

Background Report

FREDERICK COUNTY PUBLIC SCHOOLS, VA REZONING STUDY: BACKGROUND REPORT

Table of Contents

Table of Contents	
Background and Key Objectives	1
FCPS Rezoning Criteria	1
Middle School Rezoning Study Process	2
Phase 1. Data Collection	2
Phase 2. Data Analysis / Assimilation	2
Phase 3. Options Development	2
Phase 4. Committee and Public Engagement	2
The Committee and Public Engagement	3
Roles and Responsibilities	3
Study Timeline	3
Map Analysis	
Mapping Conventions	5
Series 1: Current Zone Mapping	6
Series 2: Live-Attend Mapping	7
Appendices	
Appendix A: Live-Attend Analysis	8
Appendix B: Live-Attend Maps	10
Appendix C: Enrollment and Utilization	21



Background and Key Objectives

With the support of the Board of Education, and Frederick County Government, the Frederick County Public Schools are in the midst of a capital plan to add capacity to support increasing enrollment and to improve facilities. While the facilities plan calls for a new middle school by Fall 2021 (Aylor MS), there is a <u>need to address overcrowding at James Wood Middle School for the Fall 2019 school year.</u> This project will be done with the primary objective of relieving overcrowding at James Wood Middle School, while keeping the overall impact at a minimum, knowing that there will be rezoning necessary once the new Aylor Middle School comes online.

This background report was prepared to inform the volunteer committee called together to lead this grass-roots study. This report will inform committee members in two ways:

- It will expand the extensive knowledge each committee member already has of Frederick County and FCPS.
- It will help committee members share a message with the community that is consistent and accurate.

Frederick County Public Schools contracted Cropper GIS to facilitate this community-based study. Cropper GIS has significant experience facilitating community-based zone studies, having assisted school districts of all sizes in Maryland, Virginia, Georgia, Illinois, Indiana, Ohio, New York and many other states.

The "GIS" in Cropper GIS stands for "geographic information systems." Geographic information systems consist of people, computer hardware and software. GIS is designed to store, analyze and output geographic data to support decision making. Maps are the most common GIS output. Because school attendance zones are geographic in nature, GIS is a powerful tool promoting efficient and effective decision making when conducting rezoning studies.

FCPS Student Realignment Study Criteria

Frederick County Public Schools has developed a body of criteria to guide this middle school rezoning study. The following criteria are not listed in any particular order of importance:

• Balance building utilization.

- Schools should be at similar percentages of capacity when the next middle school is planned to be opened. Allow for increasing attendance in high growth areas. Keep future capital projects in mind.
- Building utilization does not include the use of portable or semi-permanent spaces in the total building capacity.
- Avoid additional rezonings before the next middle school opens.
- Economic, cultural, and ethnic diversity should be considered to ensure schools are inclusionary and not adversely
 affected by realignment decisions.
- Special needs populations should be evenly distributed across all schools in a manner consistent with sound educational practices.

• Minimize impact on students.

- Minimize the number of students impacted by a boundary adjustment.
- Students should be assigned to the school closest to their homes when possible.
- Establish a clean feeder pattern system; reduce the number of schools at the next level any single school feeds. When splits are necessary, the attendance zone should be divided in a balanced manner, so that students continue to the next level with their peers. Eliminate existing splits and/or improve split balance.
- Minimize the number of times any single child must be moved by rezonings.

• Minimize impact on communities.

- Keep all students from each neighborhood/community together at the same school.
- Minimize the division of clearly identifiable community components (i.e. villages, settled areas, etc.)

• Maximize student transportation efficiency.

- Account for school bus routes when determining a boundary adjustment.
- Minimize travel times and costs. Students should be assigned to the school closest to their homes when possible.
- Use major roads and natural boundaries when feasible to define attendance zones. Minimize the number of students crossing major intersections and other barriers to maximize their safety and security. Contain bus routes within natural boundaries to avoid traffic delays and late arrivals.
- Make all effort to establish contiguous attendance zones. Avoid creating satellite zones, which are not connected to the primary attendance zone. Attempt to eliminate existing satellite zones.



FREDERICK COUNTY PUBLIC SCHOOLS, VA REZONING STUDY: BACKGROUND REPORT

Middle School Rezoning Study Process

While the rationale behind the student realignment study process is presented in the background section, it is important to reiterate that:

- This process is community-driven with extensive public participation.
- The process will be facilitated by an outside consultant.
- FCPS staff will provide data and technical support to the committees.
- Multiple forms of communication will be incorporated into the process.

This study has four phases:

- Phase 1. Data Collection
- Phase 2. Data Analysis / Assimilation
- Phase 3. Options Development
- Phase 4. Committee and Public Engagement

Phase 1. Data Collection

Data availability and quality are central to this middle school rezoning study. Fortunately, Frederick County Public Schools and Frederick County GIS/planning offices have provided a comprehensive collection of system, city and county data, including:

- A wide array of GIS data;
- Student enrollment and school capacity/utilization data;
- Pertinent System policies and procedures.

Data collection efforts have been underway through the early Fall, and information will continue to be collected throughout the process if it is deemed useful. As the study proceeds, volunteers will provide additional information as they bring their experience and expertise to their committee work. At the public input meetings and via the community survey that will follow, public input will provide valuable data. Finally, FCPS and Cropper GIS staff will provide data to the committee upon request throughout the life of the study.

Phase 2. Data Analysis / Assimilation

Once data is collected, it is necessary to integrate it into GIS to enable quick and efficient analysis and options development. Data assimilation was completed quickly and efficiently because FCPS already had some of the data in usable GIS formats. For example, FCPS already had attendance zones developed in GIS format.

Phase 3. Options Development

To expedite the process and empower the community, the best approach is to begin with a series of baseline rezoning options. These options will be developed with the FCPS rezoning criteria in mind. Baseline options will be shared with the committee during their 1st meeting. Once the options are presented the committee may:

- Use or disregard the baseline options.
- Improve upon the baseline options.
- Develop new options from scratch.

Phase 4. Committee and Public Engagement

Noted in the timeline on page 4, volunteers will meet via committee meetings from October 2018 through January 2019 to analyze data, review attendance zones, and develop zone options. At a public information session the work of the committee will be shared and community members will have an opportunity to discuss committee work with staff and committee members. Valuable information will also be gathered via a community survey that will take place after the information session. School Board action is expected to take place in February 2019.



FREDERICK COUNTY PUBLIC SCHOOLS, VA REZONING STUDY: BACKGROUND REPORT

The Committee and Public Engagement

FCPS seeks committee and community engagement in order to achieve the key student rezoning study objectives. The table below describes the roles and responsibilities of the stakeholders that will be involved in the middle school rezoning study.

Roles and Respon	nsibilities
	Representatives from each middle school community.
	Suspends parochial interests.
Committee	Meets five times from October to January.
	Collaborates exclusively with each other. (public can observe)
	Presents recommendation to the BOE.
	Can access all info, data online throughout process.
The Community	Can engage with staff and committee members at the public information sessions.
The Community	Invited to complete survey.
	Can provide further input at School Board scheduled meetings.
	Provide data and information.
	Update Superintendent as needed.
Leadership Staff	Ensure process is followed.
	Support avenues for community engagement.
	Objective participants.

Study Timeline

The following page presents the study timeline. The timeline places a significant time commitment on rezoning study committee members from October 2018 through January 2019. Volunteer committee members are expected to:

- Meet at least five times throughout the duration of the study to analyze attendance zone options.
- Help facilitate a public information session by answering questions that the public may have about maps and statistics.



Process & Timeline for Rezoning Study					
	Sept. '18	Oct. '18	Nov. '18	Dec. '18	Jan. '19
Redistricting Criteria / Guideline Development					
Rezoning Study					
Data Collection					
Data Analysis / Assimilation					
Internal Logistics Planning with district					
Background Report Development					
Baseline Options Development					
Public Information Session #1: Present Project Process, Criteria, Timeline, and Realignment Objectives to Community. Information meeting to public, without public comments.		10/10			
<u>Committee Meeting 1</u> - Orientation, Review Background Data, Introduce Baseline Options		10/11			
Committee Meeting 2 - Options Development		10/24			
Committee Meeting 3 - Options Development, Prepare for Public Information Session #2			11/14		
Public Information Session #2: Present Preliminary Realignment Options to Community for Comment/Feedback			11/28		
Committee Meeting 4 - Review public input, modify options				12/12	
Committee Meeting 5 - Finalize Recommendations & Prepare for Board Presentation					1/8
Presentation of Final Recommendations to the Board of Education					1/15

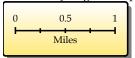


Map Analysis

Maps provide the opportunity to examine physical and social geography and to discover relationships between places. Maps are included in Appendix B and are given brief analysis here. While this analysis is helpful, each Rezoning Study volunteer is urged to closely analyze these maps and share their analysis with other committee members. The local knowledge and personal insight that each volunteer brings to map analysis will add valuable perspective to this study.

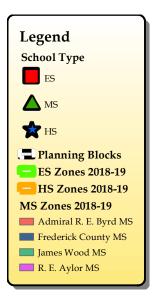
Mapping Conventions

When analyzing the maps in Appendix B, keep in mind these common mapping conventions used in each map.



Each map will include a graphic scale bar to indicate distance between features. A graphic scale bar is very helpful to readers who download the background report and use a "zoom" function to examine a small area of a map in detail. Each map will also contain a North Arrow that will help the map viewers determine the direction.

Each map has a legend showing common symbology used in all maps and, sometimes, symbology unique to a single map. Common symbols are used for schools. Squares are elementary schools (red, in color copies). Triangles are middle schools (green, in color copies). Stars are high schools (blue, in color copies). In addition to school location symbology, they legend also shows the color of each individual zone in the map.



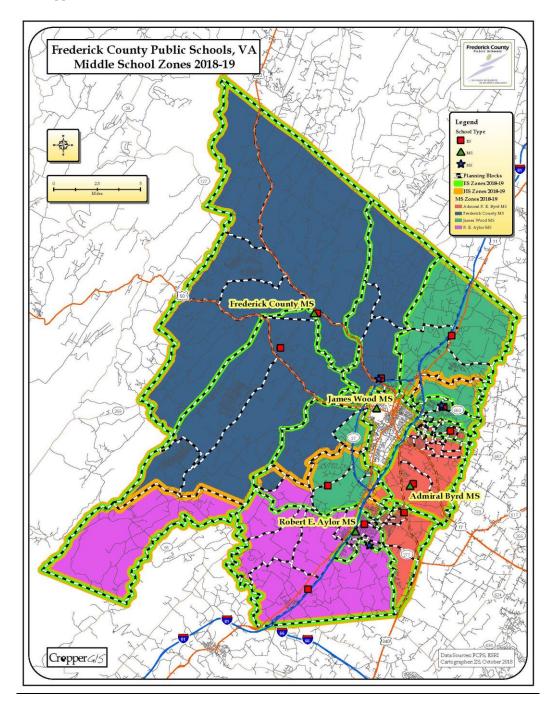
5



Series 1: Current Zone Mapping

Frederick County Public Schools, VA, Middle School Attendance Zones 2018-19

The image below depicts the current 2018-19 Frederick County Public Schools Middle School Zones. Detailed maps for each grade cohort may be found in Appendix B.



Series 2: Live-Attend Mapping

Frederick County Public Schools, VA, 2018-19 A T Allen ES Students Live-Attend Analysis

Map Series 2, located in Appendix B, shows each Middle School zone within the Frederick County Public Schools along with tables that describe the Live-Attend statistics of each school's student population. Here is an example guide for reading these tables:

Admiral R. E. Byrd MS			
Total Enrollment (6-8th)	970		
Out of District	0		
Unmatched	0		
Total Live-In (6-8th)	953		
Live and Attend In	935		
Live Out, Attend In	35		
Live In, Attend Out	18		

Total Enrollment (6-8th) - number of 6-8th students attending Admiral R. E. Byrd MS.

Out of District - number of students who live outside of the Frederick County Public Schools, yet attend this school.

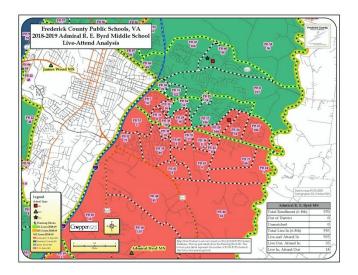
<u>Total Live-In</u> – number of students who live within the school's attendance zone, who are in the same grade cohort as the school. The grade cohort can change from school to school, depending on the population served. In this case, Admiral R. E. Byrd enrolls 6th through 8th grade students. Therefore, the 'total-live in' statistic here indicates there are 953 6-8th grade students living within the Admiral R. E. Byrd attendance boundary.

<u>Live and Attend-In</u> – number of students (6-8th grade) who live within the attendance zone, and also attend that school. In this example, 935 of 935 6-8th grade students who live within the Admiral R. E. Byrd attendance zone also attend Admiral R. E. Byrd MS.

<u>Live-Out, Attend-In</u> – number of 6-8th grade students who live outside of the Admiral R. E. Byrd MS attendance zone, but attend Admiral R. E. Byrd MS.

<u>Live-In, Attend-Out</u> – number of 6-8th grade students who live inside the Admiral R. E. Byrd MS attendance zone, yet attend a different Middle School.

The labels in the planning blocks depict both the planning block ID number (on top) and the number of 6-8th grade students that live in the planning block and attend their zoned school (on bottom).



7



Appendix A: Live-Attend Analysis

Live Attend Matrix

The table below gives details on the schools that students attend and the school zones where they live. The schools of attendance are listed on the left while the zones where students live are listed on the top line. This student data is from September 14th, 2018 Frederick County Public Schools 2018-19 student database.

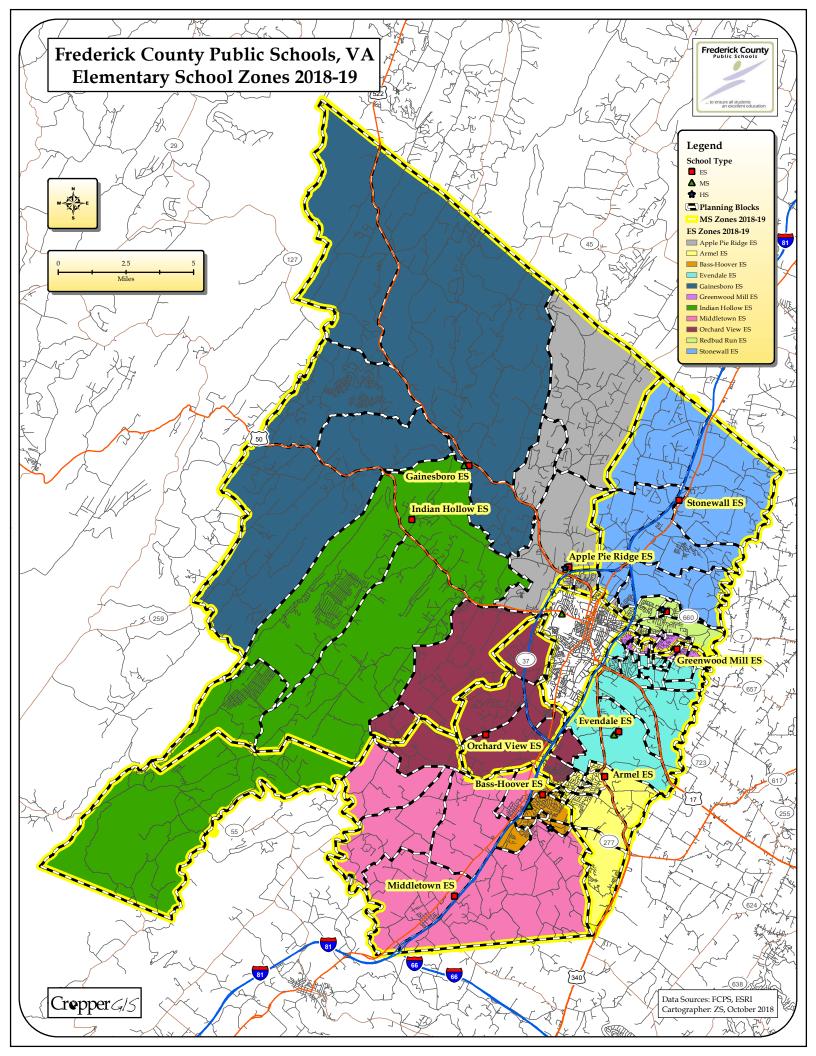
The first column of numbers to the right of the schools of attendance represents the number of students enrolled at that school. The first row of numbers below the zones where students live represents the total number of students living inside of that zone. The green-colored numbers represent number of students who live in the zone and attend their zoned school. All other numbers represent students who attend school outside of the zone that they live in. The bottom row represents the number of students that "Live-In and Attend-Out" by school. The blue-colored cell shows the total number of students that "Live-in and Attend-Out". The farthest right column represents the number of students that "Live-Out and Attend-In" by school. The orange-colored cell shows the total number of students that "Live-Out and Attend-In".

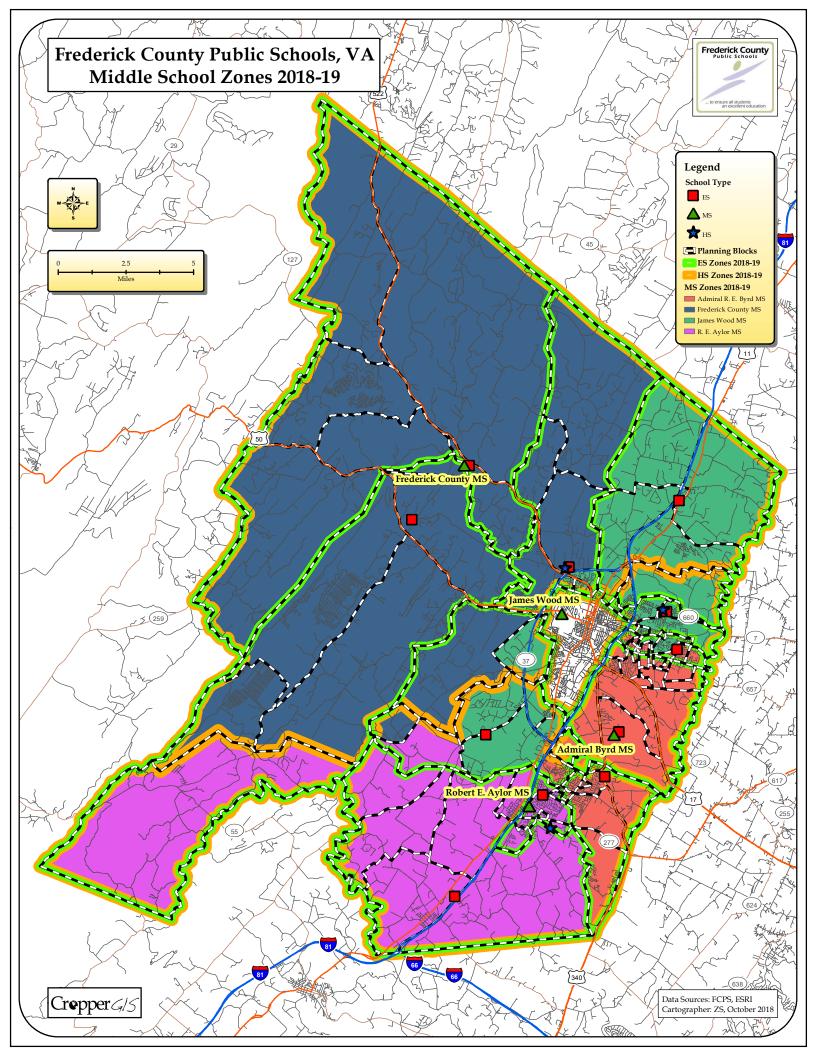
Where 6-8th Students Live Frederick County MS Out of District Admiral R. E. Byrd MS Frederick County MS James Wood MS R. E. Aylor MS Live In, Attend Out (6-8)

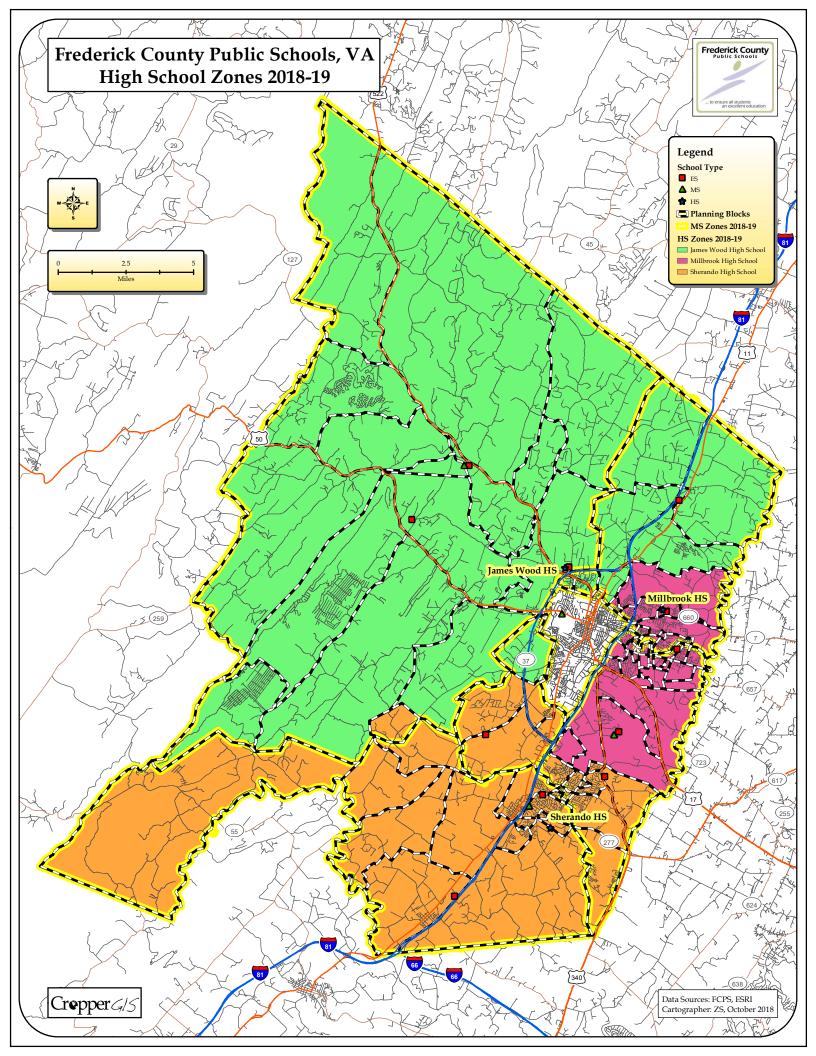
Where 6-8th Students Attend

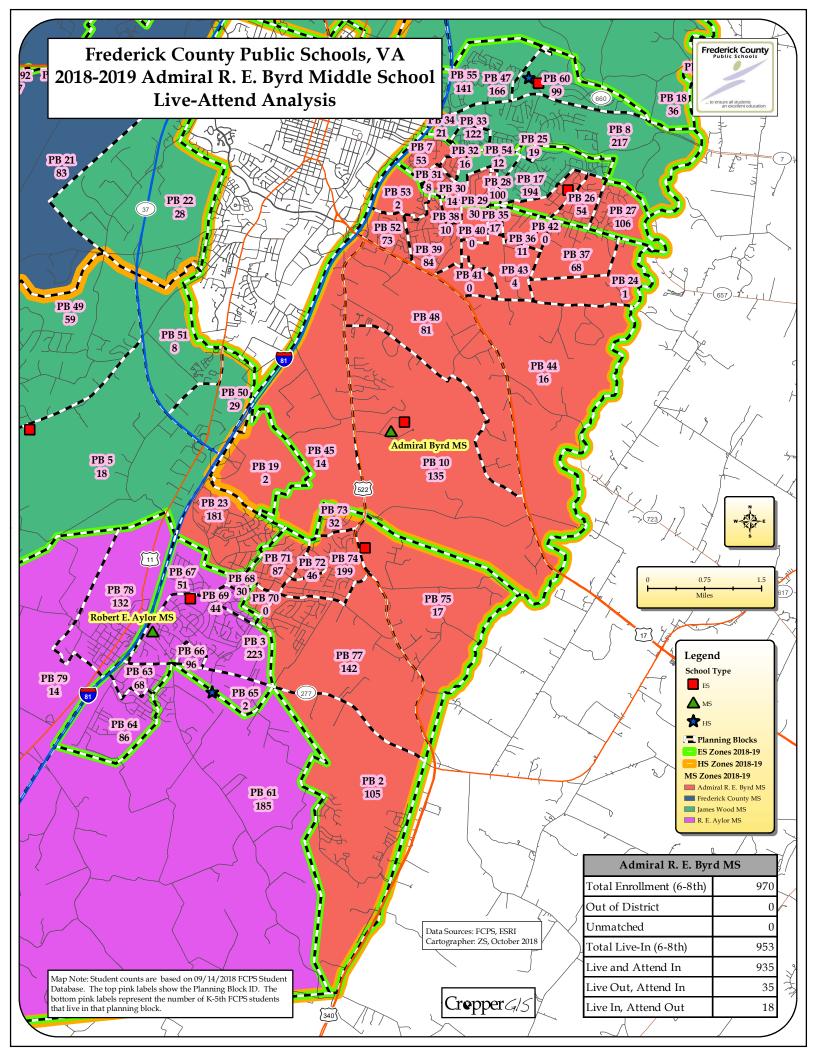
Appendix B: Maps

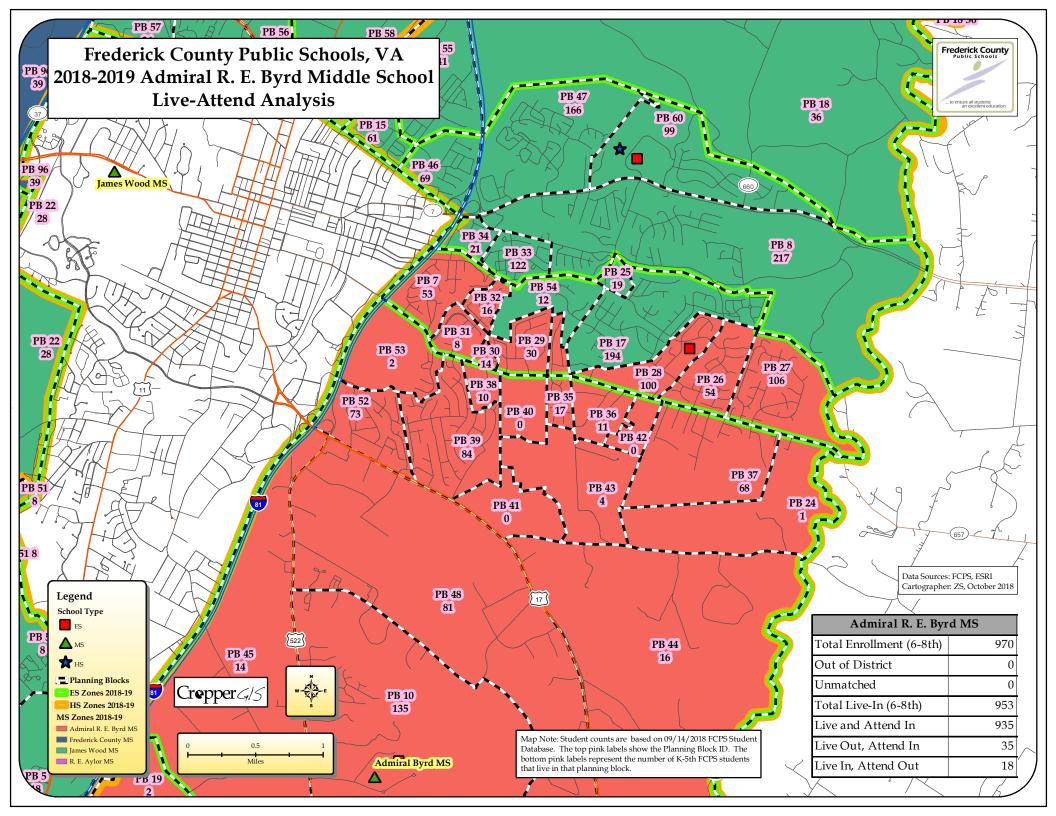
10

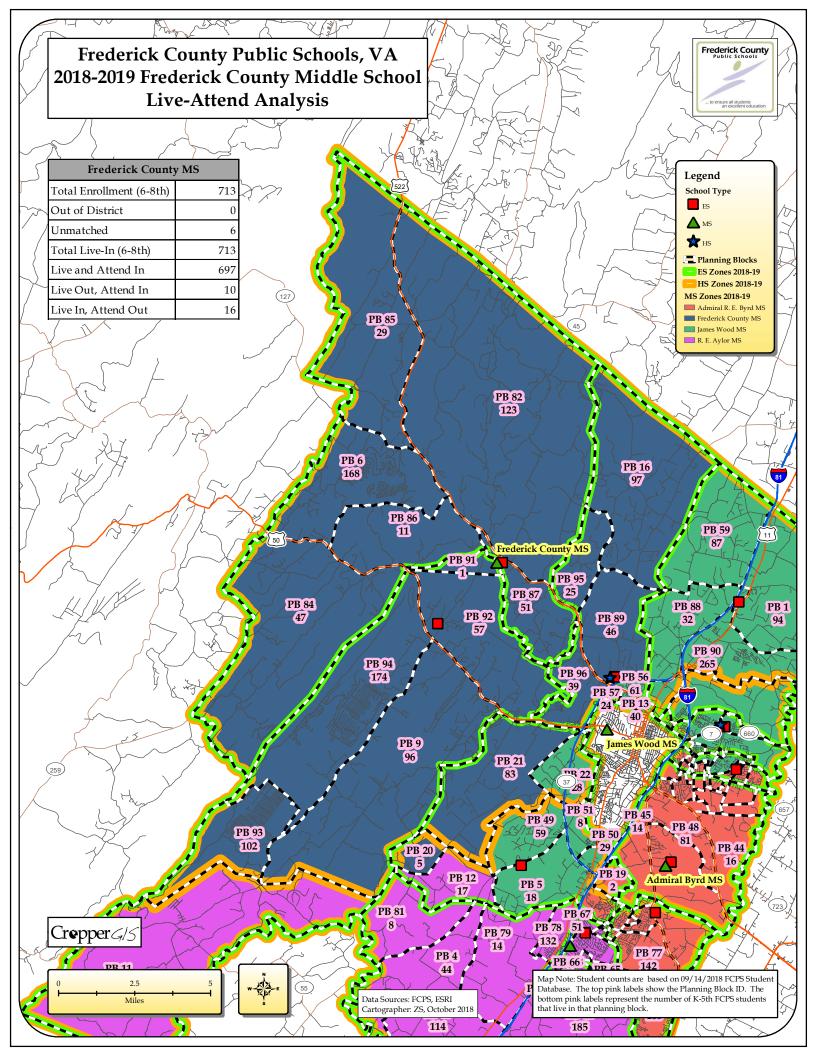


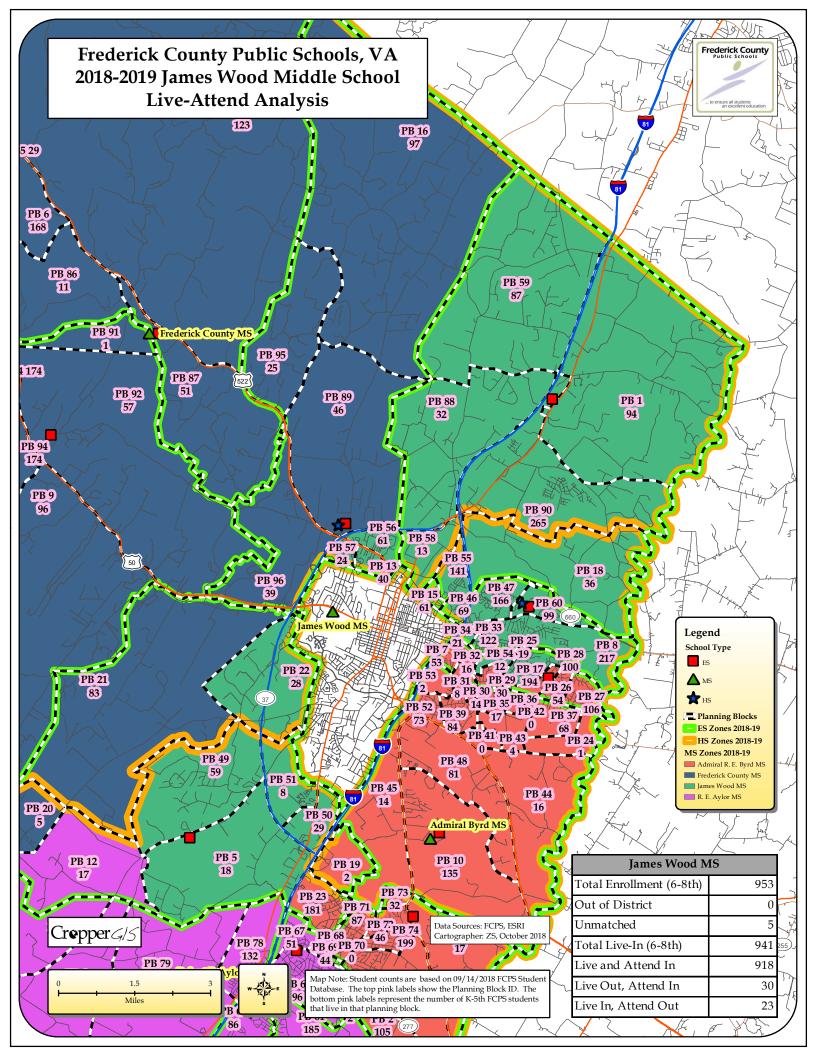


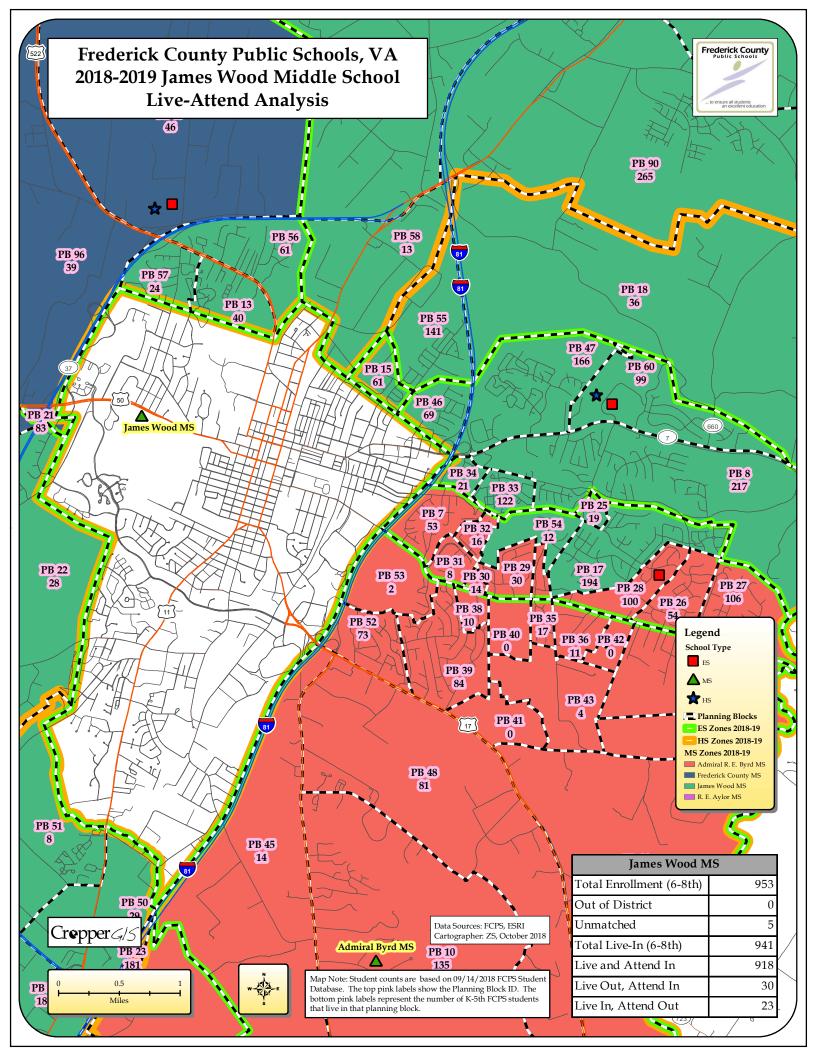


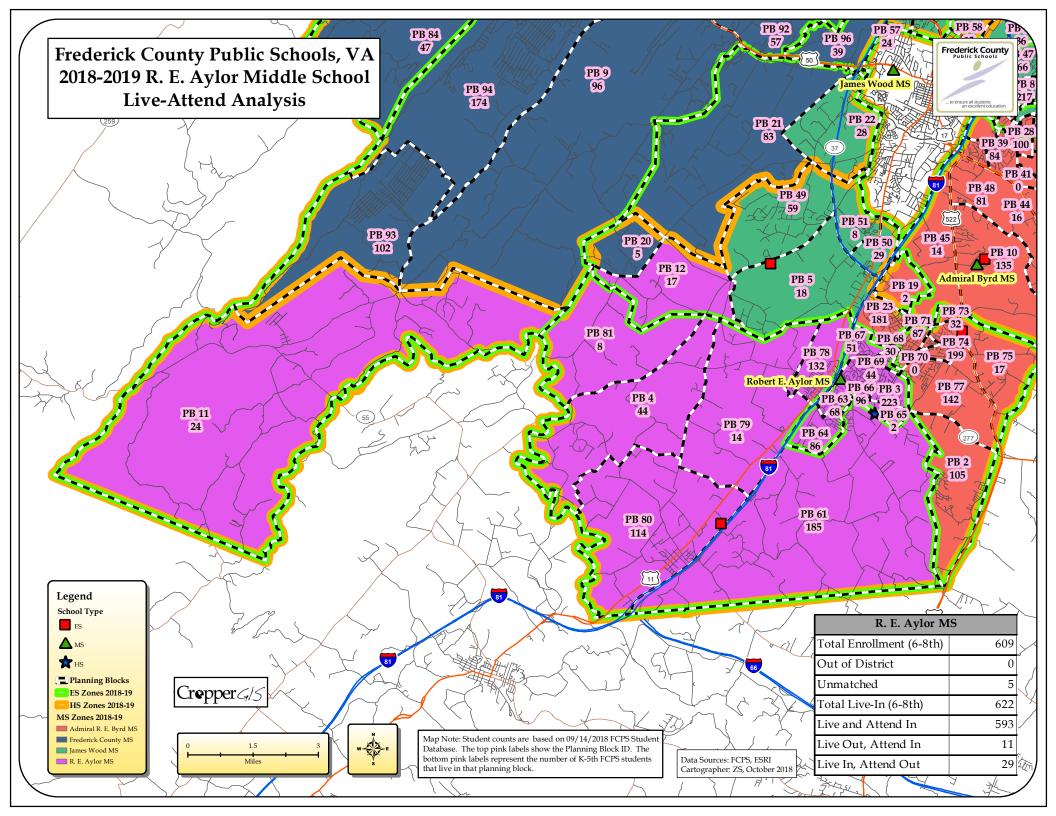


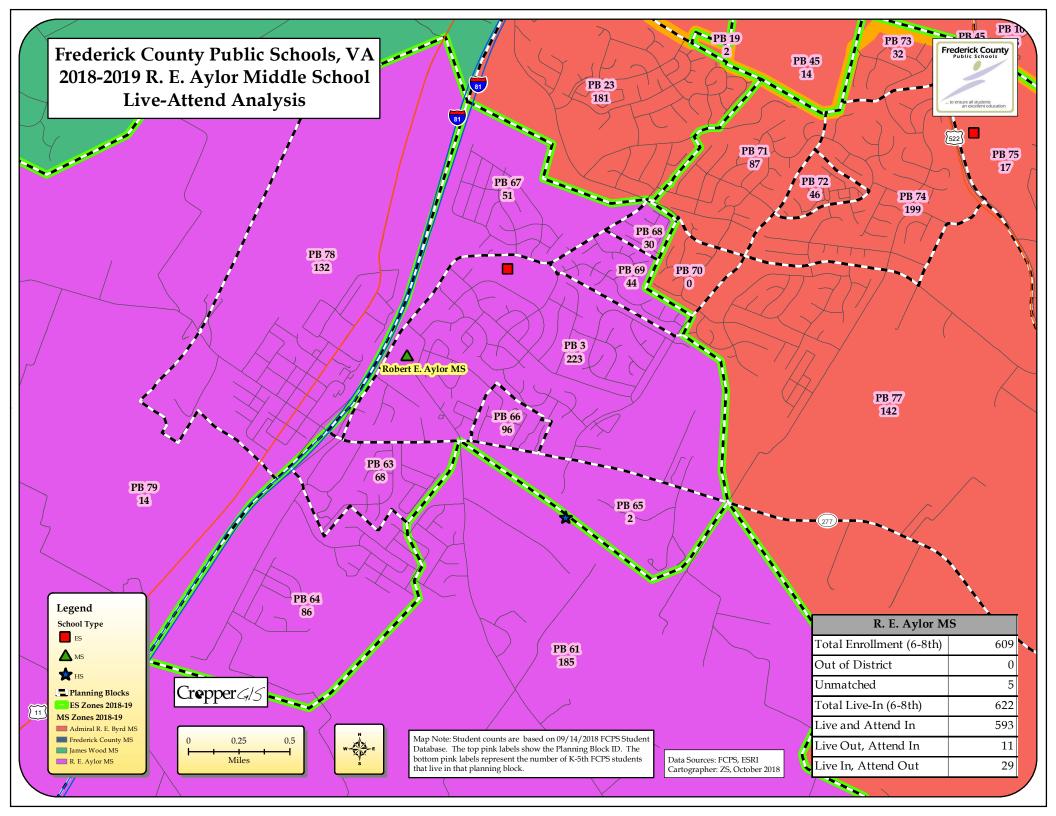












Appendix C: Enrollment and Utilization Tables

21

2018-19 Middle School Enrollment Statistics

Middle School	2018-19 Capacity	Total Enrolled	Enrolled Utilization	2018-19 Total Live-In	Unmatched
Admiral R. E. Byrd MS	900	970	108%	953	0
Frederick County MS	900	713	79%	713	6
James Wood MS	900	953	106%	941	5
R. E. Aylor MS	720	609	85%	622	5
Total	3420	3245	95%	3229	16

Student counts are based on the 9/14/2018 FCPS student database.

2018-19 Middle School Free and Reduced Lunch Statistics

	Enrolled		
Middle School	Free or Reduced Meals %	Non-Free or Reduced Meals %	
Admiral R. E. Byrd MS	31%	69%	
Frederick County MS	38%	62%	
James Wood MS	46%	54%	
R. E. Aylor MS	38%	62%	
Total	38%	62%	

Student counts are based on the 9/14/2018 FCPS student database.

2018-19 Middle School Race and Ethnicity Statistics

	Enrolled			
Middle School	Percent Black	Percent White	Percent Hispanic	Percent Other
Admiral R. E. Byrd MS	6%	68%	18%	8%
Frederick County MS	2%	87%	8%	4%
James Wood MS	5%	59%	27%	8%
R. E. Aylor MS	4%	76%	14%	6%
Total	5%	71 %	18%	7%

Student counts are based on the 9/14/2018 FCPS student database.





ES to MS Feeder Pattern

2018-19 ES Zone	2018-19 MS Zone	Total K-5th Live-In	ES Attendance
Apple Pie Ridge ES	Frederick County MS	207	53%
Apple Pie Ridge ES	James Wood MS	186	47%
Armel ES	Admiral R. E. Byrd MS	628	100%
Bass-Hoover ES	R. E. Aylor MS	600	100%
Evendale ES	Admiral R. E. Byrd MS	516	100%
Gainesboro ES	Frederick County MS	429	100%
Greenwood Mill ES	Admiral R. E. Byrd MS	381	63%
Greenwood Mill ES	James Wood MS	225	37%
Indian Hollow ES	Frederick County MS	430	95%
Indian Hollow ES	R. E. Aylor MS	24	5%
Middletown ES	R. E. Aylor MS	497	100%
Orchard View ES	Admiral R. E. Byrd MS	183	43%
Orchard View ES	Frederick County MS	88	20%
Orchard View ES	James Wood MS	142	33%
Orchard View ES	R. E. Aylor MS	17	4%
Redbud Run ES	James Wood MS	694	100%
Stonewall ES	James Wood MS	668	100%

MS to HS Feeder Pattern

2018-19 MS Zone	2018-19 HS Zone	Total 6-8th Live-In	ES Attendance
Admiral R. E. Byrd MS	Millbrook High School	518	54%
Admiral R. E. Byrd MS	Sherando High School	435	46%
Frederick County MS	James Wood High School	713	100%
James Wood MS	James Wood High School	286	30%
James Wood MS	Millbrook High School	601	64%
James Wood MS	Sherando High School	54	6%
R. E. Aylor MS	Sherando High School	622	100%

