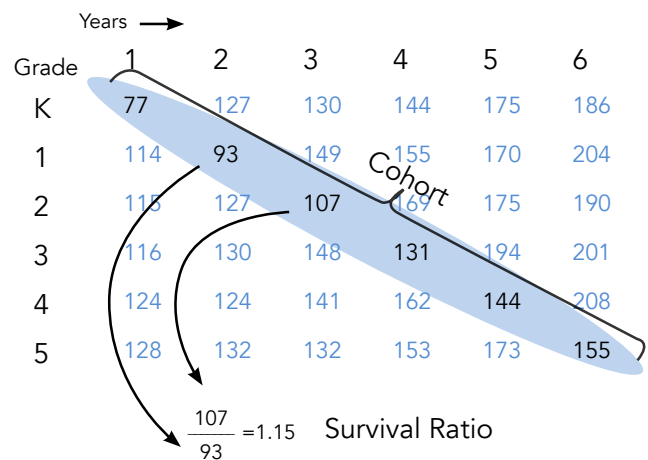
Ten-Year Long-Range Master Plan = \$976,284

## Enrollment Projections

Projections used for this study were generated in the spring of 2017. The projection methodology used by the HCPSS is based on historic cohort survival ratios—the number of students in a “cohort” that “survive” from one grade level to the next. In Figure 3.4, a cohort-survival ratio is calculated from historic data. The rate of 1.15 can be used to predict how many second graders will result from the previous year’s first graders. Ratios from multiple years and all grade transitions are calculated for each school. Other effects, such as housing yields and apartment turnover, are added to the projection. These variables are combined to project enrollment for each school for September 30 of each future year.

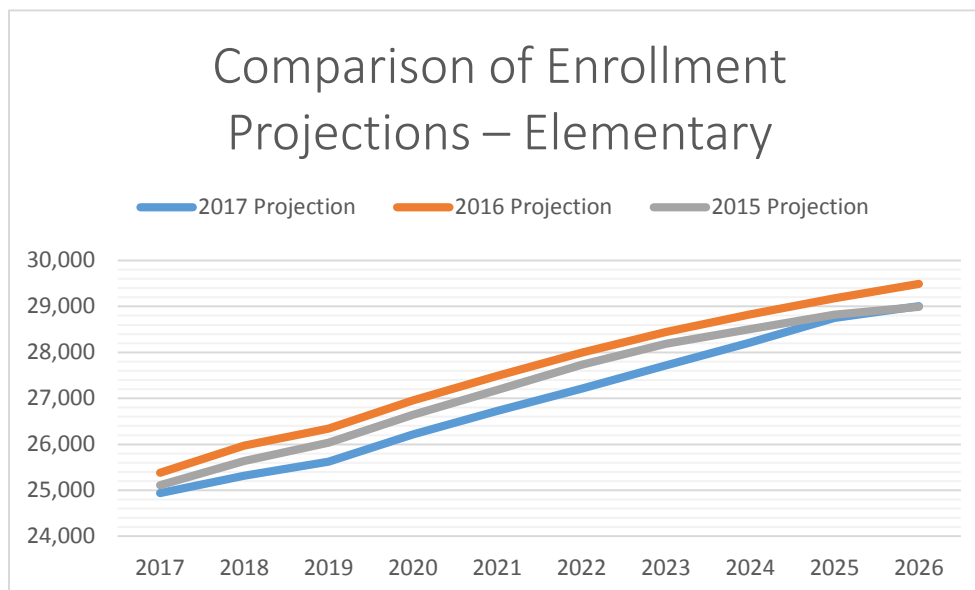
The projection is presented out to 2028 in Section 6 of this document. Certain decisions, such as site acquisition are appropriately informed by the latter part of the projection. Planning issues may become apparent by comparing the current projection to those made in previous years. The following charts use a ten-year series and present three consecutive annual projections.

**Figure 3.4**



As shown in Figure 3.5, the 2017 elementary projection includes a similar rate of enrollment growth in the near-term, while trending towards a slightly lower enrollment in the long-term view. The trend in the 2017 projection is for elementary enrollment to increase by 4,000 students by 2026. As a result of this enrollment growth, the capacity utilization of all elementary schools combined will begin to exceed 110 percent by 2024 if new elementary schools are not built. Projects approved as part of the FY 2018 CIP can absorb most of this growth.

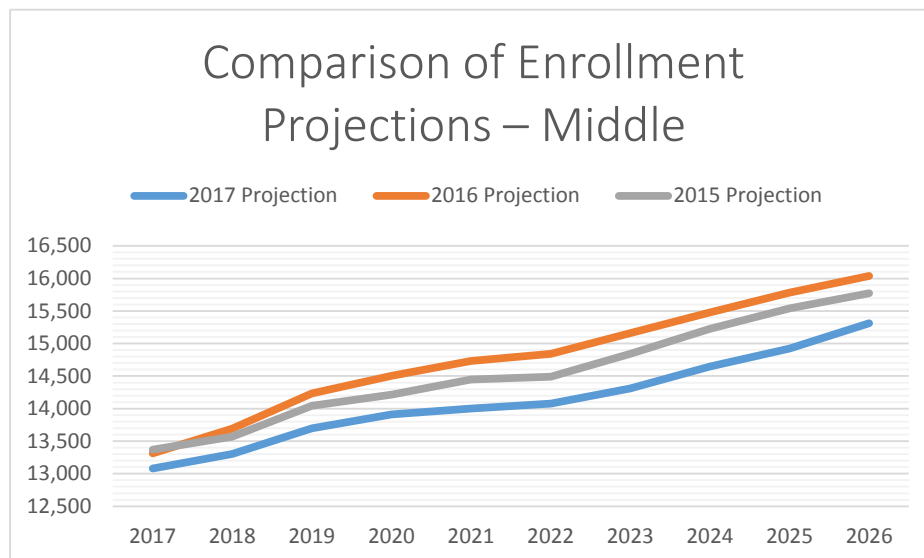
**Figure 3.5 Comparison of Three Enrollment Projections - Elementary**



## Enrollment Projections

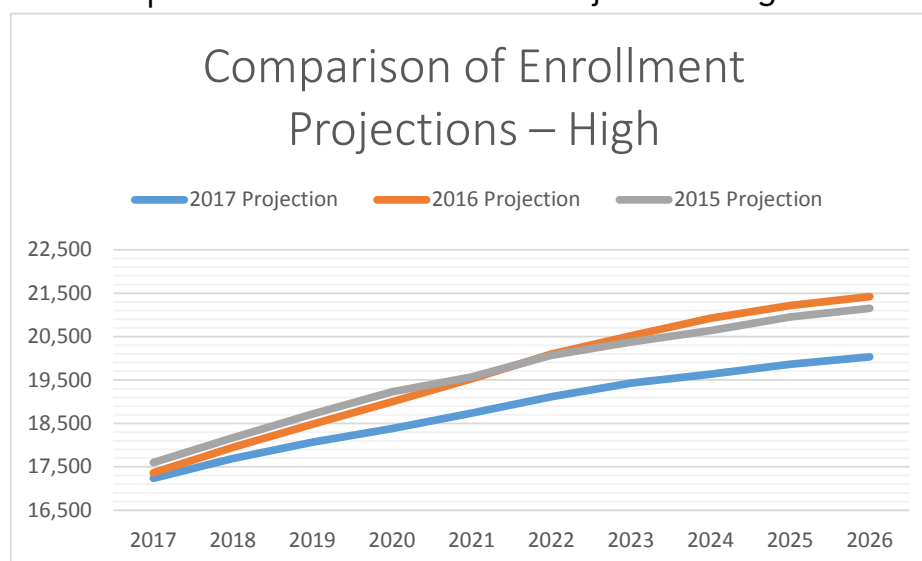
As shown in Figure 3.6 below, the middle school enrollment projection is expected to increase by 2,200 student by 2026. The 2017 middle school enrollment growth is lower than the 2015 and 2016 in long-term growth. As a result of this enrollment growth, the combined capacity utilization of all middle schools will begin to exceed 110 percent beyond 2026. Most of the projected growth is in the east, and based on the long-term growth trends, strategic capacity projects should be considered for the middle school needs.

**Figure 3.6 Comparison of Three Enrollment Projections - Middle**



High school enrollment is projected to increase by nearly 2,800 student by 2026, as shown below in Figure 3.7. As a result of this growth, the combined capacity utilization of all high schools will begin to exceed 110 percent beyond 2022. Similar to the middle school growth, high school growth is in the eastern portions of the county. Based on the long-term growth trends, land should be banked for the future high school needs in the eastern county.

**Figure 3.7 Comparison of Three Enrollment Projections - High**

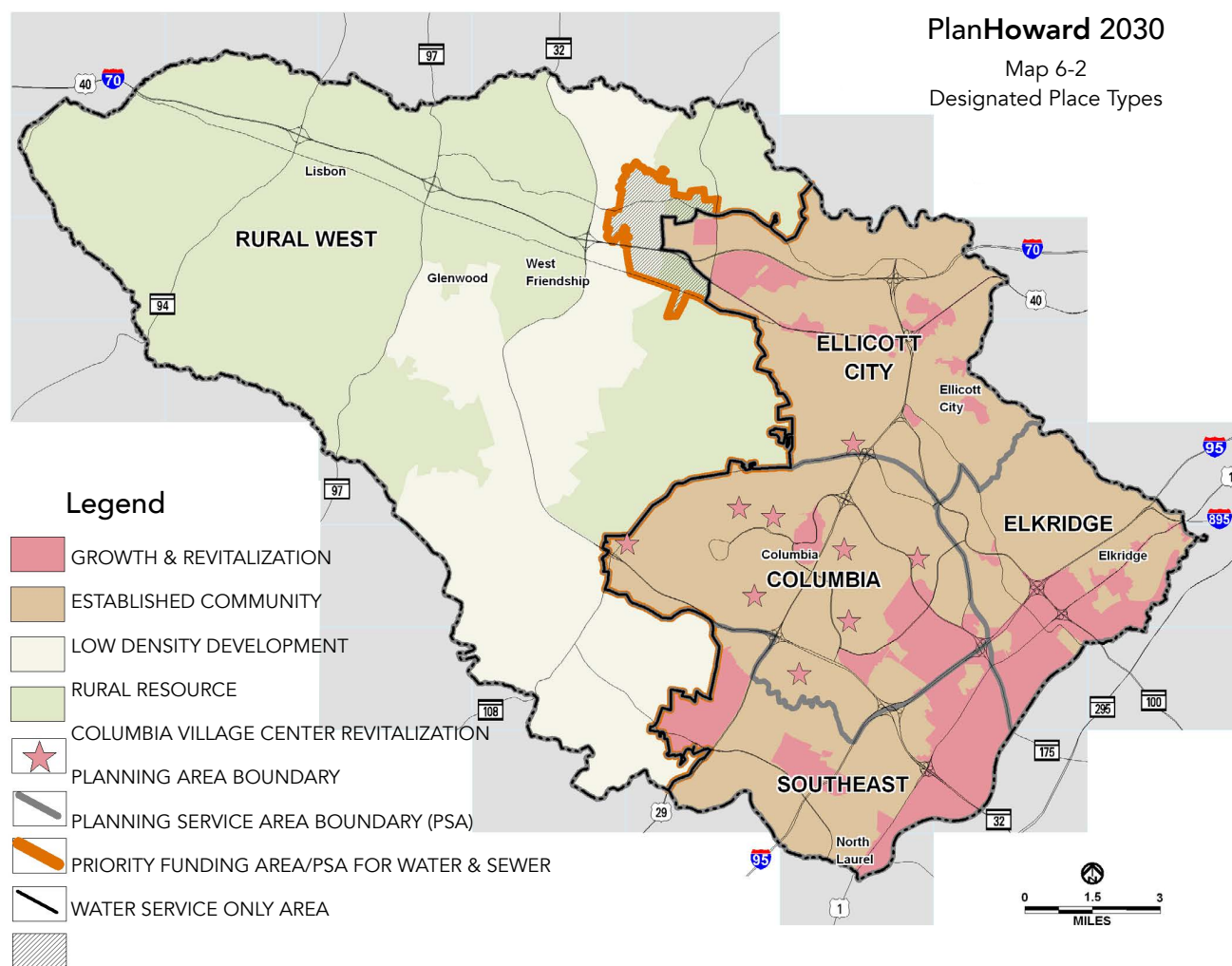


## Land Use

Development is guided by the Howard County General Plan and implemented with zoning. "PlanHoward 2030," the Howard County General Plan, sets priorities for growth and was adopted by the County Council in July 2012. Comprehensive zoning took effect in October 2013. As a result, new development is expected to affect future school planning. Land use and other regulatory changes were not anticipated in the projections used for the boundary adjustments to open Ducketts Lane ES. The new land use changes are captured in the annual projection to facilitate analysis of options in this document and the capital budget.

The General Plan included the adoption of a designated places map. Figure 3.8 depicts the Plan Howard Designated Places map. Most future development, and anticipated school needs, are planned where the map shows "Growth and Revitalization" areas in pink. Generally these are in the eastern part of the county and Columbia's Village Centers. Projected enrollment growth provided in this document is associated with the future development.

Figure 3.8 Plan Howard 2030 Designated Places Map





## Land Use

The FY 2018–2027 Long-Range Master Plan includes funding requested for new construction of four elementary schools, one high school, and strategically placed middle school additions. Despite projections indicating these five new schools are needed, capital funding will likely be constrained in the next few years.

The timing of residential development depends upon actual land development applications, which can change. Projections are adjusted yearly to account for phasing of the new residential development. The Department of Planning and Zoning provides the Office of School Planning with the number of existing and projected housing units in the county. Future housing is calculated using a software tool that simulates the residential build-out of the County's remaining undeveloped, residentially-zoned properties under real-world conditions. Constraints imposed by current zoning of properties, the logistics of residential construction, and the growth limits of the County's General Plan are included in the housing projection. The output from this simulation informs the enrollment projection.

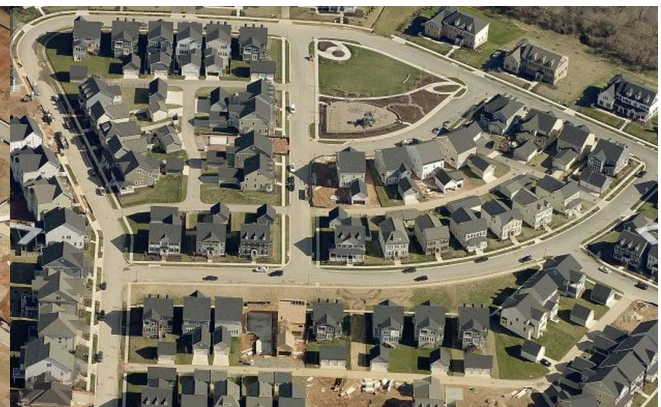
**Figure 3.9 Residential Development**



Oxford Square construction.



Verde apartments at Howard Square.



Maple Lawn section shown in 2013 (left) and 2015 (right).

## Capacities

Equitable evaluation of the impact of projected enrollment growth requires calculation of school capacities. Capacities are not necessarily fixed to the capacity designed when a building first opened. Change in uses, programs, and standards can change capacity. Capacity methodologies have been recently reviewed at all three levels. The feasibility study expresses the projected enrollment by level and by school as a function of capacity utilization. Utilization is the comparison of a facility's program capacity and its enrollment or projected future enrollment. In the Pre- and Post-Measure Tables (Section 6), the effect of considered capacity projects, feasible boundary adjustments, or regional program moves on utilization are depicted.

The example below from the 2015 Feasibility Study, illustrates how capacity is shown in these tables. Figure 3.10 shows the effect of the larger capacity of the Wilde Lake MS replacement school. The capacity columns show the number of seats, which changes from 467 to 760 in 2017 when the replacement school opened. The corresponding calculation of the percentage utilization also changes, dropping from 128.3 percent to 85.3 percent in 2017.

Figure 3.10 Capacity Chart Example

Post-Measures									
<b>Aggregate Plan</b>									
Chart reflects May 2015 Projections, Board of Education's FY 2017 Requested capacities and estimate									
	<b>Capacity</b>				<b>2016-17</b>		<b>2017-18</b>		
<b>Columbia - East</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>Proj</b>	<b>% Util.</b>	<b>Proj</b>	<b>% Util.</b>	
Lake Elkhorn MS	643	643	643	643	503	78.2	548	85.2	
Oakland Mills MS	506	506	506	506	434	85.8	438	86.6	
<b>Region MS Totals</b>	1149	1149	1149	1149	937	81.5	986	85.8	
<b>Columbia - West</b>									
Harpers Choice MS	506	506	506	506	574	113.4	595	117.6	C
Wilde Lake MS	R 467	760	760	760	599	128.3	C 648	85.3	
<b>Region MS Totals</b>	973	1266	1266	1266	1173	120.6	C 1243	98.2	

High school program capacities are a product of either 80 or 85 percent of the total number of teaching stations multiplied by 25 students. This calculation excludes special education classrooms and special use rooms. Not all teaching stations can be scheduled for every period of the school day and, therefore, special use teaching stations may not be adaptable for academic programs even if the space is available.

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.

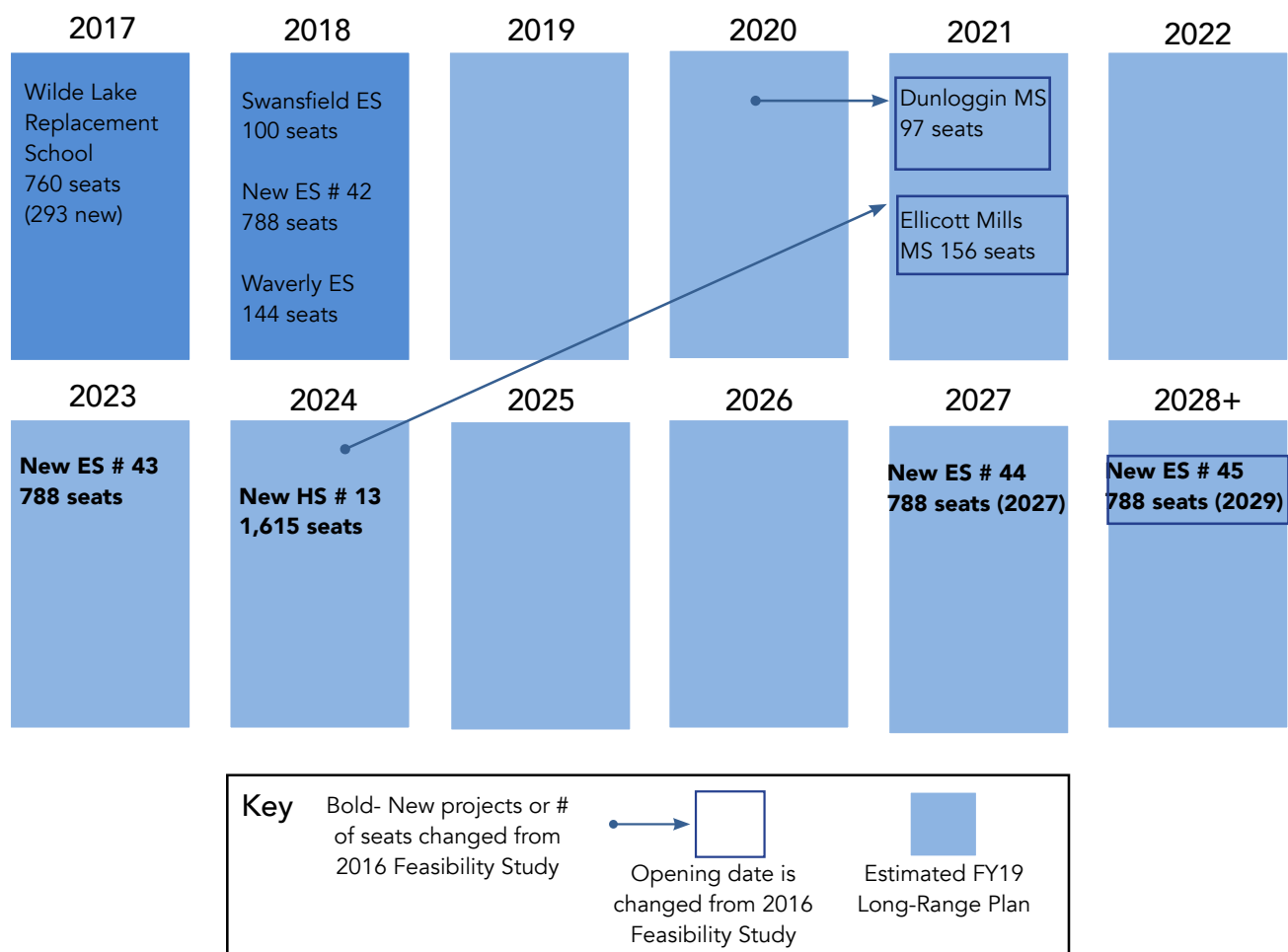
Elementary school program capacities are based on 22 students for each Kindergarten classroom, 19 students for each classroom in Grades 1 and 2, and 25 students for each classroom in Grades 3–5. Elementary school special education classroom capacities are established by the mandated student/teacher ratios 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

## Capacities

is assigned exclusively. Some examples of spaces not included in the capacity are gymnasiums, cafeteriums, art rooms, music rooms, media centers, gifted and talented rooms, or rooms dedicated to regional programs such as Regional Early Childhood Centers or Pre-K.

The FY 2019 Capital Budget will include updates to the long-range plan. Figure 3.11 below shows changes in capacity projects from the 2016 Feasibility Study to develop the 2017 Feasibility Study.

Figure 3.11 Capacity Projects



## HCPSS Facilities and Land Bank

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. This document examines utilization of the 73 elementary, middle, and high schools, and anticipates future schools.

The HCPSS maintains sites for future school construction, commonly known as the "Land Bank." Some properties are held by other parties for the future use by the Board for school construction and when needed, the Board may utilize these properties. Most existing school site reservations result from agreements made during Columbia planning and development. Howard County has aided the school system in the past through exchanges of county land where needed. Opportunities for additions to the land bank in eastern Howard County to host projects noted in Figure 3.11 on page 15 are under consideration. An elementary school site is also sought to accommodate Turf Valley development. The HCPSS is working with Howard County Government to acquire land along the Route 1 Corridor and other areas of identified growth. Figure 3.12 shows the inventory of school sites presented in the annual capital budget:

### HCPSS School Facilities

76 schools  
 41 elementary schools  
 20 middle schools  
 12 high schools  
 3 education centers

Figure 3.12 Land Bank

Owned Sites	Acreage	Location	Date Acquired	Cost
Sunny Spring Drive	10	Sunny Spring Drive	1974	\$1.00
Future MS Site	41	2865 Marriottsville Road	2007	\$1,700,000
New ES #42 Site	28 (combined)	7030 Banbury Drive	2013	\$4,200,000
Faulkner Ridge Center	9.01	Marble Faun Lane	1968	\$1.00

Figure 3.13 Reserved Sites

Reserved Sites	Acreage	Location
Clary's Forest	10	Little Patuxent 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 and Deepage Drive
Huntington	11	Vollmerhausen Road east of Murray Hill Road



Feasibility Study:  
An Annual Review of Long-Term Capital  
Planning and Attendance Area Adjustment Options

Section 4

# Needs and Strategies

Prior to examining future school boundary adjustments, it is necessary to review the implications of the new projection and identify needs and potential strategies. When school capacity utilization is outside of the acceptable range per Board Policy (90–110 percent), school boundary adjustments may be considered.

June 2017

## Elementary Schools

## Columbia East Region

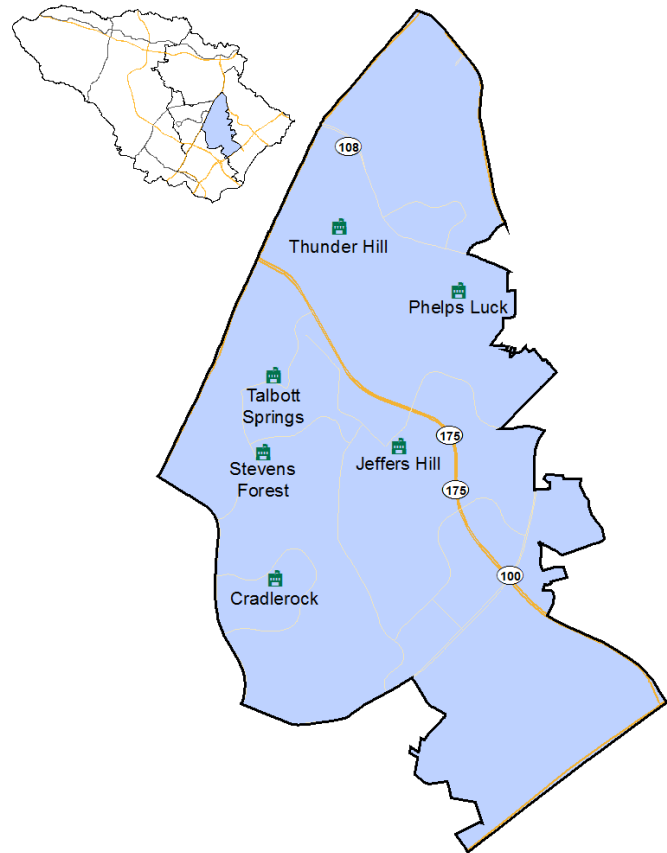
**Figure 4.1**  
Elementary schools of the Columbia East Region

**Need:**

No capacity is needed in the short term.

**Strategy:**

Continue to monitor enrollment projections in future feasibility studies. Most schools in this region will remain within target capacity utilization. Capacity increasing projects have been completed at Thunder Hill ES, Phelps Luck ES, and Stevens Forest ES. Thunder Hill ES will experience some crowding despite school boundary changes and a capacity project. Projections indicate Talbott Springs ES has some crowding. A planned renovation may be an opportunity to gain capacity depending on renovation design and funding availability. Relocatable classrooms have been installed and the enrollment will continue to be monitored. Minor adjustments within the Columbia East attendance areas are suggested to remove non-contiguous school attendance areas, balance capacity within the region and align feeds. Complete details are outlined in Section 5 of this report. Maps detailing changes can be found in Appendix C.



Expanded Pre-K options have been considered for this region. In future capital budget discussions, this concept will be monitored.

**Figure 4.1** Five Year projected utilization (excluding attendance area adjustments)

Columbia East	2017			2022		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Cradlerock ES	430	398	108.0	351	398	88.2
Jeffers Hill ES	444	421	105.5	432	421	102.6
Phelps Luck ES	586	616	95.1	664	616	107.8
Stevens Forest ES	408	399	102.3	424	399	106.3
Talbott Springs ES	447	377	118.6	436	377	115.6
Thunder Hill ES	567	509	111.4	507	509	99.6
<b>(Region ES Totals)</b>	<b>2,882</b>	<b>2,720</b>	<b>106.0</b>	<b>2,814</b>	<b>2,720</b>	<b>103.5</b>

## Elementary Schools

## Columbia West Region

Figure 4.2

Elementary schools of the Columbia West Region

**Need:**

The region is projected to have enough capacity through 2020 despite growth at Running Brook ES.

**Strategy:**

Adjust school boundaries to alleviate overcrowded conditions. Despite capacity investments within the Columbia West Region, Running Brook ES, Bryant Woods ES, and Clemens Crossing ES are expected to outgrow capacity. With the 2018 opening of the Swansfield ES addition, use of this capacity with school boundary adjustments is recommended. The staff proposed attendance area adjustments take advantage of school capacity at Swansfield ES, Clarksville ES, and Pointers Run ES. Complete details are outlined in Section 5 of this report. Maps detailing changes can be found in Appendix C.

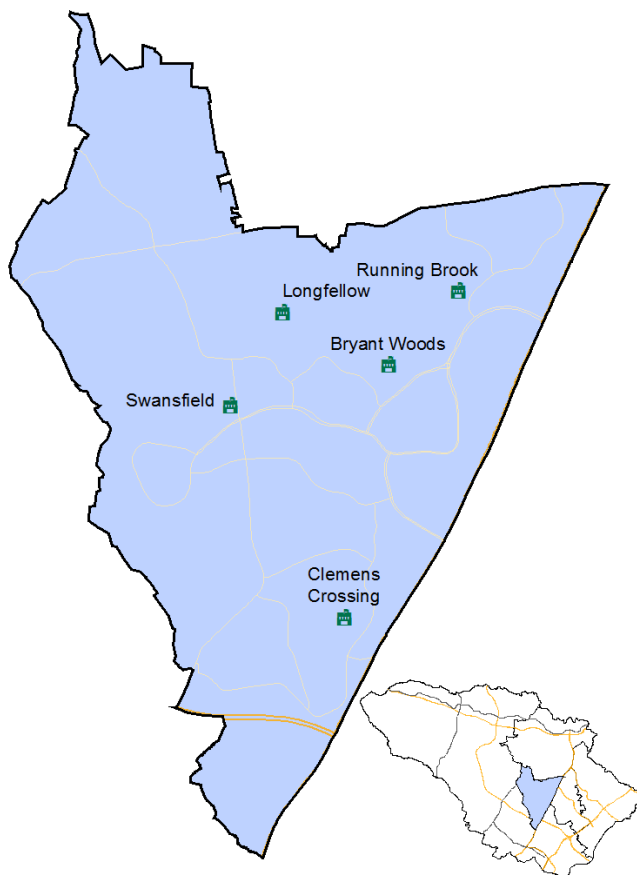


Figure 4.2 Five Year projected utilization (excluding attendance area adjustments)

Columbia West	2017			2022		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Bryant Woods ES	418	361	115.8	404	361	111.9
Clemens Crossing ES	542	521	104.0	694	521	133.2
Longfellow ES	416	512	81.3	392	512	76.6
Running Brook ES	497	515	96.5	771	515	149.7
Swansfield ES	618	521	118.6	658	621	106.0
<b>(Region ES Totals)</b>	<b>2,491</b>	<b>2,430</b>	<b>102.5</b>	<b>2,919</b>	<b>2,530</b>	<b>115.4</b>

## Elementary Schools

## Northeastern Region

**Need:**

The region is projected to have adequate capacity until 2021.

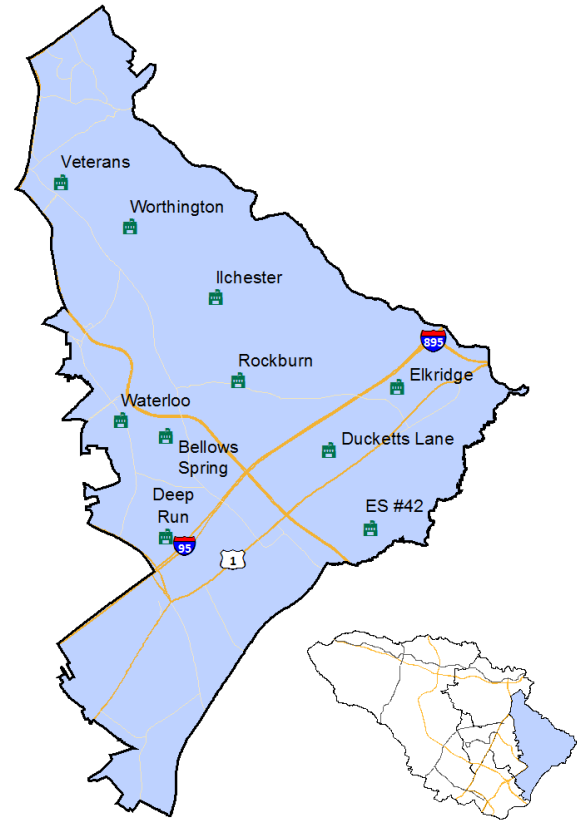
**Strategy:**

Adjust school boundaries to open ES # 42 in SY 2018–2019. Capacity utilization at Ducketts Lane ES will remain over 110 percent capacity utilization, even with the relocation of regional programs. The region will exceed 115 percent and require approximately 1,000 additional seats with crowding in subsequent years. The school boundary adjustment plan shown in Section 5 of this report is comprised of portions of Ducketts Lane ES, Rockburn ES, and Deep Run ES.

This adjustment subsequently opens capacity at Rockburn ES to relieve Bellows Spring ES. Complete details are outlined in Section 5 of this report. Maps detailing changes can be found in Appendix C.

**Figure 4.3**

Elementary schools of the Northeastern Region

**Figure 4.3** Five Year projected utilization (excluding attendance area adjustments)

Northeastern	2017			2022		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Bellows Spring ES	711	751	94.7	936	751	124.6
Deep Run ES	772	750	102.9	917	750	122.3
Ducketts Lane ES	867	770	112.6	1,589	770	206.4
Elkridge ES	826	760	108.7	739	760	97.2
Ilchester ES	604	653	92.5	546	653	83.6
Rockburn ES	677	653	103.7	767	653	117.5
Veterans ES	872	821	106.2	886	821	107.9
Waterloo ES	555	663	83.7	552	663	83.3
Worthington ES	500	590	84.7	408	590	69.2
<b>(Region ES Totals)</b>	<b>6,384</b>	<b>6,411</b>	<b>99.6</b>	<b>7,340</b>	<b>6,411</b>	<b>114.5</b>

## Elementary Schools

## Northern Region

**Need:**

The region is currently over 110 percent capacity utilization with enrollment growth projected at four (4) out of six (6) schools.

**Strategy:**

Adjust school boundaries to alleviate overcrowding at Manor Woods ES and continue planning for new capacity in the Turf Valley area. Growth at Centennial Lane ES, Hollifield Station ES, Manor Woods ES, and St. John's Lane ES is projected to continue. With the 2018 opening of the Waverly ES Phase II addition, this capital improvement can provide interim relief; however, as other Northern region schools are renovated in future capital budgets and land is acquired, consideration should be given to additional capacity.

Measures to manage the anticipated growth includes school boundary adjustments to take advantage of the available seats at Bushy Park ES, Clarksville ES, Dayton Oaks ES, Triadelphia Ridge ES, and West Friendship ES. Student enrollment at Turf Valley, and within the entirety of the northern region, will continue to rise despite the capital investments that are to be completed in 2018. It remains a sound practice to land bank sites in the area, particularly a site in Turf Valley. Complete details are outlined in Section 5 of this report. Maps detailing changes can be found in Appendix C.

Figure 4.4

## Elementary schools of the Northern Region

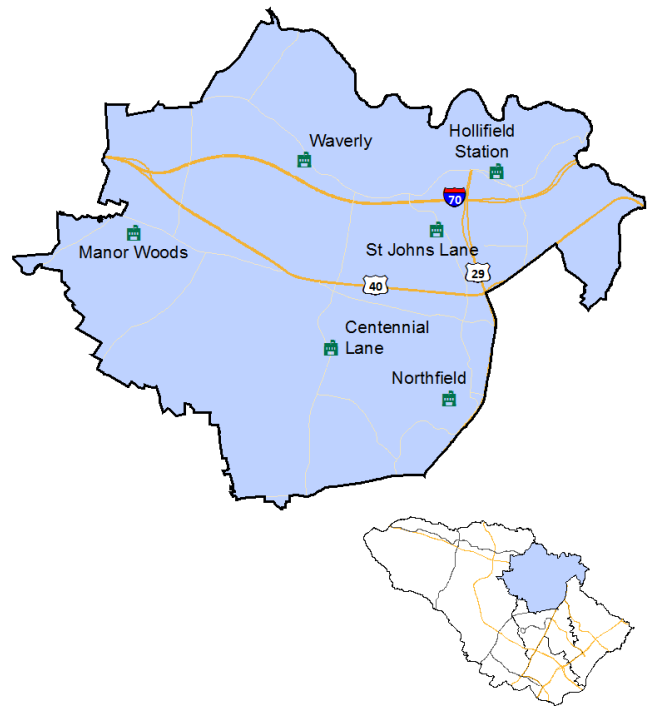


Figure 4.4 Five Year projected utilization (excluding attendance area adjustments)

Northern	2017			2022		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Centennial Lane ES	745	647	115.1	741	647	114.5
Hollifield Station ES	783	694	112.8	827	694	119.2
Manor Woods ES	798	681	117.2	1,249	681	183.4
Northfield ES	730	700	104.3	750	700	107.1
St John's Lane ES	690	612	112.7	762	612	124.5
Waverly ES	684	638	107.2	611	738	82.8
<b>(Region ES Totals)</b>	<b>4,430</b>	<b>3,972</b>	<b>111.5</b>	<b>4,940</b>	<b>4,072</b>	<b>121.3</b>

## Elementary Schools

## Southeastern Region

**Need:**

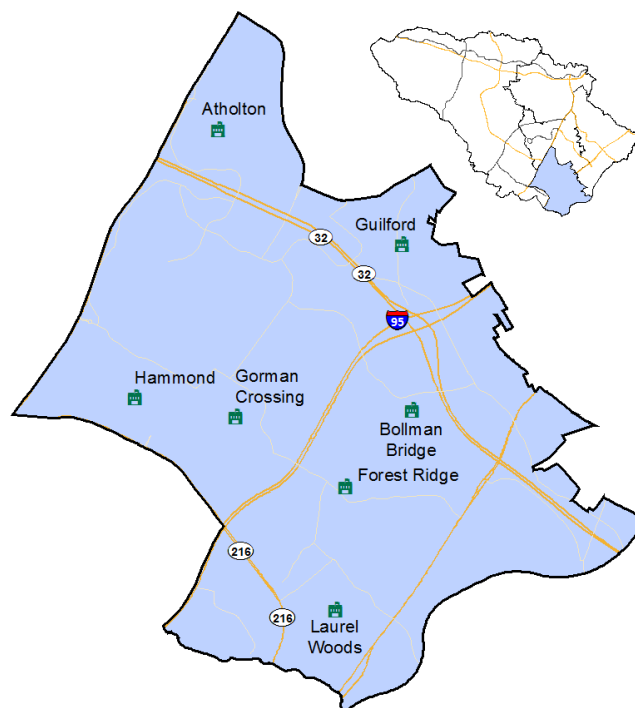
Future enrollment growth is projected.

**Strategy:**

Schools within this region are primarily projected to be below 110 percent capacity utilization at the start of the 2017 school year, and will steadily continue to grow. School boundary adjustments are suggested to balance capacity utilization within the region. The projected student population along the Route 1 Corridor continues to support the need for additional seats between the Northeastern and Southeastern regions. A new school is currently proposed for 2023. Complete details are outlined in Section 5 of this report. Maps detailing changes can be found in Appendix C.

**Figure 4.5**

Elementary schools of the Southeastern Region



**Figure 4.5** Five Year projected utilization (excluding attendance area adjustments)

Southeastern	2017			2022		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Atholton ES	458	424	108.0	418	424	98.6
Bollman Bridge ES	709	666	106.5	761	666	114.3
Forest Ridge ES	719	713	100.8	813	713	114.0
Gorman Crossing ES	700	735	95.2	839	735	114.1
Guilford ES	436	465	93.8	414	465	89.0
Hammond ES	644	653	98.6	705	653	108.0
Laurel Woods ES	547	640	85.5	469	640	73.3
<b>(Region ES Totals)</b>	<b>4,213</b>	<b>4,296</b>	<b>98.1</b>	<b>4,419</b>	<b>4,296</b>	<b>102.9</b>

## Elementary Schools

## Western Region

**Need:**

Capacity is available, which could be used to relieve other regions. Fulton ES is projected to be over 110 percent capacity utilization and continue to grow into the foreseeable future.

**Strategy:**

Adjust school boundaries to alleviate overcrowded conditions in Northern and Columbia West areas. Complete details are outlined in Section 5 of this report. Maps detailing changes can be found in Appendix C.

Figure 4.6

Elementary schools of the Western Region

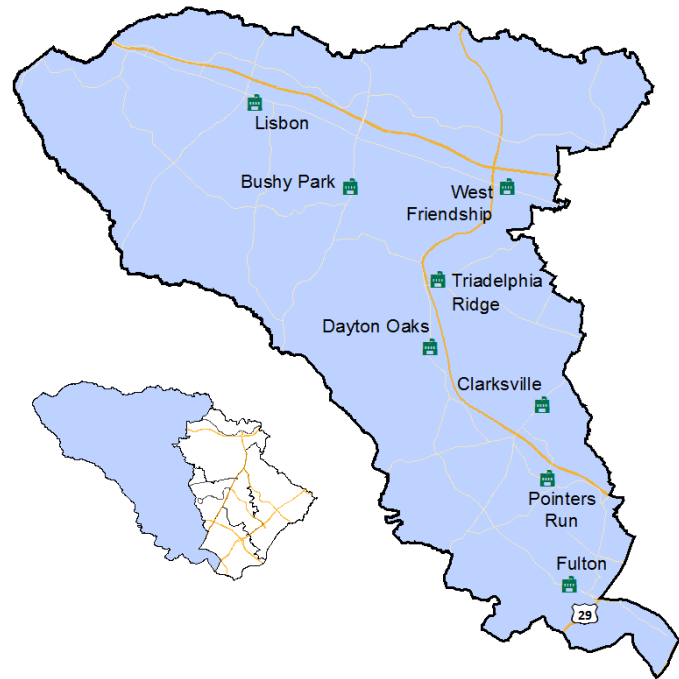


Figure 4.6 Five Year projected utilization (excluding attendance area adjustments)

Western	2017			2022		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Bushy Park ES	599	788	76.0	499	788	63.3
Clarksville ES	428	612	69.9	429	612	70.1
Dayton Oaks ES	611	788	77.5	582	788	73.9
Fulton ES	871	788	110.5	1,111	788	141.0
Lisbon ES	438	527	83.1	417	527	79.1
Pointers Run ES	704	744	94.6	795	744	106.9
Triadelphia Ridge ES	550	581	94.7	578	581	99.5
West Friendship ES	336	414	81.2	370	414	89.4
<b>(Region ES Totals)</b>	<b>4,537</b>	<b>5,242</b>	<b>86.6</b>	<b>4,781</b>	<b>5,242</b>	<b>91.2</b>

## Middle Schools

## Columbia East Region

**Need:**

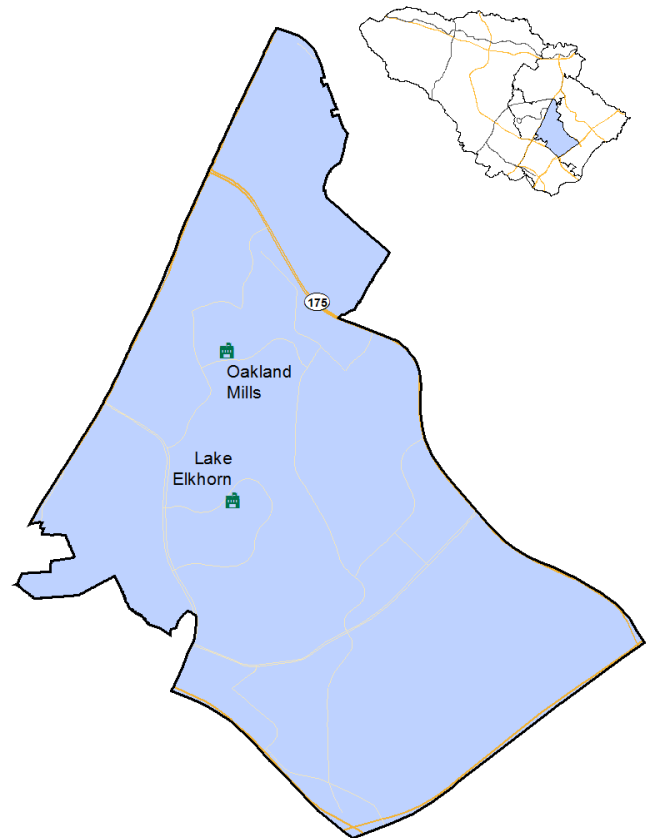
Some capacity exists in this region.

**Figure 4.7**

**Middle schools of the Columbia East Region**

**Strategy:**

Monitor long-term needs. Some capacity exists at Lake Elkhorn MS that could be used to fix a small feed of students who attend Thomas Viaduct MS. This move will relieve projected crowding at Thomas Viaduct MS, and create a complete feed of elementary students from Guilford ES. Complete details are outlined in Section 5 of this report. Maps detailing changes can be found in Appendix C.



**Figure 4.7** Five Year projected utilization (excluding attendance area adjustments)

Columbia East	2017			2022		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Lake Elkhorn MS	564	643	87.7	591	643	91.9
Oakland Mills MS	464	506	91.7	495	506	97.8
<b>(Region MS Totals)</b>	<b>1,028</b>	<b>1,149</b>	<b>89.5</b>	<b>1,086</b>	<b>1,149</b>	<b>94.5</b>



## Middle Schools

## Columbia West Region

**Need:**

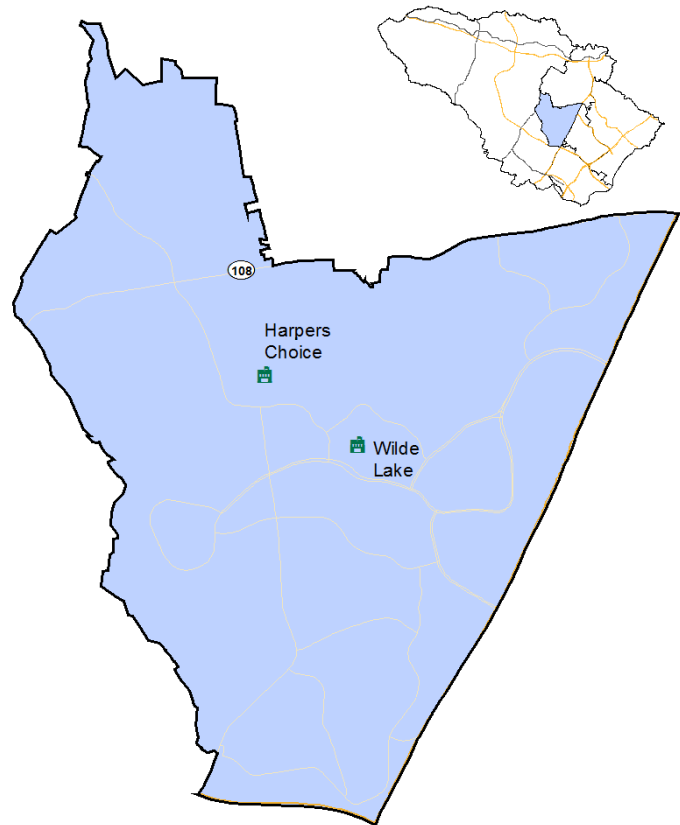
Some capacity exists in the region.

**Strategy:**

With the addition of 293 new seats in 2017, this region will remain within target utilization for the foreseeable future based on the current projection. With proposed elementary school attendance area adjustments, that balance projected utilization in Downtown Columbia, the comprehensive attendance area adjustments realign feeds and balance utilization at Harper's Choice MS by using some available capacity at Wilde Lake MS. Complete details are outlined in Section 5 of this report. Maps detailing changes can be found in Appendix C.

**Figure 4.8**

Middle schools of the Columbia West Region

**Figure 4.8** Five Year projected utilization (excluding attendance area adjustments)

Columbia West	2017			2022		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Harpers Choice MS	563	506	111.3	562	506	111.1
Wilde Lake MS	619	760	81.4	705	760	92.8
<b>(Region MS Totals)</b>	<b>1,182</b>	<b>1,266</b>	<b>93.4</b>	<b>1,267</b>	<b>1,266</b>	<b>100.1</b>

## Middle Schools

## Northeastern Region

Figure 4.9

Middle schools of the Northeastern Region

**Need:**

Enrollment growth continues in the region.

**Strategy:**

Projected crowding at Thomas Viaduct and Ellicott Mills MS will be monitored. Although the opening of Thomas Viaduct MS relieved overcrowding in most northeastern schools, it did not relieve Ellicott Mills MS. The FY 2018 Capital Improvement Plan shows that Ellicott Mills MS is slated for a 156-seat addition in 2024; however, funding remains uncertain. With the opening of ES #42, adjustments to middle schools are suggested to balance projected enrollment utilization and align feeds throughout the middle school Northeastern Region. Although attendance area adjustments are proposed for the region, a need for seats at Ellicott Mills MS remains a priority and adjusting the schedule to open the addition in 2021 is a recommendation outlined in this document.

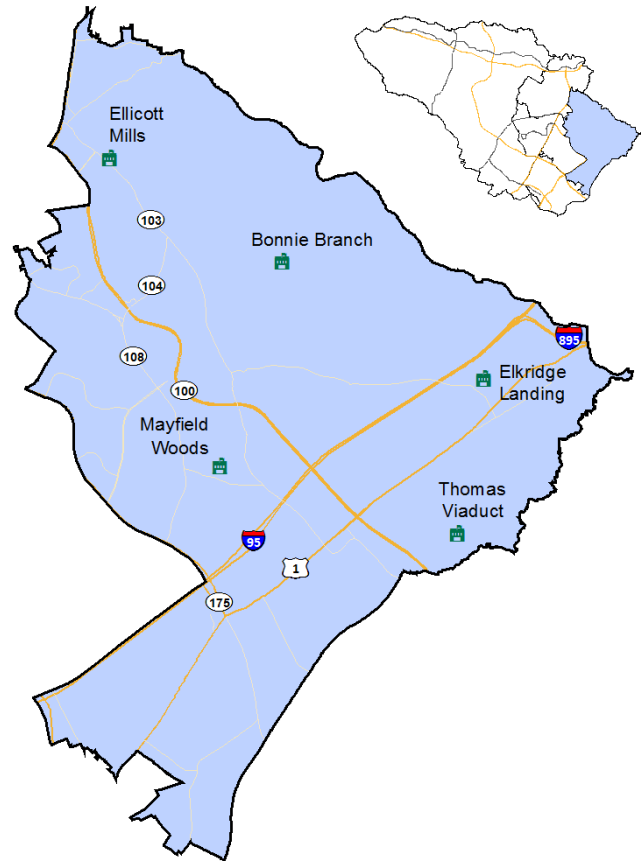


Figure 4.9 Five Year projected utilization (excluding attendance area adjustments)

Northeastern	2017			2022		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Bonnie Branch MS	721	662	108.9	681	662	102.9
Elkrige Landing MS	704	779	90.4	734	779	94.2
Ellicott Mills MS	890	701	127.0	857	701	122.3
Mayfield Woods MS	711	798	89.1	843	798	105.6
Thomas Viaduct MS	645	701	92.0	877	701	125.1
<b>(Region MS Totals)</b>	<b>3,671</b>	<b>3,641</b>	<b>100.8</b>	<b>3,992</b>	<b>3,641</b>	<b>109.6</b>

## Middle Schools

## Northern Region

**Need:**

Enrollment needs exceeds 110 percent capacity in 2020.

**Strategy:**

Monitor long-term needs. In 2020 and beyond, the Northern Region is projected to be above the 110 percent capacity utilization guideline. Dunloggin MS and Patapsco MS are scheduled for systemic renovations in the next few years.

Additional capacity should be considered as part of these renovations or the use of temporary capacity may be needed. When continued growth in the adjacent Northeastern Region is factored in with the needs of this region, the land bank site on Marriottsville Road will probably be needed to serve as a future middle school.

Figure 4.10

Middle schools of the Northern Region

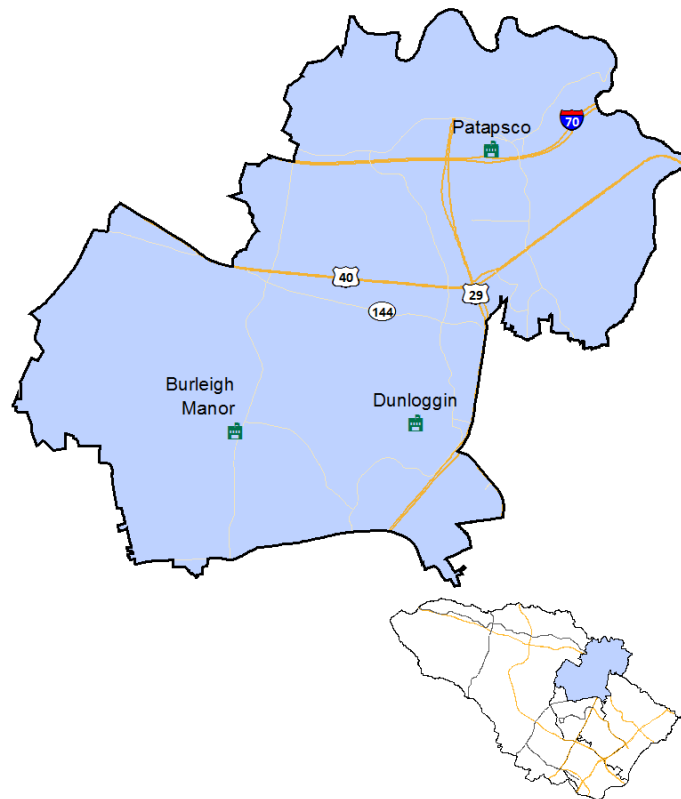


Figure 4.10 Five Year projected utilization (excluding attendance area adjustments)

Northern	2017			2022		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Burleigh Manor MS	795	779	102.1	865	779	111.0
Dunloggin MS	614	565	108.7	711	662	107.4
Patapsco MS	710	643	110.4	764	643	118.8
<b>(Region MS Totals)</b>	<b>2,119</b>	<b>1,987</b>	<b>106.6</b>	<b>2,340</b>	<b>2,084</b>	<b>112.3</b>

## Middle Schools

## Southeastern Region

**Need:**

Enrollment growth is evident in the region.

**Strategy:**

Long-term growth trends in this region should be monitored. Murray Hill MS is projected to exceed 110 percent capacity utilization in 2019. Relocatables are available, which would manage crowding in this region. Some capacity is available at Patuxent Valley MS; however, enrollment in the region will continue to gradually rise for the foreseeable future. Projected needs beyond this time period will be monitored. A proposed realignment of middle school feed could help in balancing projected population growth. Complete details are outlined in Section 5 of this report. Maps detailing changes can be found in Appendix C.

Figure 4.11

Middle schools of the Southeastern Region

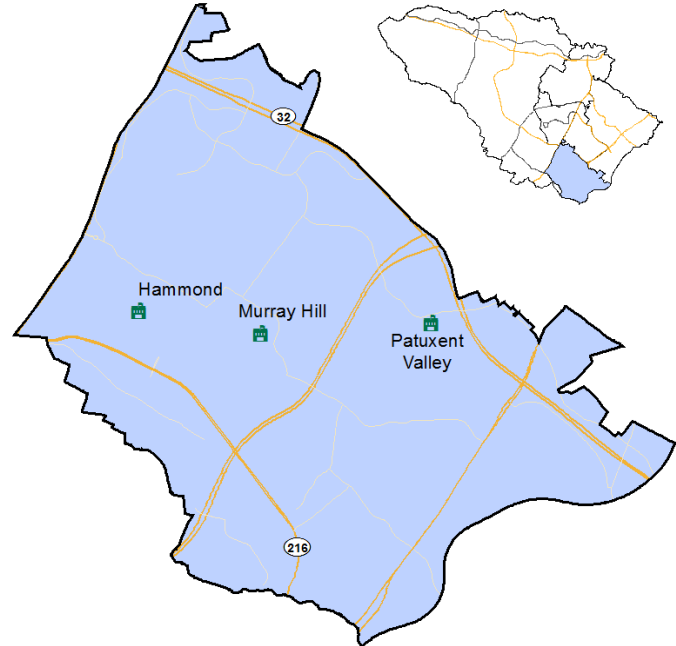


Figure 4.11 Five Year projected utilization (excluding attendance area adjustments)

Southeastern	2017			2022		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Hammond MS	552	604	91.4	661	604	109.4
Murray Hill MS	669	662	101.1	754	662	113.9
Patuxent Valley MS	627	760	82.5	649	760	85.4
<b>(Region MS Totals)</b>	<b>1,848</b>	<b>2,026</b>	<b>91.2</b>	<b>2,064</b>	<b>2,026</b>	<b>101.9</b>

## Middle Schools

## Western Region

**Need:**

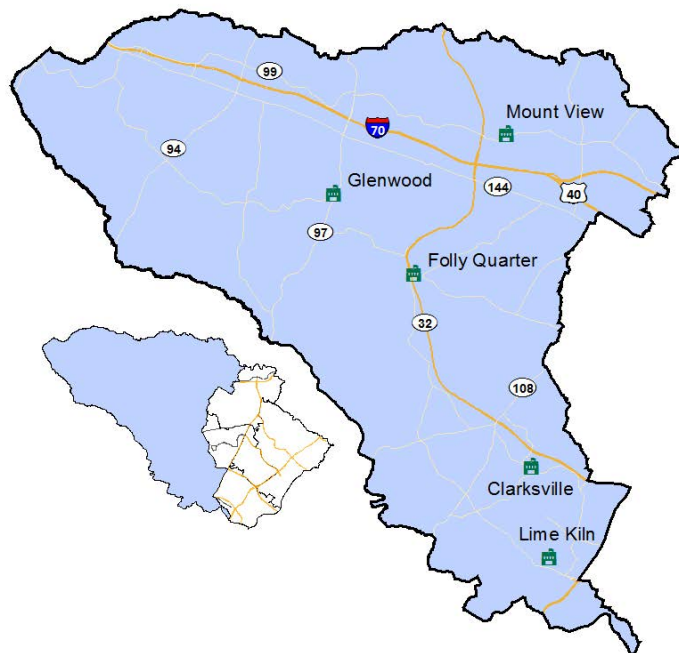
Some capacity exists in this region.

**Strategy:**

Monitor long-term needs. Lime Kiln MS and Mount View MS are projected to exceed 110 percent utilization in 2019 and 2021, respectively. Capacity utilization in the region remains within targets throughout the projection. School boundary adjustments are proposed for Lime Kiln MS, Folly Quarter MS and Mount View MS, which will align feeds with proposed elementary and high school level attendance area adjustments. Complete details are outlined in Section 5 of this report. Maps detailing changes can be found in Appendix C.

**Figure 4.12**

Middle schools of the Western Region

**Figure 4.12** Five Year projected utilization (excluding attendance area adjustments)

Western	2017			2022		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Clarksville MS	528	643	82.1	477	643	74.2
Folly Quarter MS	636	662	96.1	616	662	93.1
Glenwood MS	526	545	96.5	502	545	92.1
Lime Kiln MS	730	701	104.1	829	701	118.3
Mount View MS	811	798	101.6	906	798	113.5
<b>(Region MS Totals)</b>	<b>3,231</b>	<b>3,349</b>	<b>96.5</b>	<b>3,330</b>	<b>3,349</b>	<b>99.4</b>

## High Schools

## Columbia East Region

**Need:**

Some capacity exists in this region. Monitor projections.

**Strategy:**

Oakland Mills HS serves the Columbia East Region. Attendance area adjustments are proposed to accommodate growth in the Northeastern Region, which includes Long Reach HS and Howard HS. Complete details are outlined in Section 5 of this report. Maps detailing changes can be found in Appendix C. Projected needs beyond this time period will be monitored.

Figure 4.13

High school of the Columbia East Region

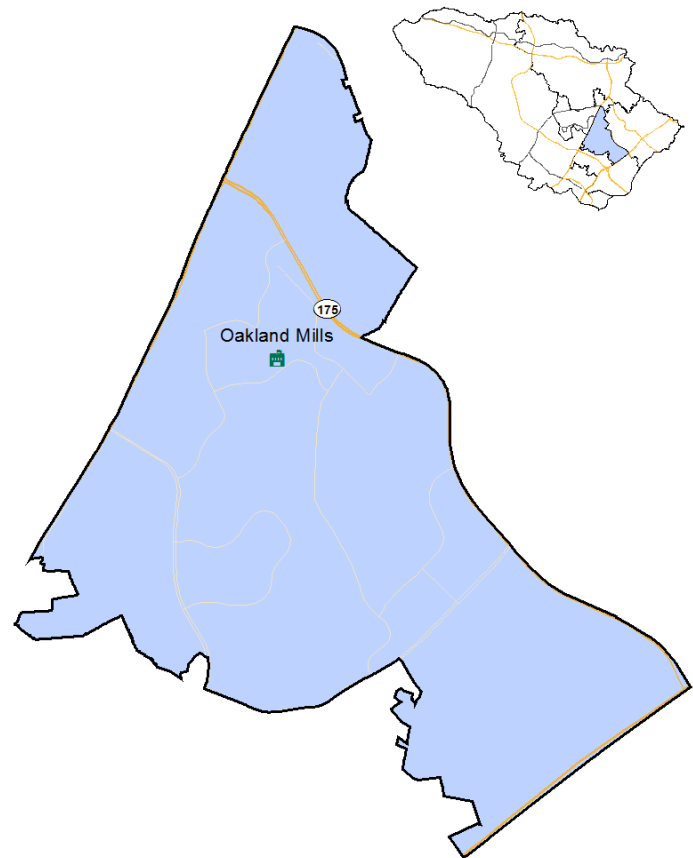


Figure 4.13 Five Year projected utilization (excluding attendance area adjustments)

Columbia East	2017			2022		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Oakland Mills HS	1,176	1,400	84.0	1,354	1,400	96.7

## High Schools

## Columbia West Region

**Need:**

Monitor projections.

**Strategy:**

Wilde Lake HS serves the Columbia West Region. The projection for this school remains between 90 percent and 110 percent utilization until 2027. This projection models the effects of the Columbia Town Center development. Projected needs beyond this time period will be monitored.

Figure 4.14

High school of the Columbia West Region

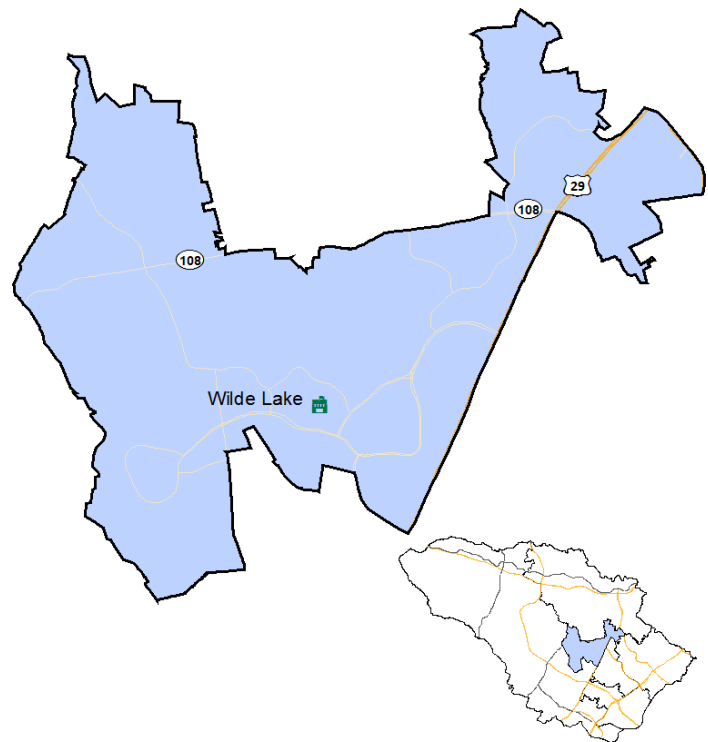


Figure 4.14 Five Year projected utilization (excluding attendance area adjustments)

Columbia West	2017			2022		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Wilde Lake HS	1,298	1,424	91.2	1,442	1,424	101.3

## High Schools

## Northeastern Region

**Need:**

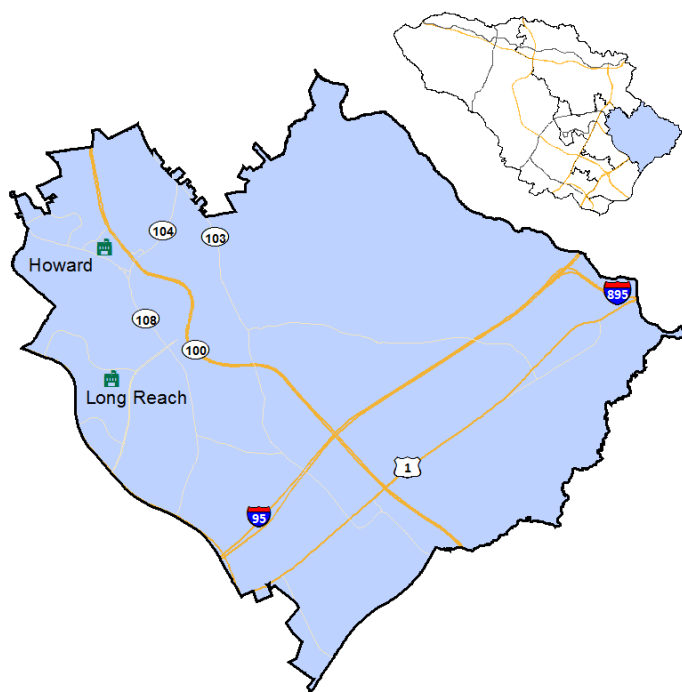
Significant enrollment growth is projected. Available capacity in this region is not sufficient to absorb long-term projected enrollment growth.

**Strategy:**

Evaluate capital-planning options, including additions, acquisition of a future school site, and school boundary adjustments.

Howard HS and Long Reach HS serve the Northeastern Region and both exceed 110 percent utilization in 2017. Howard HS is projected to exceed 120 percent capacity utilization in 2017 and continues to be projected to grow with this projection. Long Reach HS is projected to exceed 120 percent utilization in 2019 and similar to Howard HS, is projected to grow. Additions to temporary capacity occurred at both high schools. Projections for the Northeastern and Southeastern regions indicate the need for a thirteenth high school and acquisition of a suitable site large enough to build a high school is necessary despite recommended school boundary adjustments.

Complete details are outlined in Section 5 of this report. Maps detailing changes can be found in Appendix C. Projected needs beyond this time period will be monitored.

**Figure 4.15****High schools of the Northeastern Region****Figure 4.15** Five Year projected utilization (excluding attendance area adjustments)

Northeastern	2017			2022		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Howard HS	1,942	1,420	136.8	2,057	1,420	144.9
Long Reach HS	1,663	1,488	111.8	2,079	1,488	139.7
<b>(Region HS Totals)</b>	<b>3,605</b>	<b>2,908</b>	<b>124.0</b>	<b>4,136</b>	<b>2,908</b>	<b>142.2</b>



## High Schools

## Northern Region

**Need:**

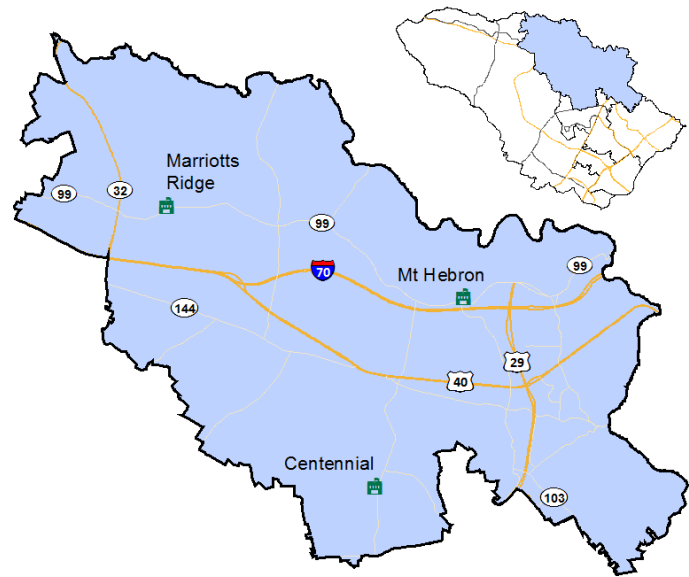
Some capacity is available in the region.

**Strategy:**

Monitor long-term needs. Centennial HS, Marriotts Ridge HS and Mt. Hebron HS serve the northern area. The Northern Region is projected to exceed 110 percent utilization in 2020. Capacity remains at Marriotts Ridge HS for this region and school boundary adjustments are recommended to relieve Centennial HS and Mt. Hebron HS. Complete details are outlined in Section 5 of this report. Maps detailing changes can be found in Appendix C. Projected needs beyond this time period will be monitored.

**Figure 4.16**

High schools of the Northern Region

**Figure 4.16** Five Year projected utilization (excluding attendance area adjustments)

Northern	2017			2022		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Centennial HS	1,609	1,360	118.3	1,850	1,360	136.0
Marriotts Ridge HS	1,296	1,615	80.2	1,502	1,615	93.0
Mt Hebron HS	1,573	1,400	112.4	1,709	1,400	122.1
<b>(Region HS Totals)</b>	<b>4,478</b>	<b>4,375</b>	<b>102.4</b>	<b>5,061</b>	<b>4,375</b>	<b>115.7</b>

High Schools

Southeastern Region

**Need:**  
The Southeastern Region exceeds 110 percent capacity utilization in 2018 and steadily increases later in the projection.

**Strategy:**  
Some capacity may be realized through boundary adjustments; however, long-term projections for the Northeastern and Southeastern regions indicate the need for a thirteenth high school. Acquisition of a suitable site large enough to build a high school is necessary. Complete details are outlined in Section 5 of this report. Maps detailing changes can be found in Appendix C. Projected needs beyond this time period will be monitored.

Figure 4.17  
High schools of the Southeastern Region



Figure 4.17     Five Year projected utilization (excluding attendance area adjustments)

Southeastern	2017			2022		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Hammond HS	1,332	1,220	109.2	1,423	1,220	116.6

## High Schools

## Western Region

**Need:**

Some capacity exists.

**Strategy:**

Monitor long-term needs. The Western Region does not exceed 110 percent capacity utilization until 2028. Reservoir HS and Atholton HS should be monitored because this projection indicates these schools will exceed 110 percent utilization in 2020 and 2023, respectively. Atholton HS is proposed for school boundary adjustments to utilize Western capacity to relieve overcrowded conditions in school attendance areas in the Northeastern and Southeastern regions. Complete details are outlined in Section 5 of this report. Maps detailing changes can be found in Appendix C. Projected needs beyond this time period will be monitored.

Figure 4.18

High schools of the Western Region

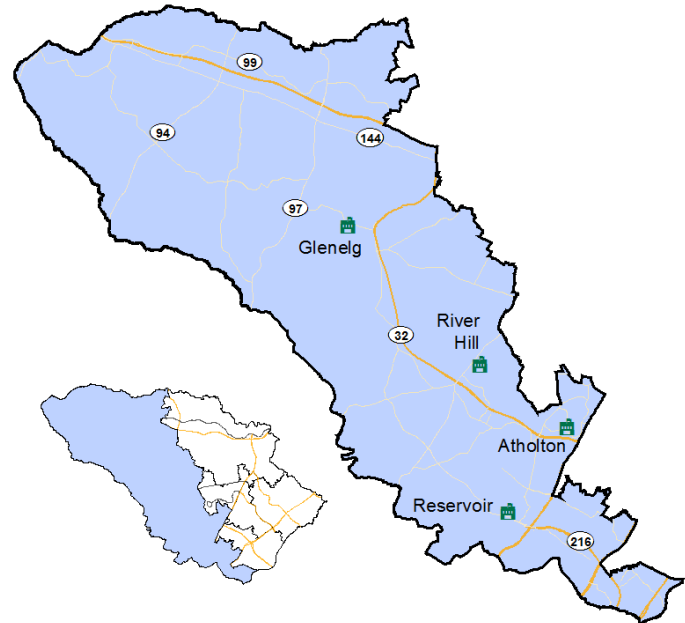


Figure 4.18 Five Year projected utilization (excluding attendance area adjustments)

Western	2017			2022		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Atholton HS	1,471	1,460	100.8	1,588	1,460	108.8
Glenelg HS	1,141	1,420	80.4	1,155	1,420	81.3
Reservoir HS	1,514	1,551	97.6	1,797	1,551	115.9
River Hill HS	1,220	1,488	82.0	1,158	1,488	77.8
<b>(Region HS Totals)</b>	<b>5,346</b>	<b>5,919</b>	<b>90.3</b>	<b>5,698</b>	<b>5,919</b>	<b>96.3</b>



Feasibility Study:  
An Annual Review of Long-Term Capital  
Planning and Attendance Area Adjustment Options

Section 5

# Foreseeable Attendance Area Adjustments

This report does not recommend any adjustments to attendance areas until 2018 when adjustments are needed to open ES # 42. The process would be conducted between June and November 2017 and take effect at the beginning of the 2018 school year.

June 2017

## Foreseeable Attendance Area Adjustments Summary

### Adjustments School Attendance Areas

The proposed staff plan is a comprehensive attendance area adjustment at the elementary, middle and high school levels. This plan serves multiple goals, including the opening of ES #42, balancing capacity utilization across HCPSS at all educational levels and improving feeds at the middle and high school levels. The approximate number of projected students moved is 8,800 for the 2018 school year, which is 15.6 percent of the total projected student enrollment.

Adjustments planned at the high school level utilize the available western capacity to serve the projected student enrollment at Atholton HS, Centennial HS, Hammond HS, Howard HS, Long Reach HS, and Mt. Hebron HS and to align high school feeds from the middle school level. Figure 5.3, identifies the result of the proposed boundary adjustments. Atholton HS and Marriotts Ridge HS are affected in order to better access western capacity at Glenelg HS, Marriotts Ridge HS and River Hill HS. Per Policy 6010 School Attendance Areas, rising 12th graders will not be affected by changes in attendance areas. While the capacity exists to balance all schools countywide, the challenge has been that the capacity and enrollment growth do not share the same geography. In other words, to use existing western capacity, a movement of students through school attendance areas needs to occur and presents a challenge. Historically, high school attendance areas were adjusted with the opening of schools and was phased (rising ninth and tenth graders were reassigned first). The Northeastern region comprised of Howard HS and Long Reach HS continues to have the highest enrollment growth and exceeds the 110 percent capacity utilization in 2017. Projected enrollment growth at Centennial HS and Mt Hebron HS will be above 110 percent utilization in 2017 as well and continues to grow.

Per Policy 6010 School Attendance Areas, rising twelfth graders will not be affected by changes in attendance areas. The Board may also choose to allow rising eleventh graders to remain at their schools. Depending on the Board's action, the full changes in attendance areas may not be realized for up to three years as the rising 11th and 12th graders finish at their original schools. If trailing siblings are included (those younger students who will "share" one year with a rising senior), the phasing could take up to six years. Any considerations of student reassignments through attendance area adjustments may be phased, according to Policy 6010. The recommendations in this document do not include phasing-in rising 11th graders, or allowing trailing siblings.

The proposed middle school attendance areas prioritize two factors when considering boundary adjustments: aligning feeds (from the elementary school level) and balancing capacity utilization. Unlike the elementary or high school levels, there is no available Western capacity. The recommended boundary adjustments take advantage of existing capacity to balance utilization for the majority of the attendance areas Figure 5.2 identifies specific staff recommendations.

Adjustments at the elementary level are designed to create a new attendance area for New ES #42 and adjust attendance areas of the following elementary school regions: Northern, Western, Columbia West, Northeastern and Southeastern to relieve overcrowded conditions due to student population growth. New ES #42 has a modified elementary educational specification of 788 seats plus additional rooms for a prekindergarten program. Additionally, proposed boundary adjustments take advantage of Western Region capacity and new capacity at Waverly ES and Swansfield ES to relieve Manor Woods ES, Running Brook ES, Clemens Crossing ES, and Bryant Woods ES. Figure 5.1 identifies the staff recommendation. This plan cannot reasonably address projected population growth at Centennial Lane ES, nor Fulton ES, although scenarios were modeled and studied.

## Proposed Changes

Figure 5.1 Proposed Elementary School Proposed Adjustments

Sending	Receiving	Appx. # of Students	Polygons Proposed for Movement
Bellows Spring ES	Ducketts Lane ES	0	1082
Bellows Spring ES	New ES #42	131	3035
Bellows Spring ES	Rockburn ES	156	83, 298, 1083
Bellows Spring ES	Waterloo ES	82	1076
Bollman Bridge ES	Forest Ridge ES	96	260, 1260
Bryant Woods ES	Clemens Crossing ES	133	133, 1133, 4133, 5133
Bryant Woods ES	Longfellow ES	140	268, 1268, 2268
Clarksville ES	Triadelphia Ridge ES	42	185, 1176, 1185
Clemens Crossing ES	Pointers Run ES	196	127, 130, 1130
Clemens Crossing ES	Swansfield ES	16	1066, 2134
Cradlerock ES	Stevens Forest ES	60	55, 139, 2139
Dayton Oaks ES	Triadelphia Ridge ES	39	200, 1200
Deep Run ES	Bellows Spring ES	212	78, 79, 80, 1079, 1080
Deep Run ES	New ES #42	100	30, 1030, 2030
Ducketts Lane ES	Deep Run ES	122	33
Ducketts Lane ES	New ES #42	262	35, 1035, 1036, 2035, 4035
Forest Ridge ES	Laurel Woods ES	132	1, 12, 116, 1001, 1116
Hollifield Station ES	Veterans ES	110	105, 1105, 1308
Manor Woods ES	Triadelphia Ridge ES	59	178, 179, 1178
Manor Woods ES	Waverly ES	81	164, 305, 1164, 1305
Manor Woods ES	West Friendship ES	104	304, 1304
Northfield ES	Running Brook ES	60	148, 276
Pointers Run ES	Clarksville ES	160	64, 129, 295, 1064, 1129
Pointers Run ES	Dayton Oaks ES	38	118, 189, 1192
Rockburn ES	Ilchester ES	62	91, 3091
Rockburn ES	New ES #42	192	32, 1032
Running Brook ES	Bryant Woods ES	168	136, 204, 1136, 1204, 2133, 2136, 3133, 3136, 4136
St. John's Lane ES	Hollifield Station ES	74	72
St. John's Lane ES	Waverly ES	115	159, 1159
Stevens Forest ES	Talbott Springs ES	186	96, 1110
Talbott Springs ES	Cradlerock ES	70	52, 279
Talbott Springs ES	Guilford ES	46	51, 1051, 2051
Talbott Springs ES	Stevens Forest ES	121	59, 1059, 2059, 3059
Triadelphia Ridge ES	Bushy Park ES	101	210, 218, 1210, 1218, 1222, 2210
Triadelphia Ridge ES	Dayton Oaks ES	36	209
Veterans ES	Worthington ES	80	101, 102, 217
Waverly ES	St. John's Lane ES	106	162, 1162, 2161
Waverly ES	West Friendship ES	1	4169
West Friendship ES	Bushy Park ES	129	224, 229, 231, 232, 1229, 1231, 2229
<b>Total</b>		<b>4,018</b>	

Foreseeable Attendance Area Adjustments

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## Proposed Changes

Figure 5.2 Proposed Middle School Proposed Adjustments

Sending	Receiving	Appx. # of Students	Polygons Proposed for Movement
Bonnie Branch MS	Ellicott Mills MS	0	1074
Bonnie Branch MS	Lake Elkhorn MS	14	261, 1261
Burleigh Manor MS	Mount View MS	29	164, 1164
Clarksville MS	Folly Quarter MS	28	185, 1185
Clarksville MS	Lime Kiln MS	0	189
Dunloggin MS	Oakland Mills MS	25	111, 1111, 2111
Dunloggin MS	Patapsco MS	50	105, 1105, 1308
Dunloggin MS	Wilde Lake MS	24	148, 276
Ellicott Mills MS	Bonnie Branch MS	53	2093, 3093, 4093
Ellicott Mills MS	Dunloggin MS	83	103, 1103
Folly Quarter MS	Glenwood MS	31	220, 1220, 2220
Harper's Choice MS	Wilde Lake MS	70	66, 134, 143, 144, 1134, 1144
Lake Elkhorn MS	Oakland Mills MS	35	55, 139, 2139
Lime Kiln MS	Clarksville MS	123	117, 120, 127, 296, 1117, 1120, 1296
Mayfield Woods MS	Elkridge Landing MS	71	83, 298, 1083
Mayfield Woods MS	Ellicott Mills MS	7	277
Mount View MS	Folly Quarter MS	95	170, 178, 179, 1170, 1178, 1179, 2170
Murray Hill MS	Patuxent Valley MS	69	3012
Oakland Mills MS	Lake Elkhorn MS	49	56, 1056, 2056, 3056
Patapsco MS	Mount View MS	77	159, 160, 1159, 1160
Thomas Viaduct MS	Lake Elkhorn MS	61	26, 27, 1026, 1027
Thomas Viaduct MS	Mayfield Woods MS	49	82, 2082
Wilde Lake MS	Clarksville MS	33	130, 1130
<b>Total</b>		<b>1,076</b>	

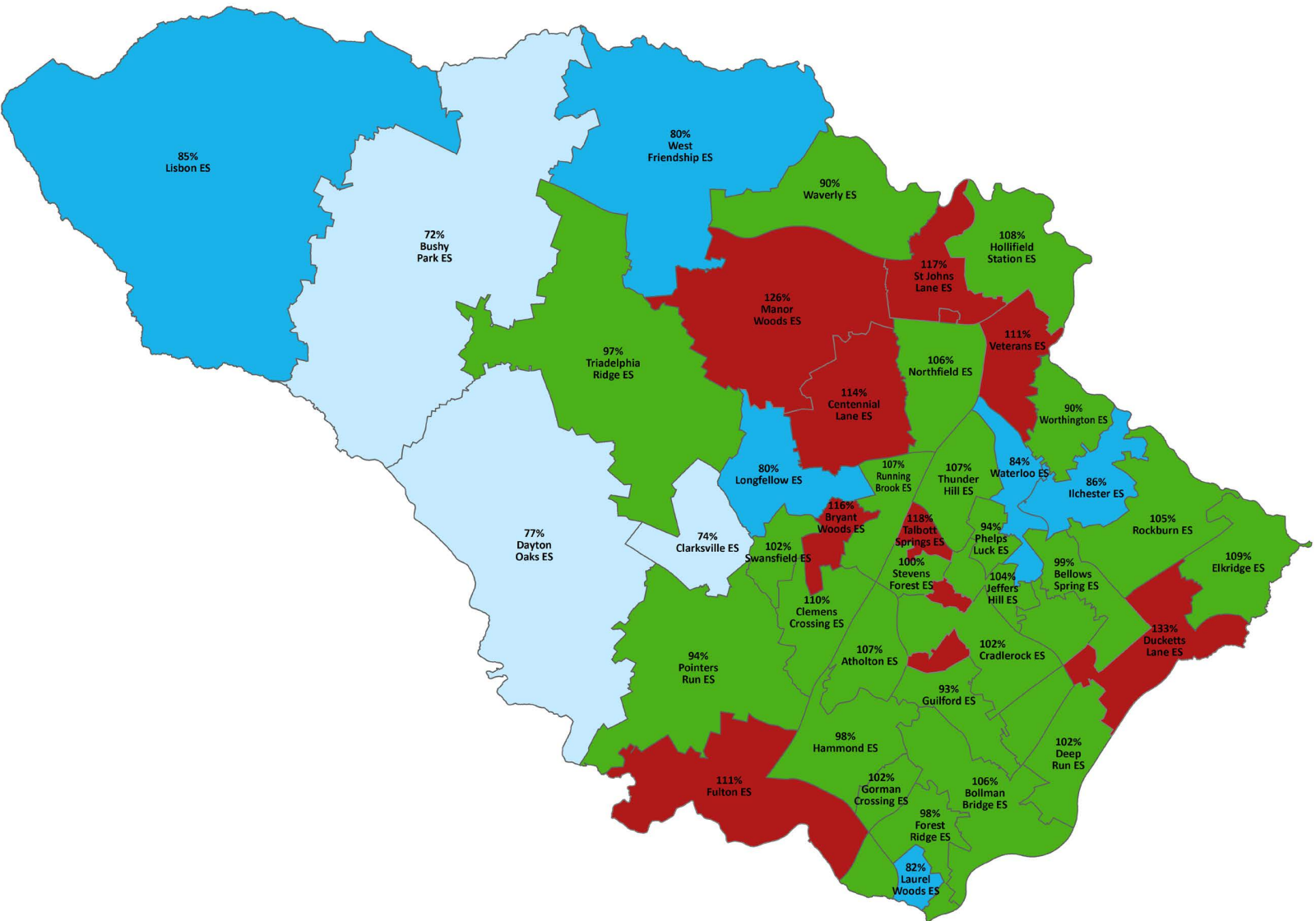


## Proposed Changes

Figure 5.3 Proposed High School Proposed Adjustments

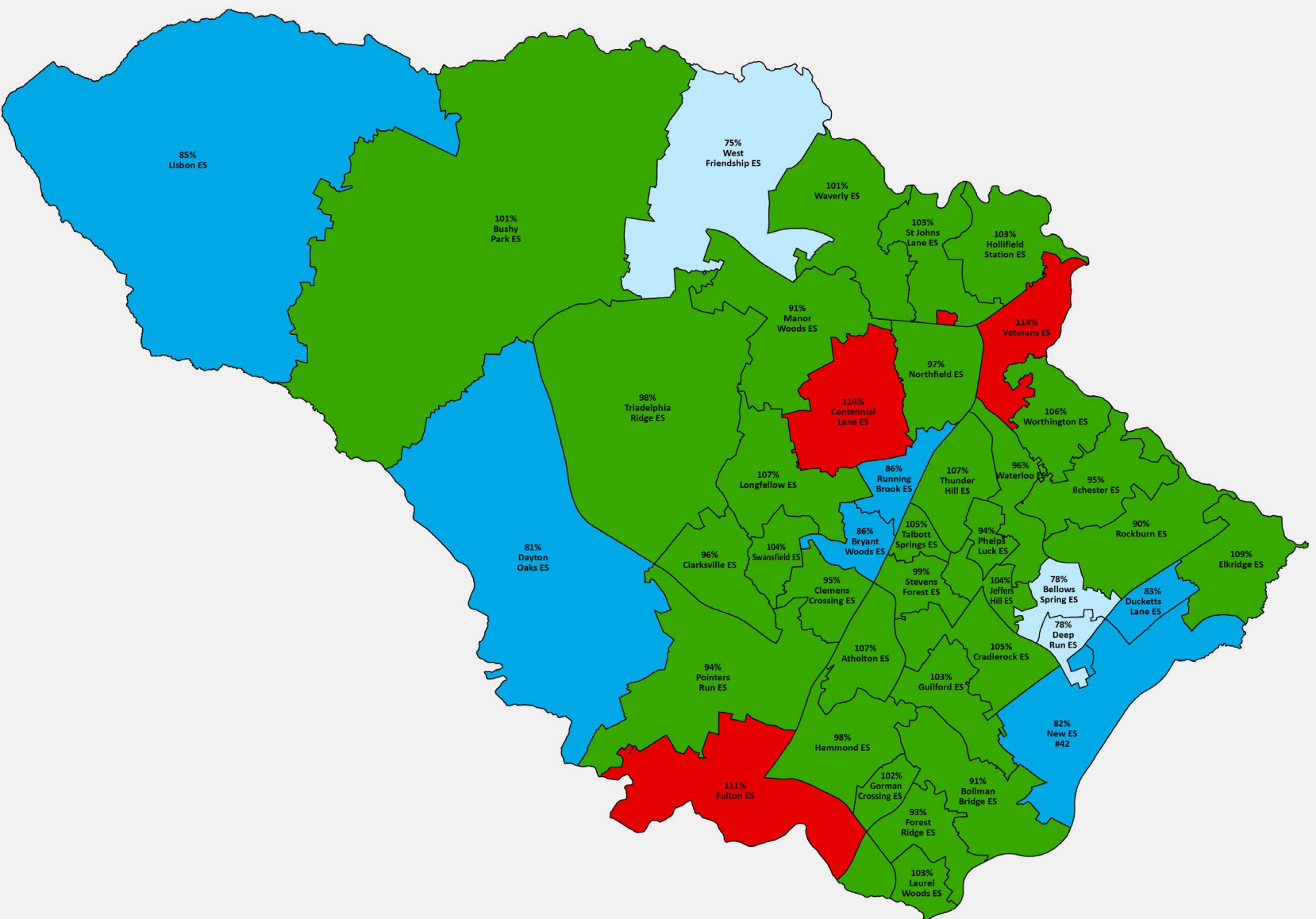
Sending	Receiving	Appx. # of Students	Polygons Proposed for Movement
Atholton HS	Hammond HS	337	5,6,1005, 1006, 2005, 2010, 2011
Atholton HS	River Hill HS	614	64, 117, 118, 120, 123, 126, 127, 128, 129, 130, 190, 296, 1064, 1117, 1120, 1123, 1128, 1129, 1130, 1190, 1296
Centennial HS	Marriotts Ridge HS	210	153, 154, 214, 1154, 1184, 2154
Hammond HS	Atholton HS	325	13, 26, 27, 48, 50, 57, 270, 1026, 1027, 1048, 1050, 1057, 2050, 2057, 3048
Hammond HS	Oakland Mills HS	142	30, 32, 1030, 1032, 2030
Howard HS	Long Reach HS	418	42, 84, 86, 87, 95, 1042, 1086, 1095, 2042, 2087, 2095, 3042, 3087
Howard HS	Oakland Mills HS	20	261, 1261
Long Reach HS	Oakland Mills HS	545	33, 35, 80, 81, 266, 1033, 1080, 1081, 1266, 2081, 3035, 4035
Marriotts Ridge HS	Glenelg HS	136	170, 178, 179, 1170, 1178, 1179, 2170
Mount Hebron HS	Howard HS	69	2093, 3093, 4093
Mount Hebron HS	Marriotts Ridge HS	102	159, 160, 1159, 1160
Oakland Mills HS	Atholton HS	420	49, 51, 52, 54, 56, 58, 279, 1051, 1054, 1056, 1058, 1139, 2051, 2054, 2056, 2058, 3056, 3139
Oakland Mills HS	Wilde Lake HS	85	151, 1151, 2151
River Hill HS	Glenelg HS	227	180, 181, 182, 183, 199, 202, 203, 1180, 1181, 1182, 1183, 1199, 2182, 2183, 3182
Wilde Lake HS	Atholton HS	41	66, 134, 1134
<b>Total</b>		<b>3,691</b>	

# Projected 2018 Capacity Utilization Maps



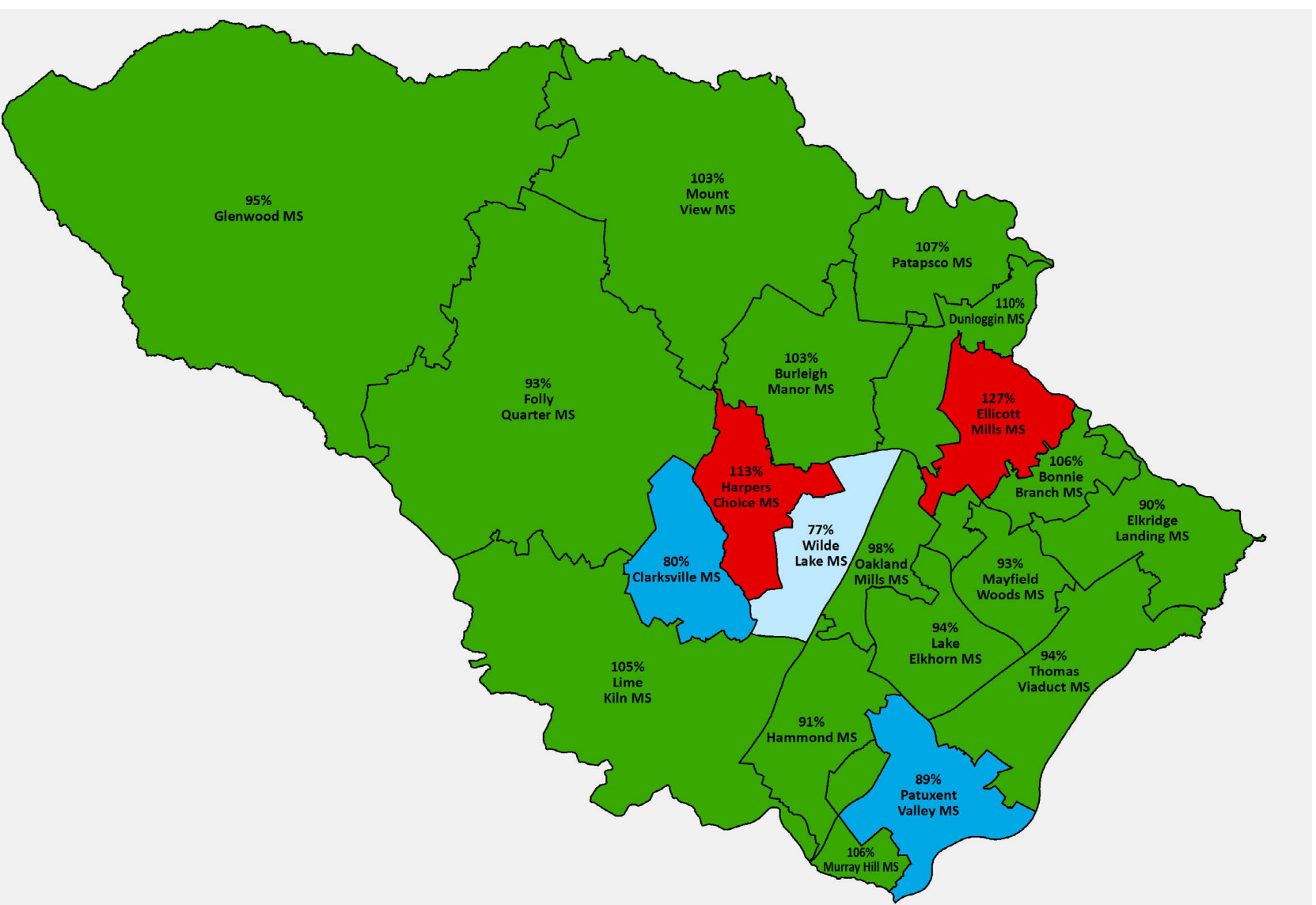
Projected Elementary School Capacity Utilization (2018)  
without attendance area adjustments

## Proposed Capacity Utilization Maps



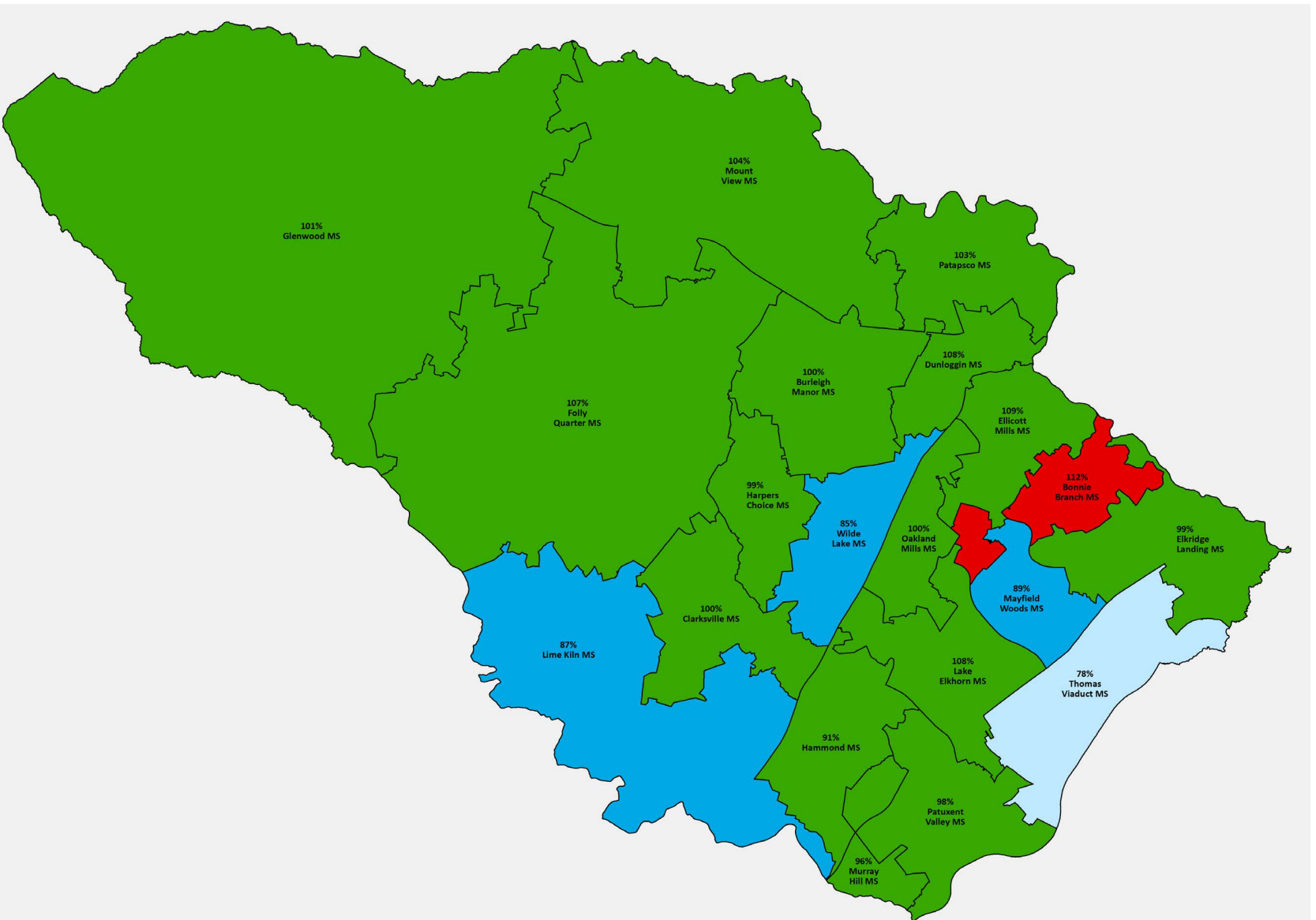
Projected Elementary School Capacity Utilization (2018)  
with proposed attendance area adjustments

## Existing Capacity Utilization Maps



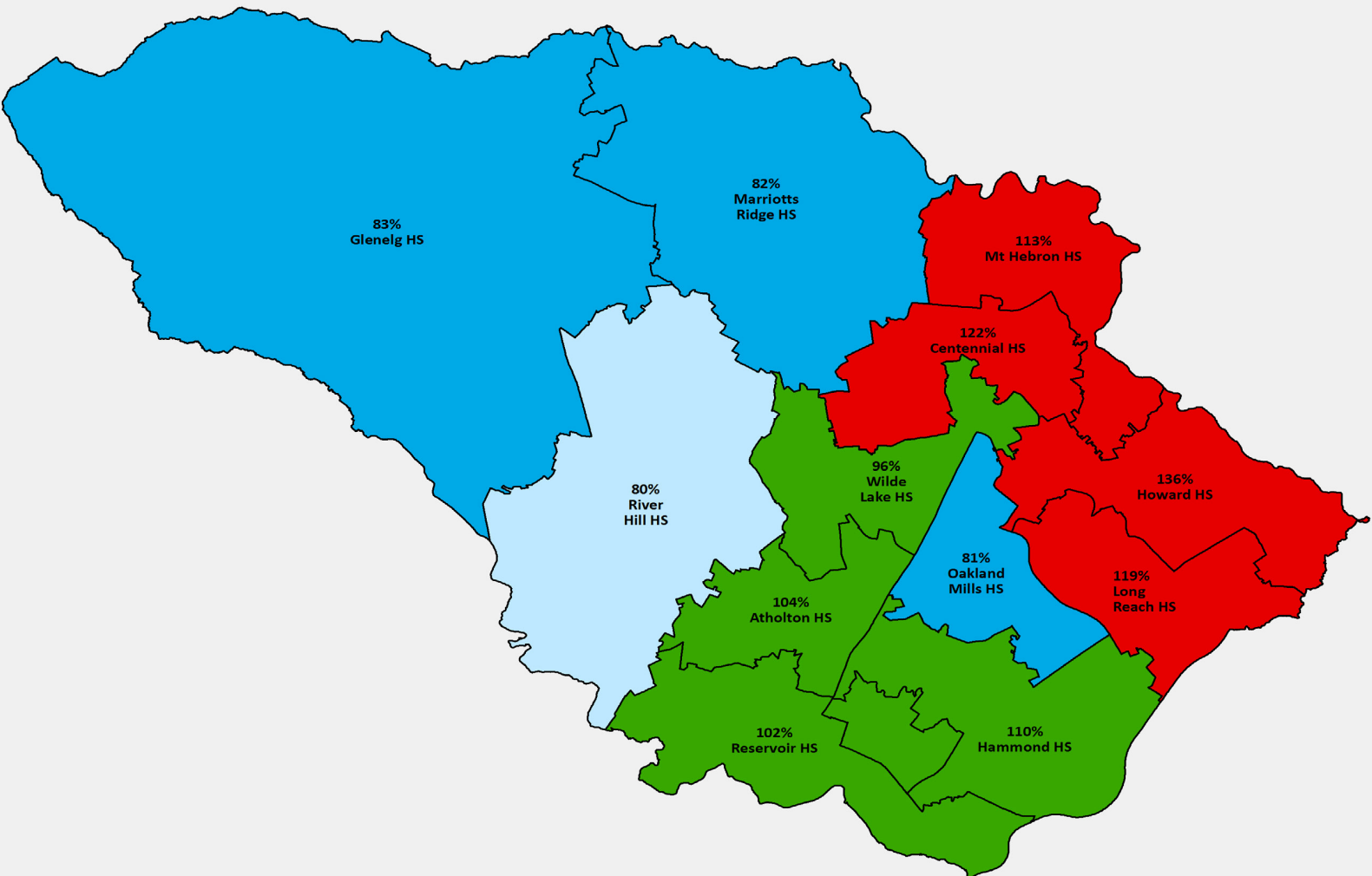
Projected Middle School Capacity Utilization (2018)  
without attendance area adjustments

## Proposed Capacity Utilization Maps



Projected Middle School Capacity Utilization (2018)  
with proposed attendance area adjustments

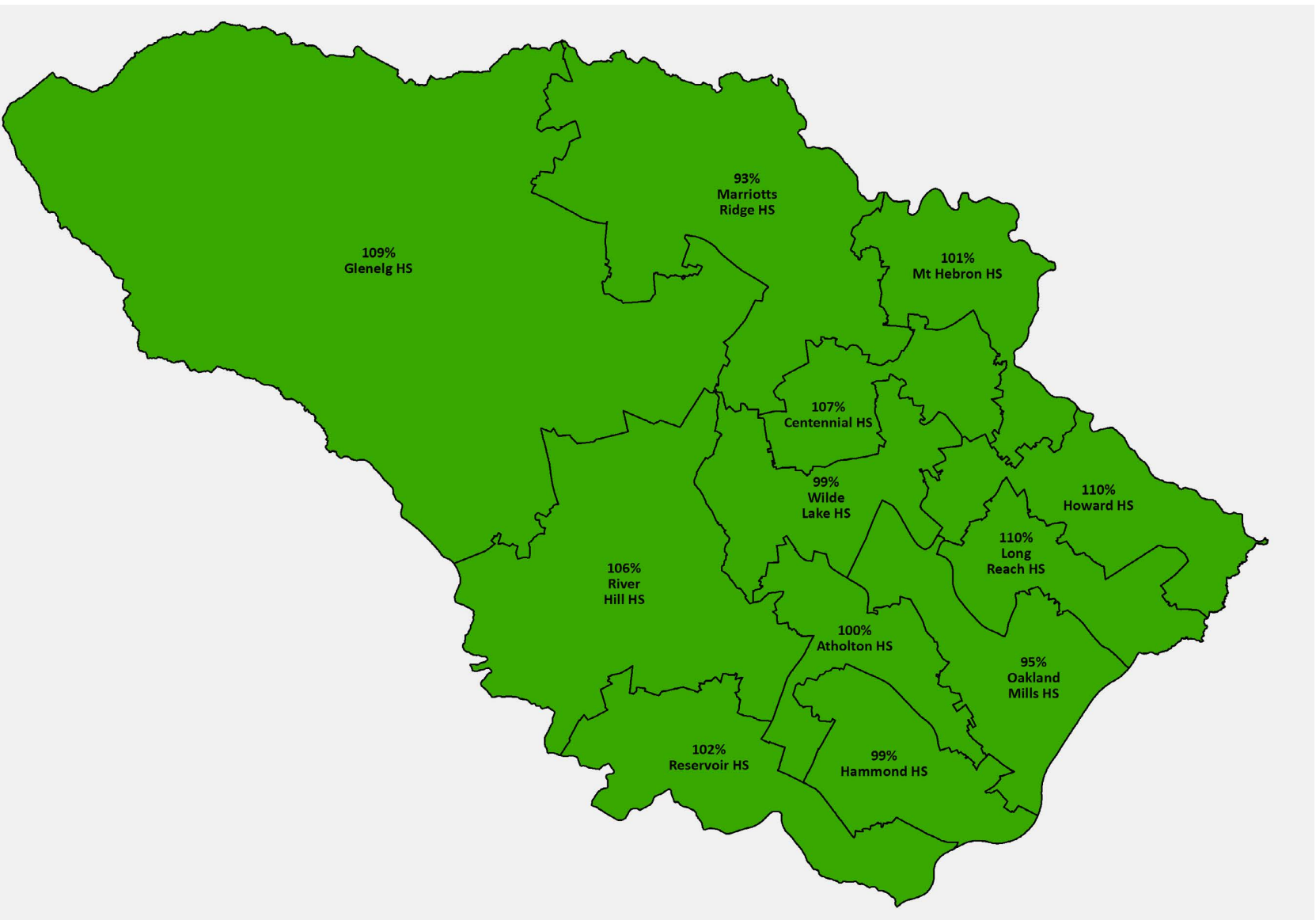
## Proposed Capacity Utilization Maps



Projected High School Capacity Utilization (2018)  
without attendance area adjustments



## Proposed Capacity Utilization Maps



Projected High School Capacity Utilization (2018)  
with proposed attendance area adjustments

## Assessment of Proposed Changes

### Evaluation

The following section evaluates the recommendation for the 2018 attendance area adjustments. Figures 5.4 – 5.10 of the feasibility study include an evaluation of the recommended plan to individual changes after the elementary, middle and high school comprehensive attendance area adjustments are completed. Figure 5.4 is an Overall Plan assessment chart. Figures 5.5 – 5.7 are Elementary, Middle and High School assessment charts.

The evaluation of the plan is based upon the Policy 6010 Standards Section (VI.B.), located in Appendix A. The Policy is also published on-line at <http://www.hcpss.org/f/board/policies/6010.pdf>. Scorecards assess the plan to help identify how the plan compares to the Policy criteria. Please refer to Figures 5.4 – 5.7.

Adjustments to school boundaries at all school levels proposed in this report indicate a strength of this plan is the increased number of schools that are projected to have improved capacity utilization in 2018. In general, this plan indicates target utilization would improve at the majority of schools until 2022; however, this plan does anticipate capital improvements that include New ES #43 and new middle school seats. This plan also reduces the number of schools with capacity utilization below 90 percent.

Given the scope of attendance area adjustments proposed by this plan, the average proximity to schools is slightly higher since this plan uses available Western Region capacity to relieve overcrowding at both the elementary and high school levels. Rating of the transportation impacts of this plan are based on a preliminary analysis by the Pupil Transportation Office. These ratings are based on predicted changes in mileage and equipment according to the proposed attendance areas. For this preliminary review, it can be assumed changes in mileage lead to corresponding changes in distance traveled and students' seat time. A more detailed analysis including trip tiering may lead to changes in predicted impacts. School bell time changes will alter the transportation impacts of any proposed attendance area adjustment plan. While this plan focused on efficiencies in building use and feeds, it is acknowledged that some walk areas at the high school level become bus riders. Potential new walk areas have not yet been assessed.

The plan results in the movement of a projected 4,018 elementary students, 1,076 middle school students, and 3,691 high school students, which is 15.6% of the 2018 projected countywide enrollment. Overall, the proposed comprehensive boundary plan increases the average number of years with schools within target utilization, decreases the number of small feeds, has negligible effects on demographic indicators and decreases the non-contiguous attendance areas listed in Policy 6010. This plan does not move students more than once within five years at the elementary school level but removes the one existing double small feed (geography where the feed is below 15 percent at both middle and high schools).



# Assessment of Proposed Changes

Figure 5.4 Overall Assessment

OVERALL Summary		Current	Aggregate Plan	Assessment Criteria	Policy
Years between 90-110%	# of Schools Strengthened	NA	39	Mean increased by 1.0 or more = STRENGTH; reduced by 1.0 or more = WEAKNESS; otherwise Negligible	IV.B.1.a
	# of Schools Weakened	NA	13		
	Mean	4.9	7.2		
Proximity to school	# of Schools Strengthened	NA	31	Mean reduced by 100 or more = STRENGTH; increased by 100 or more = WEAKNESS; otherwise Negligible	IV.B.1.d
	# of Schools Weakened	NA	31		
	Mean	7327	7517		
Students in walk area, percentage of change	(smaller # = closer set of polygons)			Mean 2% increase or more = STRENGTH; decreased by 2% or more = WEAKNESS; otherwise Negligible	IV.B.1.d
	# of Schools Strengthened	NA	0		
	# of Schools Weakened	NA	9		
Small Feeds (under 15%)	# of Small Feeds	25	17	"After" count lower than "Before" = STRENGTH; "After" higher = WEAKNESS; otherwise Negligible	IV.B.2.a
Double Small Feed	# of Double Small Feeds	1	0	"After" count lower than "Before" = STRENGTH; "After" higher = WEAKNESS; otherwise Negligible	IV.B.2.a
Non-contiguous Attendance Areas	Number of "Islands"	4	3	"After" count lower than "Before" = STRENGTH; "After" higher = WEAKNESS; otherwise Negligible	IV.B.2.b
Students moved within 5 yrs of last ES move	Number	NA	0		IV.B.2.c
	% of Enrollment	NA	0.0%		
			0		
Balanced Farm %	(Average = 0%)			Standard Deviation reduced by 25% or more = STRENGTH; increased by 25% or more = WEAKNESS; otherwise Negligible	IV.B.3.b
	StdDev	13.92	13.74		
Balanced Reading Test Pass Rate	(Average = 0%)			Standard Deviation reduced by 25% or more = STRENGTH; increased by 25% or more = WEAKNESS; otherwise Negligible	IV.B.3.c
	StdDev	12.33	9.94		
Balanced Math Test Pass Rate	(Average = 0%)			Standard Deviation reduced by 25% or more = STRENGTH; increased by 25% or more = WEAKNESS; otherwise Negligible	IV.B.3.c
	StdDev	13.85	10.10		
ESOL Participation	(ES Average = 0%)			Standard Deviation reduced by 25% or more = STRENGTH; increased by 25% or more = WEAKNESS; otherwise Negligible	IV.B.3.d
	StdDev	4.71	4.66		
Students Moved	Number moved in	NA	8785	Take into account the correlation between the number of students moved, the outcomes of other standards achieved in Section IV.B. and the length of time those results are expected to be maintained.	IV.B.3.e
	Number moved out	NA	8785		

Strength

Negligible

Weakness

# Assessment of Proposed Changes

Figure 5.5 Elementary School Assessment

Elementary School Summary			Current	Aggregate Plan	Assessment Criteria	Policy
Years between 90-110%	# of Schools Strengthened	NA	27	Mean increased by 1.0 or more = STRENGTH; reduced by 1.0 or more = WEAKNESS; otherwise Negligible	IV.B.1.a	
	# of Schools Weakened	NA	4			
	Mean	4.1	7.5			
Proximity to school			STRENGTH	Mean reduced by 100 or more = STRENGTH; increased by 100 or more = WEAKNESS; otherwise Negligible	IV.B.1.d	
	# of Schools Strengthened	NA	17			
	# of Schools Weakened	NA	15			
	Mean	5565	5781			
	(smaller # = closer set of polygons)		WEAKNESS			
Students in walk area, percentage of change	# of Schools Strengthened	NA	0	Mean 2% increase or more = STRENGTH; decreased by 2% or more = WEAKNESS; otherwise Negligible	IV.B.1.d	
	# of Schools Weakened	NA	3			
			WEAKNESS			
Small MS from ES Feeds (under 15%)				Feed information in middle and high school sections.	IV.B.2.a	
Double Small Feed	# of Double Small Feeds	1	0	"After" count lower than "Before" = STRENGTH; "After" higher = WEAKNESS; otherwise Negligible	IV.B.2.a	
Non-contiguous Attendance Areas			STRENGTH	"After" count lower than "Before" = STRENGTH; "After" higher = WEAKNESS; otherwise Negligible	IV.B.2.b	
	Number of "Islands"	4	2			STRENGTH
Students moved within 5 yrs of last ES move					IV.B.2.c	
	Number	NA	0			
	% of Enrollment	NA	0.0%			0
Balanced Farm %	(ES Average = 16%)			Standard Deviation reduced by 25% or more = STRENGTH; increased by 25% or more = WEAKNESS; otherwise	IV.B.3.b	
	StdDev	14.66	14.56			NEGLIGIBLE
Balanced Reading Test Pass Rate	(ES Average = 81%)			Standard Deviation reduced by 25% or more = STRENGTH; increased by 25% or more = WEAKNESS; otherwise Negligible	IV.B.3.c	
	StdDev	15.35	12.03			NEGLIGIBLE
Balanced Math Test Pass Rate	(ES Average = 87%)			Standard Deviation reduced by 25% or more = STRENGTH; increased by 25% or more = WEAKNESS; otherwise Negligible	IV.B.3.c	
	StdDev	14.54	6.20			STRENGTH
ESOL Participation	(ES Average = 7%)			Standard Deviation reduced by 25% or more = STRENGTH; increased by 25% or more = WEAKNESS; otherwise Negligible	IV.B.3.d	
	StdDev	4.86	5.09			NEGLIGIBLE
Students Moved				Take into account the correlation between the number of students moved, the outcomes of other standards achieved in Section IV.B. and the length of time those results are expected to be maintained.	IV.B.3.e	
	Number moved in	NA	4018			
	Number moved out	NA	4018			
Strength		Negligible	Weakness			

# Assessment of Proposed Changes

Middle School Summary	School Assessment		Current	Aggregate Plan	Assessment Criteria	Policy
Years between 90-110%	# of Schools Strengthened	NA		8	Mean increased by 1.0 or more = STRENGTH; reduced by 1.0 or more = WEAKNESS; otherwise Negligible	IV.B.1.a
	# of Schools Weakened	NA		6		
	Mean	6.3		7.5		
Proximity to school	# of Schools Strengthened	NA		10	Mean reduced by 100 or more = STRENGTH; increased by 100 or more = WEAKNESS; otherwise Negligible	IV.B.1.d
	# of Schools Weakened	NA		9		
	Mean	8314		8350		
	(smaller # = closer set of polygons)		NEGLIGIBLE			
Students in walk area, percentage of change	# of Schools Strengthened	NA		0	Mean 2% increase or more = STRENGTH; decreased by 2% or more = WEAKNESS; otherwise Negligible	IV.B.1.d
	# of Schools Weakened	NA		1		
				WEAKNESS		
Small MS from ES Feeds (under 15%)	# of Small Feeds	17		11	"After" count lower than "Before" = STRENGTH; "After" higher = WEAKNESS; otherwise Negligible	IV.B.2.a
				STRENGTH		
Double Small Feed	# of Double Small Feeds	1		0	"After" count lower than "Before" = STRENGTH; "After" higher = WEAKNESS; otherwise Negligible	IV.B.2.a
				STRENGTH		
Non-contiguous Attendance Areas	Number of "Islands"	0		1	"After" count lower than "Before" = STRENGTH; "After" higher = WEAKNESS; otherwise Negligible	IV.B.2.b
				WEAKNESS		
Students moved within 5 yrs of last ES move	Number	NA		0		IV.B.2.c
	% of Enrollment	NA		0.0%		
				0		
Balanced Farm %	(MS Average = 17%)				Standard Deviation reduced by 25% or more = STRENGTH; increased by 25% or more = WEAKNESS; otherwise Negligible	IV.B.3.b
	StdDev	12.89		12.93		
				NEGLIGIBLE		
Balanced Reading Test Pass Rate	(MS Average = 86%)				Standard Deviation reduced by 25% or more = STRENGTH; increased by 25% or more = WEAKNESS; otherwise Negligible	IV.B.3.c
	StdDev	2.46		2.78		
				NEGLIGIBLE		
Balanced Math Test Pass Rate	(MS Average = 79%)				Standard Deviation reduced by 25% or more = STRENGTH; increased by 25% or more = WEAKNESS; otherwise Negligible	IV.B.3.c
	StdDev	7.96		8.02		
				NEGLIGIBLE		
ESOL Participation	(ES Average = 3%)				Standard Deviation reduced by 25% or more = STRENGTH; increased by 25% or more = WEAKNESS; otherwise Negligible	IV.B.3.d
	StdDev	1.88		1.96		
				NEGLIGIBLE		
Students Moved	Number moved in	NA		1076	Take into account the correlation between the number of students moved, the outcomes of other standards achieved in Section IV.B. and the length of time those results are expected to be maintained.	IV.B.3.e
	Number moved out	NA		1076		
Strength	Negligible	Weakness				

# Assessment of Proposed Changes

Figure 5.7 High School Assessment

High School Summary		Current		Aggregate Plan		Assessment Criteria		Policy	
Years between 90-110%	# of Schools Strengthened	NA		4		Mean increased by 1.0 or more = STRENGTH; reduced by 1.0 or more = WEAKNESS; otherwise Negligible		IV.B.1.a	
	# of Schools Weakened	NA		3					
	Mean	5.3		5.6	NEGLIGIBLE				
Proximity to school	# of Schools Strengthened	NA		4		Mean reduced by 100 or more = STRENGTH; increased by 100 or more = WEAKNESS; otherwise Negligible		IV.B.1.d	
	# of Schools Weakened	NA		7					
	Mean	11852		12203					
	(smaller # = closer set of polygons)			WEAKNESS					
Students in walk area, percentage of change	# of Schools Strengthened	NA		0		Mean 2% increase or more = STRENGTH; decreased by 2% or more = WEAKNESS; otherwise Negligible		IV.B.1.d	
	# of Schools Weakened	NA		5					
					WEAKNESS				
Small HS from MS Feeds (under 15%)	# of Small Feeds	8		6		"After" count lower than "Before" = STRENGTH; "After" higher = WEAKNESS; otherwise Negligible		IV.B.2.a	
				STRENGTH					
Double Small Feed	# of Double Small Feeds	1		0		"After" count lower than "Before" = STRENGTH; "After" higher = WEAKNESS; otherwise Negligible		IV.B.2.a	
				STRENGTH					
Non-contiguous Attendance Areas	Number of "Islands"	0		0		"After" count lower than "Before" = STRENGTH; "After" higher = WEAKNESS; otherwise Negligible		IV.B.2.b	
				NEGLIGIBLE					
Students moved within 5 yrs of last ES move	Number	NA		0				IV.B.2.c	
	% of Enrollment	NA		0.0%	0				
Balanced Farm %	(HS Average = 17%)					Standard Deviation reduced by 25% or more = STRENGTH; increased by 25% or more = WEAKNESS; otherwise Negligible		IV.B.3.b	
	StdDev	12.86		12.01	NEGLIGIBLE				
Balanced Reading Test Pass Rate	(HS Average = 77%)					Standard Deviation reduced by 25% or more = STRENGTH; increased by 25% or more = WEAKNESS; otherwise Negligible		IV.B.3.c	
	StdDev	3.19		2.81	NEGLIGIBLE				
Balanced Math Test Pass Rate	(HS Average = 67%)					Standard Deviation reduced by 25% or more = STRENGTH; increased by 25% or more = WEAKNESS; otherwise Negligible		IV.B.3.c	
	StdDev	7.43		6.46	NEGLIGIBLE				
ESOL Participation	#DIV/0!					Standard Deviation reduced by 25% or more = STRENGTH; increased by 25% or more = WEAKNESS; otherwise Negligible		IV.B.3.d	
	StdDev	0.00		2.65	#DIV/0!				
Students Moved	Number moved in	NA		3691		Take into account the correlation between the number of students moved, the outcomes of other standards achieved in Section IV.B. and the length of time those results are expected to be maintained.		IV.B.3.e	
	Number moved out	NA		3691					
Strength		Negligible		Weakness					

## Changes of Race/Ethnicity based on Proposed Scenario

Figure 5.8 Elementary Race/Ethnicity

Elementary School	Asian		Black or African American		Hispanic		Two or more		White	
	Base	Proposed	Base	Proposed	Base	Proposed	Base	Proposed	Base	Proposed
Atholton ES	9%	9%	18%	19%	10%	10%	9%	9%	53%	53%
Bellows Spring ES	24%	21%	23%	19%	11%	11%	6%	6%	35%	42%
Bollman Bridge ES	10%	10%	36%	33%	20%	19%	7%	7%	28%	31%
Bryant Woods ES	<5%	7%	54%	47%	11%	15%	10%	11%	21%	18%
Bushy Park ES	13%	15%	7%	6%	<5%	<5%	<5%	<5%	71%	70%
Centennial Lane ES	46%	46%	6%	6%	<5%	<5%	8%	8%	36%	36%
Clarksville ES	52%	46%	6%	6%	<5%	<5%	<5%	<5%	35%	42%
Clemens Crossing ES	16%	7%	12%	24%	10%	11%	10%	12%	51%	46%
Cradlerock ES	7%	7%	45%	45%	15%	17%	10%	9%	22%	21%
Dayton Oaks ES	23%	24%	8%	8%	<5%	<5%	<5%	5%	59%	59%
Deep Run ES	16%	20%	13%	17%	38%	41%	6%	5%	26%	17%
Ducketts Lane ES	18%	15%	37%	35%	18%	21%	<5%	<5%	23%	24%
Elkridge ES	14%	14%	24%	24%	8%	8%	7%	7%	47%	47%
Forest Ridge ES	25%	21%	33%	37%	12%	12%	7%	7%	22%	22%
Fulton ES	30%	30%	12%	12%	<5%	<5%	8%	8%	46%	46%
Gorman Crossing ES	25%	25%	33%	33%	14%	14%	6%	6%	22%	22%
Guilford ES	12%	12%	47%	44%	11%	12%	8%	9%	22%	23%
Hammond ES	14%	14%	29%	29%	11%	11%	7%	7%	38%	38%
Hollifield Station ES	43%	47%	12%	12%	13%	13%	<5%	<5%	28%	25%
Ilchester ES	26%	27%	8%	8%	<5%	<5%	6%	7%	57%	55%
Jeffers Hill ES	15%	15%	37%	37%	16%	15%	10%	10%	22%	22%
Laurel Woods ES	10%	13%	51%	47%	22%	23%	8%	8%	9%	8%
Lisbon ES	<5%	<5%	<5%	<5%	10%	9%	6%	6%	77%	77%
Longfellow ES	8%	7%	37%	43%	21%	19%	11%	10%	22%	20%
Manor Woods ES	47%	47%	6%	6%	<5%	<5%	<5%	<5%	39%	39%
New ES #42	<5%	21%	<5%	36%	<5%	18%	<5%	<5%	NA	20%
Northfield ES	29%	28%	8%	7%	6%	5%	8%	8%	49%	51%
Phelps Luck ES	6%	6%	40%	40%	29%	30%	8%	8%	17%	17%
Pointers Run ES	32%	33%	8%	8%	<5%	<5%	<5%	<5%	52%	50%
Rockburn ES	18%	16%	20%	12%	7%	<5%	7%	8%	48%	59%
Running Brook ES	5%	8%	50%	47%	13%	12%	10%	9%	21%	24%
St Johns Lane ES	39%	34%	11%	11%	<5%	<5%	<5%	<5%	44%	49%
Stevens Forest ES	<5%	7%	37%	30%	32%	19%	9%	12%	17%	32%
Swansfield ES	6%	6%	51%	50%	15%	15%	8%	8%	20%	21%
Talbott Springs ES	<5%	<5%	37%	45%	24%	36%	10%	8%	25%	10%
Thunder Hill ES	17%	17%	25%	26%	9%	9%	8%	8%	40%	40%
Triadelphia Ridge ES	29%	29%	6%	7%	6%	5%	9%	8%	51%	51%
Veterans ES	51%	52%	14%	15%	5%	5%	<5%	<5%	27%	25%
Waterloo ES	20%	20%	30%	30%	6%	8%	7%	8%	36%	35%
Waverly ES	39%	39%	6%	6%	<5%	<5%	<5%	<5%	49%	48%
West Friendship ES	22%	41%	<5%	6%	<5%	<5%	6%	6%	64%	43%
Worthington ES	35%	34%	7%	7%	<5%	<5%	<5%	<5%	48%	49%
<b>Countywide Average</b>	20.7%		22.6%		11.0%		6.8%		36.1%	

American Indian/Alaska Native and Native Hawaiian/Other Pacific Islander are not shown as there is less than 5% population at each of the schools.

"<5%" indicates a school with less than 5% population for the specified race/ethnicity.

## Changes of Race/Ethnicity based on Proposed Scenario

Figure 5.9 Middle and High Race/Ethnicity

	Asian		Black or African		Hispanic		Two or more		White	
<b>Middle School</b>	Base	Proposed	Base	Proposed	Base	Proposed	Base	Proposed	Base	Proposed
Bonnie Branch MS	14%	14%	26%	24%	13%	12%	8%	8%	39%	42%
Burleigh Manor MS	43%	43%	9%	9%	<5%	<5%	7%	7%	36%	36%
Clarksville MS	37%	36%	6%	6%	<5%	<5%	5%	5%	48%	47%
Dunloggin MS	34%	37%	18%	17%	8%	7%	<5%	<5%	38%	36%
Elkridge Landing MS	14%	13%	19%	19%	7%	7%	7%	7%	54%	54%
Ellicott Mills MS	31%	30%	14%	15%	<5%	<5%	5%	<5%	45%	46%
Folly Quarter MS	24%	25%	5%	6%	<5%	<5%	6%	6%	61%	60%
Glenwood MS	7%	7%	<5%	<5%	<5%	<5%	6%	5%	78%	78%
Hammond MS	11%	11%	25%	25%	10%	10%	8%	8%	46%	46%
Harpers Choice MS	9%	9%	44%	49%	15%	16%	7%	6%	24%	21%
Lake Elkhorn MS	8%	8%	53%	51%	14%	13%	8%	8%	17%	19%
Lime Kiln MS	26%	25%	13%	14%	5%	<5%	8%	8%	48%	49%
Mayfield Woods MS	13%	13%	29%	30%	18%	19%	6%	6%	33%	31%
Mount View MS	32%	32%	6%	5%	<5%	<5%	<5%	5%	54%	55%
Murray Hill MS	18%	19%	43%	41%	19%	18%	5%	5%	16%	17%
Oakland Mills MS	5%	5%	40%	40%	21%	21%	9%	8%	25%	25%
Patapsco MS	29%	31%	11%	13%	8%	8%	<5%	<5%	47%	42%
Patuxent Valley MS	14%	14%	37%	39%	16%	17%	6%	6%	27%	25%
Thomas Viaduct MS	14%	14%	45%	46%	18%	20%	5%	5%	17%	15%
Wilde Lake MS	7%	6%	48%	44%	12%	12%	8%	9%	25%	28%
<b>Countywide Average</b>	19%		25%		10%		6%		39%	

	Asian		Black or African		Hispanic		Two or more		White	
<b>High School</b>	Base	Proposed	Base	Proposed	Base	Proposed	Base	Proposed	Base	Proposed
Atholton HS	20%	9%	19%	37%	7%	13%	6%	7%	48%	33%
Centennial HS	38%	37%	9%	9%	5%	5%	6%	6%	43%	44%
Glenelg HS	10%	11%	<5%	5%	<5%	<5%	<5%	5%	77%	75%
Hammond HS	11%	14%	40%	37%	15%	12%	7%	7%	27%	30%
Howard HS	15%	15%	22%	22%	6%	6%	7%	7%	50%	50%
Long Reach HS	14%	13%	33%	28%	21%	16%	5%	6%	26%	36%
Marriotts Ridge HS	32%	33%	7%	7%	<5%	<5%	<5%	<5%	54%	52%
Mt Hebron HS	29%	31%	14%	15%	7%	8%	<5%	<5%	45%	41%
Oakland Mills HS	6%	10%	44%	40%	21%	25%	8%	6%	21%	18%
Reservoir HS	15%	15%	32%	32%	15%	15%	6%	6%	32%	32%
River Hill HS	32%	31%	6%	6%	<5%	<5%	7%	6%	52%	52%
Wilde Lake HS	7%	7%	46%	46%	13%	13%	8%	8%	26%	26%
<b>Countywide Average</b>	19%		23%		10%		6%		42%	

American Indian/Alaska Native and Native Hawaiian/Other Pacific Islander are not shown as there is less than 5% population at each of the schools.

"<5%" indicates a school with less than 5% population for the specified race/ethnicity.

# Regional Program Chart

Figure 5.10 Regional Program Locations

Regional Program Locations			
School	Programs	School	Programs
Atholton ES	Pre-K, Preschool, MINC	Bonnie Branch MS	
Bellows Spring ES	Pre-K, Preschool, MINC, EB, ES PL	Burleigh Manor MS	
Bollman Bridge ES	Title I, Pre-K, Preschool, MINC	Clarksville MS	
Bryant Woods ES	Title I, ESM Full-day Pre-K	Dunloggin MS	
Bushy Park ES	Pre-K, Preschool	Elkridge Landing MS	ALS
Centennial Lane ES		Ellicott Mills MS	Regional ED
Clarksville ES		Folly Quarter MS	
Clemens Crossing ES		Glenwood MS	
Cradlerock ES	Title I, Pre-K, Preschool	Hammond MS	
Dayton Oaks ES	Pre-K, Preschool, MINC, EB	Harper's Choice MS	
Deep Run ES	Title I, Pre-K, Preschool, MINC	Lake Elkhorn MS	
Ducketts Lane ES		Lime Kiln MS	ALS
Elkridge ES	Pre-K	Mayfield Woods MS	
Forest Ridge ES		Mount View MS	
Fulton ES	Regional ED	Murray Hill MS	Regional ED
Gorman Crossing ES	Pre-K, Preschool, MINC	Oakland Mills MS	
Guilford ES	Title I, Pre-K	Patapsco MS	
Hammond ES		Patuxent Valley MS	
Hollifield Station ES	Pre-K, Preschool, MINC	Thomas Viaduct MS	
Ilchester ES	Pre-K, Preschool, MINC, ES PL	Wilde Lake MS	
Jeffers Hill ES			
Laurel Woods ES	Title I, ESM Full-day Pre-K		
Lisbon ES			
Longfellow ES	Title I, Pre-K, Preschool, MINC		
Manor Woods ES			
New ES #42			
Northfield ES			
Phelps Luck ES	Title I, ESM Full-day Pre-K		
Pointers Run ES	Pre-K, Preschool, MINC, ES PL, ALS		
Rockburn ES	Pre-K, Preschool, MINC		
Running Brook ES	Title I, ESM Full-day Pre-K, Preschool		
St. John's Lane ES			
Stevens Forest ES	Title I, ESM Full-day Pre-K, Regional ED		
Swansfield ES	Title I, Pre-K		
Talbott Springs ES	Title I, ESM Full-day Pre-K		
Thunder Hill ES	ALS		
Triadelphia Ridge ES	EB		
Veterans ES	EB, Pre-K, Preschool, MINC		
Waterloo ES	Pre-K, Regional ED, Preschool, MINC		
Waverly ES	Pre-K, ALS, Preschool, MINC, ES PL		
West Friendship ES			
Worthington ES			

School	Programs
Atholton HS	JROTC, PSECDP
Centennial HS	
Glenelg HS	
Hammond HS	Regional ED
Howard HS	JROTC
Long Reach HS	PSECDP
Marriotts Ridge HS	PSECDP
Mt Hebron HS	Regional ED
Oakland Mills HS	ALS, JROTC, PSECDP
Reservoir HS	Regional ED
River Hill HS	PSECDP
Wilde Lake HS	PPS

ALS	Regional Academic Life Skills
Preschool	Preschool Program, including Parent Assisted Learning at Schools
Pre-K	Income qualifying Pre-K program. Astrisk (*) indicates 300% poverty qualification.
ESM Full-day Pre-K	Elementary School Model Full-day Pre-K program
EB	Early Beginnings - Special Education services for very young children
Title I	State approved based upon income
Regional ED	Regional Emotional Disabilities Program (draws from other schools)
Construction	Swing space for year round construction project
MINC	Multiple Intensive Needs Classroom (Toddler, Preschool/K, and/or Early Learner)
ES PL	Elementary School Primary Learner Program
JROTC	Junior Reserve Officers Training Corps
PPS	Pregnant and Parenting Students
PSECDP	Public School Employees' Child Development Program





Feasibility Study:  
An Annual Review of Long-Term Capital  
Planning and Attendance Area Adjustment Options

Section 6

# Pre- and Post-Measure Charts

The effects of some scenarios tested for this report on capacity utilization are depicted in tabular form on the following pages. The tables are presented for each organizational level (elementary, middle, and high) using a pre-/post-measures format. The pre-measures format shows the effect of projected enrollment without any attendance area adjustments. The pre-measures format also shows FY 2018 capital projects as approved.

The post-measures format shows the impact of projected enrollment with some attendance area adjustment plans discussed in this document. These plans include elementary, middle and high schools adjustments that use existing and proposed capacity. The post-measures format includes capital projects recommended in this document for the FY 2019 Capital Budget as shown in Figure 3.11 on page 15. If these projects are not approved, other plans must be developed.

June 2017

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

Pre-Measures

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												
	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.											
Columbia - East																																					
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											
Talbot 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						
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				
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	401	78.3	401	78.3	401	78.3	401	78.3	401	78.3	401	78.3			
New ES #44	NS	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	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	131.4	C	3431	133.4					
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	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		
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																																	
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	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															

Post-Measures

## Aggregate Plan

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

Chart reflects May 2017 Projections, potential FY 2019 requested capacities and estimated redistricting.

Capacity					2018-19		2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29												
					Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.											
Columbia - East																																					
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							
Talbot Springs ES					377	377	487	487	396	105.0	394	104.5	399	81.9	398	81.7	394	80.9	392	80.5	396	81.3	399	81.9	405	83.2	408	83.8	412	84.6							
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	2830	2830	2778	102.1	2776	102.1	2775	98.1	2792	98.7	2770	97.9	2784	98.4	2801	99.0	2830	100.0	2883	101.9	2911	102.9	2941	103.9							
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	124.7	C	3199	126.4	C			
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	685	82.3	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	6671	93.4	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	C	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					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	103.3	4690	103.3	4772	103.9	4873	103.8	4906	103.3	4960	103.3	4960	103.3	4960	103.3			
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</														

**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

Pre-Measures

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	
	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.
<b>Columbia - East</b>	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
Lake Elkhorn MS																										
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
<b>Region MS Totals</b>	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
<b>Columbia - West</b>																										
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
Wilke Lake MS	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
<b>Region MS Totals</b>	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
<b>Northeastern</b>																										
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
New MS #21	NS 0	0	0	0																						
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
<b>Region MS Totals</b>	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
<b>Northern</b>																										
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
<b>Region MS Totals</b>	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
<b>Southeastern</b>																										
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
<b>Region MS Totals</b>	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
<b>Western</b>																										
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
<b>Region MS Totals</b>	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
<b>Countywide Totals</b>	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

'NS' New School proposed in FY 2018 Capital Budget

Post-Measures

**Aggregate Plan**

Chart reflects May 2017 Projections, potential FY 2019 requested capacities and estimated redistricting.

**MIDDLE SCHOOLS - Data for Demonstrative Purposes Only**  
Capacity Utilization Rates with Proposed FY 2019 Capital Budget Projects - Not Test for APFO

Capacity					2018-19		2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29	
	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.
<b>Columbia - East</b>	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
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
<b>Region MS Totals</b>	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
<b>Columbia - West</b>	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
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	934	122.9	951	125.1	977	128.6
<b>Region MS Totals</b>	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	1469	116.0	1500	118.5
<b>Northeastern</b>	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
Bonnie Branch 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
Elkridge Landing MS	701	701	701	857	768	109.6	808	115.3	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
Ellicott Mills 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	985	123.4	1020	127.8
Mayfield Woods MS	0	0	0	0	552	78.7	603	86.0	677	96.6	719	102.6	756	107.8	844	120.4	962	137.2	1090	155.5	1162	165.8	1209	172.5	1252	178.6
<b>New MS #21</b>	0	0	0	0	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	4693	122.3
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	962	137.2	1090	155.5	1162	165.8	1209	172.5	1252	178.6
<b>Region MS Totals</b>	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	4693	122.3
<b>Northern</b>	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	936	120.2	940	120.7	936	120.2
Burleigh Manor MS	565	565	565	662	611	108.1	637	112.7	643	113.8	675	102.0	685	103.5	703	106.2	691	104.4	674	101.8	668	100.9	680	102.7	688	103.9
Dunloggin MS	643	643	643	643	664	103.3	661	102.8	672	104.5	710	110.4	736	114.5	742	115.4	747	116.2	747	116.2	768	119.4	777	120.8	780	121.3
Patapsco MS	1987	1987	1987	2084	2054	103.4	2089	105.1	2144	107.9	2213	106.2	2255	108.2	2300	110.4	2330	111.8	2352	112.9	2372	113.8	2397	115.0	2404	115.4
<b>Region MS Totals</b>	1987	1987	1987	2084	2054	103.4	2089	105.1	2144	107.9	2213	106.2	2255	108.2	2300	110.4	2330	111.8	2352	112.9	2372	113.8	2397	115.0	2404	115.4
<b>Southeastern</b>	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	705	116.7	722	119.5	732	121.2	743	123.0
Hammond 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
Murray Hill 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
Patuxent Valley MS	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
<b>Region MS Totals</b>	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
<b>Western</b>	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
Clarksville 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
Folly Quarter 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
Glenwood 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
Lime Kiln MS	798	798	798	798	833	104.4	849	106.4	867	108.6	895	112.2	917	114.9	938	117.5	978	122.6	980	122.8	1019	127.7	1016	127.3	1031	129.2
Mount View MS	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
<b>Region MS Totals</b>	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
<b>Countywide Totals</b>	13457	13457	13457	13710	13303	98.9	13698	101.8	13913	103.4	14003	102.1	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

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
<b>Columbia - West</b>																										
Wilke 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
<b>Northeastern</b>																										
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																						
<b>Region HS Totals</b>	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
<b>Northern</b>																										
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
<b>Region HS Totals</b>	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
<b>Southeastern</b>																										
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
<b>Western</b>																										
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
<b>Region HS Totals</b>	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
<b>Countywide Totals</b>	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

**HIGH SCHOOLS - Data for Demonstrative Purposes Only**

Post-Measures

**Aggregate Plan**

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

Chart reflects May 2017 Projections, potential FY 2019 requested capacities and estimated 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	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																								
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		

\*NS\* New School proposed in FY 2019 Capital Budget





Feasibility Study:  
An Annual Review of Long-Term Capital  
Planning and Attendance Area Adjustment Options

Section 7

# Appendices

June 2017





BOARD OF EDUCATION

**POLICY 6010  
SCHOOL ATTENDANCE AREAS**Effective: January 26, 2017

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**I. Policy Statement**

The Board of Education of Howard County, with the advice of the Superintendent, establishes school attendance areas to provide quality, equitable educational opportunities to all students and to balance the capacity utilization of all schools. The Board recognizes that school openings, closings, additions, program changes, population growth and other demographic changes may require that school attendance areas be adjusted. The Board also recognizes the value of diverse and inclusive school populations when establishing attendance areas. The Board believes that staff analyses and recommendations, as well as public advice and comment, are integral to its deliberations and decisions related to school attendance areas.

**II. Purpose**

The purpose of this policy is to define the conditions and process by which school attendance area adjustments will be developed and adopted.

**III. Definitions**

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

- A. Attendance Area Committee (AAC) – Committee comprised of community members appointed by the Superintendent and approved by the Board, to advise and comment on capacity needs and attendance area adjustment recommendations developed by staff.
- B. Continuity of Operations Plan (COOP) – Procedures to ensure that capability exists to continue essential functions during and after an extended emergency.
- C. Demographic Characteristics – Features in the composition of a school’s population that includes, but is not limited to the racial/ethnic composition of a school’s student population, as well as the percentage of students participating in Free and Reduced-Priced Meals (FARMS) and English for Speakers of Other Languages (ESOL) programs.
- D. Diversity – The sum of the ways that people are both alike and different. The dimensions of diversity include race, ethnicity, and socioeconomic condition.
- E. Extended Emergency – A severe or long-term situation that affects an individual school, multiple schools, or the entire school system. An extended emergency is normally one in which the Howard County Public School System (HCPSS) Continuity

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of Operations Plan (COOP), the HCPSS Emergency Operations Plan (EOP) or the Howard County Emergency Operations Plan is activated.

- F. Equitable – Just or fair; different from equal in that equality connotes equal treatment, which may be insufficient for equitable access and outcomes.
- G. Feed – The flow of students from one school level to the next.
- H. Free and Reduced-Priced Meals (FARMS) – A federal program available to students whose households meet the federal income eligibility guidelines to receive free or reduced-priced meals.
- I. HCPSS Emergency Operations Plan (EOP) – A multi-hazard approach for HCPSS that addresses preparation, response, recovery, and mitigation to:
  - 1. An emergency, including a violent or traumatic event on school grounds, during school hours, or during a school-sponsored activity.
  - 2. Events in the community that affect normal school operations.
- J. Howard County Emergency Operations Plan – A countywide emergency management system incorporating all aspects of pre-emergency preparedness and post-emergency response, recovery, and mitigation.
- K. Inclusive – Securing the educational benefits of diversity for all students through active, intentional, and ongoing engagement.
- L. Long-Range Enrollment – Each school’s student population projections for the upcoming 10 years.
- M. Program Capacity – The number of students that can be reasonably accommodated in a school, based on the permanent facility (relocatables are excluded) and the educational program offered. Program capacity is calculated based at the below rates:
  - 1. Elementary schools: the product of the Board-approved student-to-teacher ratio and the number of teaching stations identified in the capital budget.
  - 2. Middle schools: 95% of the product of the Board-approved student-to-teacher ratio and the number of teaching stations identified in the capital budget.
  - 3. High schools: 80% or 85% of the product of the Board-approved student-to-teacher ratio and the number of teaching stations in the capital budget.
- N. Projections – Estimated student enrollment for future school years.

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- O. Regional Program – A countywide educational program located at one or more, but not all schools that is designed to provide a particular type of educational leadership or intervention to students. Regional programs may include, but are not limited to Regional Academic Life Skills, Preschool Program, including Parent-Assisted Learning at Schools, Pre-Kindergarten, Elementary School Model Full-day Pre-Kindergarten, Early Beginnings, Regional Emotional Disabilities, Multiple Intensive Needs Classroom, Junior Reserve Officer Training Course (JROTC) and Elementary School Primary Learner Program.
- P. Planning Region – A geographic area of Howard County made up of one or more schools used by the HCPSS Office of School Planning for long-range planning purposes.
- Q. School Attendance Area – Geographic area from which a school’s students are drawn.
- R. Target Utilization – Enrollment between 90% and 110% utilization of the program capacity of a school facility.
- S. Utilization – The comparison of a facility’s program capacity and its enrollment or projected future enrollment.

**IV. Standards**

- A. The Board will consider school attendance area adjustments whenever one or more of the following conditions exist:
  - 1. A new school or addition is scheduled to open.
  - 2. An existing facility is significantly damaged, deemed unusable, or otherwise scheduled to close.
  - 3. School attendance area projections are outside the target utilization.
  - 4. The program capacity of a school building is altered.
  - 5. The road network(s) within one or more school attendance areas is altered.
  - 6. An unforeseen circumstance necessitates an adjustment to promote efficiency or provide for the welfare of students.
- B. The Board, Superintendent/Designee and the AAC will consider the impact of the following factors in the development of any school attendance area adjustment plan. While each of these factors will be considered, it may not be feasible to reconcile each and every school attendance area adjustment with each and every factor.

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POLICY 6010

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1. Facility Utilization. Where reasonable, school attendance area utilization should stay within the target utilization for as long a period of time as possible through the consideration of:
  - a. Efficient use of available space. For example, maintain a building's program capacity utilization between 90% and 100%.
  - b. Long-range enrollment, capital plans and capacity needs of school infrastructures (e.g., cafeterias, restrooms and other shared core facilities).
  - c. Fiscal responsibility by minimizing capital and operating costs.
  - d. The number of students that walk or receive bus service and the distance and time based students travel.
  - e. Location of regional programs, maintaining an equitable distribution of programs across the county.
2. Community Stability. Where reasonable, school attendance areas should promote a sense of community in both the geographic place (e.g., neighborhood or place in which a student lives) and the promotion of a student from each school level through the consideration of:
  - a. Feeds that encourage keeping students together from one school to the next. For example, avoiding feeds of less than 15% at the receiving school.
  - b. Areas that are made up of contiguous communities or neighborhoods.
  - c. Frequency with which any one student is reassigned, making every attempt to not move a student more than once at any school level or the same student more frequently than once every five years.
3. Demographic Characteristics of Student Population. Where reasonable, school attendance areas should promote the creation of a diverse and inclusive student body at both the sending and receiving schools through the consideration of:
  - a. The racial/ethnic composition of the student population.
  - b. The socioeconomic composition of the school population as measured by participation in the federal FARMS program.
  - c. Academic performance of students in both the sending and receiving schools as measured by current standardized testing results in English Language Arts/Literacy and Mathematics.

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POLICY 6010

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- d. The level of English learners as measured by enrollment in the English for Speakers of Other Languages (ESOL) program.
  - e. Number of students moved, taking into account the correlation between the number of students moved, the outcomes of other standards achieved in Section IV.B. and the length of time those results are expected to be maintained.
  - f. Other reliable demographic indicators, when applicable.
- C. Board of Education's Deliberations
- 1. The Superintendent/Designee will submit attendance area considerations to the Board for discussion and recommendation.
  - 2. If attendance area adjustments are considered under Section IV.A., the Board will notify the public of its decision for the Superintendent to proceed or not to proceed with the formation of the AAC and attendance area adjustment recommendations.
  - 3. The Superintendent/Designee will submit to the Board attendance area adjustment recommendations, which include data on each of the factors in Section IV.B. for which measurement can be obtained.
  - 4. The Board, in accordance with Policy 2040 Public Participation in Meetings of the Board, will hold a public hearing(s) regarding the school attendance area adjustment plan(s) submitted by the Superintendent. In addition, and as necessary, work session(s) will be scheduled to consider public hearing testimony. The Board may schedule additional hearings and/or work sessions at its discretion.
  - 5. The Board may direct the Superintendent to provide additional information and/or develop other alternative plans for its consideration at any time. The Board may also propose alternative plans at any time.
  - 6. The Board may consider exemptions for rising fifth, eighth, and eleventh grade students to continue attending schools in an area that is proposed for attendance area adjustments. Attendance area adjustments will not affect rising twelfth grade students.
  - 7. The Board will take final action on school attendance area adjustments at a public meeting. The Board reserves the right to adopt or to modify any alternatives and/or recommendations presented to it by the Superintendent/Designee or the citizens of Howard County proposed previously or during the Board's deliberations and vote.

**POLICY 6010**

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8. The Board may alter these provisions, upon a majority vote of the Board, when an extended emergency as defined by Policy 3010 Emergency Preparedness and Response occurs or other extraordinary circumstances warrant such an alternation.

**D. Community Input**

1. The Superintendent will, when directed by the Board, form an AAC in accordance with the Implementation Procedures of this policy for the purpose of advising the Superintendent during the planning phase of the attendance area adjustment process. In the case of an extended emergency situation, the Superintendent/Designee will propose an attendance area adjustment.
2. The Board will provide opportunities for public input in accordance with Policy 2040 Public Participation in Meetings of the Board.
3. Members of the public may submit school attendance area adjustment plans to the Board, the Superintendent/Designee and/or the AAC.

**V. Responsibilities**

- A. The Superintendent/Designee will prepare and provide enrollment projections and attendance area considerations on an annual basis to the Board.
- B. The Superintendent/Designee will determine whether the conditions exist that require school attendance area adjustments and will recommend that the Board appoint the AAC. The Superintendent/Designee will assist the AAC in completing its review and comment process.
- C. All AAC meetings are subject to the Maryland Open Meetings Act. Staff will take summary notes of the AAC meeting and make these summary notes available to the public.
- D. The Superintendent/Designee will communicate the Board's action on attendance area adjustments to the principals, PTA presidents and SGA presidents of each affected school, the president of the PTA Council of Howard County and the chairman of the Community Advisory Council to the Board.
- E. Principals will communicate attendance area adjustments to the parents of students in areas affected by the Board's action.

**VI. Delegation of Authority**

The Superintendent is authorized to develop appropriate procedures for the implementation of this policy.

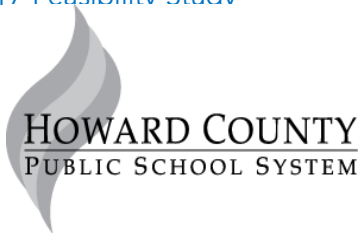


**VII. References**

- A. Legal
  - The Annotated Code of Maryland, Education Article, Section 4-109, Establishment of Public School
  - Maryland Open Meetings Act
- B. Other Board Policies
  - Policy 2040 Public Participation in Meetings of the Board
  - Policy 2050 Advisory Committees to Staff and Schools
  - Policy 3010 Emergency Preparedness and Response
  - Policy 5200 Pupil Transportation
  - Policy 6000 Site Selection and Acquisition
  - Policy 6020 School Planning and Construction Programs
  - Policy 6070 Discontinuation of School Use
  - Policy 9000 Student Residency Eligibility Enrollment Assignment
- C. Relevant Data Sources
- D. Other

**VIII. History**

ADOPTED: April 15, 2004  
REVIEWED: July 1, 2011  
MODIFIED:  
REVISED: April 28, 2005  
April 16, 2009  
January 26, 2017  
EFFECTIVE: January 26, 2017



**POLICY 6010-IP  
IMPLEMENTATION PROCEDURES**

**SCHOOL ATTENDANCE AREAS**

Effective: January 26, 2017

**I. Definitions**

Within the context of these implementation procedures, the following definitions apply:

- A. Integrated Modular Units – Modular classrooms or buildings that are permanently installed at a school and included in the program capacity of a school.
- B. Projection Methodology – Procedure to develop student enrollment projections that includes, but is not limited to historical cohort survival ratios, birth rates, new housing units, housing resales, apartment turnover and net migration.
- C. Relocatable(s) – Prefabricated, stand-alone buildings providing temporary capacity for a school and that are excluded from program capacity.

**II. Development and Consideration of School Attendance Area Adjustment Plans**

The long-range school facilities planning process is conducted on an annual basis according to the county's and state's capital budget process. The schedule is adjusted annually to account for holidays and other anomalies. The development and consideration of proposed school attendance area adjustment plans will take place in the following manner:

- A. Year 1 - January/February  
The Office of School Planning will provide the Superintendent with enrollment projections by school annually and develop attendance area considerations per Policy 6010. The considerations will address capacity projects in the capital budget and will be the basis for short- and long-range attendance area plans.
- B. Year 1 - April  
The Office of School Planning will solicit and interview candidates for the potential Attendance Area Committee (AAC) and nominate candidates for appointment by the Superintendent.
- C. Year 1 - June  
The Superintendent/Designee presents projections, attendance area considerations and planning issues to the Board and interested citizens.

If the Board approves the appointment of an AAC, the Superintendent will charter such a committee to review proposed attendance area adjustment plans. The

POLICY 6010-IP  
IMPLEMENTATION PROCEDURES

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Board will notify the public of its decision for the Superintendent to proceed or not to proceed with the formation of the AAC and attendance area adjustment recommendations.

- D. Year 1 - June/July  
If an AAC is created, the Office of School Planning staff will provide training to the AAC. Training will include, but is not limited the following:
1. Review of Policy 6010 and its standards used to establish an attendance area adjustment plan.
  2. Review the AAC's responsibilities in the attendance area adjustment plan process.
- E. Year 1 - July/August  
With assistance from the Office of School Planning, the AAC will review attendance area adjustments, consider citizen feedback and make a committee recommendation to the Superintendent.
- F. Year 1 - July/August  
The Office of School Planning will advise the Superintendent on capacity needs for the upcoming budget process during capital budget preparations.
- G. Year 1 - September  
The Office of School Planning will facilitate regional meetings regarding proposed attendance area adjustments, including the plans refined by the AAC.
- H. Year 1 - October  
After receipt of input from the AAC and the public, the Superintendent will propose attendance area adjustments and goals (e.g., to facilitate a balanced utilization, open a new school, etc.) to the Board.
- I. Year 1 - October/November  
Board public hearing(s), work session(s) and adoption of attendance area adjustments.
- J. Year 1 - December  
The Superintendent/Designee and Board will assess the attendance area adjustment process. Modifications to this process will be made, as needed, prior to the beginning of the next attendance area adjustment.
- K. Year 1 - December – Year 2 - January  
After the Board has made any final decision(s) regarding attendance area adjustments, the approved attendance area maps are developed, the school locator is updated, and transportation routes are updated. The Superintendent will communicate the Board's action to the principals, PTA presidents and SGA presidents of each affected school, the president of the PTA Council of Howard

POLICY 6010-IP  
IMPLEMENTATION PROCEDURES

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County and the chairman of the Community Advisory Council to the Board. The Superintendent/Designee will assist school-based administrators and staff with articulating students affected by attendance area adjustments. Principals will communicate attendance area adjustments to the parents of students in areas affected by the Board's action.

- L. Year 2 - January  
Capital Budget review by the Board.
- M. Year 2 - May  
Capital Budget review and approval by County Council.
- N. Year 2 - August  
Attendance Area Adjustment effective.

### **III. Attendance Area Committee Make-up and Responsibilities**

- A. The AAC shall consist of 10 to 15 members. Consideration will be given to providing representation from each of the Howard County Public School System's (HCPSS) planning regions. Representation may include, but is not limited to the following:
  - 1. At least one member from the Howard County Association of Student Councils.
  - 2. At least one member from each of the HCPSS six planning regions.
  - 3. At least three, but no more than eight at-large citizen members, with consideration toward identifying members of the community based on the attendance area/planning region(s) affected by the proposed attendance area adjustment.
  - 4. Of those AAC members selected, no more than six members will have been members of a previous AAC.
  - 5. Members may not serve more than two consecutive AAC's.
- B. The AAC, after receiving training, will work in collaboration with the Office of School Planning staff and the Superintendent/Designee to refine the attendance area adjustment plan through a review and comments process. The basis for the review will be enrollment projections, the Policy 6010 Standards set forth in Section IV.B., and the attendance area adjustment goals set by the Superintendent.
- C. The AAC will take public input in the form of reviews and comments. The AAC will review public input and provide comments to the staff. Staff will modify the attendance area adjustment plans as appropriate based on the AAC comments.

POLICY 6010-IP  
IMPLEMENTATION PROCEDURES

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- D. Attendance areas plans refined by the AAC will be presented at one or more regional meetings for additional citizen comment. Further refinement to the AAC's plan may be necessary prior to forwarding it to the Superintendent for review.
- E. AAC members may be asked to participate during the meeting in which staff presents the attendance area adjustment recommendations as well as in one or more work sessions to assist the Board in its deliberations.

**IV. History**

ADOPTED: April 28, 2005

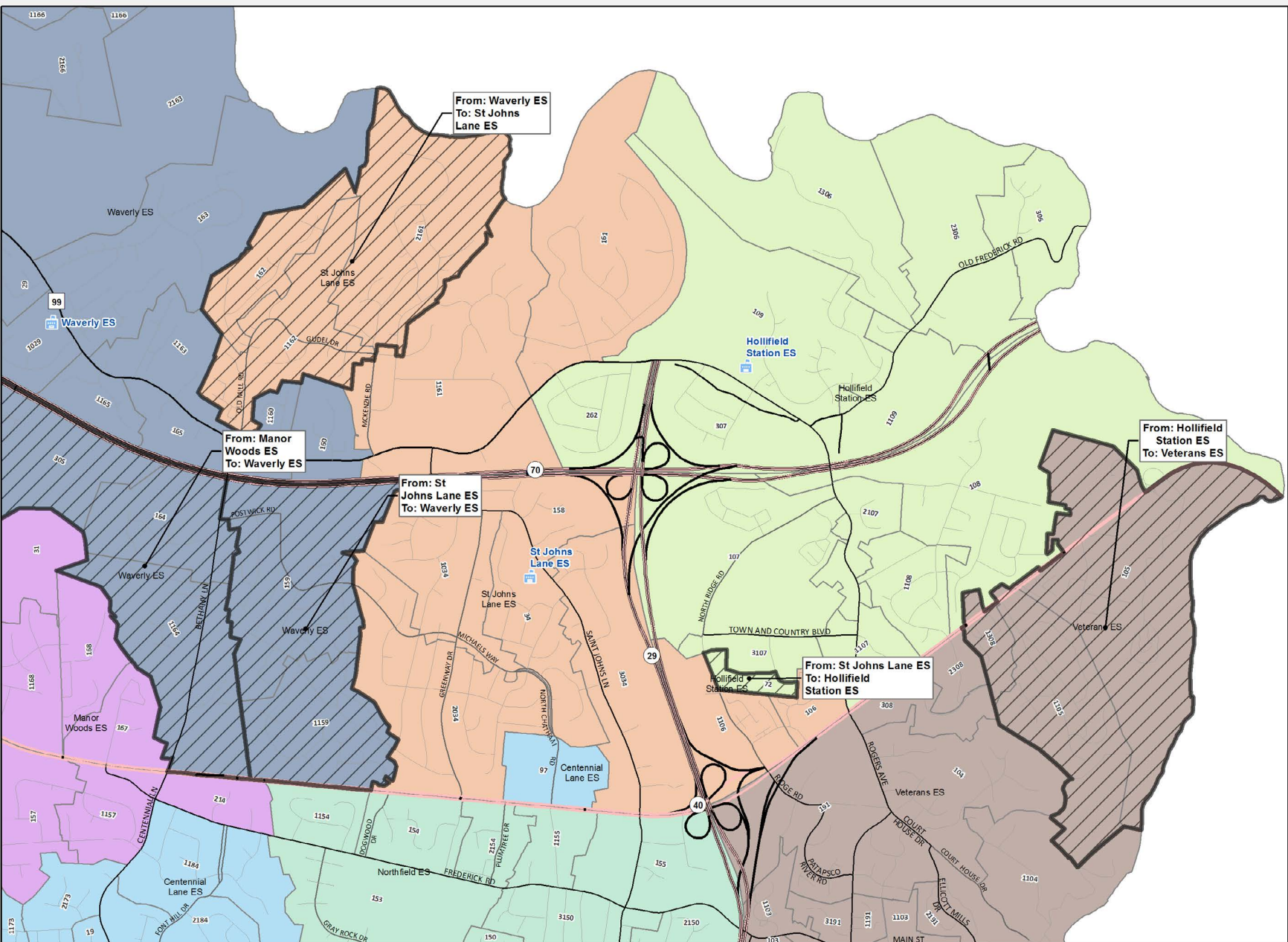
REVIEWED: July 1, 2011

MODIFIED:

REVISED: January 26, 2017

EFFECTIVE: January 26, 2017





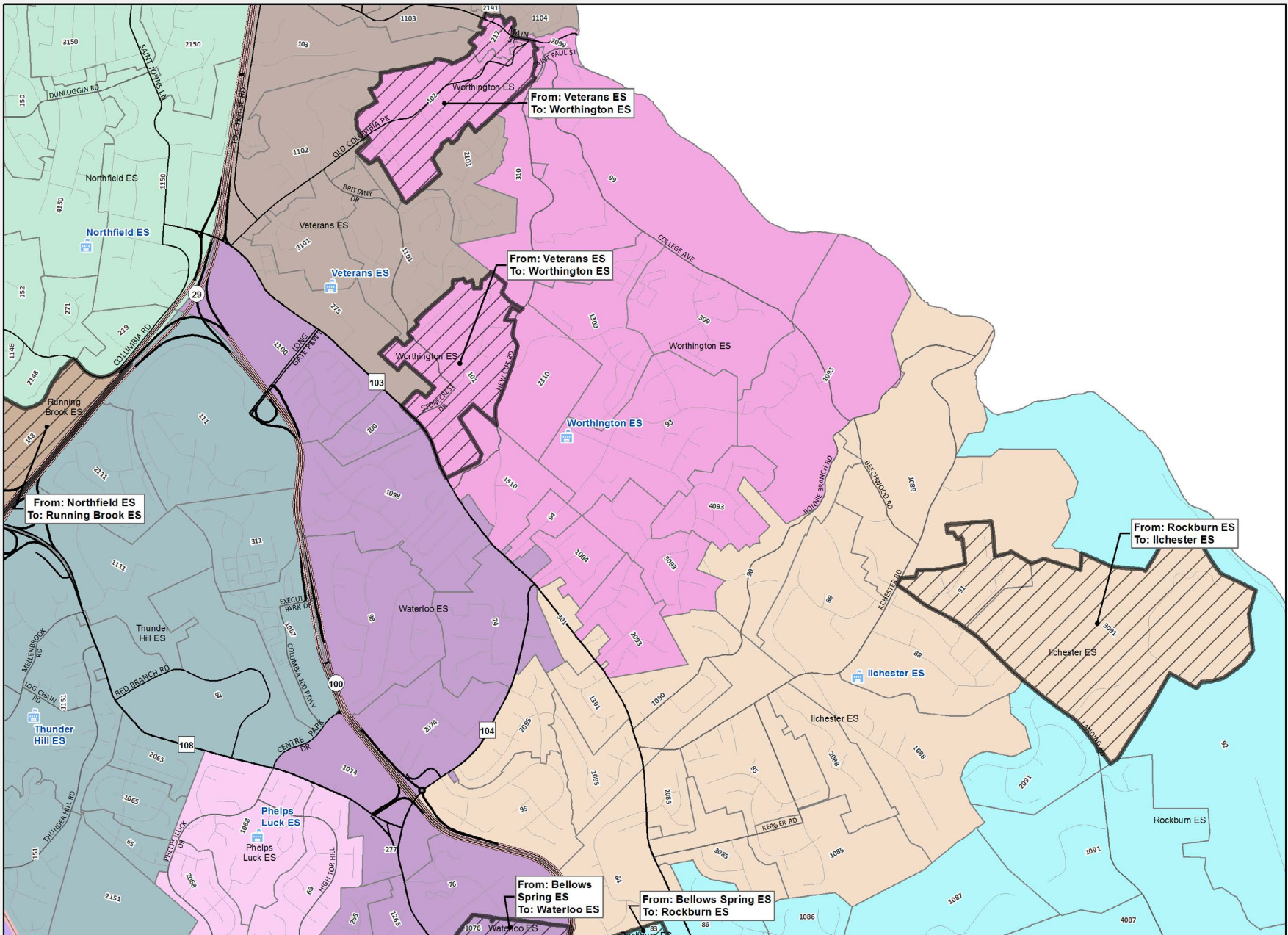
Proposed Redistricting for 2018-19 School Year  
Elementary School



Redistricting Proposed in These Areas





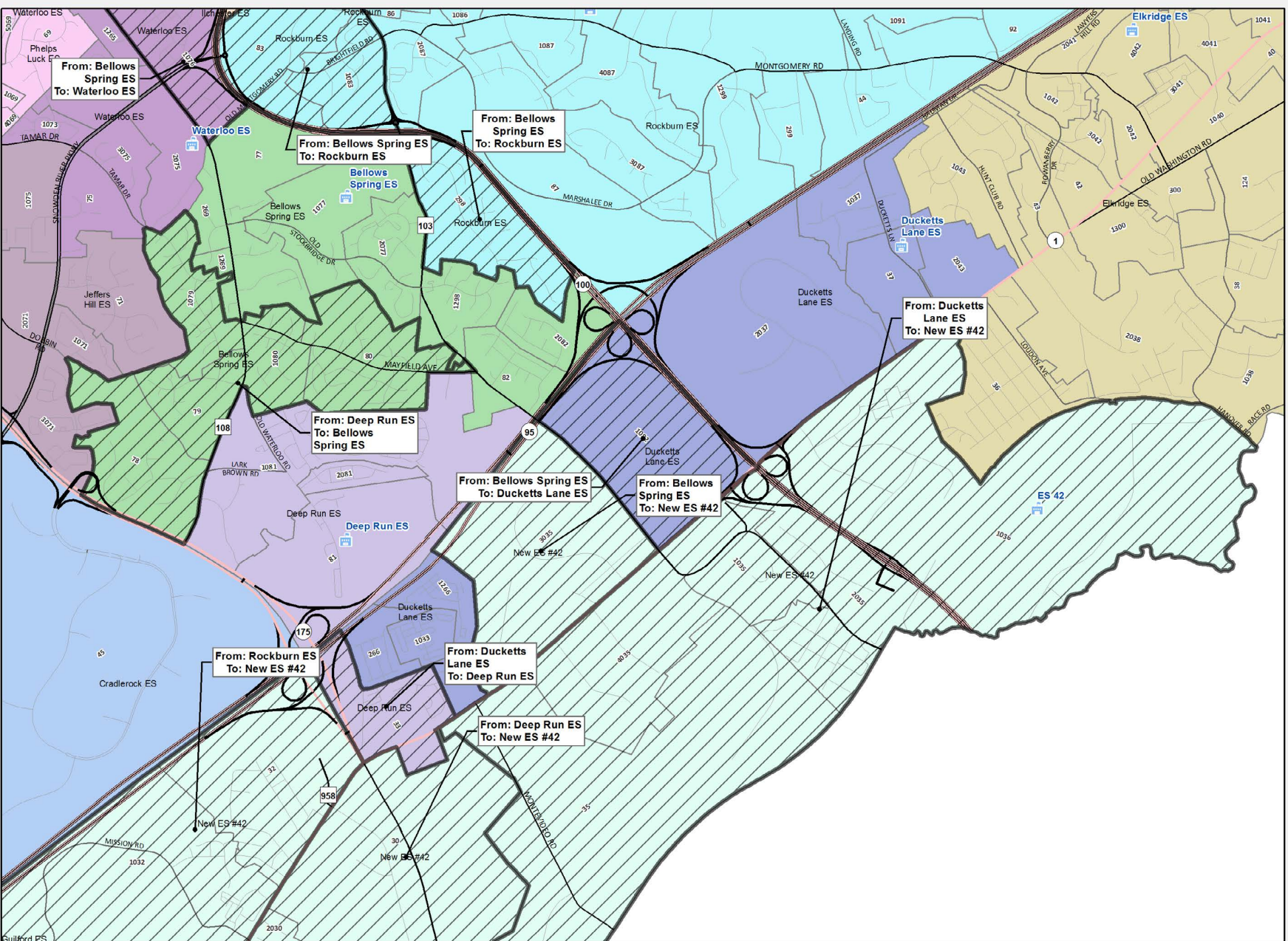


Proposed Redistricting for 2018-19 School Year  
Elementary School

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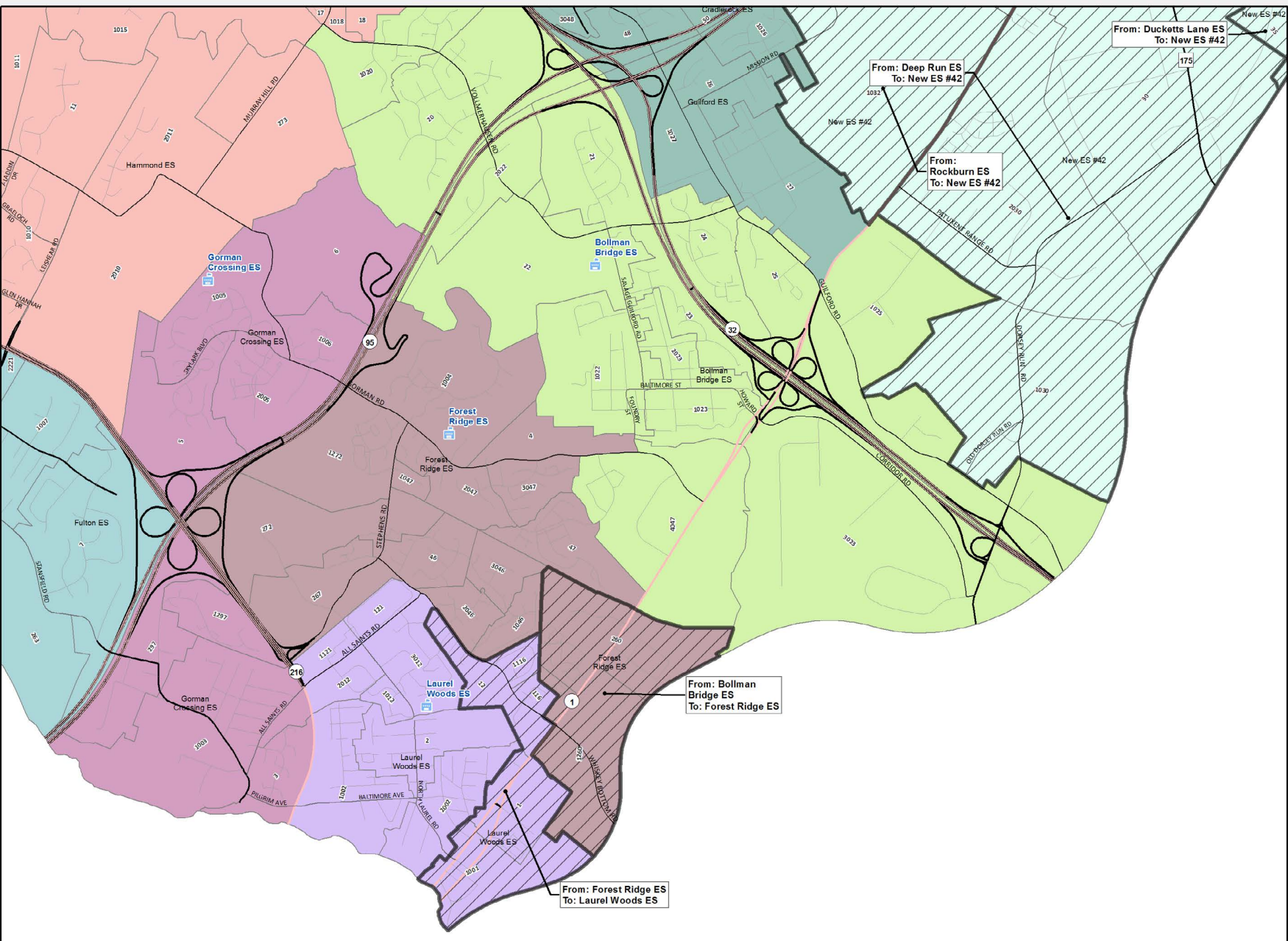
Proposed Redistricting for 2018-19 School Year  
Elementary School



Redistricting Proposed in These Areas







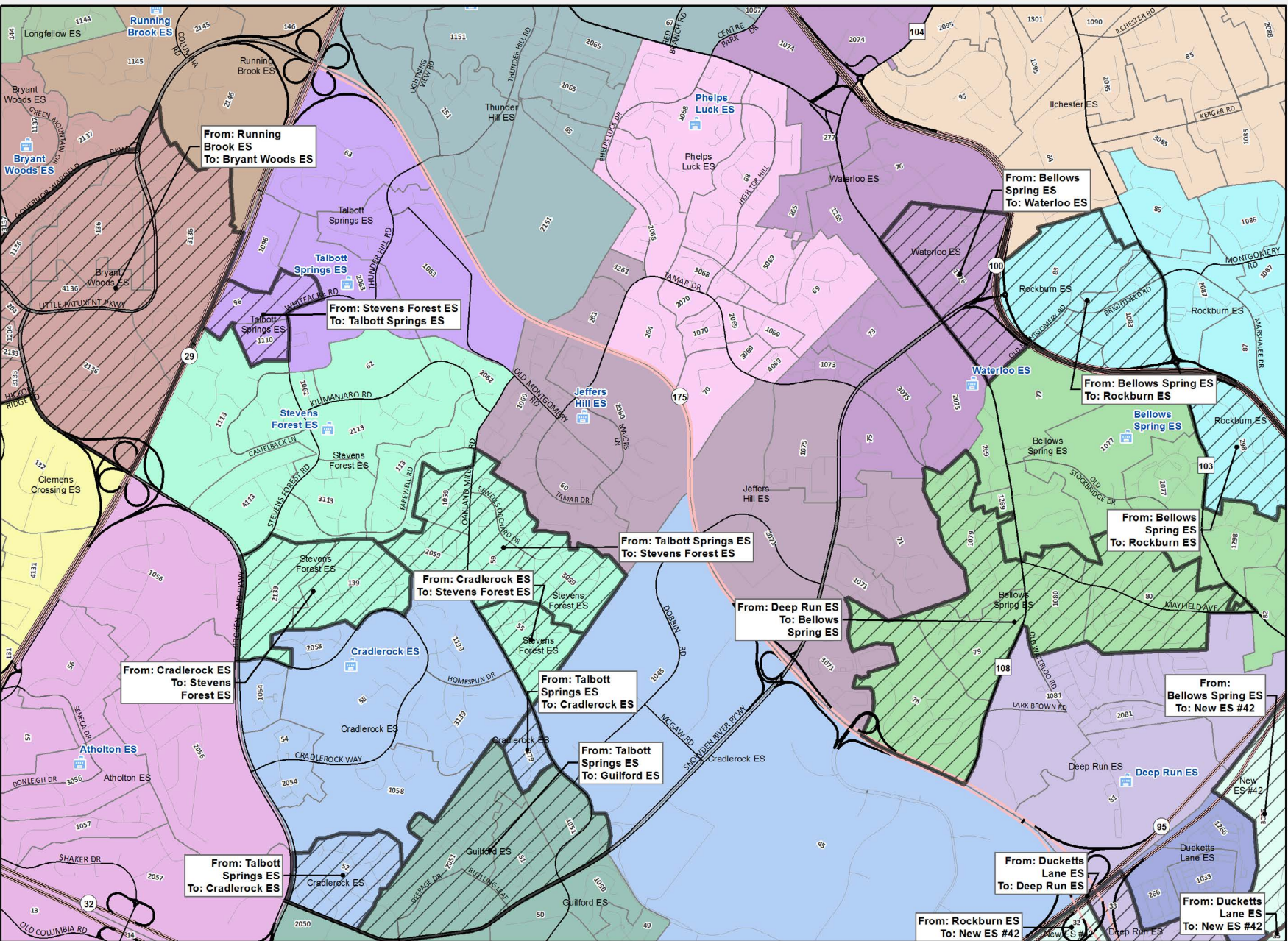
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Elementary School



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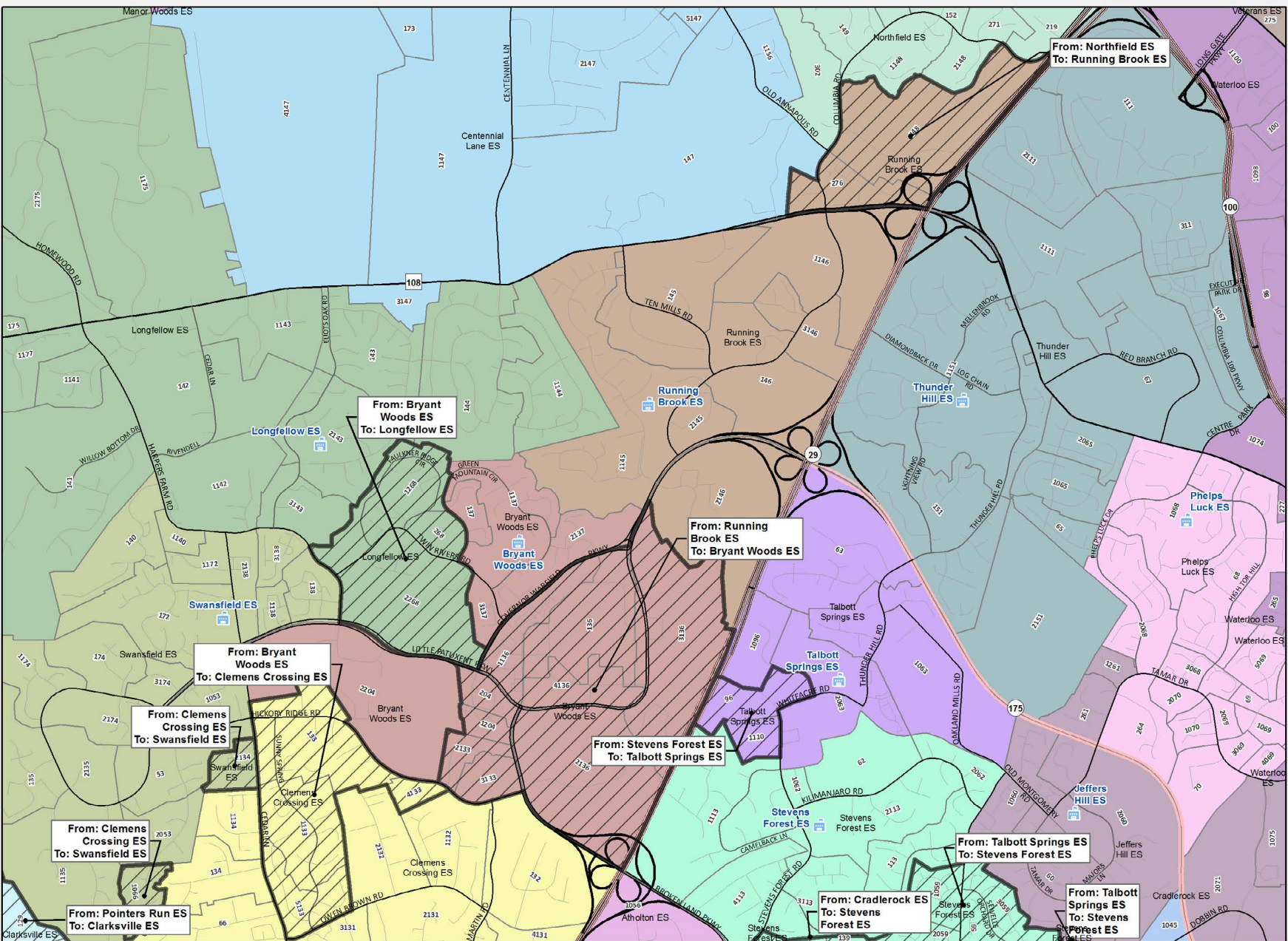


Proposed Redistricting for 2018-19 School Year  
Elementary School

 Redistricting Proposed in These Areas







Proposed Redistricting for 2018-19 School Year  
Elementary School

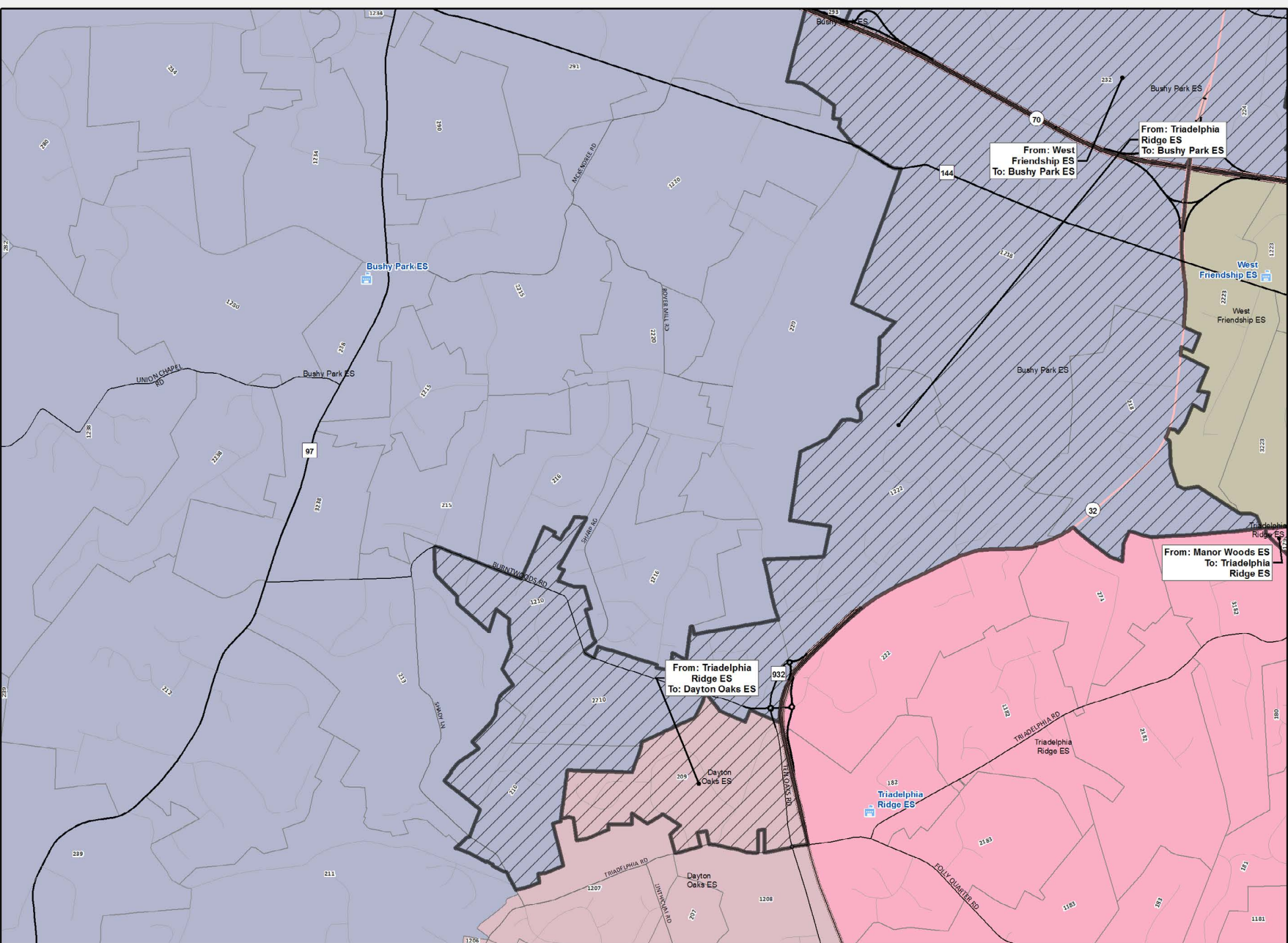
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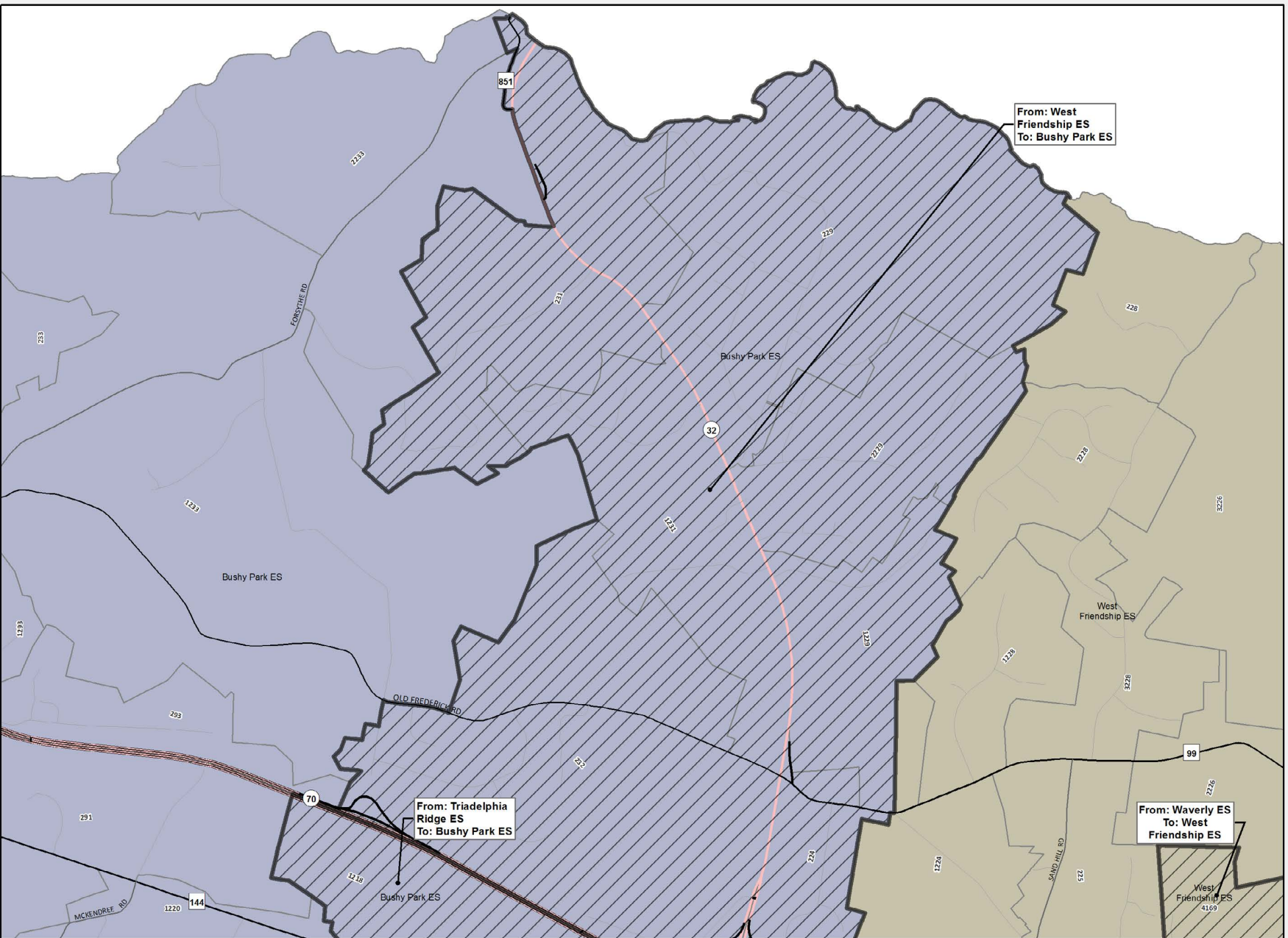




Proposed Redistricting for 2018-19 School Year  
Elementary School

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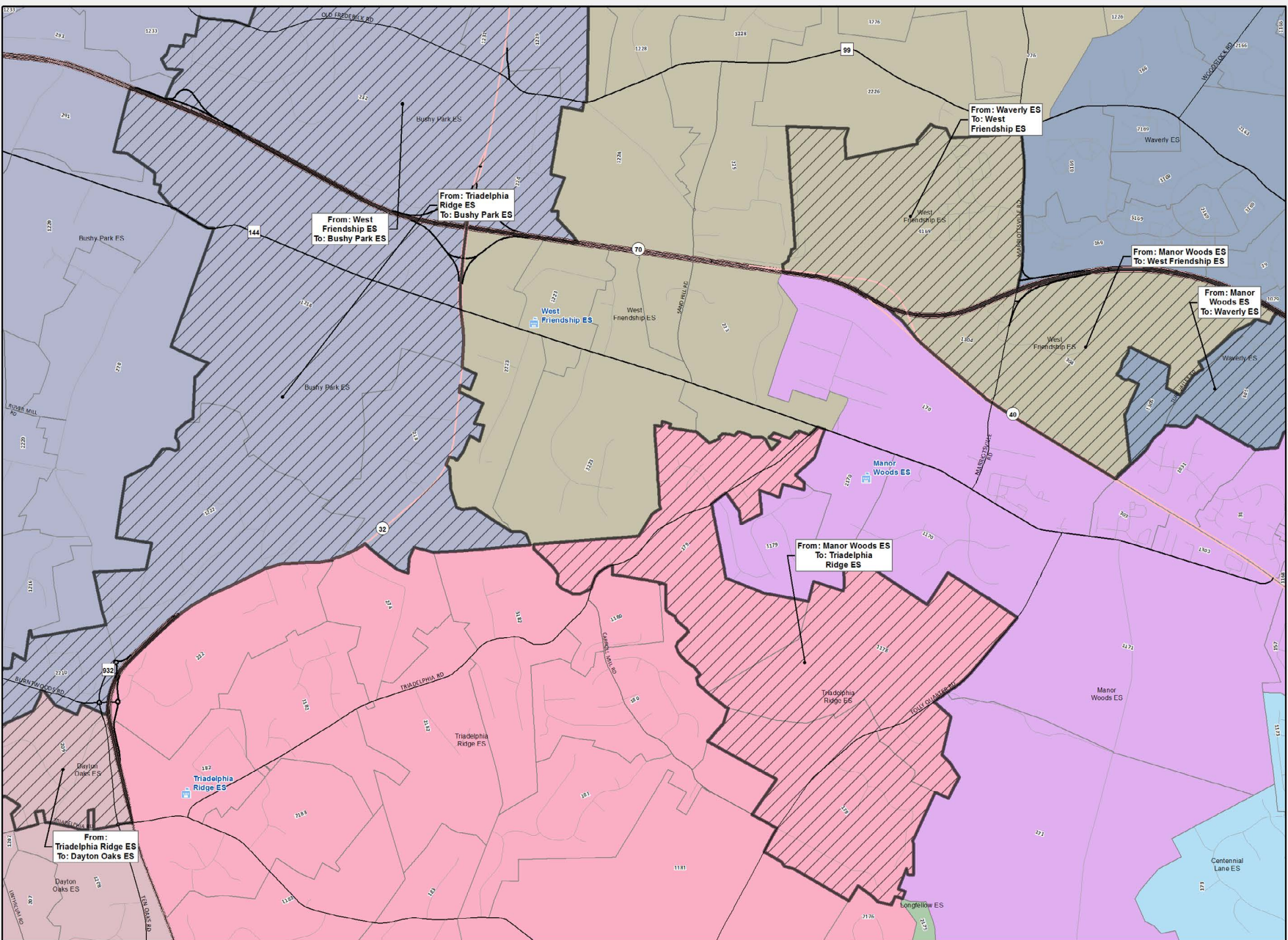
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Redistricting Proposed in These Areas





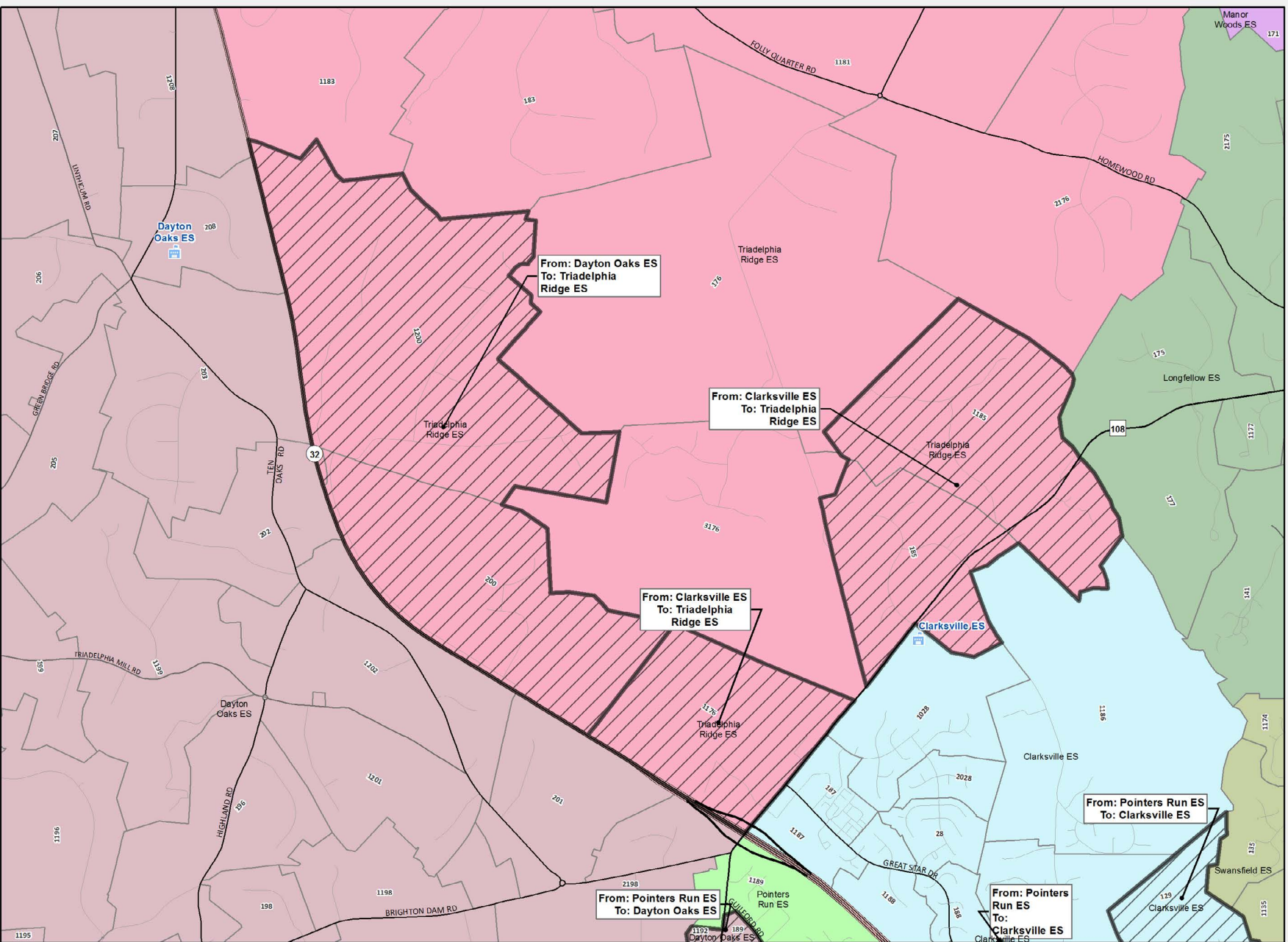


Proposed Redistricting for 2018-19 School Year  
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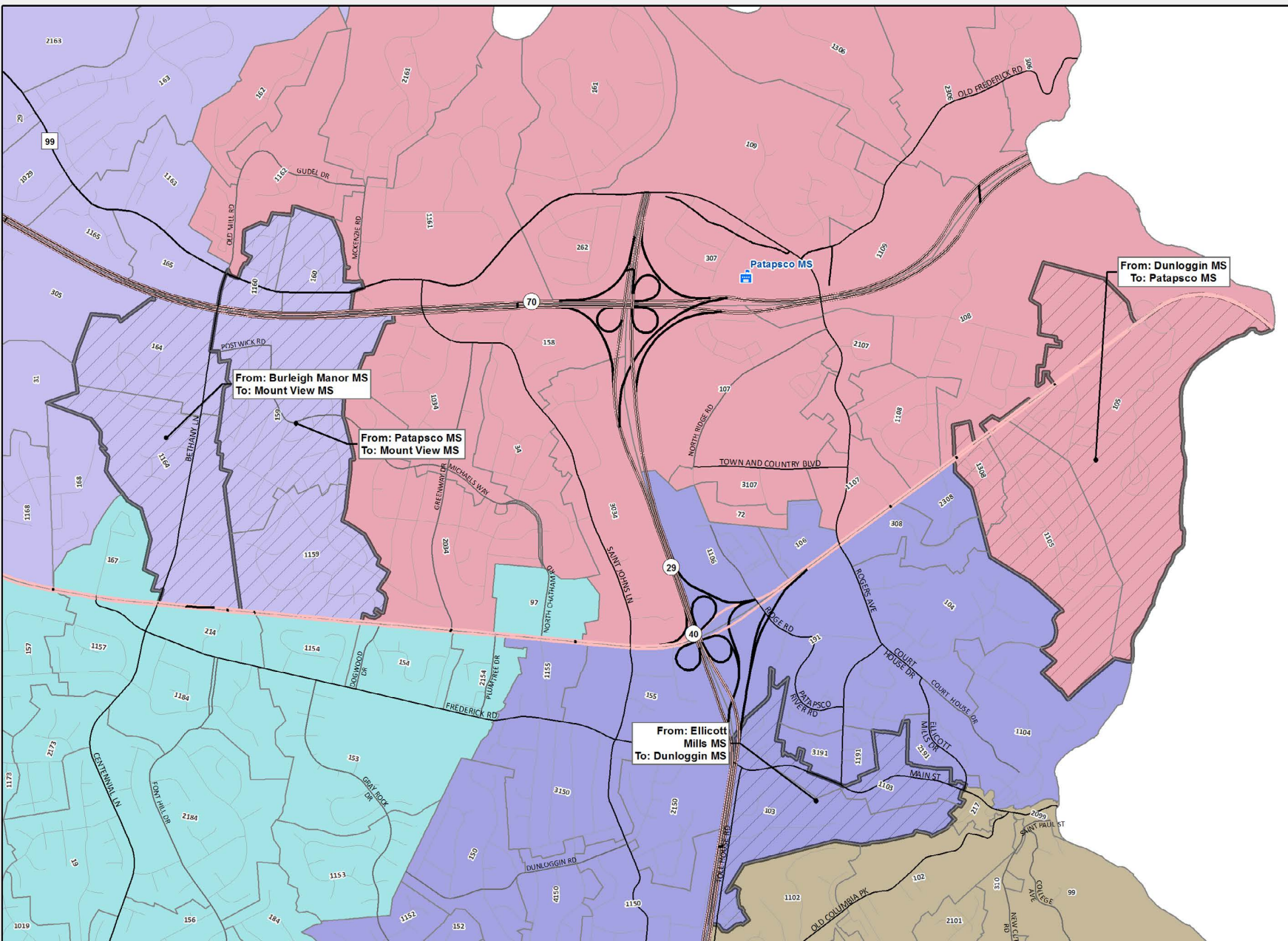




Proposed Redistricting for 2018-19 School Year  
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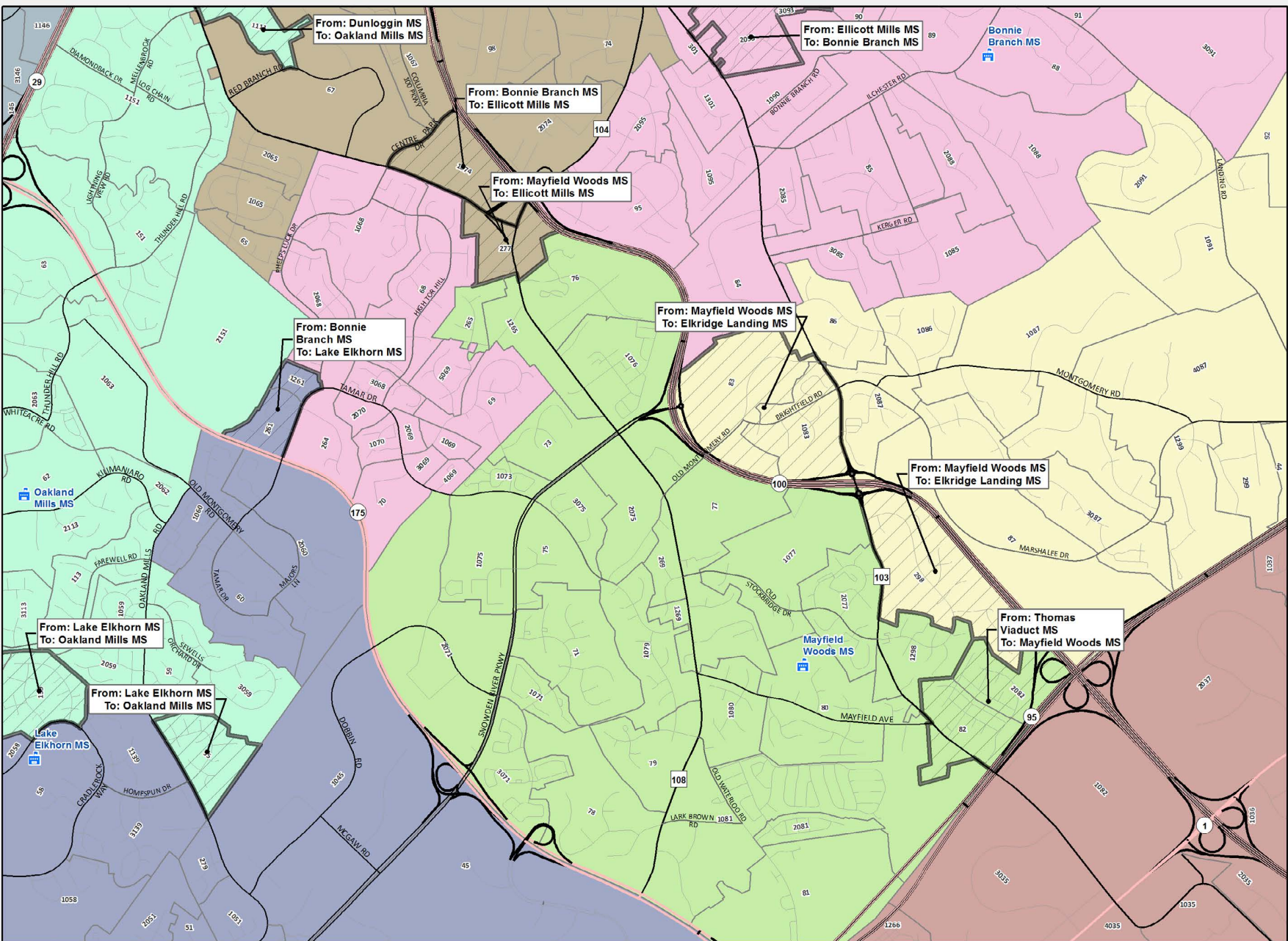


Proposed Redistricting for 2018-19 School Year  
Middle School


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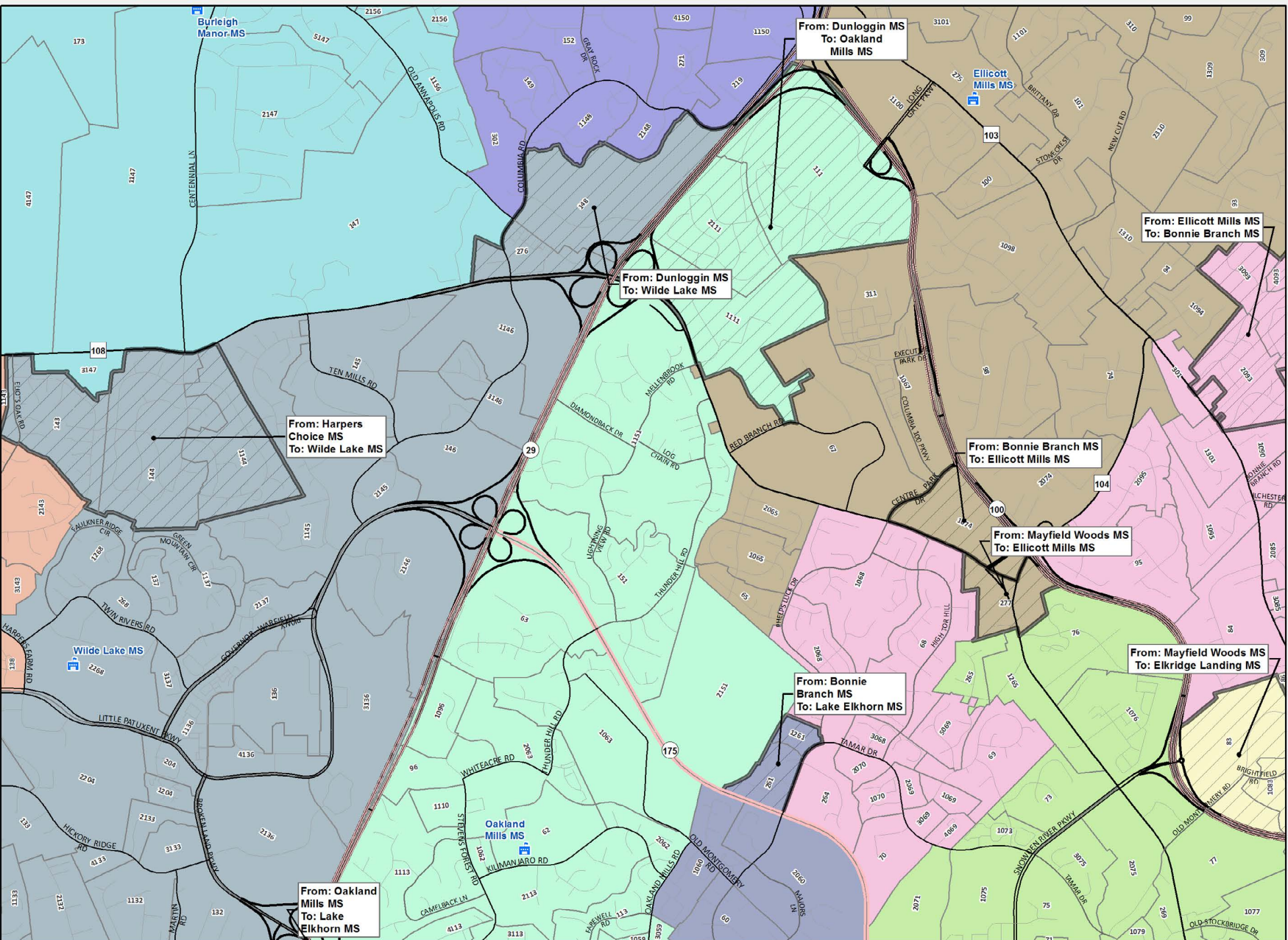


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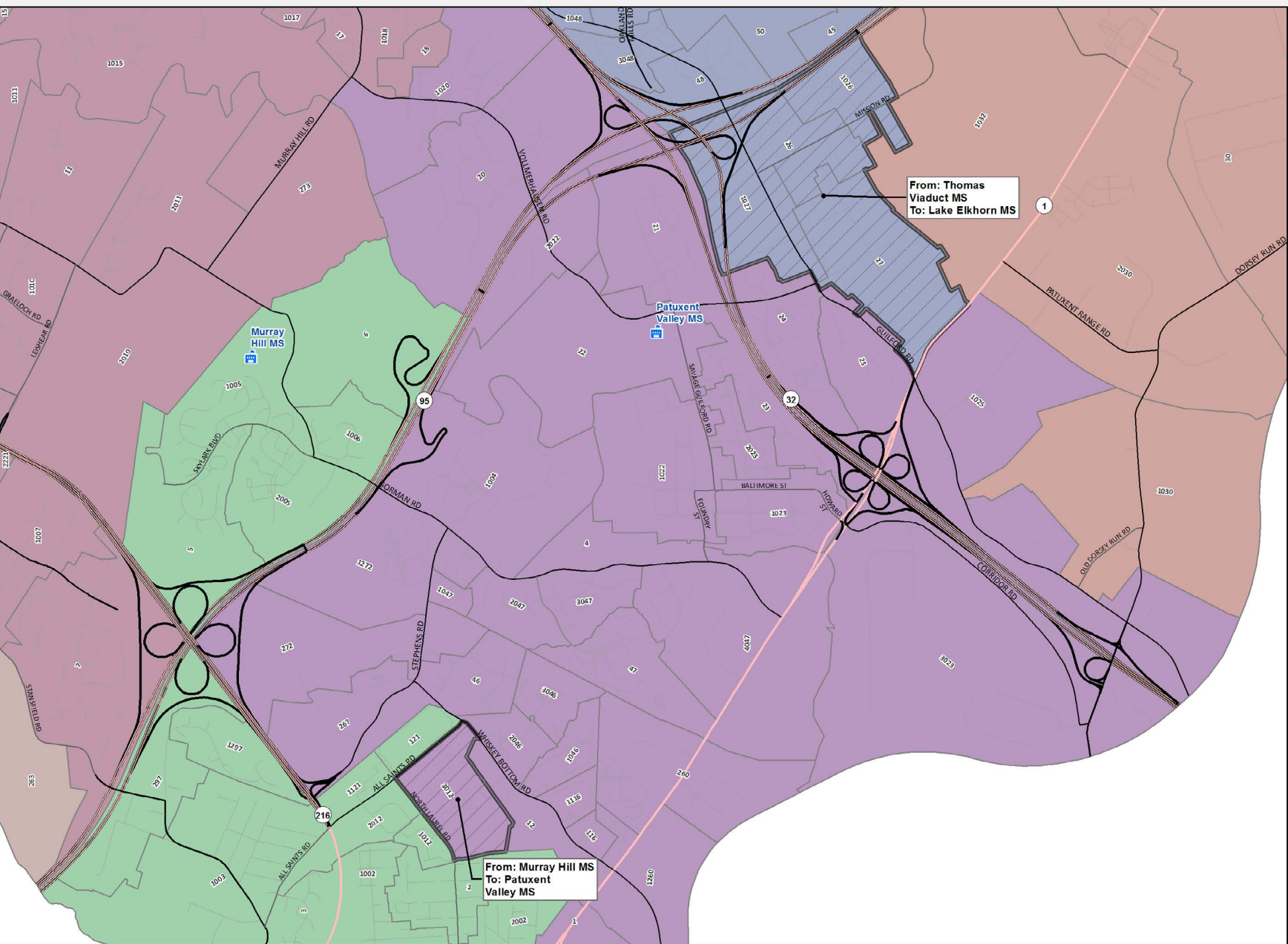




Proposed Redistricting for 2018-19 School Year  
Middle School

 Redistricting Proposed in These Areas



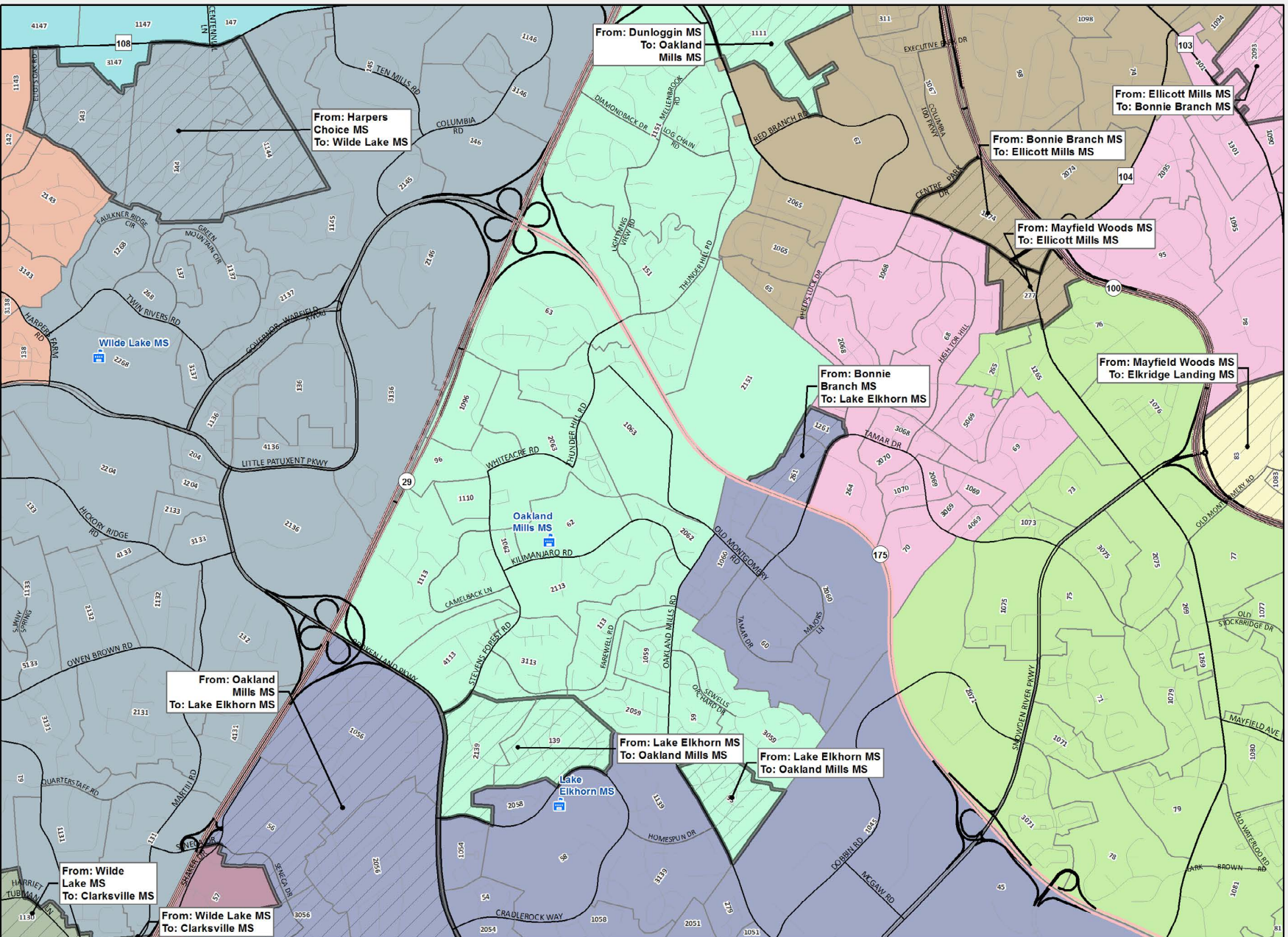


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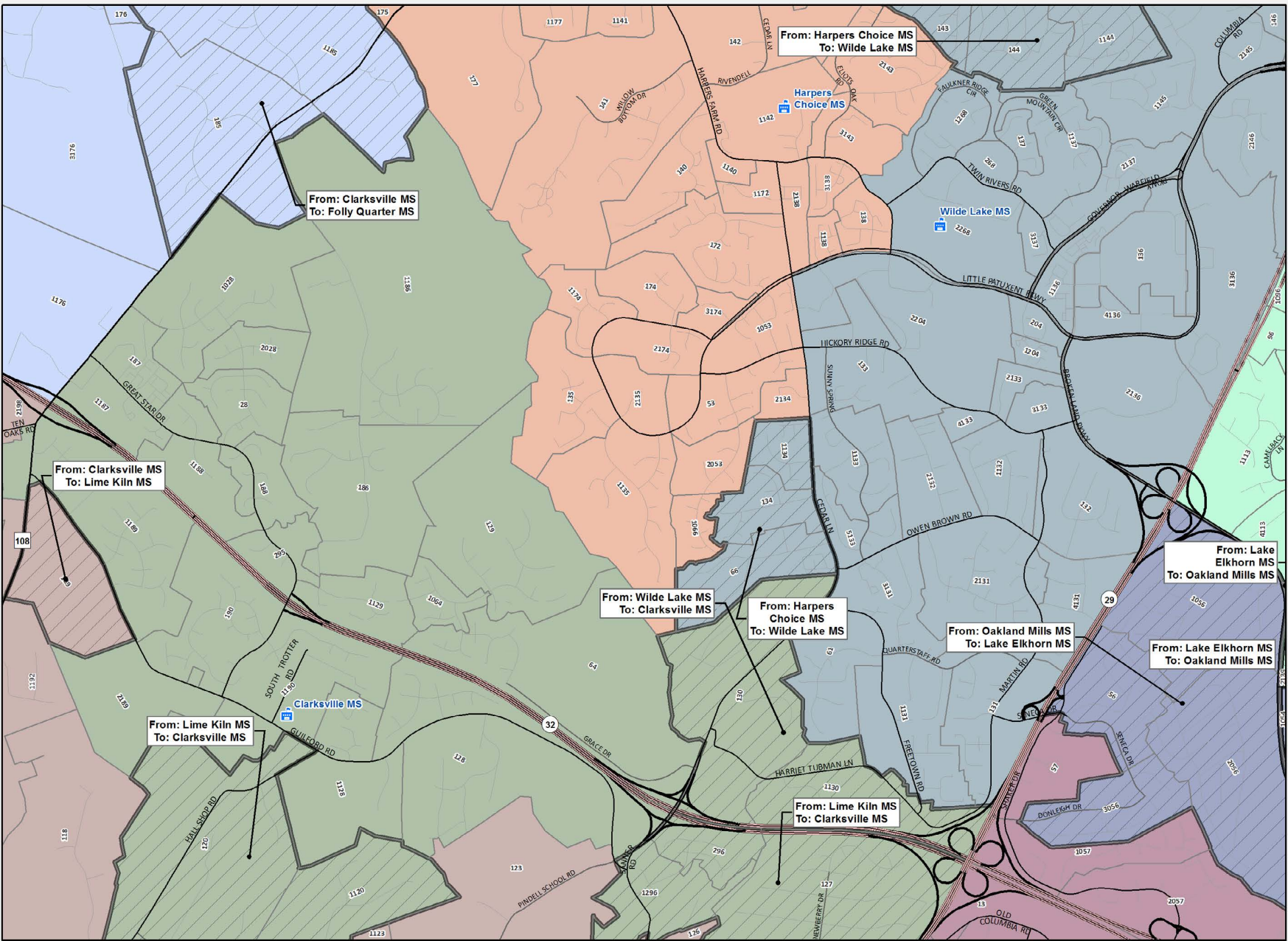
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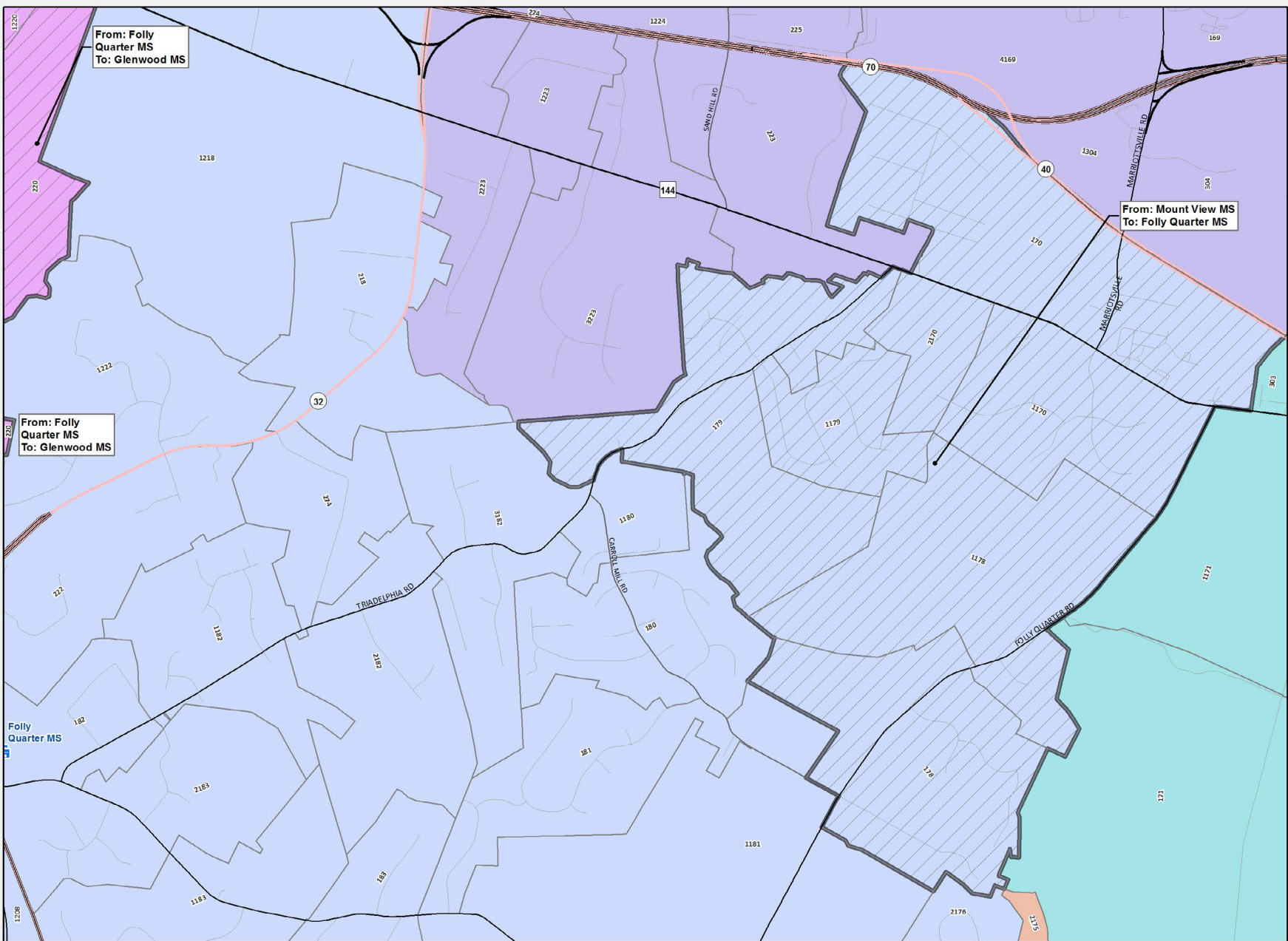




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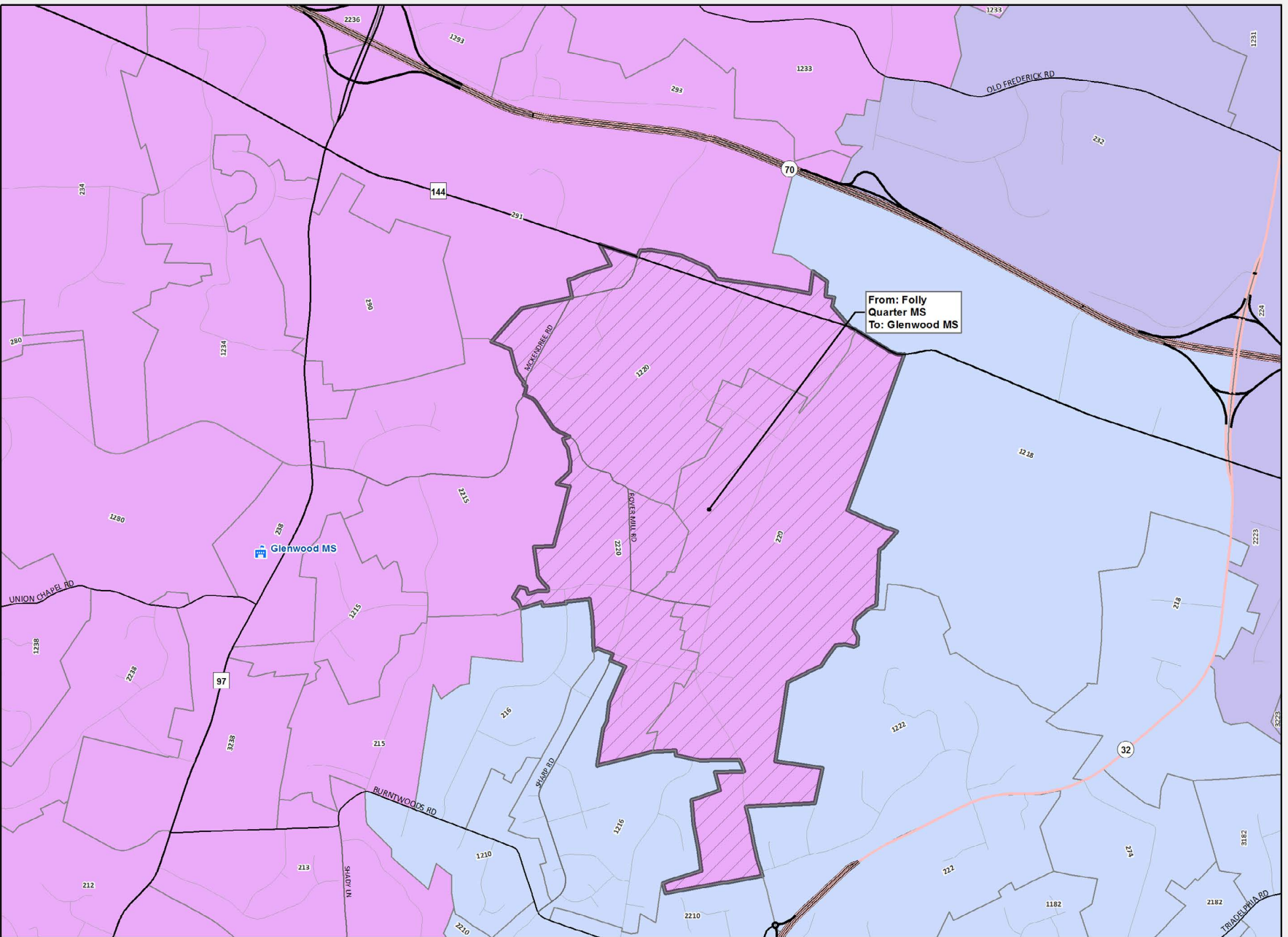


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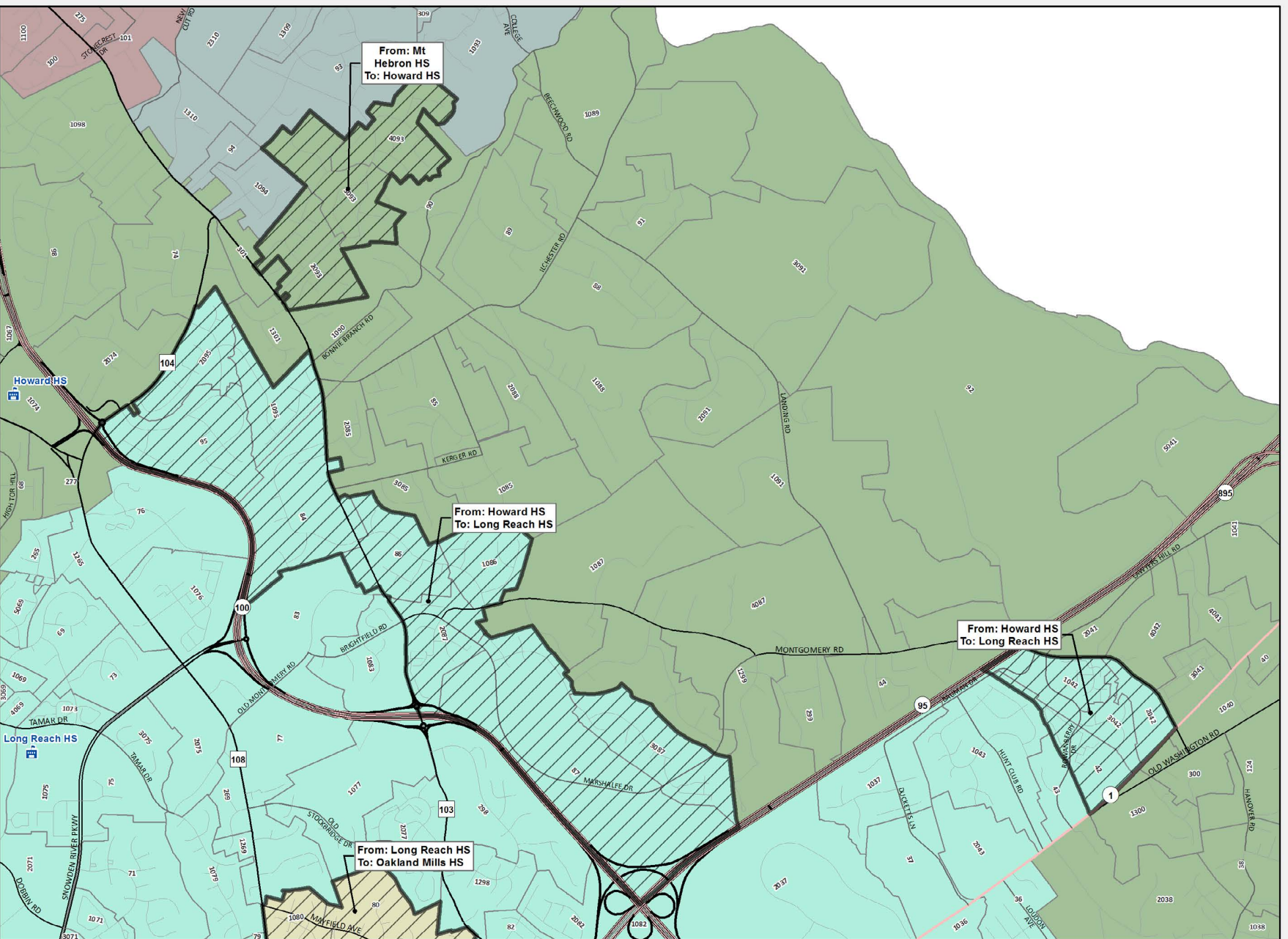




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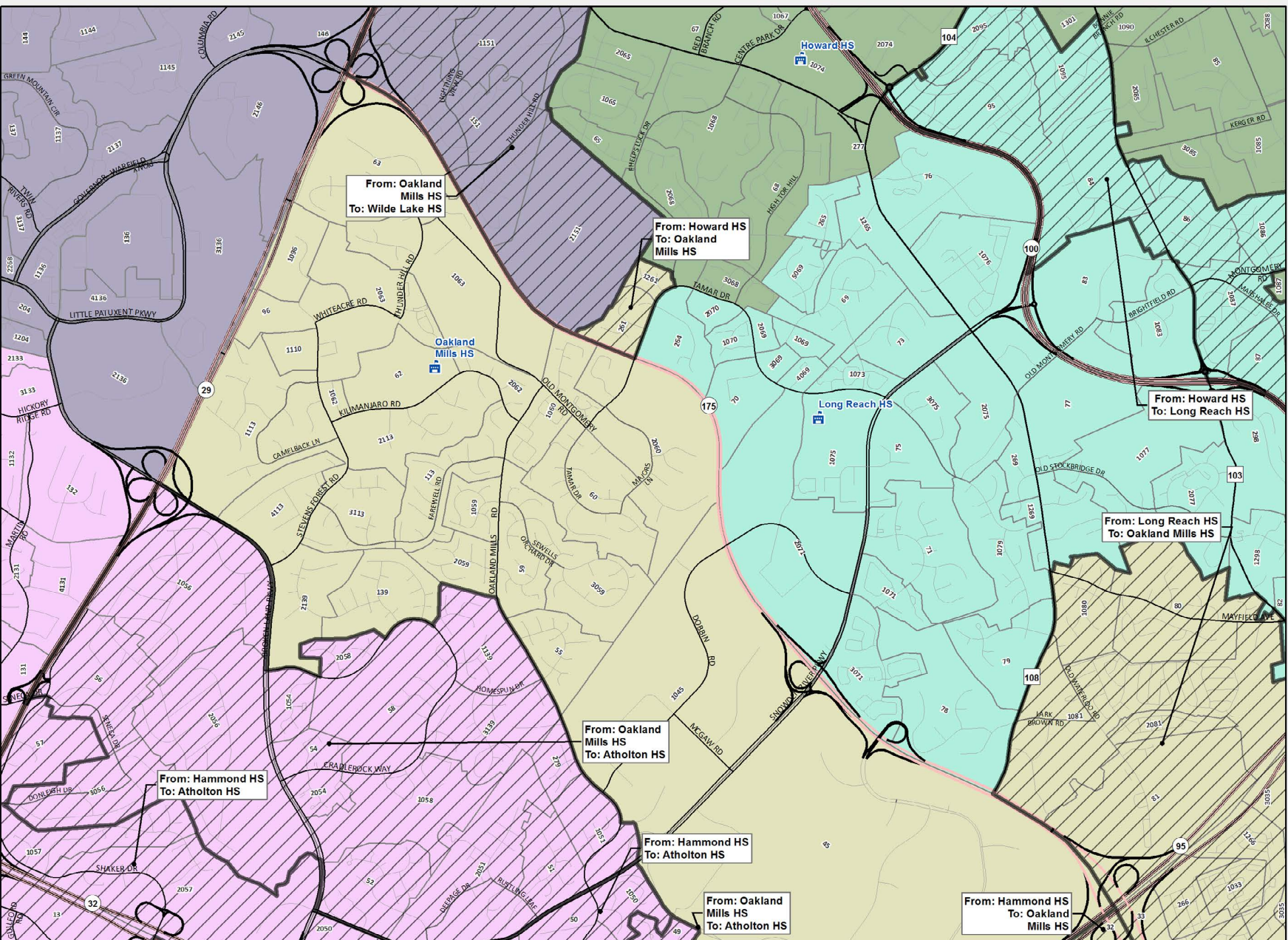
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High School



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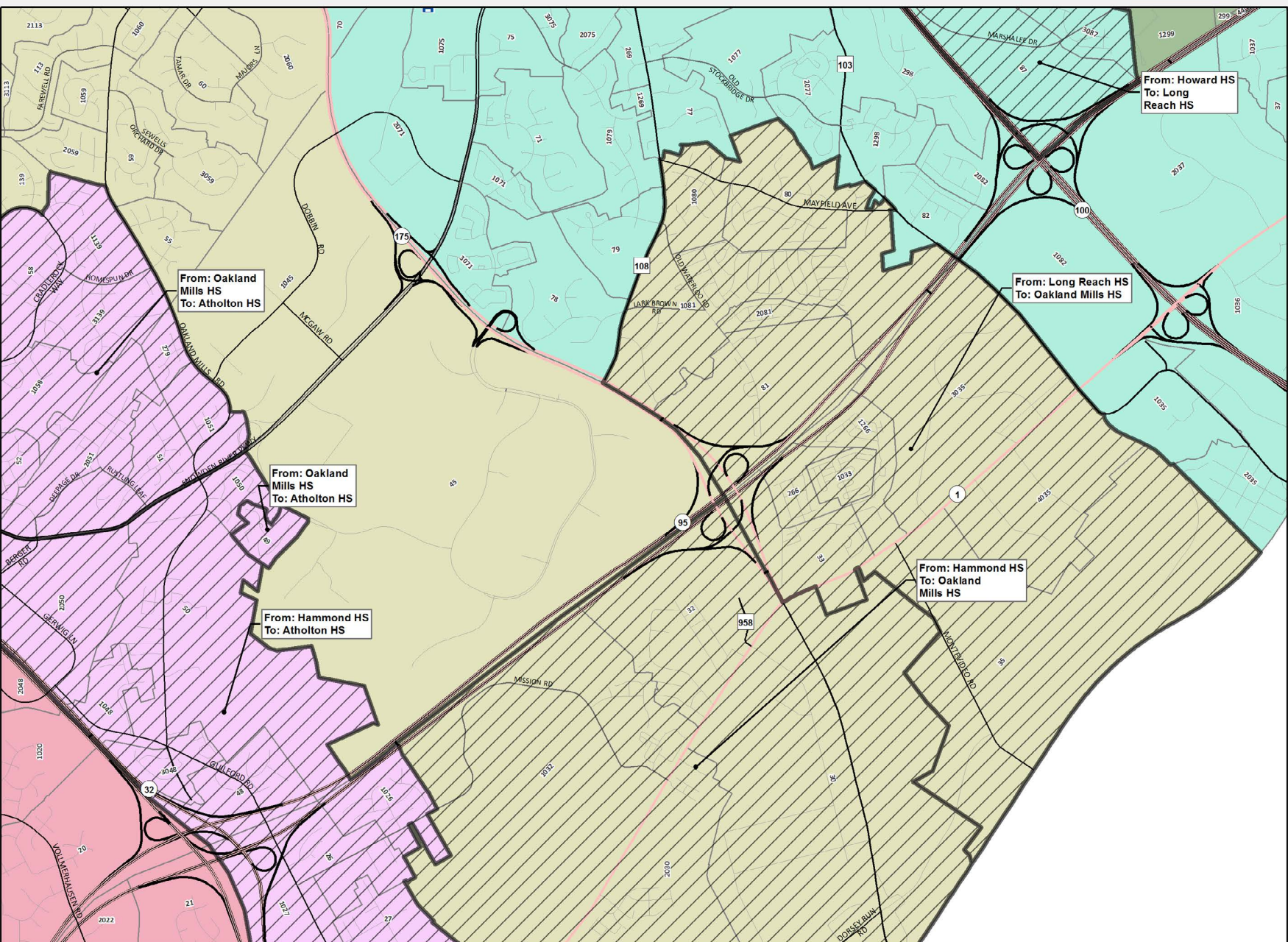


Proposed Redistricting for 2018-19 School Year  
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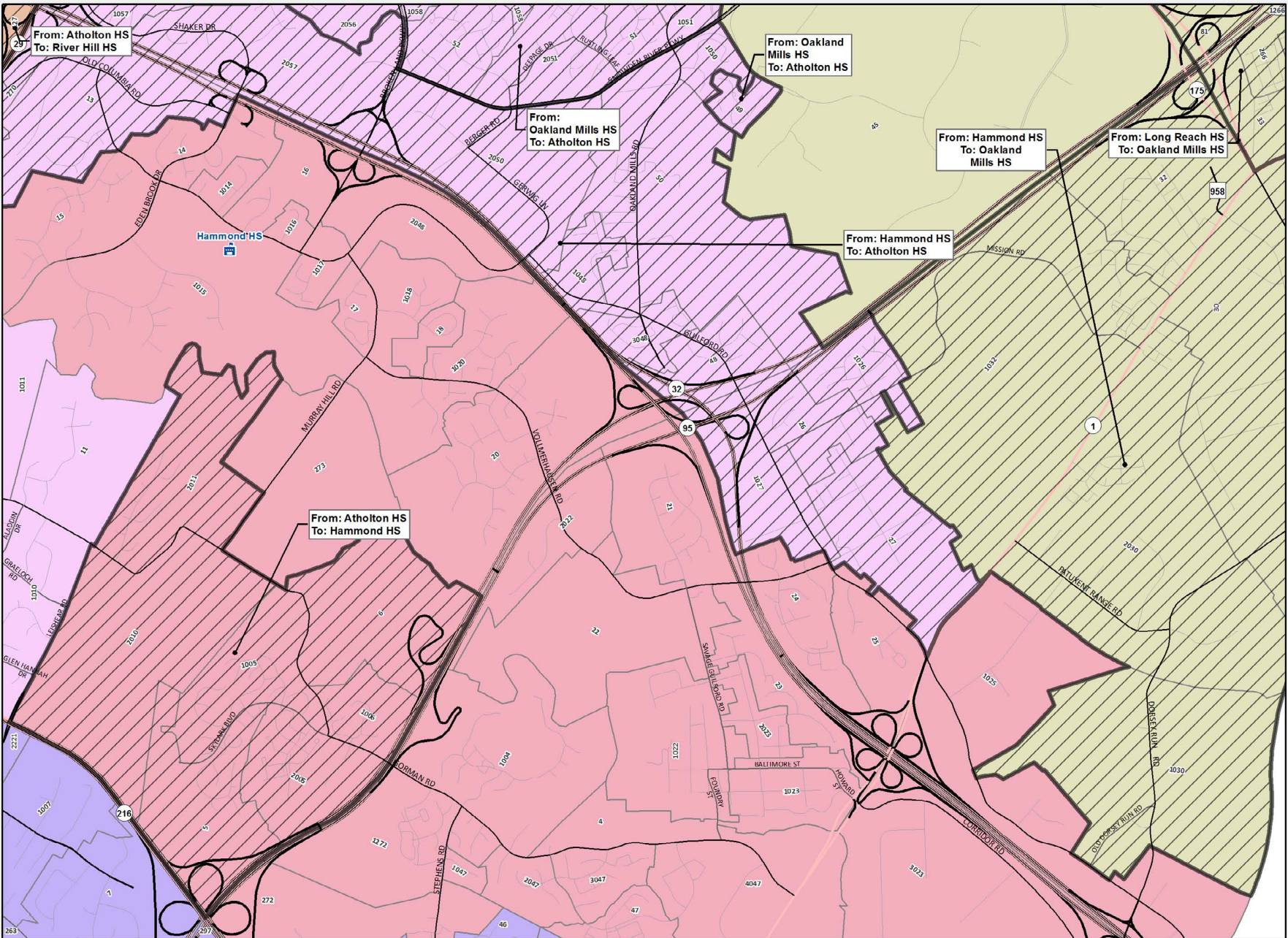
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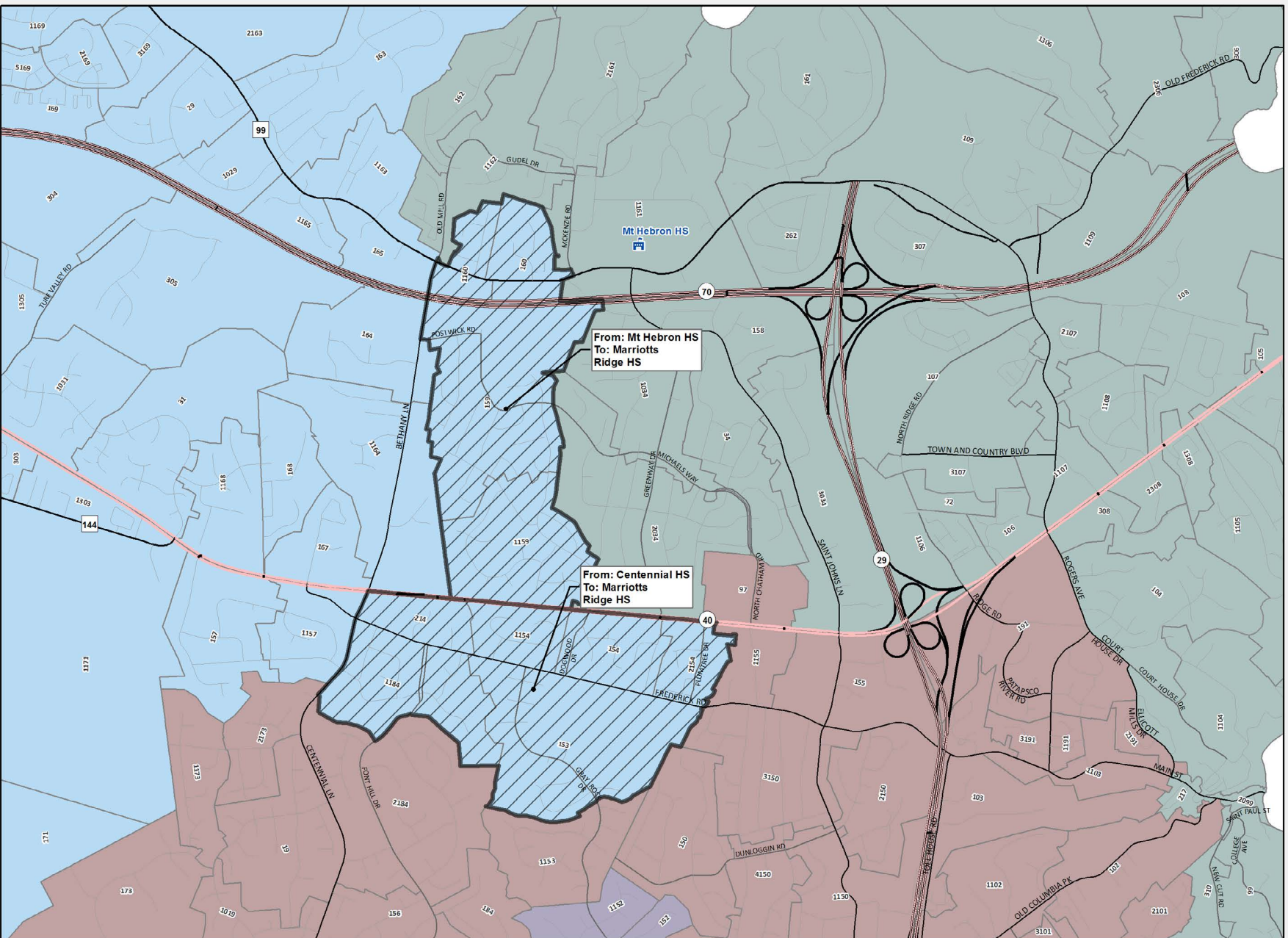


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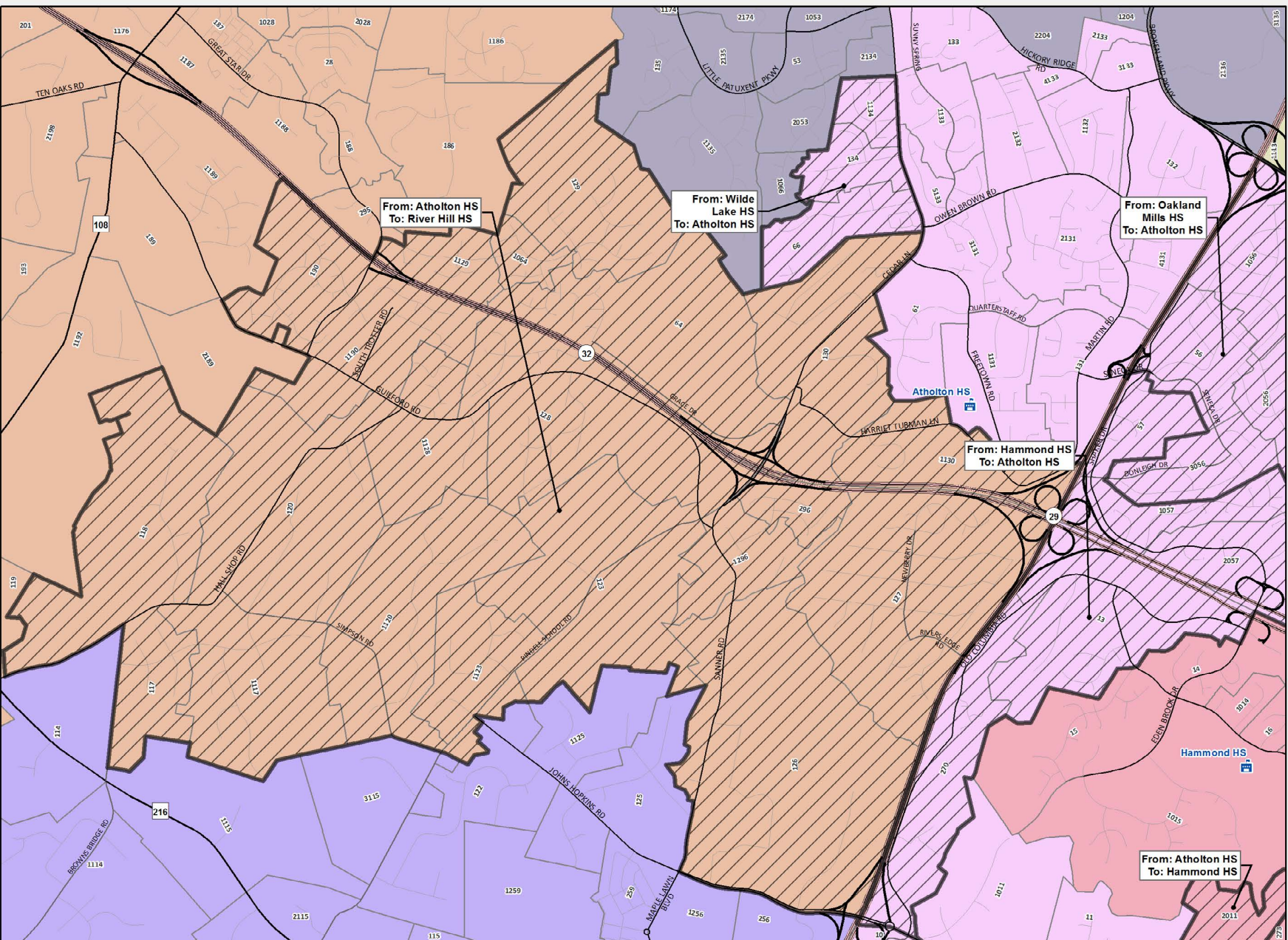
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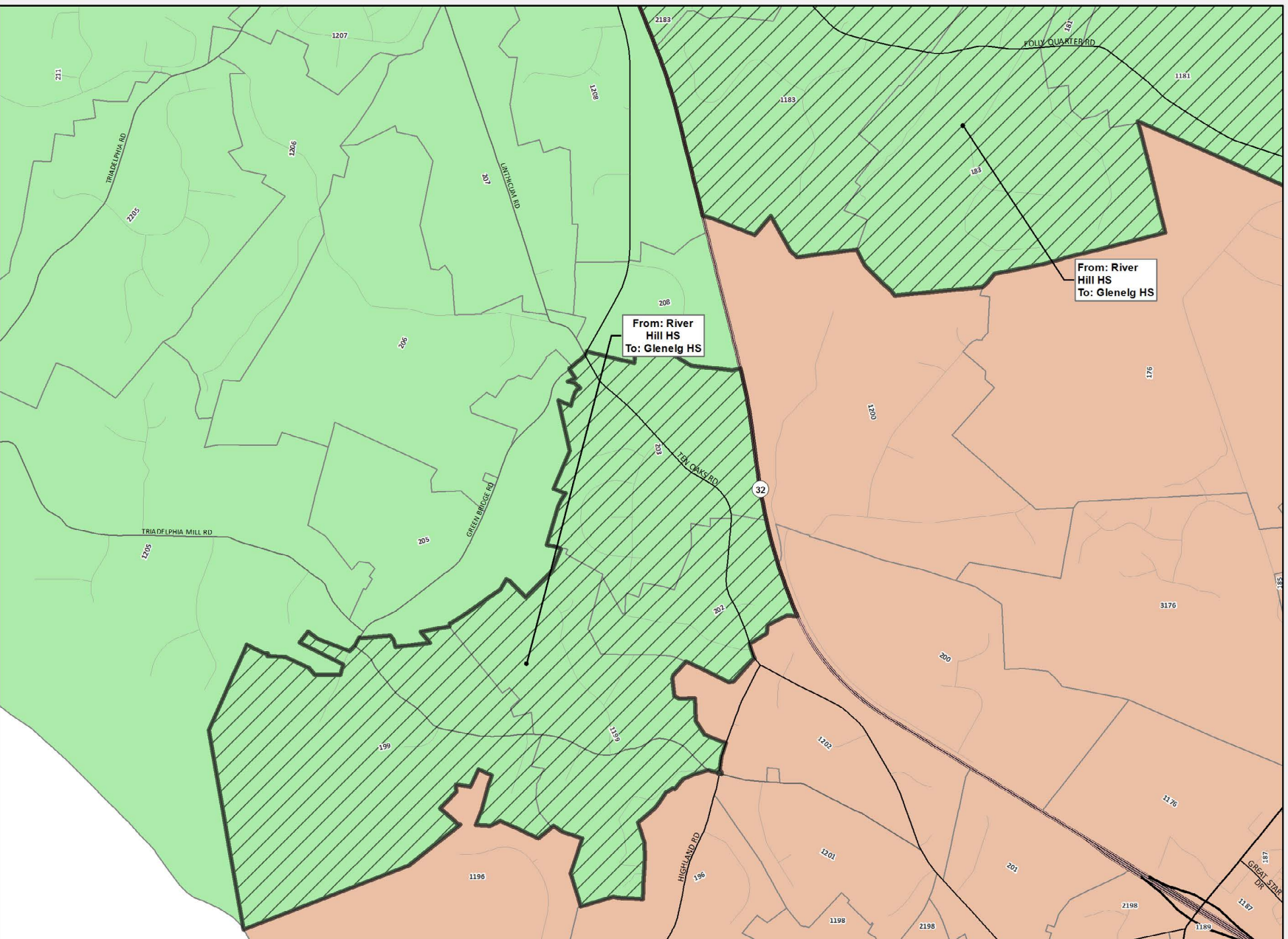


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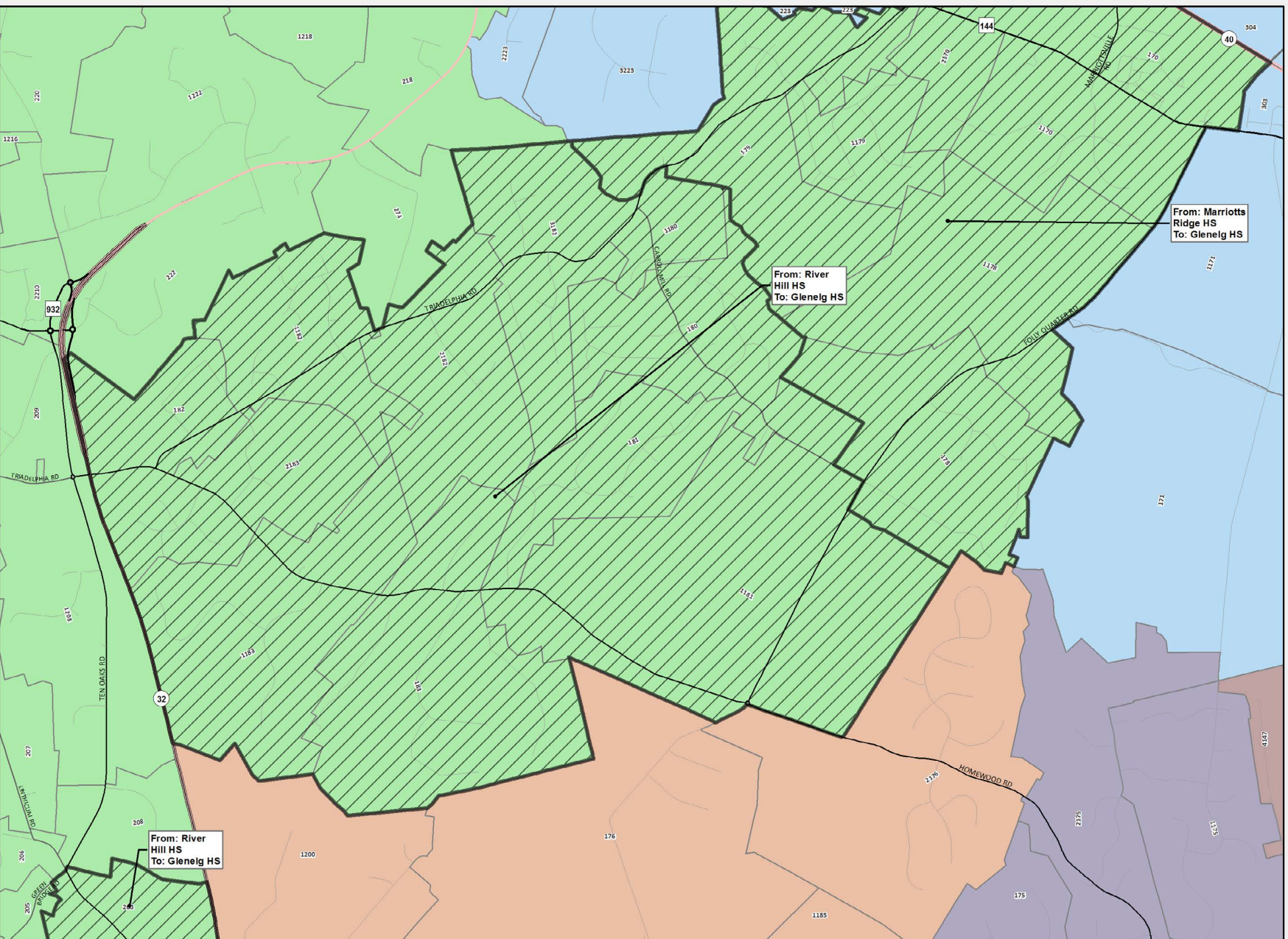


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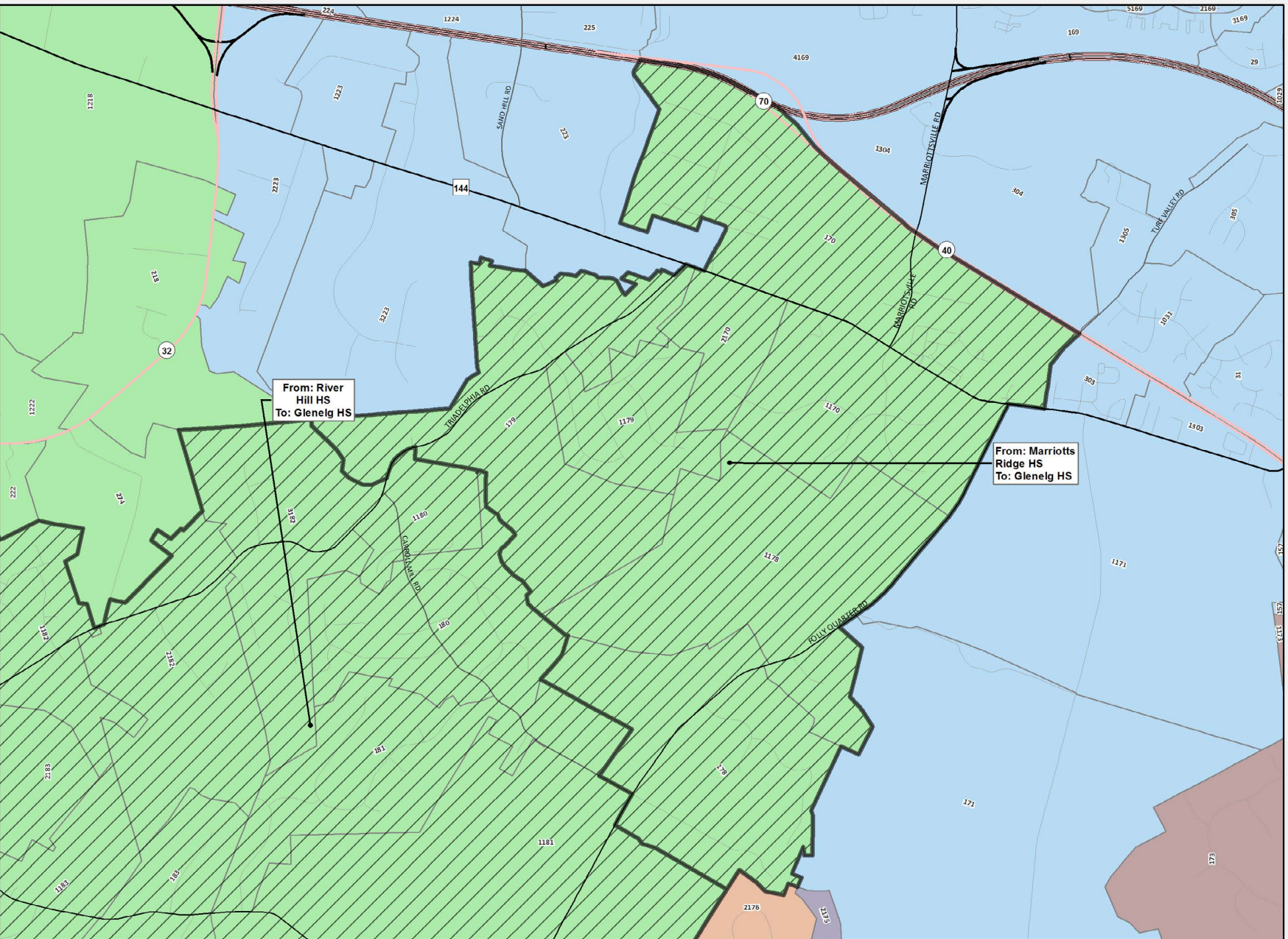
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Proposed Redistricting for 2018-19 School Year  
High School



Redistricting Proposed in These Areas





# 2018 Feasibility Study

An Annual Review of Long-Term Capital  
Planning and Attendance Area Adjustment Options



Howard County Public School System



Feasibility Study:  
An Annual Review of Long-Term Capital  
Planning and Attendance Area Adjustment Options

Interim Superintendent

Michael J. Martirano, Ed.D.

Board of Education

*Elected Officials*

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

*Student Member*

Anna Selbrede

June 2018

Feasibility Study:  
An Annual Review of Long-Term Capital  
Planning and Attendance Area Adjustment Options

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

Electronic copy of the 2018 Feasibility Study can be  
found on the school system's website at [www.hcpss.org/school-planning/](http://www.hcpss.org/school-planning/)



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Jahantab Siddiqui, Chief Communication, Community and Workforce Engagement Officer

William Barnes, Chief Academic Officer

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Feasibility Study:  
An Annual Review of Long-Term Capital  
Planning and Attendance Area Adjustment Options

Section 1

# Executive Summary

June 2018

## Executive Summary

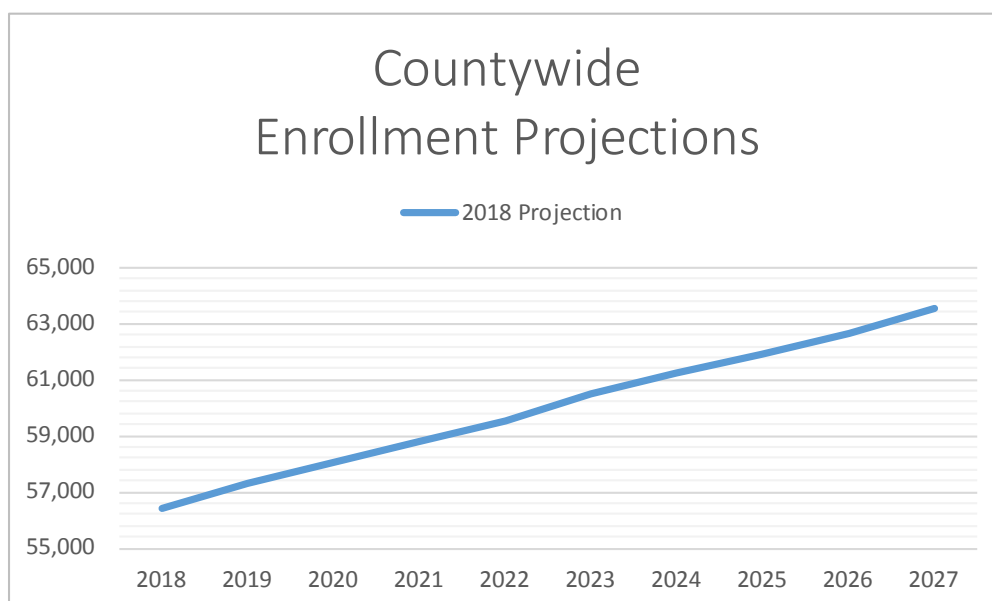
The Howard County Public School System (HCPSS) annual Feasibility Study provides a comprehensive look at the ten-year student enrollment projections. The intent of this document is to provide the most updated student enrollment projection to the Board of Education, staff members and public to inform capital and operating decisions. This document contains specific information about K-12 student enrollment and projected enrollment for each school and county-wide. K-12 projections are produced in the winter of each year, predicting number of students on September 30 of each year.

The projection is used to develop the Superintendent's Proposed Operating and Capital Budgets for the next fiscal year and the annual Feasibility Study. The enrollment projections inform long-range facilities planning decisions, such as the need to relocate regional programs, implement school attendance area adjustments, assign relocatable classrooms, construct permanent classroom additions to existing schools, and replace or build new schools. The official K-12 enrollment on September 30, 2017 was 55,485 students. Continued enrollment growth is projected for school year 2018-19. Since the Fall of 2008 (48,790 students), HCPSS enrollment has increased by 6,601 students, which equates to a 13.5 percent growth over the past decade.

**The projected enrollment for school year 2018-19 is 56,444 students, which is a gain of 959 students, and represents 1.7 percent growth over last year.** The Board of Education (Board) approved changes in the attendance areas for the school year 2018-19 on November 17, 2017. The newly developed student enrollment projections take into account the new boundaries and JumpStart participation. Figure 1.1 below shows the K-12 projected enrollment for school years 2018-19 through 2027-28.

The projection shows an increase in enrollment of over 7,000 students in the next ten years. Changes in delivery of capacity projects are recommended for the upcoming capital budget and long-range master plan request and are outlined on page 16 of this document. **This plan does not recommend school boundary adjustments for school year 2019-20.**

Figure 1.1 Countywide Enrollment Projections 2018-2027





Feasibility Study:  
An Annual Review of Long-Term Capital  
Planning and Attendance Area Adjustment Options

Section 2

# Planning Considerations

Planning assumptions and considerations regarding enrollment growth and other factors are addressed in this section. These factors are reviewed and updated on an annual basis. Implications of the factors discussed in this section include capital planning decisions. This section presents a discussion of the major components and adjustments included in this year's planning considerations.

June 2018

## Introduction

The Office of School Planning is pleased to present the 2018 Feasibility Study report for the Howard County Public School System (HCPSS). The report provides detailed information on the number of students projected for each school at HCPSS on September 30th of each school year for the period beginning in school year 2018-19 and ending in school year 2029-30. Projection accuracy is reported annually to the Board of Education (Board) each February. To project future enrollment, HCPSS uses multiple sets of data, which include the number of births for Howard County, the five-year history of cohort survival (i.e., ratio of students moving from one grade to the next in the same school), first-time sales of newly-constructed homes, resales of existing homes, apartment turnover, and enrollment at regional programs. Each data point is projected separately based on specific, appropriate methodologies for each category.

Enrollment projections are a valuable planning tool to help predict the need for new or expanded schools and determine how many teachers are needed each year in each school and grade. Enrollment projections are also used for facility planning purposes to estimate the expected number of students in each school.

Each year, the Board of the HCPSS reviews the capital planning options and boundary adjustment considerations through a feasibility study. The report has four goals:

- Inform the long-term planning process.
- Facilitate discussion of decisions that may lay ahead.
- Provide strategic information to the school system.
- Prepare for scheduled school boundary adjustments.

The Office of School Planning presents the student enrollment projection, projection trends, comprehensive strategies for the capital improvement program (i.e., additions) and attendance area adjustments anticipated within the ten-year CIP. Any plans examined in this document may only be implemented through the Board's approval of the capital budget and/or attendance area changes. Funding restraints may not allow capital projects recommended in this document to proceed as recommended.

New to the 2018 Feasibility Study are the latest Council requirements under the adequate public facilities ordinance. These items include State and Local Capacities, each school's most recent redistricting, factors contributing to growing enrollment, as well as funding and redistricting assumptions for schools that are projected to be open to new residential development in the testing year due to a capital project or attendance area adjustments associated with a capital project.

Experience has shown that by presenting this report annually, assumptions and trends can be evaluated on a regular basis and appropriate adjustments can be made to the capital budget or attendance area plans. Changes may need to be considered to react to and plan for anticipated population shifts or new residential development.

Annual enrollment projections are also used in short-term decision-making, such as determining staffing, school supplies and allocating relocatables.

## Enrollment Projections

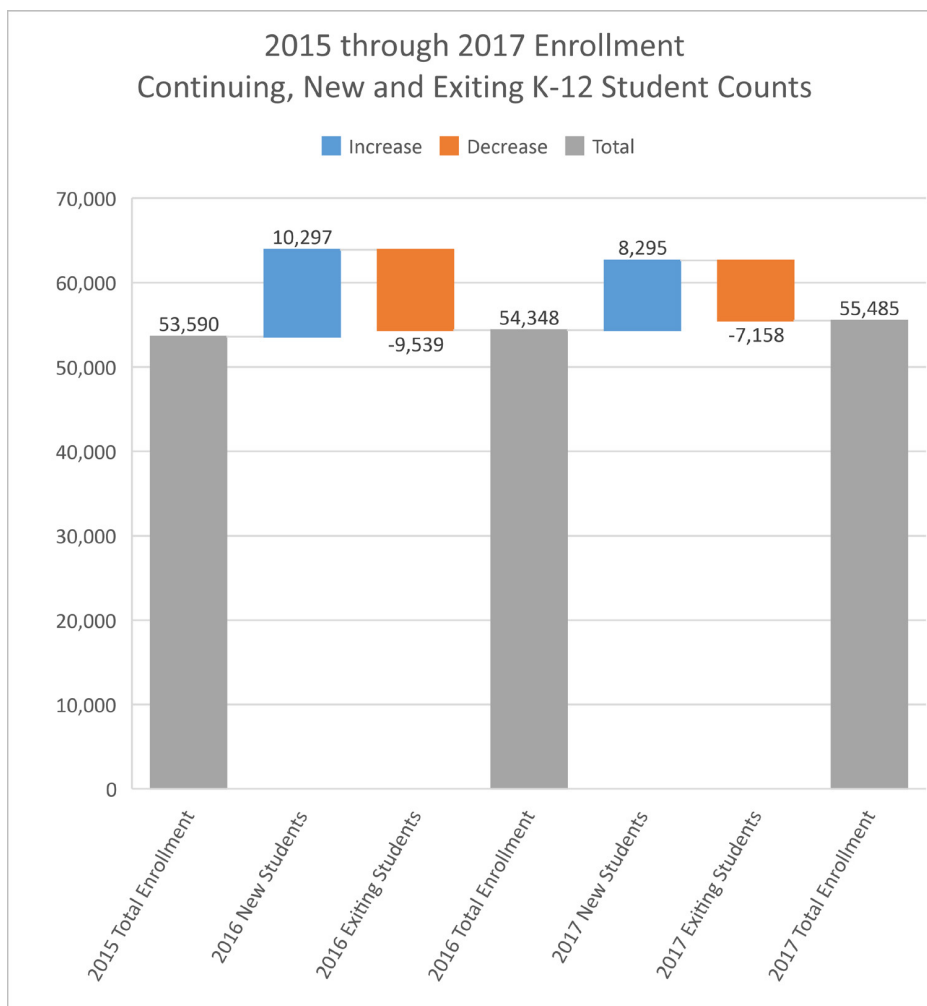
### HCPSS Current Enrollment

On September 30, 2017, the total K-12 enrollment was 55,485 students. This total includes students from kindergarten to twelfth grade. Figure 2.1 below is a waterfall chart that illustrates the net change of student enrollment over the last three years.

**Figure 2.1 2015 - 2017 Waterfall Chart**

Figure 2.1 illustrates the total "ins and outs" (increase and decrease) over the last three years. New students arrive in HCPSS each year, and are mainly from new homes, resales, and kindergarten students enrolling in HCPSS for the first time. The exiting student group includes graduating twelfth graders and families moving out of Howard County.

Student Groups	Counts
<b>2015 Total Enrollment</b>	<b>53,590</b>
2016 New Students	10,297
2016 Exiting Students	-9,539
<b>2016 Total Enrollment</b>	<b>54,348</b>
2017 New Students	8,295
2017 Exiting Students	-7,158
<b>2017 Total Enrollment</b>	<b>55,485</b>



## Enrollment Projections

### Projection Methodology

HCPSS, as well as many other school districts, uses cohort survival ratio as a student enrollment projection methodology. For the purposes of the school system, a cohort is a group of students at a specific grade level.

The cohort survival ratios are calculated based on actual student data and are aggregated by school attendance area to maintain comparability regardless of any changes in school attendance area boundaries. Cohort-survival ratios project 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, based on recent historical student data. This calculation is done for each grade level, at each school, using the most recent 3-5 years of historical data to predict future enrollment. The most recent past is viewed as the best predictor of the near future.

Figure 2.2 Cohort Survival Ratio

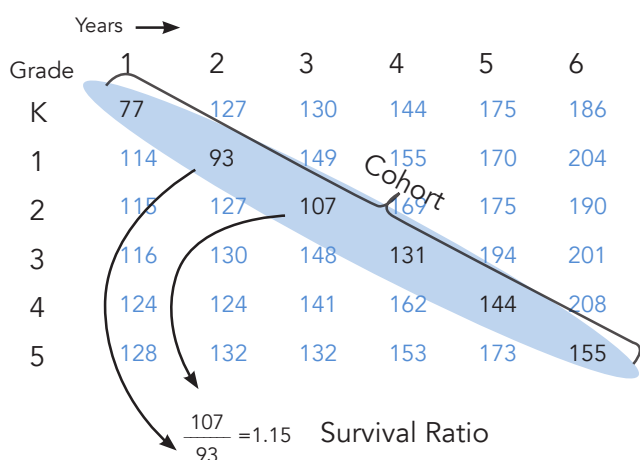


Figure 2.2 illustrates a cohort survival ratio. In the example, the rate of 1.15 can be used to predict how many second graders will result from the previous year's first graders. A cohort survival rate that is greater than one (1), indicates more students entered the grade than progressed from the previous grade. A cohort survival rate of less than one (1) indicates there are fewer students moving to the next grade at that school than the count of students from the previous grade in the previous year.

In addition to cohort survival ratios, HCPSS uses Howard County birth data, student yields from first-time sales of newly-constructed homes, resales of existing homes, and apartment turnover, as well as enrollment in regional programs. Table 2.1 below shows the total by-grade projected enrollment for the HCPSS for school year 2018-19.

Table 2.1 By Grade Enrollment Projection for September 30, 2018

2018 Projection by Grade					
Elementary	Projection	Middle	Projection	High	Projection
K	3,835	6th	4,598	9th	4,887
1st	4,030	7th	4,494	10th	4,459
2nd	4,246	8th	4,357	11th	4,249
3rd	4,221			12th	4,171
4th	4,346				
5th	4,551				

## Enrollment Projections

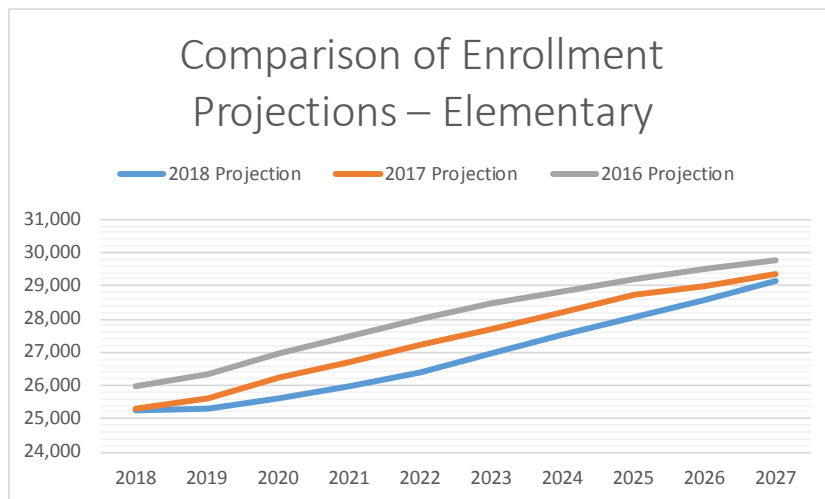
### HCPSS Projected Enrollment

HCPSS ten-year K-12 projected enrollment for school year 2018-19 through 2027-28 continues to show enrollment growth at all levels.

The projection is presented to school year 2029-30 in Section 5 of this document. Certain decisions such as site acquisition are appropriately informed by the latter part of the projection. Planning issues may become apparent by comparing the current projection to those made in previous years. The following charts use a ten-year series and present three consecutive annual projections.

It is anticipated that for school year 2018-19, we will receive a net increase of 959 students. This increase comes from a variety of migration patterns and includes sales of existing homes and new construction. It is important to know that new construction is only new construction for one year in the HCPSS projection. After the first year, the new students generated by homes constructed in previous years are counted through cohort survival or resales.

**Figure 2.3 Comparison of Three Enrollment Projections - Elementary**

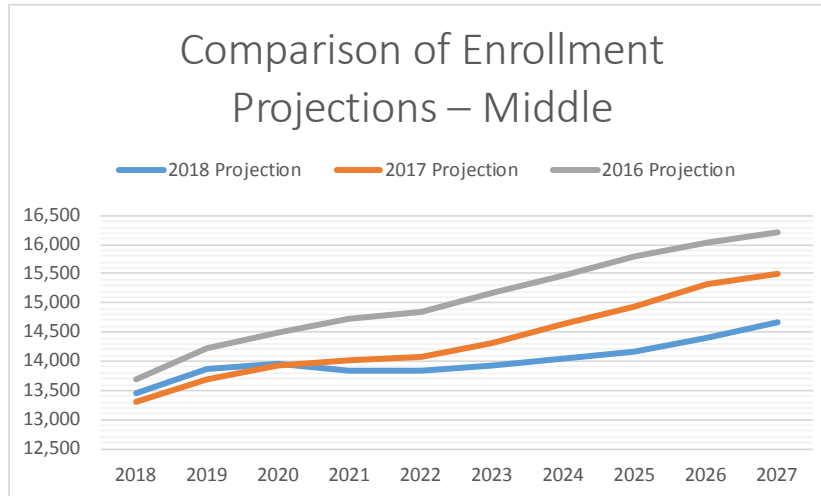


As shown in Figure 2.3, the 2018 elementary projection includes a similar rate of enrollment growth in the near-term, while trending towards a slightly lower enrollment in the long-term view. The trend in the 2018 projection is for elementary enrollment to increase by nearly 4,000 students by 2027.

As a result of this enrollment growth, the capacity utilization of all elementary schools combined will begin to exceed 110 percent by 2026 if new elementary schools are not built. Projects approved as part of the FY 2019 CIP can accommodate most of this growth.

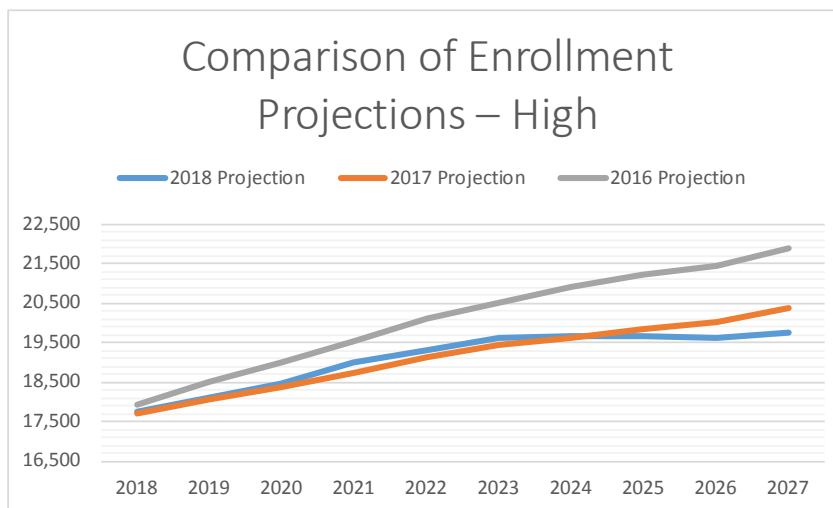
## Enrollment Projections

**Figure 2.4 Comparison of Three Enrollment Projections - Middle**



As shown in Figure 2.4, the middle school projected enrollment is expected to increase by 1,200 student by 2027. The 2018 middle school enrollment growth trend rate is lower than the 2016 and 2017 in long-term growth. As a result of this enrollment growth, the combined capacity utilization of all middle schools will begin to exceed 110 percent beyond 2029. Most of the projected growth is in the East and North, and based on the long-term growth trends, strategic capacity projects should be considered for the middle school needs.

**Figure 2.5 Comparison of Three Enrollment Projections - High**



High school enrollment is projected to increase by nearly 2,000 student by 2027, as shown in Figure 2.5. As a result of this growth, the combined capacity utilization of all high schools will begin to exceed 110 percent beyond 2021. Similar to the middle school growth, high school growth is in the Eastern portions of the county. Based on the long-term growth trends, continued planning and finalization of the Mission Road site acquisition should continue.



## Enrollment Projections

### Projection Growth Factors

The new Adequate Public Facilities Ordinance adopted by the County Council in 2018 requires that HCPSS report factors that contribute to growing enrollment. This chart compares the official enrollment from school year 2017-18 with the updated projection for school year 2018-19, identifying schools with enrollment increase projected. Some schools show higher enrollment for school year 2018-19, but were involved in the redistricting approved in November 2017. This makes it difficult to estimate how much of the projected increase would have occurred without redistricting. The section of the chart labeled "Projected 2018 Student Yield" shows the estimated breakdown of the contribution of each housing factor on the number of students added to each school for school year 2018-19. Counted here are students projected to arrive at each school due to turnover of multi-family housing, resale of existing homes, and new construction. "Other factors" is the sum of all other contributing factors to change in enrollment between years for each school and includes projected change due to cohort size rising to next level, changes to cohort survival rates, changes in birth counts from 5 years ago, change to birth to kindergarten survival rates, adjustments to out of district counts, students who moved into an attendance area between birth and five years old, and adjustments based on previous projection accuracy. Tables 2.2, 2.3 and 2.4 below identify which portion of the projected enrollment growth is expected to come from new housing, resales, and other factors used to project student enrollment.

**Table 2.2 Elementary School Student Yield Data**

	Official 2017 Enrollment	Projected 2018 Enrollment	Projected Enrollment Change	RED 2017	Projected 2018 Student Yield			
					Apt Turnover	Resale	New Construction	Other Factors
Atholton ES	459	456	-3		8.0	12.7	0.0	-23.7
Bellows Spring ES	749	671	-78	Y	3.1	2.0	16.1	-99.2
Bollman Bridge ES	631	646	15		38.3	5.0	12.3	-40.7
Bryant Woods ES	397	390	-7		17.1	7.6	0.0	-31.7
Bushy Park ES	602	584	-18		0.0	35.8	10.6	-64.4
Centennial Lane ES	765	755	-10		14.6	34.9	1.5	-61.0
Clarksville ES	432	419	-13		5.0	15.2	5.6	-38.8
Clemens Crossing ES	550	470	-80	Y	0.0	11.5	6.0	-97.5
Cradlerock ES	468	464	-4		2.8	20.0	0.0	-26.8
Dayton Oaks ES	619	604	-15		0.0	36.2	6.1	-57.3
Deep Run ES	760	677	-83	Y	14.9	6.0	0.4	-104.3
Ducketts Lane ES	891	673	-218	Y	21.9	2.0	0.0	-241.9
Elkridge ES	849	857	8		17.3	27.0	17.8	-54.1
Forest Ridge ES	693	685	-8		3.5	13.0	0.6	-25.2
Fulton ES	878	949	71		0.0	27.4	41.2	2.5
Gorman Crossing ES	776	794	18		2.7	21.8	18.4	-24.8
Guilford ES	411	399	-12		9.4	13.1	1.5	-36.0
Hammond ES	651	642	-9		10.8	17.5	0.4	-37.6
Hollifield Station ES	811	826	15		38.0	19.8	15.4	-58.2
Ilchester ES	615	578	-37		0.0	14.1	7.1	-58.1
Jeffers Hill ES	428	428	0		12.7	10.0	0.0	-22.7
Laurel Woods ES	574	588	14		23.3	8.0	0.7	-18.1
Lisbon ES	455	449	-6		0.0	20.3	4.9	-31.2
Longfellow ES	408	402	-6		16.0	8.0	0.7	-30.8
New ES #42(HHES)	0	649	649	Y	7.3	8.2	24.1	609.3
Manor Woods ES	794	635	-159	Y	7.9	32.7	8.8	-208.4
Northfield ES	748	727	-21		8.1	29.1	1.1	-59.3
Phelps Luck ES	548	528	-20		24.7	10.7	0.0	-55.3
Pointers Run ES	721	834	113	Y	0.0	42.7	14.1	56.2
Rockburn ES	647	553	-94	Y	0.0	11.3	14.4	-119.8
Running Brook ES	459	499	40		33.5	2.0	17.9	-13.3
St Johns Lane ES	703	694	-9		8.7	28.3	0.4	-46.4
Stevens Forest ES	390	388	-2		20.7	5.4	0.0	-28.1
Swansfield ES	605	606	1		30.4	9.0	1.2	-39.6
Talbott Springs ES	459	458	-1		10.0	4.2	0.0	-15.2
Thunder Hill ES	544	535	-9		16.3	10.0	0.0	-35.3
Triadelphia Ridge ES	553	570	17	Y	0.0	25.2	27.9	-36.2
Veterans ES	861	885	24		28.0	20.1	4.6	-28.7
Waterloo ES	581	582	1		20.3	7.0	1.1	-27.4
Waverly ES	695	802	107	Y	0.8	37.8	8.3	60.2
West Friendship ES	327	394	67	Y	0.0	24.3	0.9	41.9
Worthington ES	515	484	-31		1.2	11.6	3.2	-47.0

Projected enrollment increase w/out redistricting

# Enrollment Projections

Table 2.3 Middle School Student Yield Data

	2017 Enrollment	Projected 2018 Enrollment	Projected Enrollment Change	RED 2017	Projected 2018 Student Yield			
					Apt Yield	Resale Yield	NC Yield	Other Factors
Bonnie Branch MS	716	777	61	Y	-5.0	12.1	2.4	51.5
Burleigh Manor MS	807	804	-3		-10.4	18.0	4.9	-15.4
Clarksville MS	552	668	116	Y	0.0	10.6	3.3	102.2
Elkridge Landing MS	693	715	22		0.7	5.8	6.7	8.9
Ellicott Mills MS	853	883	30		-1.0	11.0	1.6	18.4
Folly Quarter MS	663	647	-16		0.0	10.6	4.5	-31.1
Glenwood MS	495	480	-15		0.0	8.9	5.7	-29.6
Hammond MS	554	563	9		-7.2	7.8	1.1	7.3
Harpers Choice MS	596	546	-50	Y	-8.5	11.5	0.7	-53.7
Lake Elkhorn MS	548	557	9		-1.4	-0.7	0.0	11.1
Dunloggin MS	630	639	9		-12.0	2.3	0.9	17.8
Lime Kiln MS	734	626	-108	Y	0.0	16.3	12.1	-136.4
Mayfield Woods MS	712	780	68	Y	-8.8	-0.6	3.7	73.7
Mount View MS	819	834	15		-0.4	24.2	5.6	-14.4
Murray Hill MS	700	697	-3		-0.7	9.5	6.6	-18.5
Oakland Mills MS	472	507	35		-3.7	0.2	0.1	38.3
Patapsco MS	706	739	33		-8.0	5.4	5.4	30.2
Patuxent Valley MS	618	652	34		-3.1	0.0	5.0	32.1
Thomas Viaduct MS	687	707	20		-8.5	7.6	13.3	7.5
Wilde Lake MS	610	628	18	Y	-12.2	3.8	13.9	12.4
	13165	13449	284		-90.1	164.3	97.4	

Projected enrollment increase w/out redistricting

Table 2.4 High School Student Yield Data

	Official 2017 Enrollment	Projected 2018 Enrollment	Projected Enrollment Change	JumpStart	Projected 2018 Student Yield			
					Apt Turnover	Resale	New Construction	Other Factors
Atholton HS	1479	1516	37		-6.5	10.1	4.5	28.9
Centennial HS	1614	1664	50	Y	-5.8	16.1	1.5	38.3
Glenelg HS	1173	1197	24		0.0	15.6	3.8	4.6
Hammond HS	1301	1356	55		-11.1	1.5	5.1	59.5
Howard HS	1914	1908	-6	Y	-1.7	15.3	9.9	-29.5
Long Reach HS	1636	1586	-50	Y	-13.6	6.3	10.0	-52.8
Marriotts Ridge HS	1332	1376	44		-6.8	12.5	4.0	34.3
Mt Hebron HS	1567	1590	23		-13.0	4.4	3.2	28.4
Oakland Mills HS	1161	1217	56	Y	-8.7	8.7	0.1	55.9
Reservoir HS	1527	1595	68		-1.6	4.5	14.0	51.1
River Hill HS	1157	1411	254	Y	-0.6	12.0	8.3	234.4
Wilde Lake HS	1276	1350	74		-17.6	2.0	2.8	86.8

Projected enrollment increase w/out redistricting

## Relationship to Capital Budget

Figure 2.6 Capital Budget and Attendance Area Adjustments Flow Chart

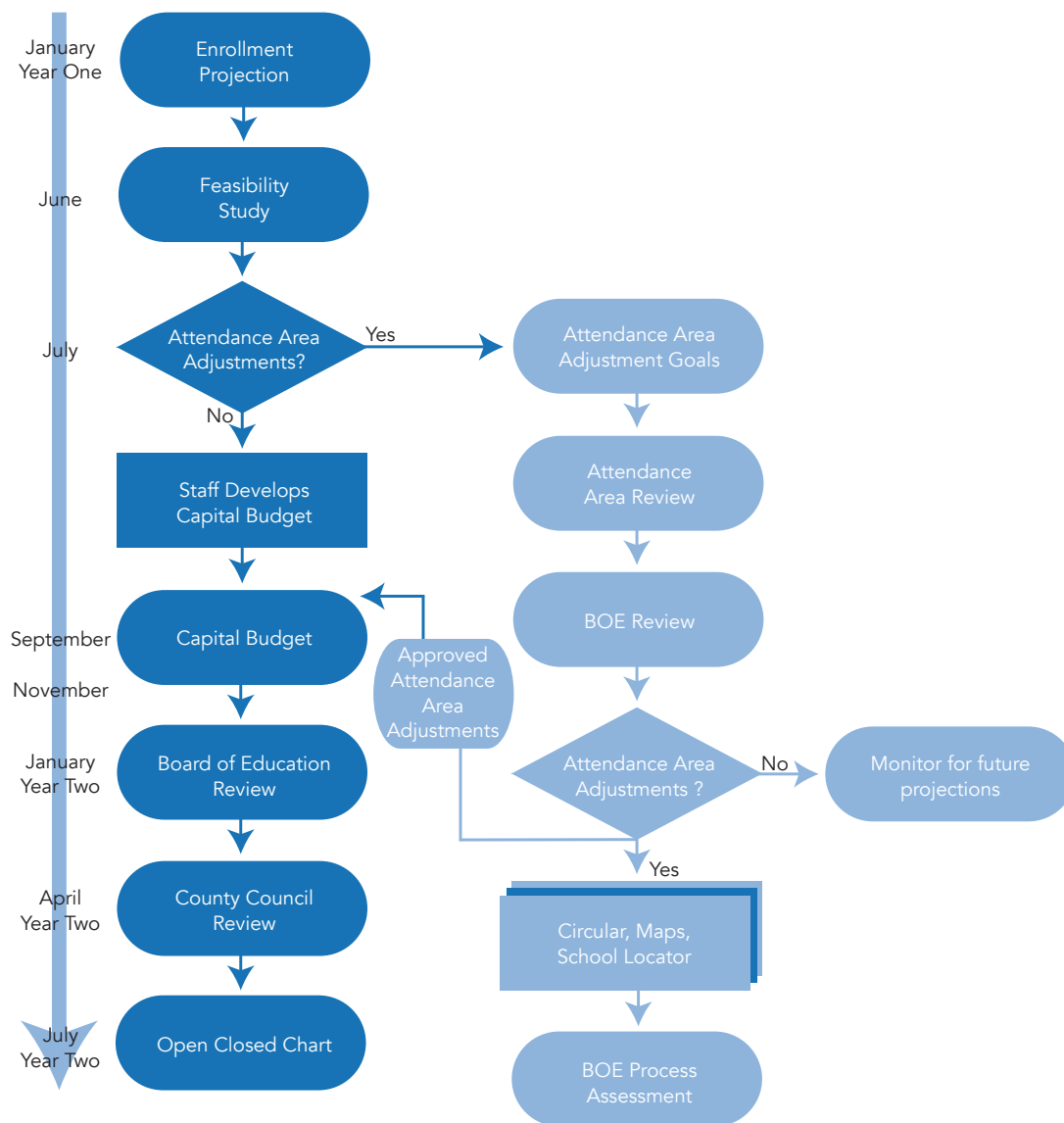


Figure 2.6 shows the school boundary adjustment process in the context of the capital budget. The feasibility study is presented as the capital budget is being prepared. The graphic shows that while school boundary adjustments may not take place annually, they are given consideration annually in the feasibility study. There are a number of ways to address enrollment growth. In some cases, new capacity or a capital project is the best solution. In other cases, a school boundary adjustment consistent with policy may allow better use of existing capacity. Sometimes a change to regional program location can open capacity. Relocatable buildings can also be used to relieve overcrowding. The process is ongoing but may be tracked through this document and the capital budget process.

## Relationship to Capital Budget

The annual capital budget contains a Capital Improvement Plan (5-year plan) and Long-Range Master Plan (10-year plan). Table 2.5 is a copy of the FY 2019–2028 Long-Range Master Plan from FY 2019 Board Requested Capital Budget. Capital projects are shown with anticipated funding phased out over future fiscal years. The Feasibility Study evaluates enrollment trends and discusses adjustments and changes that may be reflected in the CIP and Long-Range Master Plan.

The new Adequate Public Facilities Ordinance adopted by the County Council in 2018 requires that HCPSS reports funding and attendance area adjustment assumptions for projects that are open due to a capital project or attendance area adjustments associated with a capital project. The Board Requested FY 2019 – 2027 Long Range Master Plan as approved by the Board on March 5, 2018, is below. The final adoption of the FY 2019 Capital Budget is scheduled for May 31, 2018.

Table 2.5 FY 2019-2028 Board of Education Requested Long Range Master Plan

FY 2019-2028 Long-Range Master Plan															
Board of Education's Requested														March 5, 2018	
(In Thousands)															
Capacity	Project	County Project	Occupancy	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
100	Waverly ES Phase I & II Renovation/Addition*	E0973	Aug 2018	\$ 36,769	\$ 4,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40,769
832	New ES #42	E1028	Aug 2018	35,741	8,132	-	-	-	-	-	-	-	-	-	43,873
640	Talbott Springs ES Replacement School	E1043	Aug 2021	1,000	8,156	18,250	12,218	2,000	-	-	-	-	-	-	41,624
1,615	New HS #13	E1035	Aug 2023	-	6,732	25,315	25,415	25,515	25,115	15,972	-	-	-	-	124,064
200	Hammond HS Renovation/Addition	E1024	Aug 2023	-	6,000	18,695	18,795	18,895	19,995	15,147	-	-	-	-	97,527
788	New ES #43	E1039	Aug 2023	-	-	6,000	11,500	15,215	17,927	8,000	-	-	-	-	58,642
97	Dunloggin MS Renovation/Addition	TBD	Aug 2024	-	-	-	2,000	10,694	12,671	9,534	4,000	-	-	-	38,899
156	Ellicott Mills MS Addition	E1037	Aug 2024	-	-	-	-	-	1,000	6,415	1,000	-	-	-	8,415
-	Oakland Mills MS Renovation*	E1036	Aug 2026	-	-	-	-	-	-	9,003	14,404	10,603	2,000	-	36,010
150	Clarksville ES Addition	TBD	Aug 2026	-	-	-	-	-	-	2,000	7,000	1,000	-	-	10,000
788	New ES #44	E1040	Aug 2027	-	-	-	-	-	-	5,705	15,881	21,175	15,881	-	58,642
TBD	MS/HS Career Development Center	TBD	Aug 2028	-	-	-	-	-	-	11,232	22,566	30,850	31,686	22,566	118,900
788	New ES #45	E1041	Aug 2029	-	-	-	-	-	-	-	-	5,705	15,881	21,175	42,761
	Systemic Renovations/Modernizations	TBD		-	28,655	15,650	17,644	18,007	18,841	18,298	17,598	17,000	18,000	20,000	189,693
	Roofing Projects	TBD		-	12,500	5,000	1,000	5,000	1,000	1,000	5,000	5,000	5,000	5,000	45,500
	Playground Equipment	E0990		2,930	-	250	250	250	250	250	500	500	500	500	6,180
	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	8,000
	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	6,600
	Planning and Design	E1038		600	300	300	300	300	300	300	300	300	300	300	3,600
	Barrier Free	E0989		5,603	-	200	200	200	200	200	200	200	200	200	7,403
	TOTALS			\$ 86,843	\$ 79,725	\$ 97,660	\$ 96,322	\$ 105,076	\$ 106,299	\$ 112,056	\$ 100,049	\$ 103,933	\$ 101,048	\$ 81,341	\$ 1,070,352

\* Partial planning funds received in Systemic Renovation Project

Ten-Year Long-Range Master Plan = \$983,509

## Capacities

Equitable evaluation of the impact of projected enrollment growth requires calculation of school capacities. Capacities are not necessarily fixed to the capacity designed when a building first opened. Change in space usage, program location, and building or program specifications can change capacity. Capacity methodologies have been reviewed at all three levels. The results from the capacity studies are integrated into any recalculation of capacities due to relocation of regional programs, additions or renovations. The feasibility study expresses the projected enrollment by level and by school as a function of capacity utilization. Utilization is the comparison of a facility's program capacity and its enrollment or projected future enrollment. In the Pre- and Post-Measure Tables (Section 5), the effects of potential capacity projects, or regional program moves on utilization are depicted.

The example below from the 2015 Feasibility Study, illustrates how capacity is shown in these tables. Table 2.6 shows the effect of the larger capacity of the Wilde Lake MS replacement school. The capacity columns show the number of seats, which changes from 467 to 760 in 2017 when the replacement school opened. The corresponding calculation of the percentage utilization also changes, dropping from 128.3 percent to 85.3 percent in 2017.

Table 2.6 Capacity Chart Example

Post-Measures											
<b>Aggregate Plan</b>											
Chart reflects May 2015 Projections, Board of Education's FY 2017 Requested capacities and estimate											
	<b>Capacity</b>				<b>2016-17</b>		<b>2017-18</b>				
<b>Columbia - East</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>Proj</b>	<b>% Util.</b>		<b>Proj</b>	<b>% Util.</b>		
Lake Elkhorn MS	643	643	643	643	503	78.2		548	85.2		
Oakland Mills MS	506	506	506	506	434	85.8		438	86.6		
<b>Region MS Totals</b>	1149	1149	1149	1149	937	81.5		986	85.8		
<b>Columbia - West</b>											
Harpers Choice MS	506	506	506	506	574	113.4		595	117.6	<b>C</b>	
Wilde Lake MS	R 467	760	760	760	599	128.3	<b>C</b>	648	85.3		
<b>Region MS Totals</b>	973	1266	1266	1266	1173	120.6	<b>C</b>	1243	98.2		

High school program capacities are a product of either 80 or 85 percent of the total number of teaching stations multiplied by 25 students. The minimum square footage for a teaching space is 660 square feet at all levels. This calculation excludes special education classrooms and special use rooms. Not all teaching stations can be scheduled for every period of the school day, which is the purpose of the 80 percent or 85 percent multiplier. Many of these rooms are designed for a specific class and cannot be adapted for other uses, leaving them unused for a portion of the day.

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.

## Capacities

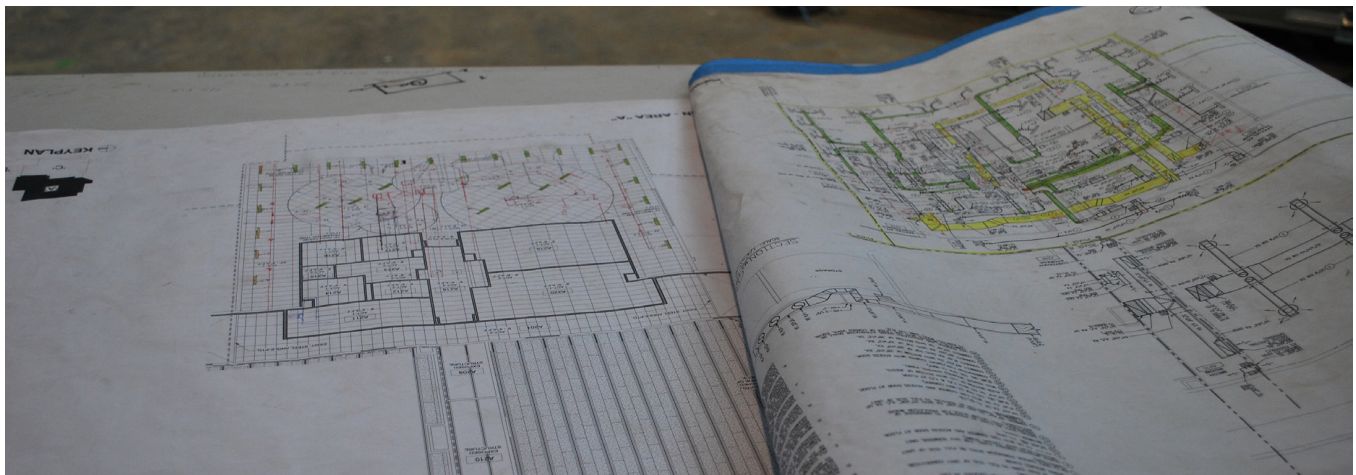
Elementary school program capacities are based on 22 students for each Kindergarten classroom, 19 students for each classroom in Grades 1 and 2, and 25 students for each classroom in Grades 3–5. Not included in the capacities for elementary schools are resource/instructional spaces that are utilized on a schoolwide basis where no one group of students is assigned exclusively. Some examples of spaces not included in the capacity are gymnasiums, cafeteriums, art rooms, music rooms, media centers, gifted and talented rooms, rooms dedicated to Special Education, or regional programs such as Regional Early Childhood Centers or Pre-K.

As mentioned previously, capacities can change with the placement of regional programs, renovations and additions. In many instances local capacities differ from the state rated capacity. Local K-12 program capacity calculations do not include rooms used for prekindergarten programs.

For school year 2018-19, several regional special education and prekindergarten programs were expanded or added, and completion of key capacity projects occurred. As such, rooms were either added or subtracted out of the capacity. Specifically, capacity changed at the following schools:

**Table 2.7 School Capacity Changes due to Regional Programs for School Year 2018-19**

School	Change	Reasons
Bushy Park ES	-44	Added Academic Life Skills
Dayton Oaks ES	-94	Added Prekindergarten, Primary Learner and Upper Learner
Ducketts Lane ES	-76	Added Prekindergarten
Hanover Hills ES	0	Added Prekindergarten, Regional Emotional Disabilities, reclaimed Community Use Room
Hollifield Station ES	38	Removed Prekindergarten
Ilchester ES	-69	Added Prekindergarten and Primary Learner
Phelps Luck ES	-19	Added Prekindergarten
Rockburn ES	-44	Added Academic Life Skills
Swansfield ES	173	Renovation/addition, including Prekindergarten
Thunder Hill ES	0	Removed Academic Life Skills, added Regional Emotional Disabilities
Waverly ES	172	Renovation/addition
Worthington ES	-75	Added Prekindergarten





## Capacities

The new Adequate Public Facilities Ordinance adopted by the County Council in 2018 requires that HCPSS report State and Local Capacities. State rated capacities are calculated based on a minimum square footage of 550 square feet per elementary teaching station and 500 square feet per middle or high school teaching station. Relocatable classrooms are excluded from the calculation. The formula to calculate state rated capacity is based on the number of the rooms used for a specific purpose (PreKindergarten, Kindergarten, Grade 1-5, Special Education, Grade 6-12 [General], Career and Technology, Alternative Education) multiplied by the number of seats, and then summed:

$$ES = (\# \text{ Pre-K} \times 20) + (\# \text{ Kindergarten} \times 22) + (\# \text{ Grade 1-5} \times 23) + (\# \text{ Special Education} \times 10)$$

$$MS = 85\% \times (\# \text{ General} \times 25) + (\# \text{ Career} \times 20) + (\# \text{ Special Education} \times 10) + (\# \text{ Alternative} \times 15)$$

$$HS = 85\% \times (\# \text{ General} \times 25) + (\# \text{ Career} \times 20) + (\# \text{ Special Education} \times 10) + (\# \text{ Alternative} \times 15)$$

Table 2.8 Local Capacity and State Rated Capacity as of June 2018.

Name	State	Local
Atholton ES	419	424
Bellows Spring ES	720	751
Bollman Bridge ES	694	666
Bryant Woods ES	362	361
Bushy Park ES	910	744
Centennial Lane ES	544	647
Clarksville ES	581	543
Clemens Crossing ES	544	521
Cradlerock ES	556	398
Dayton Oaks ES	910	675
Deep Run ES	740	750
Ducketts Lane ES	785	694
Elkridge ES	819	760
Forest Ridge ES	660	713
Fulton ES	564	826
Gorman Crossing ES	618	735
Guilford ES	522	465
Hammond ES	525	653
Hanover Hills ES	TBD	810
Hollifield Station ES	564	732
Ilchester ES	564	584
Jeffers Hill ES	435	421
Laurel Woods ES	544	640
Lisbon ES	504	527
Longfellow ES	468	512
Manor Woods ES	564	681
Northfield ES	544	700
Phelps Luck ES	578	597
Pointers Run ES	564	744
Rockburn ES	847	609
Running Brook ES	471	515
St Johns Lane ES	619	612
Stevens Forest ES	320	399
Swansfield ES	601	694
Talbott Springs ES	500	377
Thunder Hill ES	386	509
Triadelphia Ridge ES	564	581
Veterans ES	922	799
Waterloo ES	726	663
Waverly ES	678	788
West Friendship ES	394	414
Worthington ES	589	515

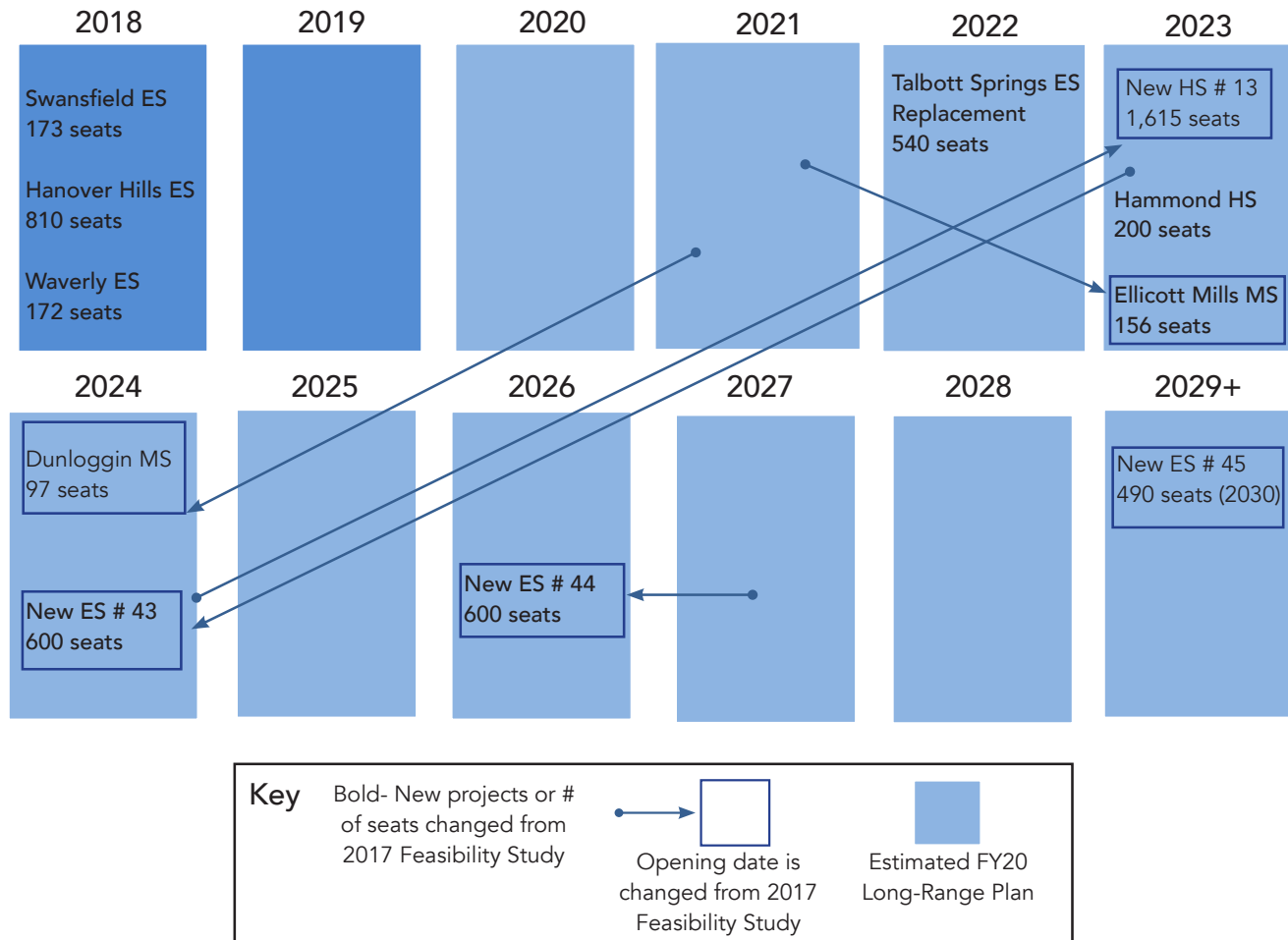
Name	State	Local
Bonnie Branch MS	732	701
Burleigh Manor MS	795	779
Clarksville MS	619	643
Dunloggin MS	619	565
Elkridge Landing MS	760	779
Ellicott Mills MS	816	701
Folly Quarter MS	732	662
Glenwood MS	640	545
Hammond MS	679	604
Harpers Choice MS	619	506
Lake Elkhorn MS	765	643
Lime Kiln MS	732	701
Mayfield Woods MS	773	798
Mount View MS	760	798
Murray Hill MS	685	662
Oakland Mills MS	598	506
Patapsco MS	598	643
Patuxent Valley MS	770	760
Thomas Viaduct	754	701
Wilde Lake MS	590	760

Name	State	Local
Atholton HS	1543	1460
Centennial HS	1091	1360
Glenelg HS	944	1420
Hammond HS	1434	1220
Howard HS	1051	1420
Long Reach HS	1434	1488
Marriotts Ridge HS	1434	1615
Mt Hebron HS	1408	1400
Oakland Mills HS	1135	1400
Reservoir HS	1339	1551
River Hill HS	1483	1488
Wilde Lake HS	1434	1424

## Capacities

The FY 2020 Capital Budget will include updates to the long-range plan. Figure 2.7 below shows changes in capacity projects from the 2017 Feasibility Study to the 2018 Feasibility Study. The year shown represents the school year in which occupancy is proposed. For example, the project at Swansfield ES is scheduled to open in September 2018.

Figure 2.7 Capacity Projects



## Policy Guidance

This document is guided by Board Policy 6010. Projects in the Capital Improvement Program that increase student capacity can be tested in a feasibility study with an attendance area adjustment plan consistent with stated policy goals. Plans will be linked within and across organizational levels to form a short- and long-range attendance area adjustment plan. The Board will review the plan and set direction, as appropriate, during the attendance area adjustment and/or capital budget presentations each year. Policy 6010 discusses consideration of redistricting under certain conditions such as the opening of a school or adjusting to some other change. When school capacity utilization projections fall outside the target capacity utilization range of 90 – 110 percent over a period of time, attendance area adjustments may be considered. Attendance area adjustments are not planned for school year 2019-2020. When boundary line changes are planned, staff will refine the goal-directed short- and long-range plan in the Feasibility Study based on the most current set of projections that conform to Policy 6010 Implementation Procedures. The Superintendent will appoint an Attendance Area Committee to test alternate scenarios consistent with the direction set by the Board and the standards and factors in Policy 6010. Plans may be presented in regional meetings, and various methods will be used to collect additional input from the public. A Superintendent's plan that takes into account previous staff, committee, and community input is presented to the Board.

The Board evaluates the Superintendent's plan according to the standards of Policy 6010, which are found in Standards Section B in Appendix A. In the Board's deliberations, new scenarios using these considerations may be reviewed, assessed, and considered. It is unlikely that one plan can fully satisfy all considerations.

On January 11, 2018, the Board of Education passed a charter to study the attendance area adjustments process. From March 2018 – June 2018, three members of the Board met with School Planning staff to discuss potential process improvements, including consideration of changes to Policy 6010. The charter set the following objectives for the Board members:

1. Review current redistricting process defined under Policy 6010 School Attendance Areas.
2. Review polygon creation process.
3. Identify implementation timelines of committee recommendations.
4. Review recommendations with legal counsel prior to Board presentation.

The Board's Redistricting Committee may be making recommendations to the full Board over the next few weeks and any recommendations and direction given to the Superintendent will be addressed as necessary.





## Alignment with Strategic Call to Action

The Strategic Call to Action, a vision built on equity, is fueled by the belief that every student possesses the skills, knowledge and confidence to lead a successful life and positively influence the larger community. The anticipation of growth trends and planning for adequate permanent or temporary space is needed to serve student needs. When attendance area changes are necessary, a student-centered transition process is provided to welcome the students to their new school. These efforts are made to ensure every student achieves academic excellence in an inspiring, engaging, and supportive environment.



Tour of construction at Waverly ES.

Crucial decisions about budget and attendance areas must be the result of an open process that includes many stakeholders. Board decisions need to be informed by both the technical guidance of staff, and the concerns and desires of families and the community. For this reason, the Office of School Planning maintains an extensive web presence and supports many meetings of committees, parent-teacher-associations (PTAs), and other community groups. It is also necessary that the School Planning serves as a liaison to various county and state agencies to communicate agency direction. These efforts ensure that families and the community are engaged and supported as partners in education.

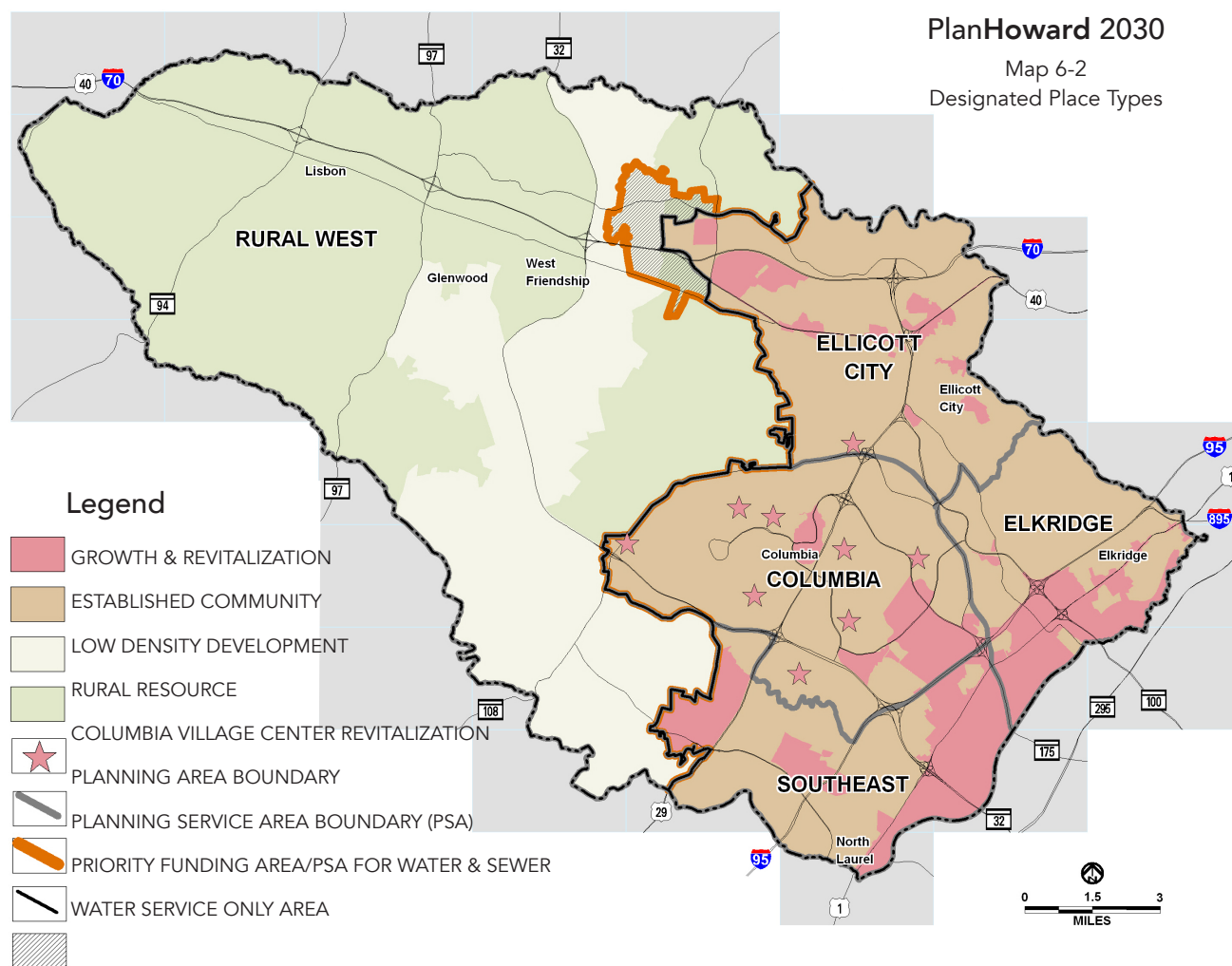


## Land Use

The Howard County General Plan, PlanHoward2030 guides development. This Plan sets forth priorities for growth and redevelopment for the County. It was adopted by the County Council in July 2012, and took affect in October 2013. The General Plan is further implemented by zoning. Zoning tells property owners two things 1) what is permissible to build; and 2) the rules to place buildings on the property.

The General Plan included the adoption of a designated places map. Figure 2.8 depicts the Plan Howard Designated Places map. Most future development, and anticipated school needs, are planned where the map shows "Growth and Revitalization" areas in pink. Generally these are in the eastern part of the county and Columbia's Village Centers. Projected enrollment growth provided in this Feasibility Study is associated with the future development.

Figure 2.8 Plan Howard 2030 Designated Places Map





## Land Use

The Department of Planning and Zoning provides the Office of School Planning with the number of existing and projected housing units in the county. Future housing is calculated using a software tool that simulates the residential build-out of the County's remaining undeveloped, residentially-zoned properties under real-world conditions. Constraints imposed by current zoning of properties, the logistics of residential construction, and the growth limits of the County's General Plan are included in the housing projection. The output from this simulation informs the enrollment projection.

The FY 2019-2028 Long-Range Master Plan includes funding requested for new construction of four elementary schools, one high school, the renovation/addition to a high school, and strategically placed middle school additions. The timing of residential development depends upon actual land development applications, which can change. Projections are adjusted yearly to account for phasing of the new residential development.

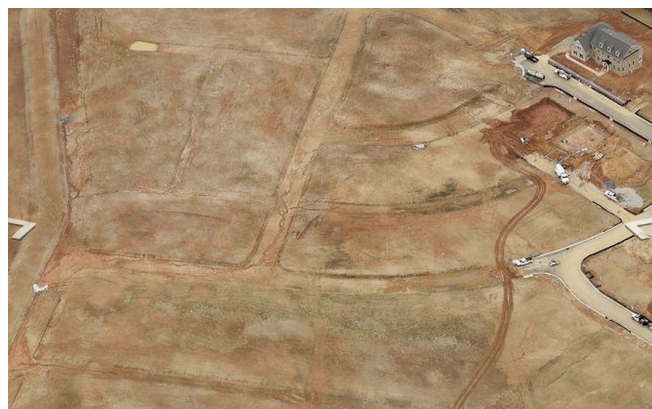
**Figure 2.9 Residential Development**



Oxford Square construction.



Verde apartments at Howard Square.



Maple Lawn section shown in 2013 (left) and 2015 (right).



## HCPSS Facilities and Land Bank

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. This document examines utilization of the 74 elementary, middle, and high schools, and anticipates future schools.

The HCPSS maintains sites for future school construction, commonly known as the "Land Bank." Some properties are held by other parties and designated on the final development plan as "school open space" for the future use by the Board for school construction. When determined that they are needed, the Board may request to purchase these properties. Most planned school sites result from agreements made during Columbia's planning and development. Howard County has aided the school system in the past through exchanges of county land where needed. Opportunities for additions to the land bank in eastern Howard County are under consideration. The HCPSS is working with Howard County Government to acquire land. Sites in Turf Valley and Mission Road will be added to the HCPSS Land Bank, once purchase is finalized, through the County's process. Figure 2.9 shows the inventory of school sites as presented in the annual capital budget:

### HCPSS School Facilities

77 schools  
 42 elementary schools  
 20 middle schools  
 12 high schools  
 3 education centers

**Table 2.9 Land Bank**

Owned Sites	Acreage	Location	Date Acquired	Cost
Sunny Spring Drive	10	Sunny Spring Drive	1974	\$1.00
Future MS Site	41	2865 Marriottsville Road	2007	\$1,700,000
Faulkner Ridge Center	9.01	Marble Faun Lane	1968	\$1.00

**Table 2.10 Land Designated as School Open Space Property**

Land Designated as School Open Space Property	Acreage	Location
Clary's Forest	10	Little Patuxent near Bright Passage
Dickinson	20	Sweet Hours Way east of Eden Brook Drive
Huntington	11	Vollmerhausen Road east of Murray Hill Road



Feasibility Study:  
An Annual Review of Long-Term Capital  
Planning and Attendance Area Adjustment Options

Section 3

# Needs and Strategies

Prior to examining future school boundary adjustments, it is necessary to review the implications of the new projection and identify needs and potential strategies. When school capacity utilization is outside of the acceptable target utilization range per Board Policy (90–110 percent), school boundary adjustments may be considered.

June 2018

## Elementary Schools

## Columbia East Region

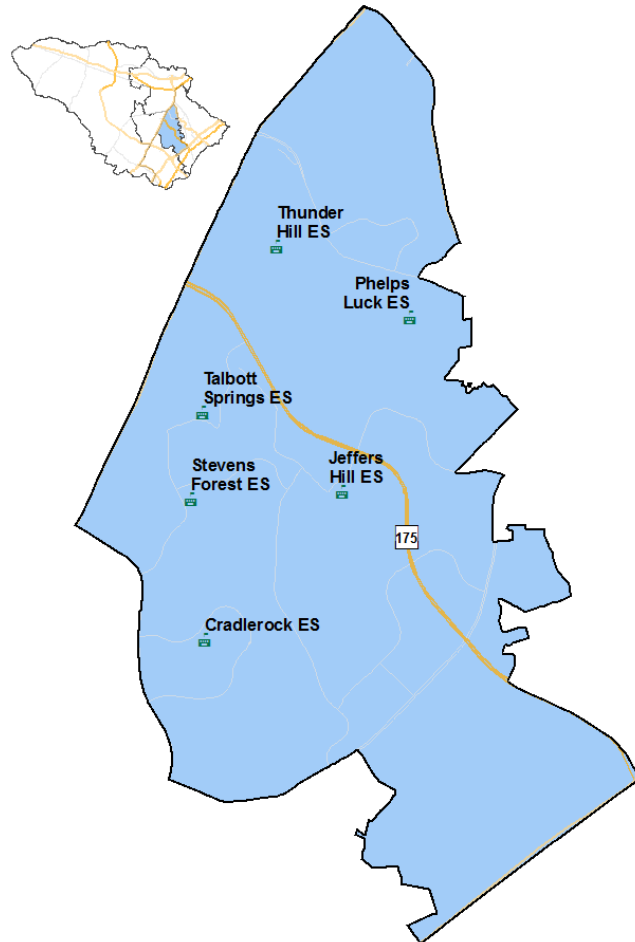
**Need:**

The region is projected to remain within target utilization, however, Cradlerock ES and Talbott Springs ES exceed target utilization in school year 2018-19. Cradlerock ES is projected to exceed target utilization by between 2% and 7% over the next five years.

**Strategy:**

With little to no housing growth in this region, capacity utilization is projected to stay within target utilization. Capital projects at Phelps Luck ES, Thunder Hill ES, and Stevens Forest ES have increased capacity. Projections indicate Talbott Springs ES will continue to exceed target utilization. A capital project yielding an increased capacity is planned for this school, potentially opening in 2022. This project should not be delayed. Depending on the capacity increase at Talbott Springs ES and regional program locations, attendance area adjustments should be explored in conjunction with completion of this project. Relocatable classrooms already on site will provide needed capacity in the interim.

**Figure 3.1**  
Elementary schools of the Columbia East Region



**Table 3.1** Projected utilization (with proposed capacity projects, excluding boundary adjustments)

Columbia East	2018			2023		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Cradlerock ES	464	398	116.6	444	398	111.6
Jeffers Hill ES	428	421	101.7	400	421	95.0
Phelps Luck ES	528	597	88.4	578	597	96.8
Stevens Forest ES	388	399	97.2	405	399	101.5
Talbott Springs ES	458	377	121.5	464	540	85.9
Thunder Hill ES	535	509	105.1	476	509	93.5
<b>(Region ES Totals)</b>	<b>2,801</b>	<b>2,701</b>	<b>103.7</b>	<b>2,767</b>	<b>2,864</b>	<b>96.6</b>

## Elementary Schools

## Columbia West Region

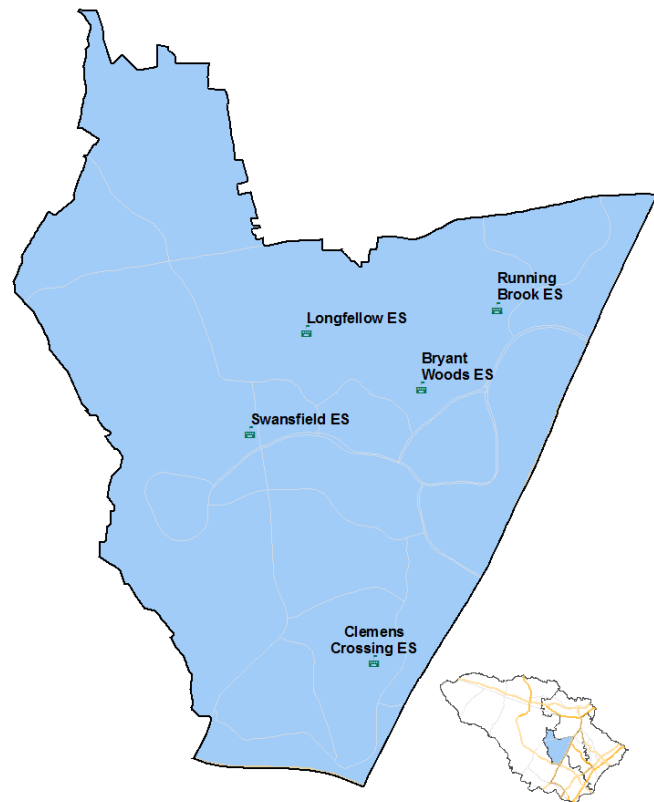
**Need:**

With the housing growth that is expected in Downtown Columbia, enrollment is expected to increase, with three schools exceeding target utilization by 2023. Bryant Woods ES is projected to exceed target utilization by 2020.

**Strategy:**

With recent investment in capacity within the Columbia West Region, at Running Brook ES, Longfellow ES and Swansfield ES, all schools are projected to be within target utilization in school year 2018-19.

Enrollment at Running Brook ES is projected to grow as Columbia Town Center continues to develop. Several site options exist in this region and are being considered for future ES #45. Updated projections show that the completion of a new elementary school in this area could be deferred from 2026-27 to 2030-31. Placement of relocatable classrooms, attendance area adjustments, regional program placement or Prekindergarten and primary/intermediate grade configuration using multiple buildings should be considered as strategies moving forward. As required by the Downtown Columbia Plan, when 10 percent of the residential units are occupied, HCPSS will evaluate student yield. It is anticipated that criteria will be met by the summer of 2018; therefore an evaluation of student yield could occur and be included in the 2019 Feasibility Study.

**Figure 3.2****Elementary schools of the Columbia West Region****Table 3.2 Projected utilization (with proposed capacity projects, excluding boundary adjustments)**

Columbia West	2018			2023		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Bryant Woods ES	390	361	108.0	430	361	119.1
Clemens Crossing ES	470	521	90.2	680	521	130.5
Longfellow ES	402	512	78.5	414	512	80.9
Running Brook ES	499	515	96.9	673	515	130.7
Swansfield ES	606	694	87.3	573	694	82.6
<b>(Region ES Totals)</b>	<b>2,367</b>	<b>2,603</b>	<b>90.9</b>	<b>2,770</b>	<b>2,603</b>	<b>106.4</b>

## Elementary Schools

## Northeastern Region

**Need:**

The region is projected to have adequate capacity until 2023. Hanover Hills ES and Bellows Spring ES are projected to be above target utilization in 2022 and 2023, respectively.

**Strategy:**

Recent investments in this region that include Ducketts Lane ES, Hanover Hills ES, as well as additions at Deep Run ES and Bellows Spring ES, have been integral to closing the capacity gap in this rapidly growing region.

With the opening of Hanover Hills ES, all elementary schools are projected to be within target utilization until 2022.

Future relief is intended for Hanover Hills ES with the planned construction of New ES #43, which is recommended to open at the Mission Road site in school year 2024-25. Projections for Bellows Spring ES, Elkridge ES, Veterans ES and Deep Run ES will be closely monitored.

Figure 3.3

Elementary schools of the Northeastern Region

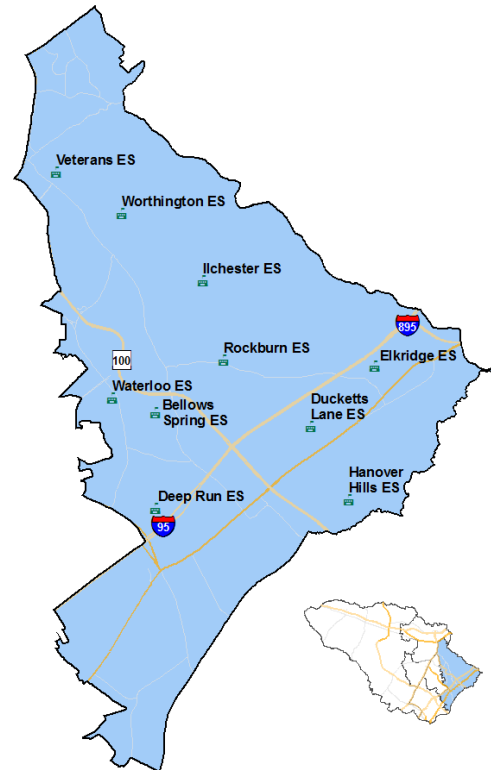


Table 3.3 Projected utilization (with proposed capacity projects, excluding boundary adjustments)

Northeastern	2018			2023		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Bellows Spring ES	671	751	89.3	855	751	113.8
Deep Run ES	677	750	90.3	797	750	106.3
Ducketts Lane ES	673	694	97.0	639	694	92.1
Elkridge ES	857	760	112.8	794	760	104.5
Ilchester ES	578	584	99.0	559	584	95.7
Hanover Hills ES	649	810	80.1	1,071	810	132.2
Rockburn ES	553	609	90.8	610	609	100.2
Veterans ES	885	799	110.8	848	799	106.1
Waterloo ES	582	663	87.8	563	663	84.9
Worthington ES	484	515	94.0	469	515	91.1
<b>(Region ES Totals)</b>	<b>6,609</b>	<b>6,935</b>	<b>95.3</b>	<b>7,205</b>	<b>6,935</b>	<b>103.9</b>



## Elementary Schools

## Northern Region

**Need:**

The region is projected to exceed 110 percent capacity utilization by 2023.

**Strategy:**

Approved attendance area adjustments for the school year 2018-19 will provide relief for Manor Woods ES by shifting some future growth to the Western Region and Waverly ES. Added capacity at Waverly ES provided additional relief to the region.

As other Northern region schools are considered for renovation, such as Hollifield Station ES or St. John's Lane ES, in future capital budgets and land is acquired, consideration should be given to additional capacity in the region.

Updated projections show that occupancy for New ES #44 should be advanced from 2029-30 to 2026-27. Acquisition of a site in Turf Valley for this school is anticipated.

Capacity is available in adjacent schools in the Western Region and schools in the Northern region could access that capacity. State funding eligibility for new capacity is based on adjacent schools, regardless of the region, and may be affected if available seats at nearby schools are not more fully utilized.

Figure 3.4

Elementary schools of the Northern Region

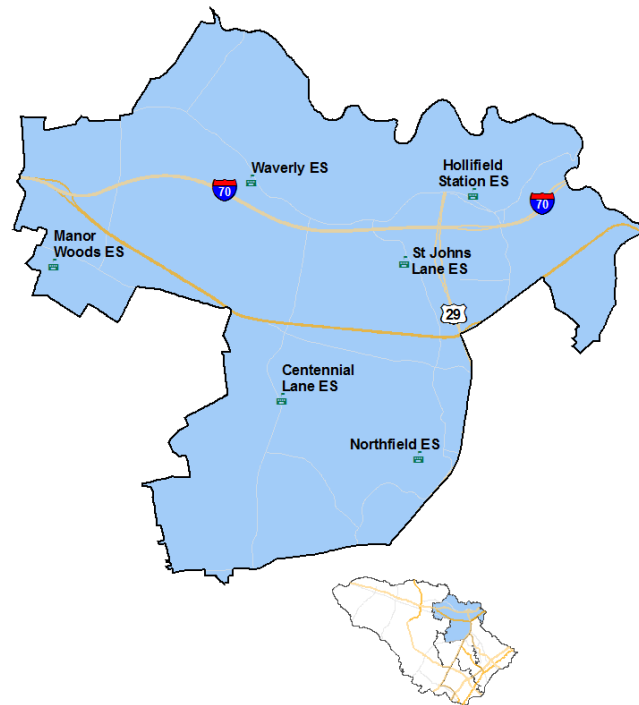


Table 3.4 Projected utilization (with proposed capacity projects, excluding boundary adjustments)

Northern	2018			2023		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Centennial Lane ES	755	647	116.7	745	647	115.1
Hollifield Station ES	826	732	112.8	833	732	113.8
Manor Woods ES	635	681	93.2	748	681	109.8
Northfield ES	727	700	103.9	771	700	110.1
St John's Lane ES	694	612	113.4	748	612	122.2
Waverly ES	802	788	101.8	904	788	114.7
<b>(Region ES Totals)</b>	<b>4,439</b>	<b>4,160</b>	<b>106.7</b>	<b>4,749</b>	<b>4,160</b>	<b>114.2</b>

## Elementary Schools

## Southeastern Region

**Need:**

Future enrollment growth is projected.

**Figure 3.5**

Elementary schools of the Southeastern Region

**Strategy:**

While this region is projected to stay within target utilization through 2023, locating New ES #43 in this area could accommodate future enrollment growth in the Southeastern and Northeastern Regions, along the Route 1 Corridor, and at Fulton ES. Plan for New ES #43 in 2024-25. Attendance area adjustments to open New ES #43 can also be used to balance utilization in the region. Schools that are outside of target utilization in the Northeastern and Western regions will benefit from the location of New ES #43.

Recent capital investments at Laurel Woods ES, Bollman Bridge ES and Gorman Crossing ES, as well as reclaimed community rooms at Forest Ridge ES and Gorman Crossing ES, have provided needed seats to help keep the region within target utilization through 2023.

Monitor enrollment projections at Atholton ES, Forest Ridge ES, Gorman Crossing ES and Hammond ES.

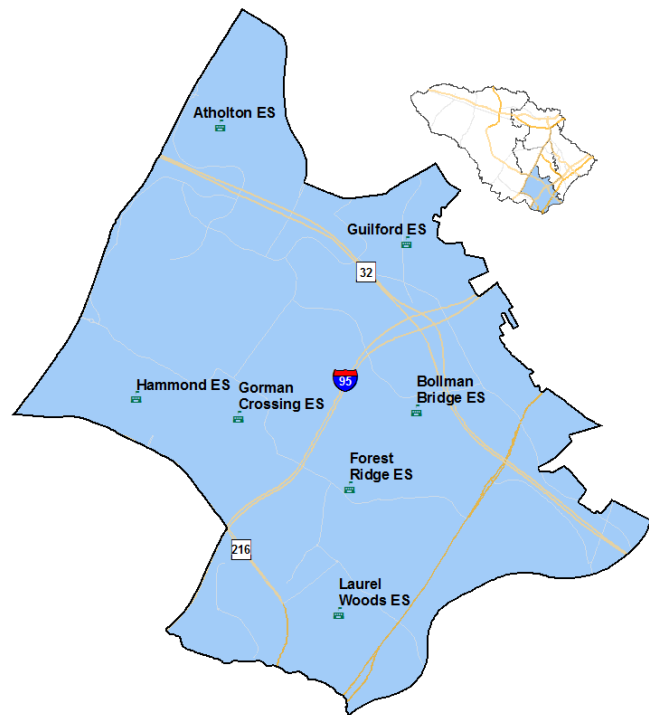


Table 3.5 Projected utilization (with proposed capacity projects, excluding boundary adjustments)

Southeastern	2018			2023		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Atholton ES	456	424	107.5	479	424	113.0
Bollman Bridge ES	646	666	97.0	680	666	102.1
Forest Ridge ES	685	713	96.1	745	713	104.5
Gorman Crossing ES	794	735	108.0	786	735	106.9
Guilford ES	399	465	85.8	365	465	78.5
Hammond ES	642	653	98.3	698	653	106.9
Laurel Woods ES	588	640	91.9	544	640	85.0
<b>(Region ES Totals)</b>	<b>4,210</b>	<b>4,296</b>	<b>98.0</b>	<b>4,297</b>	<b>4,296</b>	<b>100.0</b>

## Elementary Schools

## Western Region

**Need:**

Capacity is available, which could be used to relieve schools in this and other regions. Fulton ES and Pointers Run ES are over 110 percent capacity utilization and projections exhibit growth into the foreseeable future.

**Strategy:**

Approved attendance area adjustments for the school year 2018-19 reassigned students from overcrowded schools in the Northern region to some seats in the Western region. Boundary line adjustments to relieve Fulton ES using Western capacity were reviewed, but not approved. Construction of New ES #43 in the adjacent Southeastern Region may present an opportunity to utilize available capacity in that region to relieve Fulton ES.

Future boundary line adjustments to open New ES #44 in school year 2026-27 in the Northern Region may provide an opportunity to balance utilization, and may impact West Friendship ES, Triadelphia Ridge ES and Bushy Park ES.

Regional PreKindergarten and Special Education programs have been placed at Clarksville ES, Dayton Oaks ES, and Bushy Park ES, providing relief to crowded schools. Continue to evaluate ways to utilize available capacity at these schools. Schools projected to be over target utilization by 2023 will have relocatable classrooms in place to temporarily address the overcrowding.

Figure 3.6

Elementary schools of the Western Region

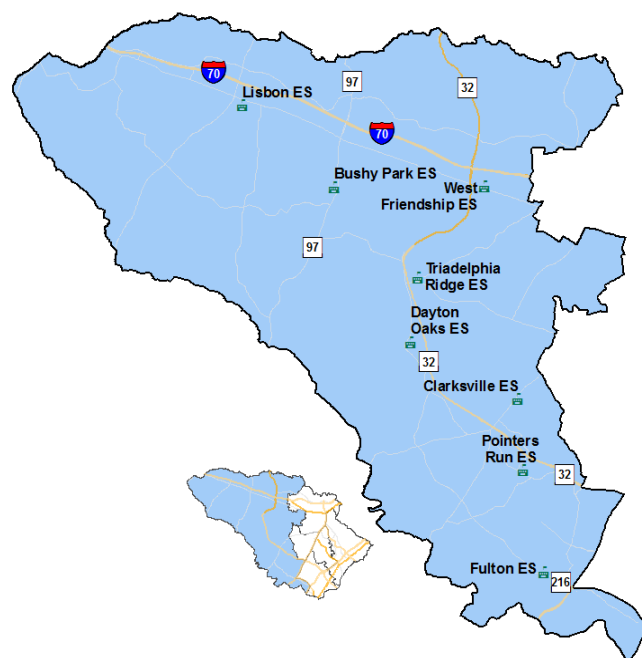


Table 3.6 Projected utilization (with proposed capacity projects, excluding boundary adjustments)

Western	2018			2023		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Bushy Park ES	584	744	78.5	528	744	71.0
Clarksville ES	419	543	77.2	380	543	70.0
Dayton Oaks ES	604	675	89.5	584	675	86.5
Fulton ES	949	826	114.9	1,132	826	137.0
Lisbon ES	449	527	85.2	532	527	100.9
Pointers Run ES	834	744	112.1	919	744	123.5
Triadelphia Ridge ES	570	581	98.1	636	581	109.5
West Friendship ES	394	414	95.2	466	414	112.6
<b>(Region ES Totals)</b>	<b>4,803</b>	<b>5,054</b>	<b>95.0</b>	<b>5,177</b>	<b>5,054</b>	<b>102.4</b>

## Middle Schools

## Columbia East Region

**Need:**

Some capacity exists in this region.

**Strategy:**

Long range projections indicate stable enrollment. Monitor long-term needs.

Figure 3.7

Middle schools of the Columbia East Region

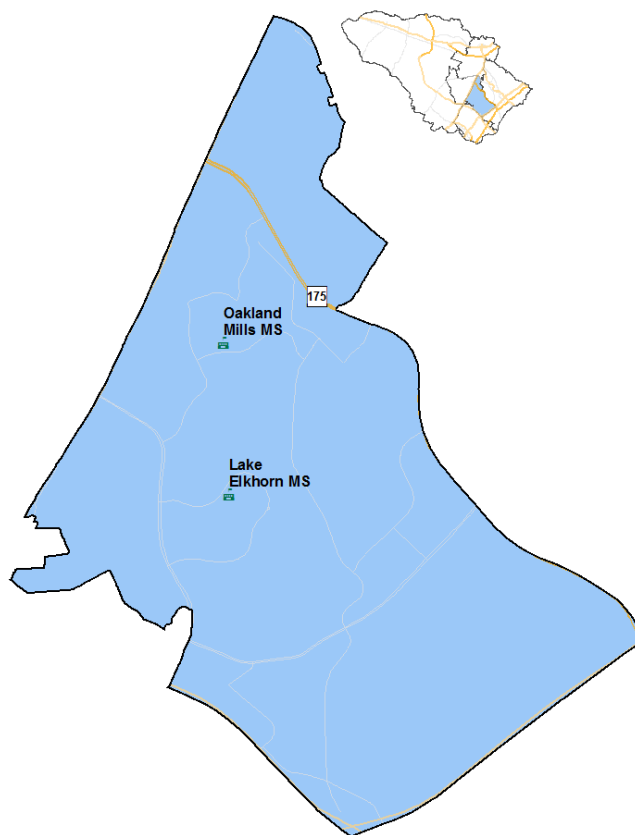


Table 3.7 Projected utilization (with proposed capacity projects, excluding boundary adjustments)

Columbia East	2018			2023		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Lake Elkhorn MS	557	643	86.6	564	643	87.7
Oakland Mills MS	507	506	100.2	515	506	101.8
<b>(Region MS Totals)</b>	<b>1,064</b>	<b>1,149</b>	<b>92.6</b>	<b>1,079</b>	<b>1,149</b>	<b>93.9</b>

## Middle Schools

## Columbia West Region

**Need:**

Some capacity exists in the region.

**Strategy:**

With the addition of 293 new seats in 2017, this region will remain within target utilization for the foreseeable future based on the current projection. Attendance area adjustments approved November 2017 for the school year 2018-19 utilized available capacity in the new Wilde Lake MS to provide relief for Harpers Choice MS. Both schools are projected to be within target utilization through 2023. Monitor projections for new development in the Columbia Town Center. As required by the Downtown Columbia Plan, when 10 percent of the residential units are occupied, HCPSS will evaluate student yield. It is anticipated that criteria will be met by the summer of 2018; therefore an evaluation of student yield could occur and be included in the 2019 Feasibility Study.

**Figure 3.8**

Middle schools of the Columbia West Region

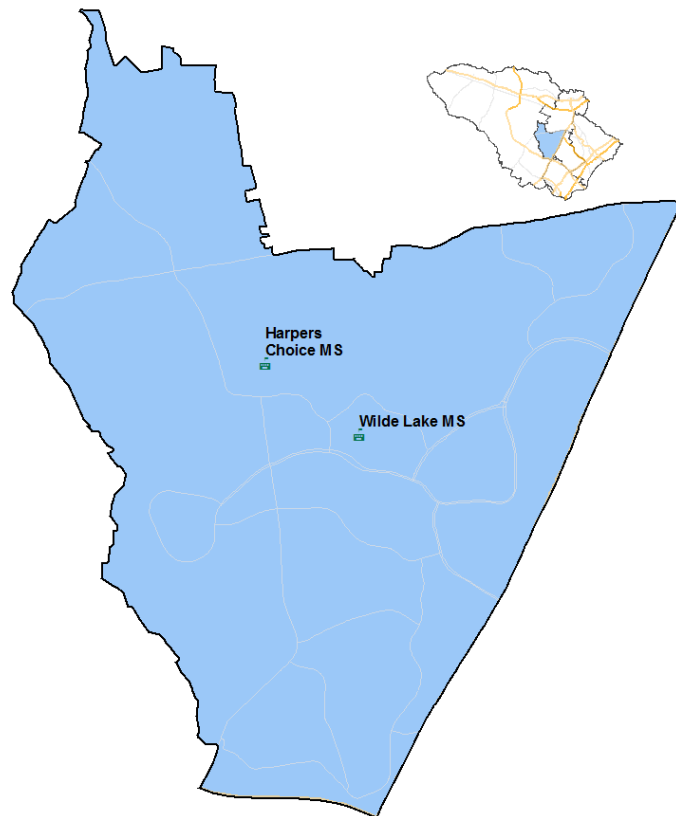


Table 3.8 Projected utilization (with proposed capacity projects, excluding boundary adjustments)

Columbia West	2018			2023		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Harpers Choice MS	546	506	107.9	522	506	103.2
Wilde Lake MS	628	760	82.6	749	760	98.6
<b>(Region MS Totals)</b>	<b>1,174</b>	<b>1,266</b>	<b>92.7</b>	<b>1,271</b>	<b>1,266</b>	<b>100.4</b>

## Middle Schools

## Northeastern Region

Figure 3.9

Middle schools of the Northeastern Region

**Need:**

Enrollment growth continues in the region. Ellicott Mills MS, Thomas Viaduct MS and Bonnie Branch MS are projected to be outside of target utilization by 2023.

**Strategy:**

Ellicott Mills MS is over 120 percent and is projected to remain over 120 percent through 2023. The FY 2019 Capital Improvement Plan shows a 156-seat addition for Ellicott Mills MS in 2024. Occupancy of this project should be advanced to school year 2023-24.

Thomas Viaduct MS is projected to exceed target utilization by 2019. Adequate relief from future growth was not attained by recent attendance area adjustments. Evaluate for placement of relocatable classrooms in the summer of 2019.

Monitor projections for Bonnie Branch MS and Mayfield Woods MS. Consider future placement of relocatable classrooms.

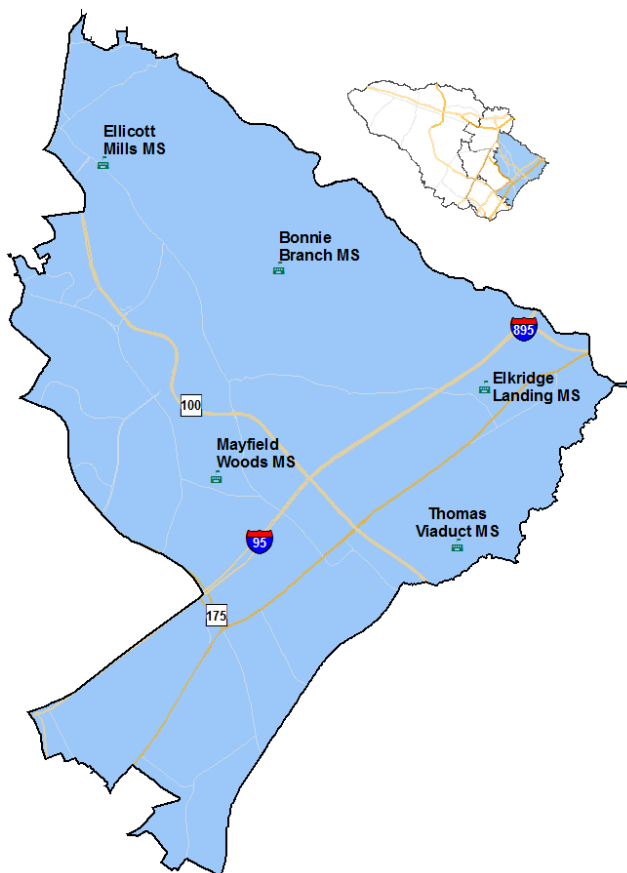


Table 3.9 Projected utilization (with proposed capacity projects, excluding boundary adjustments)

Northeastern	2018			2023		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Bonnie Branch MS	777	701	110.8	805	701	114.8
Elkrigde Landing MS	715	779	91.8	733	779	94.1
Ellicott Mills MS	883	701	126.0	844	857	98.5
Mayfield Woods MS	780	798	97.7	821	798	102.9
Thomas Viaduct MS	707	701	100.9	863	701	123.1
<b>(Region MS Totals)</b>	<b>3,862</b>	<b>3,680</b>	<b>104.9</b>	<b>4,066</b>	<b>3,680</b>	<b>110.5</b>



## Middle Schools

## Northern Region

Figure 3.10

Middle schools of the Northern Region

**Need:**

Projections show enrollment for the region nearing the top of target utilization.

**Strategy:**

Dunloggin MS continues to show projected enrollment growth above target utilization through 2023. A renovation/addition at Dunloggin MS is planned for 2024.

Continue to monitor projections for Patapsco MS. Near term projections show signs that the enrollment may decline. Consider relocatable placement if future enrollment projections support the need.

The land bank site on Marriottsville Road can be used for a future middle school when projections in this area show sufficient need.

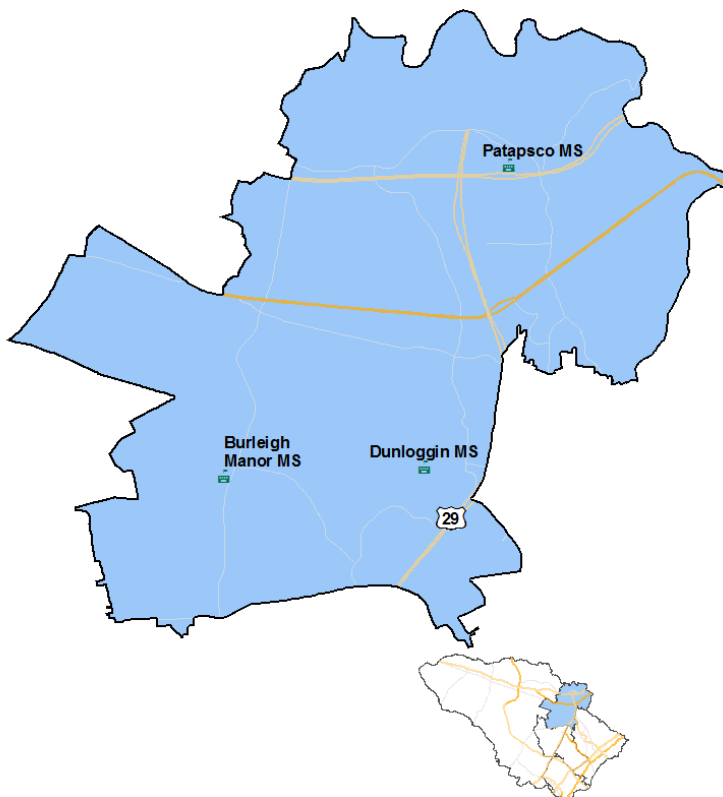


Table 3.10 Projected utilization (with proposed capacity projects, excluding boundary adjustments)

Northern	2018			2023		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Burleigh Manor MS	804	779	103.2	757	779	97.2
Dunloggin MS	639	565	113.1	670	565	118.6
Patapsco MS	739	643	114.9	716	643	111.4
<b>(Region MS Totals)</b>	<b>2,182</b>	<b>1,987</b>	<b>109.8</b>	<b>2,143</b>	<b>1,987</b>	<b>107.9</b>

## Middle Schools

## Southeastern Region

Figure 3.11

Middle schools of the Southeastern Region

**Need:**

Enrollment growth is projected at all three schools in this region. Murray Hill MS is projected to exceed target utilization by 2019.

**Strategy:**

A recent capital project at Patuxent Valley MS added capacity, keeping this region in target through school year 2023-24. Planned attendance area adjustments for the opening of New ES #43 in this region could provide an opportunity to relieve Murray Hill MS using available capacity at adjacent Patuxent Valley MS. Continue to monitor projections for Murray Hill MS and Hammond MS in light of projected residential development.

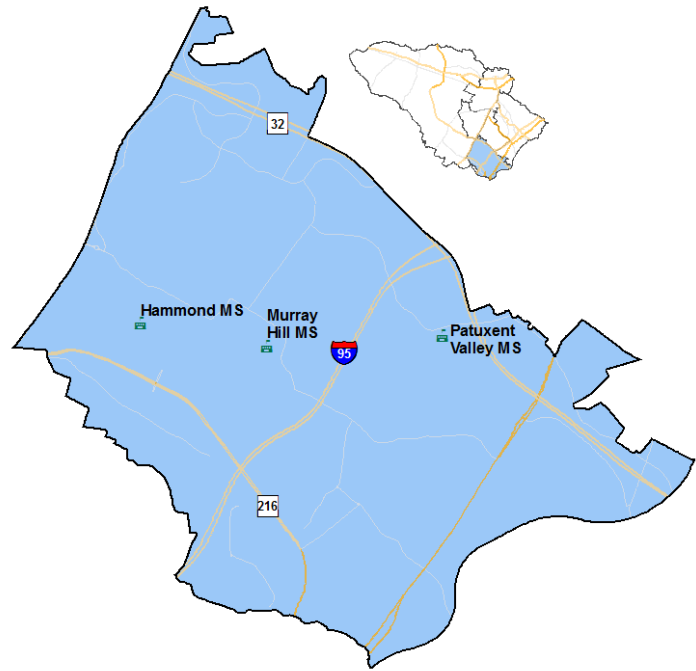


Table 3.11 Projected utilization (with proposed capacity projects, excluding boundary adjustments)

Southeastern	2018			2023		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Hammond MS	563	604	93.2	633	604	104.8
Murray Hill MS	697	662	105.3	774	662	116.9
Patuxent Valley MS	652	760	85.8	656	760	86.3
<b>(Region MS Totals)</b>	<b>1,912</b>	<b>2,026</b>	<b>94.4</b>	<b>2,063</b>	<b>2,026</b>	<b>101.8</b>

## Middle Schools

## Western Region

**Need:**

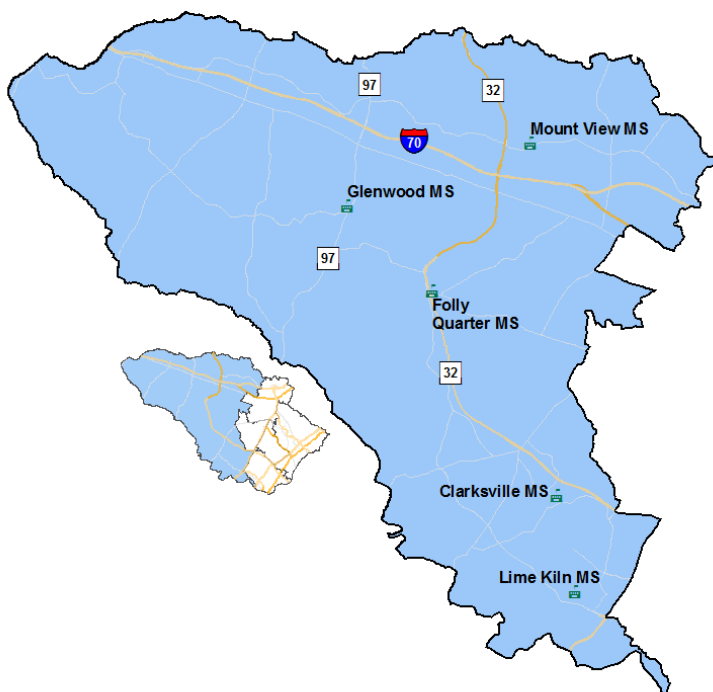
This region will remain in target utilization for the foreseeable future. Folly Quarter MS and Glenwood MS are showing stable projections within target utilization.

**Strategy:**

Projections for this region indicate stable enrollment, with some enrollment growth projected at Lime Kiln MS. Attendance area adjustments approved in November 2017 will provide relief for Lime Kiln MS to accommodate projected enrollment growth. The impact of recent attendance area adjustments and new construction on projections will be closely monitored.

**Figure 3.12**

Middle schools of the Western Region

**Table 3.12** Projected utilization (with proposed capacity projects, excluding boundary adjustments)

Western	2018			2023		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Clarksville MS	668	643	103.9	633	643	98.4
Folly Quarter MS	647	662	97.7	651	662	98.3
Glenwood MS	480	545	88.1	487	545	89.4
Lime Kiln MS	626	701	89.3	701	701	100.0
Mount View MS	834	798	104.5	821	798	102.9
<b>(Region MS Totals)</b>	<b>3,255</b>	<b>3,349</b>	<b>97.2</b>	<b>3,293</b>	<b>3,349</b>	<b>98.3</b>

High Schools

Columbia East Region

Need:

This region is projected to be within target utilization.

Strategy:

Oakland Mills HS, with the recent addition of the JumpStart program, has a higher projection than in previous years. The impacts of this program will be monitored, and adjustments to program offerings recommended if needed. This region could be impacted by attendance area adjustments associated with New HS #13 in 2023.

Figure 3.13  
High school of the Columbia East Region

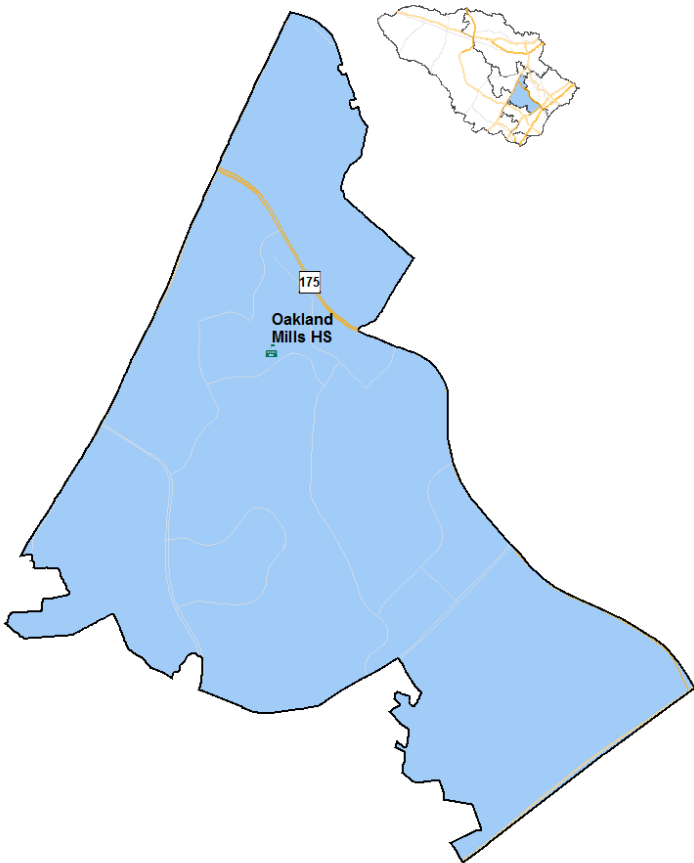


Table 3.13 Projected utilization (with proposed capacity projects, excluding boundary adjustments)

Columbia East	2018			2023		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Oakland Mills HS	1,217	1,400	86.9	1,379	1,400	98.5

High Schools

Columbia West Region

**Need:**  
This region is projected to be in target utilization. Wilde Lake HS is projected to be below 100 percent utilization through school year 2023-24.

**Strategy:**  
New housing planned for Downtown Columbia will be monitored for projected student yield. This region may be impacted by attendance area adjustments associated with the opening of New HS #13 in school year 2023-24, depending on the scope of the boundary adjustment. As required by the Downtown Columbia Plan, when 10 percent of the residential units are occupied, HCPSS will evaluate student yield. It is anticipated that criteria will be met by the summer of 2018; therefore an evaluation of student yield could occur and be included in the 2019 Feasibility Study.

Figure 3.14  
High school of the Columbia West Region



Table 3.14 Projected utilization (with proposed capacity projects, excluding boundary adjustments)

Columbia West	2018			2023		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Wilde Lake HS	1,350	1,424	94.8	1,399	1,424	98.2

## High Schools

## Northeastern Region

**Need:**

Significant enrollment growth is projected. Available capacity in this region is not sufficient to accommodate current and projected enrollment.

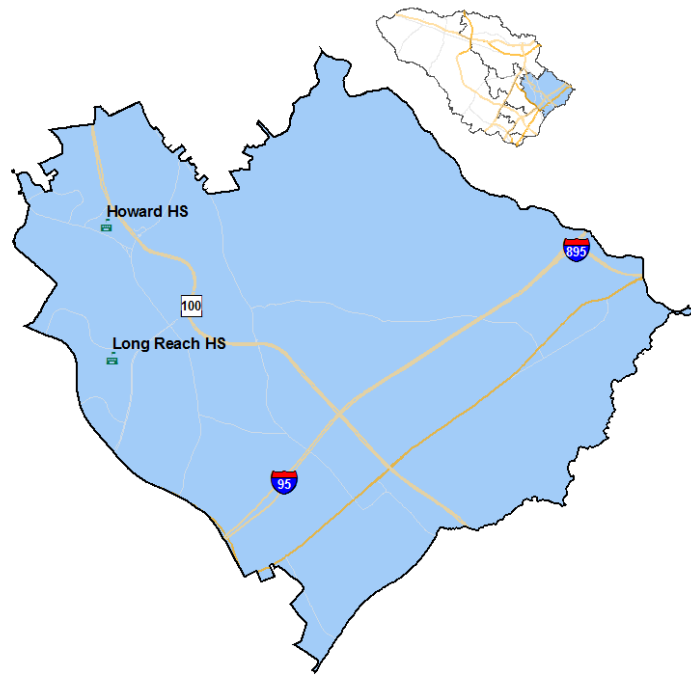
**Strategy:**

For school year 2018-19, Howard HS is projected to continue to exceed target utilization. By school year 2019-20, Long Reach HS is projected exceed target utilization. Both schools are projected to experience some relief from the JumpStart early college program. Capacity at Howard HS has been supplemented with 15 relocatable classrooms. For school year 2019-20, Long Reach HS will have seven relocatable classrooms.

New HS #13 will provide relief to this region beginning in school year 2023-24. It is recommended that this project remain on schedule and not be delayed.

School Planning staff will continue to coordinate with the Department of Planning and Zoning regarding Route 1 Corridor Plan Development process.

**Figure 3.15**  
High schools of the Northeastern Region



**Table 3.15** Projected utilization (with proposed capacity projects, excluding boundary adjustments)

Northeastern	2018			2023		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Howard HS	1,908	1,420	134.4	2,075	1,420	146.1
Long Reach HS	1,586	1,488	106.6	2,133	1,488	143.3
<b>(Region HS Totals)</b>	<b>3,494</b>	<b>2,908</b>	<b>120.2</b>	<b>4,208</b>	<b>2,908</b>	<b>144.7</b>



## High Schools

## Northern Region

**Need:**

While capacity exists at Marriotts Ridge HS, the region is projected to exceed target utilization in school year 2020-21.

**Strategy:**

Centennial HS and Mt Hebron HS are projected to exceed target utilization in school year 2019-20 and both schools are projected to experience continued enrollment growth. Available capacity at Marriotts Ridge HS is not sufficient to relieve the other schools in this region. Four additional relocatables are being placed in this region during the summer of 2018 to provide additional temporary classroom space. Attendance area adjustments for New HS #13 in school year 2023-24 may include an opportunity to provide relief in this region.

Figure 3.16

High schools of the Northern Region

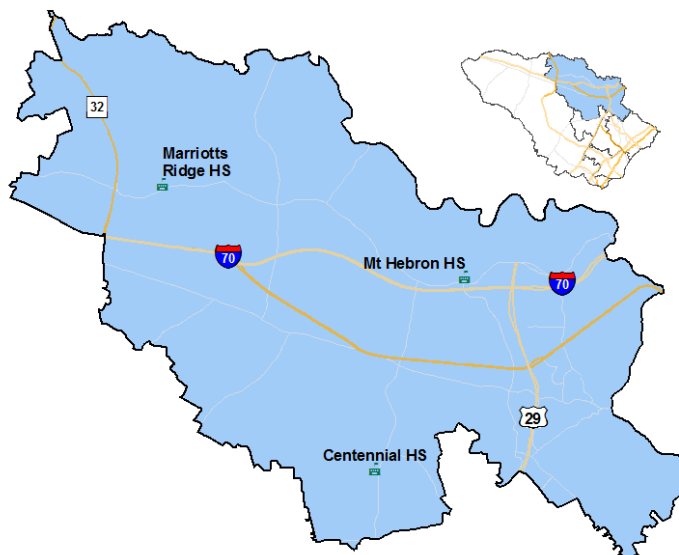


Table 3.16 Projected utilization (with proposed capacity projects, excluding boundary adjustments)

Northern	2018			2023		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Centennial HS	1,664	1,360	122.4	1,772	1,360	130.3
Marriotts Ridge HS	1,376	1,615	85.2	1,499	1,516	98.9
Mt Hebron HS	1,590	1,400	113.6	1,679	1,400	119.9
<b>(Region HS Totals)</b>	<b>4,630</b>	<b>4,354</b>	<b>106.3</b>	<b>4,950</b>	<b>4,354</b>	<b>113.7</b>

High Schools

Southeastern Region

**Need:**  
The Southeastern region exceeds 110 percent capacity utilization in 2018 with enrollment growth projected.

**Strategy:**  
Hammond HS is projected to exceed target utilization in school year 2018-19. An addition is proposed to open with the school's planned renovation in school year 2023-24. Due to the location of the New HS #13 on Mission Road, attendance area adjustments will affect this region in school year 2023-24.

As with the Northeastern region, School Planning staff will continue to coordinate with the Department of Planning and Zoning regarding Route 1 Corridor Plan Development Process.

Figure 3.17  
High schools of the Southeastern Region

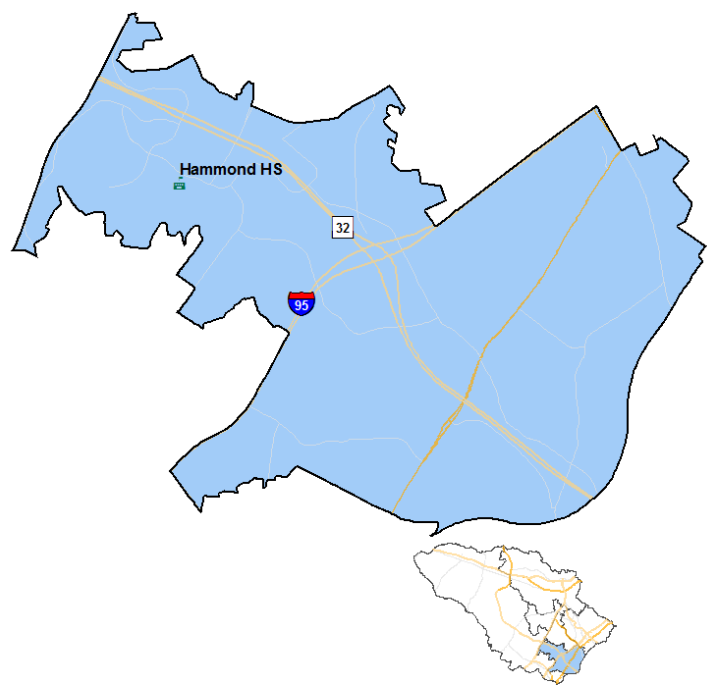


Table 3.17 Projected utilization (with proposed capacity projects, excluding boundary adjustments)

Southeastern	2018			2023		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Hammond HS	1,356	1,220	111.1	1,585	1,420	111.6

## High Schools

## Western Region

**Need:**

While some capacity exists in this region, two of the four high schools are expected to reach target utilization by school year 2023-24.

**Strategy:**

In previous projections, River Hill HS had more available capacity, however with implementation of JumpStart early college program, the school is projected to be more fully utilized. Reservoir HS is projected to exceed target utilization by school year 2020-21 and will be monitored. A recent capital project at Atholton HS increased capacity, however projections will be monitored because the school is projected to exceed target utilization in school year 2023-24. Glenelg HS remains underutilized and could provide relief to other schools in the region through attendance area adjustments.

Figure 3.18

High schools of the Western Region

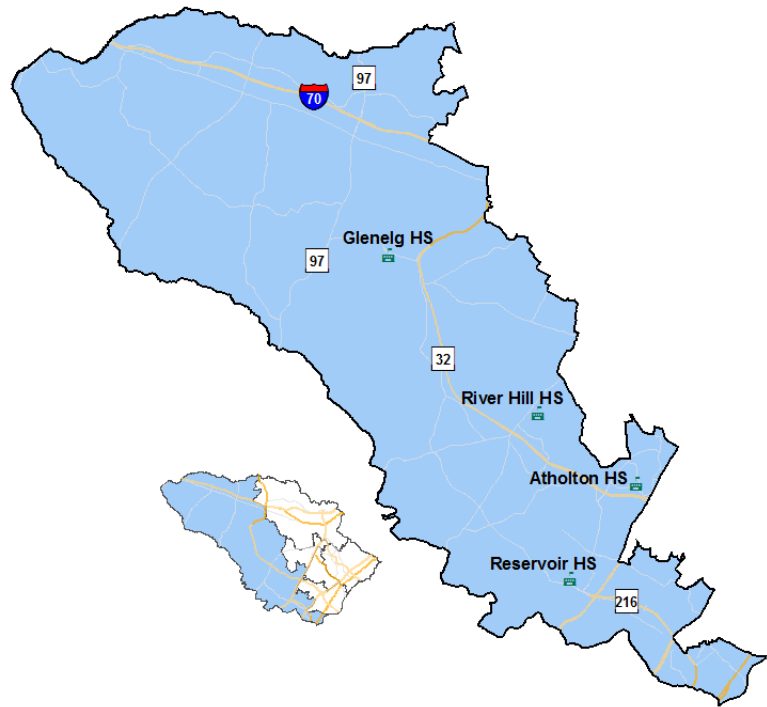


Table 3.18 Projected utilization (with proposed capacity projects, excluding boundary adjustments)

Western	2018			2023		
	Projected Pop.	Capacity	Projected Utilization	Projected Pop.	Capacity	Projected Utilization
Atholton HS	1,516	1,460	103.8	1,654	1,460	113.3
Glenelg HS	1,197	1,420	84.3	1,155	1,420	81.3
Reservoir HS	1,595	1,551	102.8	1,836	1,551	118.4
River Hill HS	1,411	1,488	94.8	1,454	1,466	99.2
<b>(Region HS Totals)</b>	<b>5,719</b>	<b>5,919</b>	<b>96.6</b>	<b>6,099</b>	<b>5,919</b>	<b>103.0</b>



Feasibility Study:  
An Annual Review of Long-Term Capital  
Planning and Attendance Area Adjustment Options

Section 4

# Foreseeable Attendance Area Adjustments

This report does not recommend any adjustments to attendance areas for the 2019-20 school year.

June 2018

## Foreseeable Attendance Area Adjustments Summary

### Adjustments School Attendance Areas

**This report is not recommending initiation of an attendance area adjustment process in 2018-19 for the 2019-20 school year. The next boundary line adjustments are anticipated for 2023-24 with the opening of High School #13 and the addition of capacity to Hammond High School.**

According to projections used in this document, 26 out of 74 schools will exceed 110% utilization by 2022. Each of these schools has been reviewed and a strategy recommended to address the over-utilization. In some cases where target utilization is exceeded farther in the future, projections are being monitored for consistency to ensure action is justified. In other cases, a capital project is planned to increase capacity of the over-utilized or a nearby school. Relocatable classrooms will be placed to add capacity until a solution can be planned and budgeted. Adjusting school attendance areas will be necessary with future capital projects to relieve some of the over-utilized regions.

Following the Board of Education's approval of the Mission Road site for High School #13, HCPSS is working in cooperation with Howard County government to acquire the site and plan for opening this school in 2023-24. Forming the attendance area for this school will have impacts to neighborhoods that currently are assigned to Long Reach HS, Howard HS, Hammond HS, and Oakland Mills HS. Depending on decisions made regarding this area, there may be opportunities to provide relief to over-utilized schools in the Northern region. More detail will be provided in future reports as planning continues. In the interim, additional relocatable classrooms are being placed at high schools in these areas. Additionally, some relief at Howard HS and Long Reach HS has been realized through the JumpStart early college program, utilizing available capacity at Oakland Mills HS and River Hill HS.

In some regions, new solutions to provide relief to over-utilized schools are being explored. In the Columbia West region, implementing a primary/intermediate school configuration may be an opportunity to utilize capacity in schools adjacent to those with projected over-utilization, without reassigning students outside of their neighborhood. Regional program locations will be reviewed annually to ensure placement where need matches available space. Educational programs such as JumpStart should also be monitored and evaluated for potential expansion to allow students to voluntarily attend a school with available capacity to participate in special programs.

In response to feedback received throughout the 2017 Attendance Area Adjustment process, many aspects of the School Planning and Attendance Area Adjustment procedures are being reviewed. The Board of Education formed a subcommittee to review and make recommendations to the full Board regarding attendance area adjustments and related processes. Any changes to policy or procedure resulting from this process should be implemented prior to the initiation of future Attendance Area Adjustments. School Planning staff is using feedback from the 2017 process to plan modifications to procedures and tools used for enrollment projection and scenario testing. Utilizing state of the art software and consultation from Davis Demographics, Office of School Planning is implementing new tools and workflows within these processes. Set-up and testing will continue through the summer and fall of 2018.



Feasibility Study:  
An Annual Review of Long-Term Capital  
Planning and Attendance Area Adjustment Options

Section 5

## Pre- and Post- Measure Charts

The effects of some scenarios tested for this report on capacity utilization are depicted in tabular form on the following pages. The tables are presented for each organizational level (elementary, middle, and high) using a pre-/post-measures format. The pre-measures format shows the effect of projected enrollment without any attendance area adjustments. The pre-measures format also shows FY 2019 capital projects as approved by the Board in March 2018.

The post-measures format shows the impact of projected enrollment with some capital plans discussed in this document. The post-measures format includes capital projects recommended in this document for the FY 2020 Capital Budget. If these projects are not approved, other plans must be developed.

June 2017

## Pre-Measures

## ELEMENTARY SCHOOLS - Data for Demonstrative Purposes Only

Capacity Utilization Rates with Board of Education's Approved FY 2019 Capital Budget Projects - Not Test for APFO

Chart reflects May 2018 Projections, Board of Education's FY 2019 approved capacities, and no redistricting.

	Capacity				2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29		2029-30	
	2019	2020	2021	2022	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.
<b>Columbia - East</b>	2701	2701	2864	2864	2784	103.1	2785	103.1	2755	96.2	2733	95.4	2767	96.6	2760	96.4	2782	97.1	2806	98.0	2869	100.2	2903	101.4	2944	102.8
Cradlerock ES	398	398	398	398	458	115.1	449	112.8	445	111.8	435	109.3	444	111.6	450	113.1	448	112.6	455	114.3	464	116.6	471	118.3	478	120.1
Jeffers Hill ES	421	421	421	421	426	101.2	415	98.6	413	98.1	393	93.3	400	95.0	396	94.1	399	94.8	402	95.5	411	97.6	416	98.8	422	100.2
Phelps Luck ES	597	597	597	597	528	88.4	536	89.8	551	92.3	555	93.0	578	96.8	577	96.6	596	99.8	602	100.8	609	102.0	615	103.0	623	104.4
Stevens Forest ES	399	399	399	399	395	99.0	406	101.8	400	100.3	403	101.0	405	101.5	410	102.8	407	102.0	414	103.8	420	105.3	424	106.3	428	107.3
Talbot Springs ES	377	377	540	540	459	121.8	472	125.2	460	85.2	463	85.7	464	85.9	453	83.9	458	84.8	461	85.4	475	88.0	481	89.1	488	90.4
Thunder Hill ES	509	509	509	509	518	101.8	507	99.6	486	95.5	484	95.1	476	93.5	474	93.1	472	92.7	490	96.3	496	97.4	505	99.2		

<b>Columbia - West</b>	2603	2603	2603	2603	2429	93.3	2501	96.1	2590	99.5	2703	103.8	2770	106.4	2859	109.8	2925	112.4	3017	115.9	3116	91.9	3197	94.3	3266	96.3
Bryant Woods ES	361	361	361	361	402	111.4	408	113.0	418	115.8	423	117.2	430	119.1	439	121.6	441	122.2	446	123.5	452	125.2	455	126.0	454	125.8
Clemens Crossing ES	521	521	521	521	508	97.5	543	104.2	593	113.8	638	122.5	680	130.5	713	136.9	731	140.3	765	146.8	783	150.3	803	154.1	815	156.4
Longfellow ES	512	512	512	512	400	78.1	401	78.3	403	78.7	417	81.4	414	80.9	425	83.0	431	84.2	437	85.4	445	86.9	448	87.5	453	88.5
<b>New ES #44</b>	0	0	0	0																						
Running Brook ES	515	515	515	515	528	102.5	559	108.5	600	116.5	646	125.4	673	130.7	708	137.5	742	144.1	785	152.4	841	163.3	890	172.8	937	181.9
Swansfield ES	694	694	694	694	591	85.2	590	85.0	576	83.0	579	83.4	573	82.6	574	82.7	580	83.6	584	84.1	595	85.7	601	86.6	607	87.5

<b>Northeastern</b>	6935	6935	6935	6935	6558	94.6	6706	96.7	6835	98.6	6997	100.9	7205	103.9	7428	107.1	7673	110.6	7879	113.6	8139	117.4	8218	118.5	8238	118.8
Bellows Spring ES	751	751	751	751	678	90.3	737	98.1	784	104.4	825	109.9	855	113.8	879	117.0	896	119.3	887	118.1	864	115.0	844	112.4	817	108.8
Deep Run ES	750	750	750	750	686	91.5	706	94.1	746	99.5	772	102.9	797	106.3	816	108.8	837	111.6	842	112.3	860	114.7	872	116.3	886	118.1
Ducketts Lane ES	694	694	694	694	678	97.7	664	95.7	662	95.4	651	93.8	639	92.1	643	92.7	634	91.4	658	94.8	677	97.6	684	98.6	684	98.6
Elkridge ES	760	760	760	760	640	110.5	842	110.8	828	108.9	812	106.8	794	104.5	799	105.1	826	108.7	869	114.3	923	121.4	971	127.8	986	129.7
Hanover Hills ES	810	810	810	810	689	85.1	732	96.5	879	108.5	979	120.9	1071	132.2	1105	136.4	1149	141.9	1185	146.3	1219	150.5	1219	150.5	1245	153.7
Ilchester ES	584	584	584	584	555	95.0	586	91.8	523	89.6	514	88.0	559	95.7	610	104.5	635	108.7	652	111.6	689	118.0	694	118.8	678	116.1
Rockburn ES	609	609	609	609	542	89.0	560	92.0	570	93.6	584	95.9	610	100.2	657	107.9	706	115.9	714	117.2	730	119.9	733	120.4	735	120.7
Veterans ES	799	799	799	799	790	108.9	853	106.8	851	106.5	840	105.1	848	106.1	834	104.4	861	107.8	903	113.0	914	114.4	915	114.5	916	114.6
Waterloo ES	663	663	663	663	562	84.8	581	87.6	560	84.5	573	86.4	563	84.9	577	87.0	590	89.0	595	89.7	601	90.6	610	92.0	623	94.0
Worthington ES	515	515	515	515	458	88.9	445	86.4	432	83.9	447	86.8	469	91.1	508	98.6	539	104.7	574	111.5	662	128.5	676	131.3	668	129.7

<b>Northern</b>	4160	4160	4160	4160	4483	107.8	4518	108.6	4610	110.8	4637	111.5	4749	114.2	4902	117.8	4966	119.4	5047	121.3	5067	121.8	5108	122.8	5123	103.5
Centennial Lane ES	647	647	647	647	752	116.2	746	115.3	749	115.8	751	116.1	745	115.1	750	115.9	760	117.5	760	117.5	768	118.7	774	119.6	776	119.9
Hollifield Station ES	732	732	732	732	821	112.2	835	114.1	849	116.0	839	114.6	833	113.8	851	116.3	847	115.7	857	117.1	860	117.5	868	118.6	881	120.4
Manor Woods ES	681	681	681	681	653	95.9	665	97.7	693	101.8	699	102.6	748	109.8	760	111.6	760	111.6	776	114.0	765	112.3	763	112.0	757	111.2
<b>New ES #45</b>	0	0	0	0																						
Northfield ES	700	700	700	700	729	104.1	735	105.0	743	106.1	748	106.9	771	110.1	811	115.9	828	118.3	842	120.3	852	121.7	860	122.9	847	121.0
St Johns Lane ES	612	612	612	612	705	115.2	691	112.9	710	116.0	730	119.3	748	122.2	781	127.6	786	128.4	805	131.5	812	132.7	826	135.0	839	137.1
Waverly ES	788	788	788	788	823	104.4	846	107.4	866	109.9	870	110.4	904	114.7	949	120.4	985	125.0	1007	127.8	1010	128.2	1017	129.1	1023	129.8

<b>Southeastern</b>	4296	4296	4296	4296	4230	98.5	4194	97.6	4213	98.1	4243	98.8	4297	84.5	4335	85.3	4401	86.6	4486	88.2	4616	90.8	4689	92.2	4760	93.6
Atholton ES	424	424	424	424	466	109.9	478	112.7	480	113.2	477	112.5	479	113.0	476	112.3	477	112.5	474	111.8	478	112.7	480	113.2	485	114.4
Bollman Bridge ES	666	666	666	666	635	95.3	640	96.1	651	97.7	648	97.3	680	102.1	693	104.1	707	106.2	692	103.9	698	104.8	688	103.3	683	102.6
Forest Ridge ES	713	713	713	713	684	95.9	681	95.5	689	96.6	711	99.7	745	104.5	764	107.2	811	113.7	865	121.3	903	126.6	927	130.0	938	131.6
Gorman Crossing ES	735	735	735	735	820	111.6	799	108.7	830	112.9	812	110.5	786	106.9	777	105.7	746	101.5	777	105.7	766	104.2	770	104.8	758	103.1
Guilford ES	465	465	465	465	387	83.2	373	80.2	363	78.1	371	79.8	365	78.5	376	80.9	412	88.6	412	88.6	424	91.2	423	91.0	422	90.8
Hammond ES	653	653	653	653	654	100.2	648	99.2	639	97.9	662	101.4	698	106.9	720	110.3	730	111.8	733	112.3	802	122.8	849	130.0	898	137.5
Laurel Woods ES	640	640	640	640	584	91.3	575	89.8	561	87.7	562	87.8	544	85.0	529	82.7	518	80.9	533	83.3	545	85.2	552	86.3	576	90.0
<b>New ES #43</b>	0	0	0	0																						

Western																										
Bushy Park ES	744	744	744	744	561	75.4	569	76.5	537	72.2	535	71.9	528	71.0	533	71.6	545	73.3	543	73.0	567	76.2	603	81.0	635	85.3
Clarksville ES	543	543	543	543	393	72.4	380	70.0	385	70.9	397	73.1	380	70.0	368	67.8	387	71.3	391	72.0	393	72.4	396	72.9	397	73.1
Dayton Oaks ES	675	675	675	675	587	87.0	585	86.7	586	86.8	583	86.4	584	86.5	581	86.1	575	85.2	570	84.4	559	82.8	548	81.2	533	79.0
Fulton ES	826	826	826	826	1016	123.0	1059	128.2	1100	133.2	1113	134.7	1132	137.0	1118	135.4	1124	136.1	1111	134.5	1095	132.6	1098	132.9	1090	132.0
Lisbon ES	527	527	527	527	473	89.8	483	91.7	507	96.2	516	97.9	532	100.9	549	104.2	544	103.2	553	104.9	584	110.8	600	113.9	620	117.6
Pointers Run ES	744	744	744	744	825	110.9	832	111.8	857	115.2	900	121.0	919	123.5	945	127.0	952	128.0	947	127.3	925	124.3	894	120.2	862	115.9
Triadelphia Ridge ES	581	581	581	581	572	98.5	577	99.3	583	100.3	603	103.8	636	109.5	646	111.2	666	114.6	690	118.0	677	116.5	658	113.3	633	109.0
West Friendship ES	414	414	414	414	386	93.2	409	98.8	419	101.2	435	105.1	466	112.6	501	121.0	531	128.3	540	130.4	547	132.1	558	134.8	572	138.2
Region Totals	5054	5054	5054	5054	4813	95.2	4894	96.8	4974	98.4	5082	100.6	5177	102.4	5241	103.7	5324	105.3	5345	105.8	5347	105.8	5355	106.0	5342	105.7
Countywide Totals	25749	25749	25912	25912	25297	98.2	25598	99.4	25977	100.3	26395	101.9	26965	101.0	27525	103.1	28071	105.1	28580	107.0	29154	106.1	29470	107.2	29673	104.9

Post-Measures

**Aggregate Plan**

Chart reflects May 2018 Projections, potential FY 2020 requested capacities and no redistricting.

**ELEMENTARY SCHOOLS - Data for Demonstrative Purposes Only**

Capacity Utilization Rates with Proposed FY 2020 Capital Budget Projects - Not Test for APFO

Capacity					2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29		2029-30	
	2019	2020	2021	2022	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.
Columbia - East	398	398	398	398	458	115.1	449	112.8	445	111.8	435	109.3	444	111.6	450	113.1	448	112.6	455	114.3	464	116.6	471	118.3	478	120.1
Cradlerock ES	421	421	421	421	426	101.2	415	98.6	413	98.1	393	93.3	400	95.0	396	94.1	399	94.8	402	95.5	411	97.6	416	98.8	422	100.2
Jeffers Hill ES	597	597	597	597	528	88.4	536	89.8	551	92.3	555	93.0	578	96.8	577	96.6	596	99.8	602	100.8	609	102.0	615	103.0	623	104.4
Phelps Luck ES	399	399	399	399	395	99.0	406	101.8	400	100.3	403	101.0	405	101.5	410	102.8	407	102.0	414	103.8	420	105.3	424	106.3	428	107.3
Stevens Forest ES	377	377	377	540	459	121.8	472	125.2	460	122.0	463	85.7	464	85.9	453	83.9	458	84.8	461	85.4	475	88.0	481	89.1	488	90.4
Talbott Springs ES	509	509	509	509	518	101.8	507	99.6	486	95.5	484	95.1	476	93.5	474	93.1	474	93.1	472	92.7	490	96.3	496	97.4	505	99.2
Thunder Hill ES																										
Region Totals	2701	2701	2701	2864	2784	103.1	2785	103.1	2755	102.0	2733	95.4	2767	96.6	2760	96.4	2782	97.1	2806	98.0	2869	100.2	2903	101.4	2944	102.8
Columbia - West																										
Bryant Woods ES	361	361	361	361	402	111.4	408	113.0	418	115.8	423	117.2	430	119.1	439	121.6	441	122.2	446	123.5	452	125.2	455	126.0	454	125.8
Clemens Crossing ES	521	521	521	521	508	97.5	543	104.2	593	113.8	638	122.5	680	130.5	713	136.9	731	140.3	765	146.8	783	150.3	803	154.1	815	156.4
Longfellow ES	512	512	512	512	400	78.1	401	78.3	403	78.7	417	81.4	414	80.9	425	83.0	431	84.2	437	85.4	445	86.9	448	87.5	453	88.5
New ES #45	NS	0	0	0																						
Running Brook ES	515	515	515	515	528	102.5	559	108.5	600	116.5	646	125.4	673	130.7	708	137.5	742	144.1	785	152.4	841	163.3	890	172.8	937	181.9
Swansfield ES	A	694	694	694	591	85.2	590	85.0	576	83.0	579	83.4	573	82.6	574	82.7	580	83.6	584	84.1	595	85.7	601	86.6	607	87.5
Region Totals	2603	2603	2603	2603	2429	93.3	2501	96.1	2590	99.5	2703	103.8	2770	106.4	2859	109.8	2925	112.4	3017	115.9	3116	119.7	3197	122.8	3266	105.6
Northeastern																										
Bellows Spring ES	751	751	751	751	678	90.3	737	98.1	784	104.4	825	109.9	855	113.8	879	117.0	896	119.3	887	118.1	864	115.0	844	112.4	817	108.8
Deep Run ES	750	750	750	750	686	91.5	706	94.1	746	99.5	772	102.9	797	106.3	816	108.8	837	111.6	842	112.3	860	114.7	872	116.3	886	118.1
Ducketts Lane ES	694	694	694	694	678	97.7	664	95.7	662	95.4	651	93.8	639	92.1	643	92.7	634	91.4	658	94.8	677	97.6	684	98.6	684	98.6
Elkridge ES	760	760	760	760	840	110.5	842	110.8	828	108.9	812	106.8	794	104.5	799	105.1	826	108.7	869	114.3	923	121.4	971	127.8	986	129.7
Hanover Hills ES	810	810	810	810	689	85.1	782	96.5	879	108.5	979	120.9	1071	132.2	1105	136.4	1149	141.9	1185	146.3	1219	150.5	1219	150.5	1245	153.7
Ilchester ES	584	584	584	584	555	95.0	536	91.8	523	89.6	514	88.0	559	95.7	610	104.5	635	108.7	652	111.6	689	118.0	694	118.8	678	116.1
Rockburn ES	609	609	609	609	542	89.0	560	92.0	570	93.6	584	95.9	610	100.2	657	107.9	706	115.9	714	117.2	730	119.9	733	120.4	735	120.7
Veterans ES	799	799	799	799	870	108.9	853	106.8	851	106.5	840	105.1	848	106.1	834	104.4	861	107.8	903	113.0	914	114.4	915	114.5	916	114.6
Waterloo ES	663	663	663	663	562	84.8	581	87.6	560	84.5	573	86.4	563	84.9	577	87.0	590	89.0	595	89.7	601	90.6	610	92.0	623	94.0
Worthington ES	515	515	515	515	458	88.9	445	86.4	432	83.9	447	86.8	469	91.1	508	98.6	539	104.7	574	111.5	662	128.5	676	131.3	668	129.7
Region Totals	6935	6935	6935	6935	6558	94.6	6706	96.7	6835	98.6	6997	100.9	7205	103.9	7428	107.1	7673	110.6	7879	113.6	8139	117.4	8218	118.5	8238	118.8
Northern																										
Centennial Lane ES	647	647	647	647	752	116.2	746	115.3	749	115.8	751	116.1	745	115.1	750	115.9	760	117.5	760	117.5	768	118.7	774	119.6	776	119.9
Hollifield Station ES	732	732	732	732	821	112.2	835	114.1	849	116.0	839	114.6	833	113.8	851	116.3	847	115.7	857	117.1	860	117.5	868	118.6	881	120.4
Manor Woods ES	681	681	681	681	653	95.9	665	97.7	693	101.8	699	102.6	748	109.8	760	111.6	760	111.6	776	114.0	765	112.3	763	112.0	757	111.2
New ES #44	NS	0	0	0																						
Northfield ES	700	700	700	700	729	104.1	735	105.0	743	106.1	748	106.9	771	110.1	811	115.9	828	118.3	842	120.3	852	121.7	860	122.9	847	121.0
St Johns Lane ES	612	612	612	612	705	115.2	691	112.9	710	116.0	730	119.3	748	122.2	781	127.6	786	128.4	805	131.5	812	132.7	826	135.0	839	137.1
Waverly ES	A	788	788	788	823	104.4	846	107.4	866	109.9	870	110.4	904	114.7	949	120.4	985	125.0	1007	127.8	1010	128.2	1017	129.1	1023	129.8
Region Totals	4160	4160	4160	4160	4483	107.8	4518	108.6	4610	110.8	4637	111.5	4749	114.2	4902	117.8	4966	119.4	5047	121.3	5067	106.4	5108	107.3	5123	107.6
Southeastern																										
Atholton ES	424	424	424	424	466	109.9	478	112.7	480	113.2	477	112.5	479	113.0	476	112.3	477	112.5	474	111.8	478	112.7	480	113.2	485	114.4
Bollman Bridge ES	666	666	666	666	635	95.3	640	96.1	651	97.7	648	97.3	680	102.1	693	104.1	707	106.2	692	103.9	698	104.8	688	103.3	683	102.6
Forest Ridge ES	713	713	713	713	684	95.9	681	95.5	689	96.6	711	99.7	745	104.5	764	107.2	811	113.7	865	121.3	903	126.6	927	130.0	938	131.6
Gorman Crossing ES	735	735	735	735	820	111.6	799	108.7	830	112.9	812	110.5	786	106.9	777	105.7	746	101.5	777	105.7	766	104.2	770	104.8	758	103.1
Guilford ES	465	465	465	465	387	83.2	373	80.2	363	78.1	371	79.8	365	78.5	376	80.9	412	88.6	412	88.6	424	91.2	423	91.0	422	90.8
Hammond ES	653	653	653	653	654	100.2	648	99.2	639	97.9	662	101.4	698	106.9	720	110.3	730	111.8	733	112.3	802	122.8	849	130.0	898	137.5
Laurel Woods ES	640	640	640	640	584	91.3	575	89.8	561	87.7	562	87.8	544	85.0	529	82.7	518	80.9	533	83.3	545	85.2	552	86.3	576	90.0
New ES #43	NS	0	0	0																						
Region Totals	4296	4296	4296	4296	4230	98.5	4194	97.6	4213	98.1	4243	98.8	4297	87.8	4335	88.5	4401	89.9	4486	91.6	4616	94.3	4689	95.8	4760	97.2
Western																										
Bushy Park ES	744	744	744	744	561	75.4	569	76.5	537	72.2	535	71.9	528	71.0	533	71.6	545	73.3	543	73.0	567	76.2	603	81.0	635	

Pre-Measures

MIDDLE SCHOOLS - Data for Demonstrative Purposes Only

Capacity Utilization Rates with Board of Education's Approved FY 2019 Capital Budget Projects - Not Test for APFO

Chart reflects May 2018 Projections, Board of Education's FY 2019 approved capacities, and no redistricting.

	Capacity				2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29		2029-30	
	2019	2020	2021	2022	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.
Columbia - East	643	643	643	643	596	92.7	599	93.2	586	91.1	596	92.7	564	87.7	567	88.2	543	84.4	557	86.6	552	85.8	557	86.6	564	87.7
Lake Elkhorn MS																										
Oakland Mills MS	506	506	506	506	510	100.8	498	98.4	493	97.4	497	98.2	515	101.8	514	101.6	518	102.4	524	103.6	502	99.2	503	99.4	500	98.8
Region MS Totals	1149	1149	1149	1149	1106	96.3	1097	95.5	1079	93.9	1093	95.1	1079	93.9	1081	94.1	1061	92.3	1081	94.1	1054	91.7	1060	92.3	1064	92.6

Columbia - West																										
Harpers Choice MS	506	506	506	506	552	109.1	539	106.5	533	105.3	509	100.6	522	103.2	506	100.0	512	101.2	500	98.8	505	99.8	514	101.6	515	101.8
Wilde Lake MS	760	760	760	760	643	84.6	644	84.7	653	85.9	695	91.4	749	98.6	815	107.2	867	114.1	882	116.1	919	120.9	948	124.7	1005	132.2
Region MS Totals	1266	1266	1266	1266	1195	94.4	1183	93.4	1186	93.7	1204	95.1	1271	100.4	1321	104.3	1379	108.9	1382	109.2	1424	112.5	1462	115.5	1520	120.1

Northeastern																										
Bonnie Branch MS	701	701	701	701	816	116.4	814	116.1	795	113.4	787	112.3	805	114.8	796	113.6	774	110.4	775	110.6	793	113.1	821	117.1	836	119.3
Elkridge Landing MS	779	779	779	779	726	93.2	696	89.3	692	88.8	711	91.3	733	94.1	728	93.5	707	90.8	720	92.4	758	97.3	794	101.9	814	104.5
Ellicott Mills MS	A 701	701	701	701	913	130.2	900	128.4	884	126.1	846	120.7	844	120.4	810	94.5	811	94.6	811	94.6	805	93.9	816	95.2	847	98.8
Mayfield Woods MS	798	798	798	798	807	101.1	817	102.4	825	103.4	807	101.1	821	102.9	860	107.8	888	111.3	919	115.2	947	118.7	980	122.8	994	124.6
New MS #21	NS 0	0	0	0																						
Thomas Viaduct MS	701	701	701	701	820	117.0	904	129.0	880	125.5	883	126.0	863	123.1	915	130.5	964	137.5	1040	148.4	1085	154.8	1118	159.5	1124	160.3
Region MS Totals	3680	3680	3680	3680	4082	110.9	4131	112.3	4076	110.8	4034	109.6	4066	110.5	4109	107.1	4144	108.0	4265	111.2	4388	114.4	4529	118.1	4615	120.3

Northern																										
Burleigh Manor MS	779	779	779	779	771	99.0	778	99.9	762	97.8	770	98.8	757	97.2	769	98.7	777	99.7	786	100.9	780	100.1	776	99.6	784	100.6
Dunloggin MS	A 565	565	565	565	647	114.5	650	115.0	668	118.2	675	119.5	670	118.6	658	99.4	658	99.4	668	100.9	676	102.1	676	102.1	700	105.7
Patapsco MS	643	643	643	643	724	112.6	718	111.7	712	110.7	714	111.0	716	111.4	705	109.6	712	110.7	721	112.1	741	115.2	745	115.9	757	117.7
Region MS Totals	1987	1987	1987	1987	2142	107.8	2146	108.0	2142	107.8	2159	108.7	2143	107.9	2132	102.3	2147	103.0	2175	104.4	2197	105.4	2197	105.4	2241	107.5

Southeastern																										
Hammond MS	604	604	604	604	565	93.5	600	99.3	587	97.2	631	104.5	633	104.8	659	109.1	665	110.1	690	114.2	694	114.9	705	116.7	719	119.0
Murray Hill MS	662	662	662	662	748	113.0	783	118.3	777	117.4	748	113.0	774	116.9	800	120.8	822	124.2	775	117.1	758	114.5	724	109.4	741	111.9
Patuxent Valley MS	760	760	760	760	675	88.8	701	92.2	692	91.1	689	90.7	656	86.3	664	87.4	639	84.1	681	89.6	677	89.1	713	93.8	716	94.2
Region MS Totals	2026	2026	2026	2026	1988	98.1	2084	102.9	2056	101.5	2068	102.1	2063	101.8	2123	104.8	2126	104.9	2146	105.9	2129	105.1	2142	105.7	2176	107.4

Western																										
Clarksville MS	643	643	643	643	695	108.1	686	106.7	665	103.4	630	98.0	633	98.4	644	100.2	642	99.8	620	96.4	631	98.1	664	103.3	684	106.4
Folly Quarter MS	662	662	662	662	674	101.8	653	98.6	658	99.4	651	98.3	651	98.3	645	97.4	654	98.8	655	98.9	660	99.7	668	100.9	683	103.2
Glenwood MS	545	545	545	545	507	93.0	517	94.9	512	93.9	485	89.0	487	89.4	469	86.1	479	87.9	499	91.6	526	96.5	546	100.2	560	102.8
Lime Kiln MS	701	701	701	701	641	91.4	651	92.9	638	91.0	680	97.0	701	100.0	731	104.3	729	104.0	739	105.4	752	107.3	763	108.8	767	109.4
Mount View MS	798	798	798	798	834	104.5	803	100.6	813	101.9	828	103.8	821	102.9	796	99.7	793	99.4	838	105.0	898	112.5	919	115.2	938	117.5
Region MS Totals	3349	3349	3349	3349	3351	100.1	3310	98.8	3286	98.1	3274	97.8	3293	98.3	3285	98.1	3297	98.4	3351	100.1	3467	103.5	3560	106.3	3632	108.5
Countywide Totals	13457	13457	13457	13457	13864	103.0	13951	103.7	13825	102.7	13832	102.8	13915	103.4	14051	102.5	14154	103.2	14400	105.0	14659	106.9	14950	109.0	15248	111.2

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

'NS' New School proposed in FY 2019 Capital Budget

Color coding has been updated to align with the definition of target utilization (between 90-110% utilization) as outlined in Policy 6010. Blue is under target utilization, green is within target utilization and red is over target utilization.

Post-Measures

**Aggregate Plan**

Chart reflects May 2018 Projections, potential FY 2020 requested capacities and no redistricting.

**MIDDLE SCHOOLS - Data for Demonstrative Purposes Only**

Capacity Utilization Rates with Proposed FY 2020 Capital Budget Projects - Not Test for APFO

Capacity					2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29		2029-30	
	2019	2020	2021	2022	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.
<b>Columbia - East</b>																										
Lake Elkhorn MS	643	643	643	643	596	92.7	599	93.2	586	91.1	596	92.7	564	87.7	567	88.2	543	84.4	557	86.6	552	85.8	557	86.6	564	87.7
Oakland Mills MS	506	506	506	506	510	100.8	498	98.4	493	97.4	497	98.2	515	101.8	514	101.6	518	102.4	524	103.6	502	99.2	503	99.4	500	98.8
<b>Region MS Totals</b>	1149	1149	1149	1149	1106	96.3	1097	95.5	1079	93.9	1093	95.1	1079	93.9	1081	94.1	1061	92.3	1081	94.1	1054	91.7	1060	92.3	1064	92.6
<b>Columbia - West</b>																										
Harpers Choice MS	506	506	506	506	552	109.1	539	106.5	533	105.3	509	100.6	522	103.2	506	100.0	512	101.2	500	98.8	505	99.8	514	101.6	515	101.8
Wilde Lake MS	760	760	760	760	643	84.6	644	84.7	653	85.9	695	91.4	749	98.6	815	107.2	867	114.1	882	116.1	919	120.9	948	124.7	1005	132.2
<b>Region MS Totals</b>	1266	1266	1266	1266	1195	94.4	1183	93.4	1186	93.7	1204	95.1	1271	100.4	1321	104.3	1379	108.9	1382	109.2	1424	112.5	1462	115.5	1520	120.1
<b>Northeastern</b>																										
Bonnie Branch MS	701	701	701	701	816	116.4	814	116.1	795	113.4	787	112.3	805	114.8	796	113.6	774	110.4	775	110.6	793	113.1	821	117.1	836	119.3
Elkridge Landing MS	779	779	779	779	726	93.2	696	89.3	692	88.8	711	91.3	733	94.1	728	93.5	707	90.8	720	92.4	758	97.3	794	101.9	814	104.5
Ellicott Mills MS	A 701	701	701	701	913	130.2	900	128.4	884	126.1	846	120.7	844	98.5	810	94.5	811	94.6	805	93.9	816	95.2	816	95.2	847	98.8
Mayfield Woods MS	798	798	798	798	807	101.1	817	102.4	825	103.4	807	101.1	821	102.9	860	107.8	888	111.3	919	115.2	947	118.7	980	122.8	994	124.6
New MS #21	NS 0	0	0	0																						
Thomas Viaduct MS	701	701	701	701	820	117.0	904	129.0	880	125.5	883	126.0	863	123.1	915	130.5	964	137.5	1040	148.4	1085	154.8	1118	159.5	1124	160.3
<b>Region MS Totals</b>	3680	3680	3680	3680	4082	110.9	4131	112.3	4076	110.8	4034	109.6	4066	106.0	4109	107.1	4144	108.0	4265	111.2	4388	114.4	4529	118.1	4615	120.3
<b>Northern</b>																										
Burleigh Manor MS	A 779	779	779	779	771	99.0	778	99.9	762	97.8	770	98.8	757	97.2	769	98.7	777	99.7	786	100.9	780	100.1	776	99.6	784	100.6
Dunloggin MS	565	565	565	565	647	114.5	650	115.0	668	118.2	675	119.5	670	118.6	658	99.4	658	99.4	668	100.9	676	102.1	676	102.1	700	105.7
Patapsco MS	643	643	643	643	724	112.6	718	111.7	712	110.7	714	111.0	716	111.4	705	109.6	712	110.7	721	112.1	741	115.2	745	115.9	757	117.7
<b>Region MS Totals</b>	1987	1987	1987	1987	2142	107.8	2146	108.0	2142	107.8	2159	108.7	2143	107.9	2132	102.3	2147	103.0	2175	104.4	2197	105.4	2197	105.4	2241	107.5
<b>Southeastern</b>																										
Hammond MS	604	604	604	604	565	93.5	600	99.3	587	97.2	631	104.5	633	104.8	659	109.1	665	110.1	690	114.2	694	114.9	705	116.7	719	119.0
Murray Hill MS	662	662	662	662	748	113.0	783	118.3	777	117.4	748	113.0	774	116.9	800	120.8	822	124.2	775	117.1	758	114.5	724	109.4	741	111.9
Patuxent Valley MS	760	760	760	760	675	88.8	701	92.2	692	91.1	689	90.7	656	86.3	664	87.4	639	84.1	681	89.6	677	89.1	713	93.8	716	94.2
<b>Region MS Totals</b>	2026	2026	2026	2026	1988	98.1	2084	102.9	2056	101.5	2068	102.1	2063	101.8	2123	104.8	2126	104.9	2146	105.9	2129	105.1	2142	105.7	2176	107.4
<b>Western</b>																										
Clarksville MS	643	643	643	643	695	108.1	686	106.7	665	103.4	630	98.0	633	98.4	644	100.2	642	99.8	620	96.4	631	98.1	664	103.3	684	106.4
Folly Quarter MS	662	662	662	662	674	101.8	653	98.6	658	99.4	651	98.3	651	98.3	645	97.4	654	98.8	655	98.9	660	99.7	668	100.9	683	103.2
Glenwood MS	545	545	545	545	507	93.0	517	94.9	512	93.9	485	89.0	487	89.4	469	86.1	479	87.9	499	91.6	526	96.5	546	100.2	560	102.8
Lime Kiln MS	701	701	701	701	641	91.4	651	92.9	638	91.0	680	97.0	701	100.0	731	104.3	729	104.0	739	105.4	752	107.3	763	108.8	767	109.4
Mount View MS	798	798	798	798	834	104.5	803	100.6	813	101.9	828	103.8	821	102.9	796	99.7	793	99.4	838	105.0	898	112.5	919	115.2	938	117.5
<b>Region MS Totals</b>	3349	3349	3349	3349	3351	100.1	3310	98.8	3286	98.1	3274	97.8	3293	98.3	3285	98.1	3297	98.4	3351	100.1	3467	103.5	3560	106.3	3632	108.5
<b>Countywide Totals</b>	13457	13457	13457	13457	13864	103.0	13951	103.7	13825	102.7	13832	102.8	13915	102.2	14051	102.5	14154	103.2	14400	105.0	14659	106.9	14950	109.0	15248	111.2

\*A' includes additions as reflected in FY 2020 CIP for grades 6-8

Color coding has been updated to align with the definition of target utilization (between 90-110% utilization) as outlined in Policy 6010. Blue is under target utilization, green is within target utilization and red is over target utilization.

## Pre-Measures

## HIGH SCHOOLS - Data for Demonstrative Purposes Only

Capacity Utilization Rates with Board of Education's Approved FY 2019 Capital Budget Projects - Not Test for APFO

Chart reflects May 2018 Projections, Board of Education's FY 2019 approved capacities, and no redistricting.

Capacity					2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29		2029-30		
Columbia - East	2019	2020	2021	2022	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	1248	89.1	1260	90.0	1319	94.2	1361	97.2	1379	98.5	1383	98.8	1382	98.7	1362	97.3	1377	98.4	1377	98.4	1363	97.4	
Columbia - West																											
Wilde Lake HS	1424	1424	1424	1424	1350	94.8	1380	96.9	1376	96.6	1381	97.0	1399	98.2	1382	97.1	1386	97.3	1429	100.4	1444	101.4	1482	104.1	1523	107.0	
Northeastern																											
Howard HS	1420	1420	1420	1420	1972	138.9	1973	138.9	2017	142.0	2047	144.2	2075	146.1	2086	146.9	2090	147.2	2075	146.1	2084	146.8	2066	145.5	2062	145.2	
Long Reach HS	1488	1488	1488	1488	1673	112.4	1778	119.5	1919	129.0	2056	138.2	2133	143.3	2126	142.9	2147	144.3	2123	142.7	2166	145.6	2270	152.6	2364	158.9	
New HS #13	NS	0	0	0																							
Region HS Totals	2908	2908	2908	2908	3645	125.3	3751	129.0	3936	135.4	4103	141.1	4208	93.0	4212	93.1	4237	93.7	4198	92.8	4250	94.0	4336	95.9	4426	97.9	
Northern																											
Centennial HS	1360	1360	1360	1360	1745	128.3	1765	129.8	1782	131.0	1782	131.0	1772	130.3	1775	130.5	1766	129.9	1755	129.0	1743	128.2	1742	128.1	1736	127.6	
Marriotts Ridge HS	1615	1615	1615	1615	1425	88.2	1476	91.4	1499	92.8	1518	94.0	1499	92.8	1491	92.3	1503	93.1	1475	91.3	1462	90.5	1452	89.9	1453	90.0	
Mt Hebron HS	1400	1400	1400	1400	1605	114.6	1601	114.4	1687	120.5	1701	121.5	1679	119.9	1694	121.0	1674	119.6	1659	118.5	1659	118.5	1656	118.3	1649	117.8	
Region HS Totals	4375	4375	4375	4375	4775	109.1	4842	110.7	4968	113.6	5001	114.3	4950	113.1	4960	113.4	4943	113.0	4889	111.7	4864	111.2	4850	110.9	4838	110.6	
Southeastern																											
Hammond HS	1220	1220	1220	1220	1376	112.8	1402	114.9	1471	120.6	1517	124.3	1585	111.6	1634	115.1	1654	116.5	1621	114.2	1648	116.1	1675	118.0	1689	118.9	
Western																											
Atholton HS	1460	1460	1460	1460	1526	104.5	1561	106.9	1572	107.7	1604	109.9	1654	113.3	1637	112.1	1647	112.8	1683	115.3	1705	116.8	1769	121.2	1804	123.6	
Glenelg HS	1420	1420	1420	1420	1178	83.0	1140	80.3	1162	81.8	1147	80.8	1155	81.3	1161	81.8	1135	79.9	1122	79.0	1122	79.0	1135	79.9	1175	82.7	
Reservoir HS	1551	1551	1551	1551	1626	104.8	1715	110.6	1745	112.5	1786	115.2	1836	118.4	1850	119.3	1874	120.8	1914	123.4	1925	124.1	1973	127.2	1972	127.1	
River Hill HS	1466	1466	1466	1466	1397	95.3	1432	97.7	1455	99.2	1419	96.8	1454	99.2	1423	97.1	1407	96.0	1412	96.3	1411	96.2	1411	96.2	1424	97.1	
Region HS Totals	5897	5897	5897	5897	5727	97.1	5848	99.2	5934	100.6	5956	101.0	6099	103.4	6071	103.0	6063	102.8	6131	104.0	6163	104.5	6288	106.6	6375	108.1	
Countywide Totals	17224	17224	17224	17224	18121	105.2	18483	107.3	19004	110.3	19319	112.2	19620	103.1	19642	103.2	19665	103.3	19630	103.1	19746	103.7	20008	105.1	20214	106.2	

\*NS\* New School proposed in FY 2019 Capital Budget

Color coding has been updated to align with the definition of target utilization (between 90-110% utilization) as outlined in Policy 6010. Blue is under target utilization, green is within target utilization and red is over target utilization.



Post-Measures

**HIGH SCHOOLS - Data for Demonstrative Purposes Only****Aggregate Plan**

Capacity Utilization Rates with Proposed FY 2020 Capital Budget Projects - Not Test for APFO

Chart reflects May 2018 Projections, potential FY 2020 requested capacities and no redistricting.

Capacity					2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29		2029-30	
	2019	2020	2021	2022	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.	Proj	% Util.
<b>Columbia - East</b>																										
Oakland Mills HS	1400	1400	1400	1400	1248	89.1	1260	90.0	1319	94.2	1361	97.2	1379	98.5	1383	98.8	1382	98.7	1362	97.3	1377	98.4	1377	98.4	1363	97.4
<b>Columbia - West</b>																										
Wilde Lake HS	1424	1424	1424	1424	1350	94.8	1380	96.9	1376	96.6	1381	97.0	1399	98.2	1382	97.1	1386	97.3	1429	100.4	1444	101.4	1482	104.1	1523	107.0
<b>Northeastern</b>																										
Howard HS	1420	1420	1420	1420	1972	138.9	1973	138.9	2017	142.0	2047	144.2	2075	146.1	2086	146.9	2090	147.2	2075	146.1	2084	146.8	2066	145.5	2062	145.2
Long Reach HS	1488	1488	1488	1488	1673	112.4	1778	119.5	1919	129.0	2056	138.2	2133	143.3	2126	142.9	2147	144.3	2123	142.7	2166	145.6	2270	152.6	2364	158.9
New HS #13	NS	0	0	0																						
<b>Region HS Totals</b>	2908	2908	2908	2908	3645	125.3	3751	129.0	3936	135.4	4103	141.1	4208	144.7	4212	93.1	4237	93.7	4198	92.8	4250	94.0	4336	95.9	4426	97.9
<b>Northern</b>																										
Centennial HS	1360	1360	1360	1360	1745	128.3	1765	129.8	1782	131.0	1782	131.0	1772	130.3	1775	130.5	1766	129.9	1755	129.0	1743	128.2	1742	128.1	1736	127.6
Marriotts Ridge HS	1615	1615	1615	1615	1425	88.2	1476	91.4	1499	92.8	1518	94.0	1499	92.8	1491	92.3	1503	93.1	1475	91.3	1462	90.5	1452	89.9	1453	90.0
Mt Hebron HS	1400	1400	1400	1400	1605	114.6	1601	114.4	1687	120.5	1701	121.5	1679	119.9	1694	121.0	1674	119.6	1659	118.5	1659	118.5	1656	118.3	1649	117.8
<b>Region HS Totals</b>	4375	4375	4375	4375	4775	109.1	4842	110.7	4968	113.6	5001	114.3	4950	113.1	4960	113.4	4943	113.0	4889	111.7	4864	111.2	4850	110.9	4838	110.6
<b>Southeastern</b>																										
Hammond HS	1220	1220	1220	1220	1376	112.8	1402	114.9	1471	120.6	1517	124.3	1585	129.9	1634	115.1	1654	116.5	1621	114.2	1648	116.1	1675	118.0	1689	118.9
<b>Western</b>																										
Atholton HS	1460	1460	1460	1460	1526	104.5	1561	106.9	1572	107.7	1604	109.9	1654	113.3	1637	112.1	1647	112.8	1683	115.3	1705	116.8	1769	121.2	1804	123.6
Glenelg HS	1420	1420	1420	1420	1178	83.0	1140	80.3	1162	81.8	1147	80.8	1155	81.3	1161	81.8	1135	79.9	1122	79.0	1122	79.0	1135	79.9	1175	82.7
Reservoir HS	1551	1551	1551	1551	1626	104.8	1715	110.6	1745	112.5	1786	115.2	1836	118.4	1850	119.3	1874	120.8	1914	123.4	1925	124.1	1973	127.2	1972	127.1
River Hill HS	1466	1466	1466	1466	1397	95.3	1432	97.7	1455	99.2	1419	96.8	1454	99.2	1423	97.1	1407	96.0	1412	96.3	1411	96.2	1411	96.2	1424	97.1
<b>Region HS Totals</b>	5897	5897	5897	5897	5727	97.1	5848	99.2	5934	100.6	5956	101.0	6099	103.4	6071	103.0	6063	102.8	6131	104.0	6163	104.5	6288	106.6	6375	108.1
<b>Countywide Totals</b>	17224	17224	17224	17224	18121	105.2	18483	107.3	19004	110.3	19319	112.2	19620	113.9	19642	103.2	19665	103.3	19630	103.1	19746	103.7	20008	105.1	20214	106.2

'NS' New School proposed in FY 2020 Capital Budget

Color coding has been updated to align with the definition of target utilization (between 90-110% utilization) as outlined in Policy 6010. Blue is under target utilization, green is within target utilization and red is over target utilization.



Feasibility Study:  
An Annual Review of Long-Term Capital  
Planning and Attendance Area Adjustment Options

Section 6

# Appendices

June 2017





BOARD OF EDUCATION

**POLICY 6010  
SCHOOL ATTENDANCE AREAS**Effective: January 26, 2017

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**I. Policy Statement**

The Board of Education of Howard County, with the advice of the Superintendent, establishes school attendance areas to provide quality, equitable educational opportunities to all students and to balance the capacity utilization of all schools. The Board recognizes that school openings, closings, additions, program changes, population growth and other demographic changes may require that school attendance areas be adjusted. The Board also recognizes the value of diverse and inclusive school populations when establishing attendance areas. The Board believes that staff analyses and recommendations, as well as public advice and comment, are integral to its deliberations and decisions related to school attendance areas.

**II. Purpose**

The purpose of this policy is to define the conditions and process by which school attendance area adjustments will be developed and adopted.

**III. Definitions**

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

- A. Attendance Area Committee (AAC) – Committee comprised of community members appointed by the Superintendent and approved by the Board, to advise and comment on capacity needs and attendance area adjustment recommendations developed by staff.
- B. Continuity of Operations Plan (COOP) – Procedures to ensure that capability exists to continue essential functions during and after an extended emergency.
- C. Demographic Characteristics – Features in the composition of a school’s population that includes, but is not limited to the racial/ethnic composition of a school’s student population, as well as the percentage of students participating in Free and Reduced-Priced Meals (FARMS) and English for Speakers of Other Languages (ESOL) programs.
- D. Diversity – The sum of the ways that people are both alike and different. The dimensions of diversity include race, ethnicity, and socioeconomic condition.
- E. Extended Emergency – A severe or long-term situation that affects an individual school, multiple schools, or the entire school system. An extended emergency is normally one in which the Howard County Public School System (HCPSS) Continuity

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POLICY 6010

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of Operations Plan (COOP), the HCPSS Emergency Operations Plan (EOP) or the Howard County Emergency Operations Plan is activated.

- F. Equitable – Just or fair; different from equal in that equality connotes equal treatment, which may be insufficient for equitable access and outcomes.
- G. Feed – The flow of students from one school level to the next.
- H. Free and Reduced-Priced Meals (FARMS) – A federal program available to students whose households meet the federal income eligibility guidelines to receive free or reduced-priced meals.
- I. HCPSS Emergency Operations Plan (EOP) – A multi-hazard approach for HCPSS that addresses preparation, response, recovery, and mitigation to:
  - 1. An emergency, including a violent or traumatic event on school grounds, during school hours, or during a school-sponsored activity.
  - 2. Events in the community that affect normal school operations.
- J. Howard County Emergency Operations Plan – A countywide emergency management system incorporating all aspects of pre-emergency preparedness and post-emergency response, recovery, and mitigation.
- K. Inclusive – Securing the educational benefits of diversity for all students through active, intentional, and ongoing engagement.
- L. Long-Range Enrollment – Each school’s student population projections for the upcoming 10 years.
- M. Program Capacity – The number of students that can be reasonably accommodated in a school, based on the permanent facility (relocatables are excluded) and the educational program offered. Program capacity is calculated based at the below rates:
  - 1. Elementary schools: the product of the Board-approved student-to-teacher ratio and the number of teaching stations identified in the capital budget.
  - 2. Middle schools: 95% of the product of the Board-approved student-to-teacher ratio and the number of teaching stations identified in the capital budget.
  - 3. High schools: 80% or 85% of the product of the Board-approved student-to-teacher ratio and the number of teaching stations in the capital budget.
- N. Projections – Estimated student enrollment for future school years.



**POLICY 6010**

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- O. Regional Program – A countywide educational program located at one or more, but not all schools that is designed to provide a particular type of educational leadership or intervention to students. Regional programs may include, but are not limited to Regional Academic Life Skills, Preschool Program, including Parent-Assisted Learning at Schools, Pre-Kindergarten, Elementary School Model Full-day Pre-Kindergarten, Early Beginnings, Regional Emotional Disabilities, Multiple Intensive Needs Classroom, Junior Reserve Officer Training Course (JROTC) and Elementary School Primary Learner Program.
- P. Planning Region – A geographic area of Howard County made up of one or more schools used by the HCPSS Office of School Planning for long-range planning purposes.
- Q. School Attendance Area – Geographic area from which a school’s students are drawn.
- R. Target Utilization – Enrollment between 90% and 110% utilization of the program capacity of a school facility.
- S. Utilization – The comparison of a facility’s program capacity and its enrollment or projected future enrollment.

**IV. Standards**

- A. The Board will consider school attendance area adjustments whenever one or more of the following conditions exist:
  - 1. A new school or addition is scheduled to open.
  - 2. An existing facility is significantly damaged, deemed unusable, or otherwise scheduled to close.
  - 3. School attendance area projections are outside the target utilization.
  - 4. The program capacity of a school building is altered.
  - 5. The road network(s) within one or more school attendance areas is altered.
  - 6. An unforeseen circumstance necessitates an adjustment to promote efficiency or provide for the welfare of students.
- B. The Board, Superintendent/Designee and the AAC will consider the impact of the following factors in the development of any school attendance area adjustment plan. While each of these factors will be considered, it may not be feasible to reconcile each and every school attendance area adjustment with each and every factor.

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1. Facility Utilization. Where reasonable, school attendance area utilization should stay within the target utilization for as long a period of time as possible through the consideration of:
  - a. Efficient use of available space. For example, maintain a building's program capacity utilization between 90% and 100%.
  - b. Long-range enrollment, capital plans and capacity needs of school infrastructures (e.g., cafeterias, restrooms and other shared core facilities).
  - c. Fiscal responsibility by minimizing capital and operating costs.
  - d. The number of students that walk or receive bus service and the distance and time based students travel.
  - e. Location of regional programs, maintaining an equitable distribution of programs across the county.
2. Community Stability. Where reasonable, school attendance areas should promote a sense of community in both the geographic place (e.g., neighborhood or place in which a student lives) and the promotion of a student from each school level through the consideration of:
  - a. Feeds that encourage keeping students together from one school to the next. For example, avoiding feeds of less than 15% at the receiving school.
  - b. Areas that are made up of contiguous communities or neighborhoods.
  - c. Frequency with which any one student is reassigned, making every attempt to not move a student more than once at any school level or the same student more frequently than once every five years.
3. Demographic Characteristics of Student Population. Where reasonable, school attendance areas should promote the creation of a diverse and inclusive student body at both the sending and receiving schools through the consideration of:
  - a. The racial/ethnic composition of the student population.
  - b. The socioeconomic composition of the school population as measured by participation in the federal FARMS program.
  - c. Academic performance of students in both the sending and receiving schools as measured by current standardized testing results in English Language Arts/Literacy and Mathematics.

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- d. The level of English learners as measured by enrollment in the English for Speakers of Other Languages (ESOL) program.
  - e. Number of students moved, taking into account the correlation between the number of students moved, the outcomes of other standards achieved in Section IV.B. and the length of time those results are expected to be maintained.
  - f. Other reliable demographic indicators, when applicable.
- C. Board of Education's Deliberations
- 1. The Superintendent/Designee will submit attendance area considerations to the Board for discussion and recommendation.
  - 2. If attendance area adjustments are considered under Section IV.A., the Board will notify the public of its decision for the Superintendent to proceed or not to proceed with the formation of the AAC and attendance area adjustment recommendations.
  - 3. The Superintendent/Designee will submit to the Board attendance area adjustment recommendations, which include data on each of the factors in Section IV.B. for which measurement can be obtained.
  - 4. The Board, in accordance with Policy 2040 Public Participation in Meetings of the Board, will hold a public hearing(s) regarding the school attendance area adjustment plan(s) submitted by the Superintendent. In addition, and as necessary, work session(s) will be scheduled to consider public hearing testimony. The Board may schedule additional hearings and/or work sessions at its discretion.
  - 5. The Board may direct the Superintendent to provide additional information and/or develop other alternative plans for its consideration at any time. The Board may also propose alternative plans at any time.
  - 6. The Board may consider exemptions for rising fifth, eighth, and eleventh grade students to continue attending schools in an area that is proposed for attendance area adjustments. Attendance area adjustments will not affect rising twelfth grade students.
  - 7. The Board will take final action on school attendance area adjustments at a public meeting. The Board reserves the right to adopt or to modify any alternatives and/or recommendations presented to it by the Superintendent/Designee or the citizens of Howard County proposed previously or during the Board's deliberations and vote.

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8. The Board may alter these provisions, upon a majority vote of the Board, when an extended emergency as defined by Policy 3010 Emergency Preparedness and Response occurs or other extraordinary circumstances warrant such an alternation.

**D. Community Input**

1. The Superintendent will, when directed by the Board, form an AAC in accordance with the Implementation Procedures of this policy for the purpose of advising the Superintendent during the planning phase of the attendance area adjustment process. In the case of an extended emergency situation, the Superintendent/Designee will propose an attendance area adjustment.
2. The Board will provide opportunities for public input in accordance with Policy 2040 Public Participation in Meetings of the Board.
3. Members of the public may submit school attendance area adjustment plans to the Board, the Superintendent/Designee and/or the AAC.

**V. Responsibilities**

- A. The Superintendent/Designee will prepare and provide enrollment projections and attendance area considerations on an annual basis to the Board.
- B. The Superintendent/Designee will determine whether the conditions exist that require school attendance area adjustments and will recommend that the Board appoint the AAC. The Superintendent/Designee will assist the AAC in completing its review and comment process.
- C. All AAC meetings are subject to the Maryland Open Meetings Act. Staff will take summary notes of the AAC meeting and make these summary notes available to the public.
- D. The Superintendent/Designee will communicate the Board's action on attendance area adjustments to the principals, PTA presidents and SGA presidents of each affected school, the president of the PTA Council of Howard County and the chairman of the Community Advisory Council to the Board.
- E. Principals will communicate attendance area adjustments to the parents of students in areas affected by the Board's action.

**VI. Delegation of Authority**

The Superintendent is authorized to develop appropriate procedures for the implementation of this policy.

**VII. References**

- A. Legal
  - The Annotated Code of Maryland, Education Article, Section 4-109, Establishment of Public School
  - Maryland Open Meetings Act
- B. Other Board Policies
  - Policy 2040 Public Participation in Meetings of the Board
  - Policy 2050 Advisory Committees to Staff and Schools
  - Policy 3010 Emergency Preparedness and Response
  - Policy 5200 Pupil Transportation
  - Policy 6000 Site Selection and Acquisition
  - Policy 6020 School Planning and Construction Programs
  - Policy 6070 Discontinuation of School Use
  - Policy 9000 Student Residency Eligibility Enrollment Assignment
- C. Relevant Data Sources
- D. Other

**VIII. History**

ADOPTED: April 15, 2004  
REVIEWED: July 1, 2011  
MODIFIED:  
REVISED: April 28, 2005  
April 16, 2009  
January 26, 2017  
EFFECTIVE: January 26, 2017



**POLICY 6010-IP  
IMPLEMENTATION PROCEDURES**

**SCHOOL ATTENDANCE AREAS**

Effective: January 26, 2017

**I. Definitions**

Within the context of these implementation procedures, the following definitions apply:

- A. Integrated Modular Units – Modular classrooms or buildings that are permanently installed at a school and included in the program capacity of a school.
- B. Projection Methodology – Procedure to develop student enrollment projections that includes, but is not limited to historical cohort survival ratios, birth rates, new housing units, housing resales, apartment turnover and net migration.
- C. Relocatable(s) – Prefabricated, stand-alone buildings providing temporary capacity for a school and that are excluded from program capacity.

**II. Development and Consideration of School Attendance Area Adjustment Plans**

The long-range school facilities planning process is conducted on an annual basis according to the county's and state's capital budget process. The schedule is adjusted annually to account for holidays and other anomalies. The development and consideration of proposed school attendance area adjustment plans will take place in the following manner:

- A. Year 1 - January/February  
The Office of School Planning will provide the Superintendent with enrollment projections by school annually and develop attendance area considerations per Policy 6010. The considerations will address capacity projects in the capital budget and will be the basis for short- and long-range attendance area plans.
- B. Year 1 - April  
The Office of School Planning will solicit and interview candidates for the potential Attendance Area Committee (AAC) and nominate candidates for appointment by the Superintendent.
- C. Year 1 - June  
The Superintendent/Designee presents projections, attendance area considerations and planning issues to the Board and interested citizens.

If the Board approves the appointment of an AAC, the Superintendent will charter such a committee to review proposed attendance area adjustment plans. The

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Board will notify the public of its decision for the Superintendent to proceed or not to proceed with the formation of the AAC and attendance area adjustment recommendations.

- D. Year 1 - June/July  
If an AAC is created, the Office of School Planning staff will provide training to the AAC. Training will include, but is not limited the following:
1. Review of Policy 6010 and its standards used to establish an attendance area adjustment plan.
  2. Review the AAC's responsibilities in the attendance area adjustment plan process.
- E. Year 1 - July/August  
With assistance from the Office of School Planning, the AAC will review attendance area adjustments, consider citizen feedback and make a committee recommendation to the Superintendent.
- F. Year 1 - July/August  
The Office of School Planning will advise the Superintendent on capacity needs for the upcoming budget process during capital budget preparations.
- G. Year 1 - September  
The Office of School Planning will facilitate regional meetings regarding proposed attendance area adjustments, including the plans refined by the AAC.
- H. Year 1 - October  
After receipt of input from the AAC and the public, the Superintendent will propose attendance area adjustments and goals (e.g., to facilitate a balanced utilization, open a new school, etc.) to the Board.
- I. Year 1 - October/November  
Board public hearing(s), work session(s) and adoption of attendance area adjustments.
- J. Year 1 - December  
The Superintendent/Designee and Board will assess the attendance area adjustment process. Modifications to this process will be made, as needed, prior to the beginning of the next attendance area adjustment.
- K. Year 1 - December – Year 2 - January  
After the Board has made any final decision(s) regarding attendance area adjustments, the approved attendance area maps are developed, the school locator is updated, and transportation routes are updated. The Superintendent will communicate the Board's action to the principals, PTA presidents and SGA presidents of each affected school, the president of the PTA Council of Howard



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County and the chairman of the Community Advisory Council to the Board. The Superintendent/Designee will assist school-based administrators and staff with articulating students affected by attendance area adjustments. Principals will communicate attendance area adjustments to the parents of students in areas affected by the Board's action.

- L. Year 2 - January  
Capital Budget review by the Board.
- M. Year 2 - May  
Capital Budget review and approval by County Council.
- N. Year 2 - August  
Attendance Area Adjustment effective.

### **III. Attendance Area Committee Make-up and Responsibilities**

- A. The AAC shall consist of 10 to 15 members. Consideration will be given to providing representation from each of the Howard County Public School System's (HCPSS) planning regions. Representation may include, but is not limited to the following:
  - 1. At least one member from the Howard County Association of Student Councils.
  - 2. At least one member from each of the HCPSS six planning regions.
  - 3. At least three, but no more than eight at-large citizen members, with consideration toward identifying members of the community based on the attendance area/planning region(s) affected by the proposed attendance area adjustment.
  - 4. Of those AAC members selected, no more than six members will have been members of a previous AAC.
  - 5. Members may not serve more than two consecutive AAC's.
- B. The AAC, after receiving training, will work in collaboration with the Office of School Planning staff and the Superintendent/Designee to refine the attendance area adjustment plan through a review and comments process. The basis for the review will be enrollment projections, the Policy 6010 Standards set forth in Section IV.B., and the attendance area adjustment goals set by the Superintendent.
- C. The AAC will take public input in the form of reviews and comments. The AAC will review public input and provide comments to the staff. Staff will modify the attendance area adjustment plans as appropriate based on the AAC comments.

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- D. Attendance areas plans refined by the AAC will be presented at one or more regional meetings for additional citizen comment. Further refinement to the AAC's plan may be necessary prior to forwarding it to the Superintendent for review.
- E. AAC members may be asked to participate during the meeting in which staff presents the attendance area adjustment recommendations as well as in one or more work sessions to assist the Board in its deliberations.

#### **IV. History**

ADOPTED: April 28, 2005

REVIEWED: July 1, 2011

MODIFIED:

REVISED: January 26, 2017

EFFECTIVE: January 26, 2017

The new Adequate Public Facilities Ordinance adopted by the County Council in 2018 requires that HCPSS reports the most recent attendance area adjustments for each school.

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**In effect**