



Building Capacity Methodology

Evaluation & Proposal

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INTRODUCTION

In response to the 2011 Long Range Planning Advisory Committee's Recommendation for the Capital Improvement Program (CIP), the School Board requested that the building capacity of all schools be evaluated and analyzed. The evaluation of the capacity methodology took place over the course of several months. It was a collaborative process that involved multiple departments, involving both the operational & instructional sides of the division. Over the course of several meetings an approach was developed in response to research of other divisions and an analysis of the current policy. Liaisons then visited all schools and walked each building with the respective principal. This was a feet-on-the-ground approach that provided a reality check against the proposed approach. Using input from these visits, the approach was analyzed and adjusted into its final form.

This report provides the details of the proposed methodology in the context of how Albemarle County currently calculates capacity, how it has calculated capacity in the past, and how other localities calculate capacity.

The proposed method makes three distinct changes: it creates a variable classroom multiplier, increases the number of specialty classrooms that are excluded from capacity calculations and counts rooms in a more rigorous manner as compared to the current method. The result is a figure that is more applicable to a school's specific population & program. The revisions reduce the overall division's capacity by 5%. Breaking this figure down further, the elementary school capacity is reduced by 10%, the middle school capacity decreases by 3% & the high school capacity increases by 1 %.

DEFINITIONS

CAPACITY is simply how many students the building can support when the restrictions of the program of study are applied.

DESIGN CAPACITY is the student capacity of a school based on the calculation of the learning spaces as they were originally designed. This is also referred to as architectural capacity.

PROGRAM CAPACITY is the capacity of a school based on the current use of each learning space.

CLASSROOM MULTIPLIER is the average of how many students should be in each classroom. The number is multiplied against the number of classrooms to determine capacity. This is also referred to a “student to classroom” or “class size” ratio.

UTILIZATION FACTOR is a percentage applied to the capacity figure at secondary schools to account for learning spaces that cannot be used 100% of the time (i.e. 7 out of 8 periods).

CURRENT METHODOLOGY

Albemarle County's current capacity methodology was adopted and approved in 2008. The capacity numbers were revised in response to the Resource Utilization Study. This study was commissioned by the school division and completed by the Commonwealth Education Policy Institute (CEPI) at Virginia Commonwealth University. The methodology is similar to the Virginia Department of Education's (VDOE) guidelines but with a lower classroom multiplier than the CEPI & the VDOE use. The VDOE guidelines are explained in a later section.

Per Policy FB-AP:

Elementary school capacity is based on the number of classrooms available for regular classroom instruction, excluding the gymnasium and three specialty classrooms for areas such as art, music, computers, etc. Self-contained Special Education classes are calculated into the capacity at an 8:1 student to classroom ratio. Preschool classrooms are calculated at 16 students per classroom while K-5 is calculated at 20 students per classroom. A 15% reduction in capacity was applied to two elementary schools where classrooms did not meet the state standards for size.

High School & Middle School capacity is based on the number of regular classrooms available to be used as teaching stations and is calculated at 20 students per classroom. Music, chorus, and band are calculated at 40 per classroom and the gymnasium counts as 2 teaching stations of 25 each. Self-contained Special Education classrooms are calculated into the capacity at an 8:1 student to classroom ratio. A 15% reduction in the calculated capacity is then applied to account for scheduling difficulties and class size variation.

Inadequacies of current methodology:

- The number of regular classrooms available to be used as teaching stations is not consistently counted across all schools. In some instances, classrooms are overlooked to meet functions not explicitly stated in the policy. This is done particularly in schools which are lacking smaller resource rooms or other flexible spaces not included in the regular classroom count.
- The classroom multiplier has no relation to budgeted staffing levels, average class size or other adopted figure. In other words, the multiplier does not directly relate to the reality of the average number of students programmed for each classroom. The division practice of applying differentiated staffing among schools has a direct impact on the programmed average class size, especially at elementary schools.
- The current capacity methodology does not account for the space needs of programs specific to an individual school's populations (i.e. ESOL).

HISTORY OF ACPS METHODOLOGIES

The methodology of calculating capacities of Albemarle County schools has been revised in the past. Below is a consolidated summary of key changes made in the last 15 years.

- 1997/98: Capacity was calculated with a multiplier of 22 students per regular classroom.
- 2000/01: Classroom multipliers were revised to reflect Differentiated Staffing (based on the number of students eligible for Free/Reduced Lunch), so the multiplier was not the same for all schools. The new calculations reduced the division's total capacity by 896 students.
- 2003/04: The high school capacity formula was revised to more accurately reflect the usable capacity. The formula was based on total number of classrooms for regular instruction with the gym counting as three stations. But a 15% reduction (previously only 10%) was applied to account for scheduling difficulties and class size variation. This change resulted in a reduction of high school capacity of 371 students.
- 2008/09: Capacity formula was changed as a result of the Resource Utilization Study. The formula is what is currently utilized by the County and is explained in a previous section. The key change was that the multiplier was revised to 20 for all schools. The revision increased the division's total capacity by 1279 seats or 8.76 %.
- Various Years: Schools capacities were adjusted to reflect changes in SPED programs, Pre-K programs, additions etc.

Refer to Appendix A for a table of the changes in capacity numbers by school.

Methodologies of Other Localities

There are numerous methods used to calculate school capacity. Localities have developed their own variation of a methodology that is adapted to how their district operates. It should be noted that the Virginia Department of Education does not have requirements for calculating capacity. Rather it has published, 'Guidelines for School Facilities in Virginia's Public Schools' which includes a section on calculating capacity. The state's guidelines are explained at the end of this section.

As a part of an issue paper on their school capacity, the Beaverton, Oregon School District created a comparison table of common methods. The table (included in full as Appendix B) provides a good starting point for comparing differing approaches to calculating capacity. Approaches range from calculating based on square footage/student, the numbers of students per classroom, the teaching ratio per classroom, the size of the core spaces, or even basing the capacity on available funding.

Here are some key points from capacity calculations and policies in other localities in Virginia:

Hanover County, Virginia (*Regulation 4-3.1 Definition of Overcrowding*)

- Capacity is computed by using the current pupil to teacher ratio in the school system multiplied by the number of classrooms.
- An "efficiency" percentage to account for specialized/low enrollment course offerings at the high school level.

Prince William County, Virginia (*Regulation 873-1 Facilities Development*)

- Uses a fraction of regular teaching stations to determine space for special use programs. (1/8 at ES level, 1/10 at MS level & 1/40 at HS level)
- Uses a classroom ratio of 1:25 for elementary, 1:20 for middle schools, & 1:22 for high school (no utilization factor is applied, ratio already reduced to reflect this)

Spotsylvania County Public Schools

- Uses an 'Adjusted High School Capacity' based on building occupancy rather than enrollment (i.e. if a student is out of the building for part of the day he/she is not counted as 100%).

Fairfax County, Virginia

- Clearly defines difference between design capacity vs. program capacity
- Classroom count is based on program uses & therefore excludes classrooms used for pull-out programs (i.e. gifted) or other non regular-classroom uses.
- Primary Classrooms: 25 Students, Elementary Classrooms: 28 Students, High Schools: 28 students
- Multiplier is adjusted for Title 1 school populations
- Utilization factor is applied to high school capacities, but it varies between class types. For example a core class required all 4 years has a 85% utilization factor, a PE required for 2 years has a 75% utilization factor, and certain electives have only a 22.5% utilization factor

Virginia Department of Education (VDOE)

The Virginia Department of Education (VDOE) does not have requirements for calculating capacity. The VDOE's 'Guidelines for School Facilities in Virginia's Public Schools' provides capacity worksheets for each level. The worksheets include a Standards of Quality (SOQ) Maximum Capacity as well as a Division Operating Capacity. The latter allows the division to input how many students per teaching station.

At the *elementary school* level the state worksheet excludes art classrooms, music classrooms, resource classrooms, gym-multipurpose rooms, & science/computer rooms. The remaining spaces are calculated at the multipliers listed below. Albemarle currently calculates capacity with this same methodology but with smaller multipliers.

| <u>Permanent Spaces</u> | <i>Per Teaching Station</i> |
|--|-----------------------------|
| Self-Contained Exceptional Children Classrooms | 8 |
| Pre-Kindergarten Classrooms | 18 |
| Kindergarten Classrooms | 24 |
| First-Third Grade Classrooms | 24 |
| Fourth-Fifth Grade Classrooms | 25 |

At the *middle school* level the state worksheet excludes art classrooms, chorus/band/music classrooms, resource classrooms, PE/gym/health/multipurpose rooms, exploratory career classrooms/ labs & computer rooms. The remaining spaces are calculated at the multipliers listed below.

| <u>Permanent Spaces</u> | <i>Per Teaching Station</i> |
|---|-----------------------------|
| Self-Contained Exceptional Children Classrooms | 8 |
| Language Arts | 24 |
| Homeroom Classrooms (Social Studies, Math or Science) | 25 |

At the *high school* level the state worksheet does not exclude any classroom space. The permanent classroom spaces are calculated at the multipliers listed below. The total is then multiplied by a 90% utilization factor. Albemarle County currently uses a similar methodology for middle & high schools. However, the county uses different multipliers as well as a utilization factor of only 85%.

| <u>Permanent Spaces</u> | <i>Per Teaching Station</i> |
|--|-----------------------------|
| Academic Classrooms (Foreign Language, Social Studies, Math, Science) | 25 |
| English Classrooms | 24 |
| Arts Education Classrooms (Visual Arts, Drama) | 24 |
| Business/Office Education Classrooms (Typing/Keyboard, Computer App., Business, etc.) | 25 |
| Music Classrooms (Band, Chorus, Music) | 30 |
| Health Classrooms | 30 |
| Main Gym (Counts as 2 Teaching Stations) | 30 |
| Auxiliary Gym (Counts as 1 Teaching Station) | 25 |
| Service/Marketing Classrooms/Labs: (Consumer/Health Occup., Teen Living, Marketing) | 20 |
| Vocational Education Lab: | 20 |
| Self-Contained Exceptional Student Classroom | 8 |

Proposed Methodology

Elementary Schools:

Key Changes

- Consistently count ALL classrooms that can hold 25 students regardless of current use. This removes the ambiguity and inconsistency in which rooms are counted in current method.
- Exclude specialty classrooms: art, music & computer lab (same as current formula) and possibly a classroom for gifted resource, ESOL, Title 1 and/or SPED resource. Exclusions vary between schools and are based on the school's specific program(s) & population. This more accurately reflects a 'program capacity' that accurately captures how a school building is used.
- Calculate remaining classrooms at a multiplier derived from budgeted staffing levels. The multiplier takes differentiated staffing into account. This results in different multipliers for different schools (similar to the method used from 2000-2008).

Proposed Policy Revision:

Elementary school capacity is based on the number of classrooms available for regular classroom instruction, excluding the gymnasium and up to seven specialty classrooms for areas such as art, music, computers, gifted resource, ESOL, Title 1, and a SPED resource. The number of exclusions is based on the school's specific programs and population. A regular classroom is defined as any room which can hold at least 25 students regardless of current use.

The regular size classrooms not excluded are multiplied by the following figures:

- Self-contained Special Education classes are calculated at 8 students per classroom.
- Preschool classrooms are calculated at 16 students per classroom.
- K-5 classrooms are calculated at a multiplier derived from budgeted staffing levels and based on the formula outlined below. Once calculated, the multipliers are then rounded to whole numbers. The multipliers will be recalculated every 3 years or under special circumstance (i.e. redistricting).

Enrollment*

$$\frac{\text{Enrollment*}}{\text{Class Size**}} + (\text{Differentiated Staff FTE}/2)^{***}$$

* Enrollment Projection Used for Teacher Allocation in the Budget Book

**Class size is the weighted average of K-3 & 4-5 ratios at which staffing is determined in the Budget Book. That average is 21.05 students per class in 2012-13.

*** Differentiated Staff is additional staff allocated to a school based on the number of students who qualify for free and reduced lunch. It is up to the discretion of the principal how these additional staff members are used, but this calculation is based on the assumption that half of them will be used as regular teachers.

An example of the multiplier calculation is as follows:

Agnor Hurt Elementary (utilizing FY2012/13 budget information)

- In the budget document, the 'Enrollment # Used for Teacher Allocation' is 551.
- The number of differentiated staff allocated to the school is 9.11.
- The regular class size is indicated as 20.25 for grades K-3 and 22.65 for grades 4-5. This equates to a weighted average class size of 21.05

Therefore, Agnor-Hurt's multiplier for regular classroom rounds to 18 based on the below calculation.

$$\frac{\text{Enrollment*}}{(\text{Enrollment*}/\text{Class Size**}) + (\text{Differential Staff FTE}/2)} = \frac{551}{(551/21.05) + (9.11/2)} = 17.93$$

Middle & High Schools

Key Changes

- Consistently count ALL classrooms that can hold 25 students regardless of current use. This removes the ambiguity and inconsistency in which rooms are counted in current method.
- Exclude specialty classrooms: computer lab(s), gifted resource, SPED resource, ESOL and/or teacher planning. This more accurately reflects a 'program capacity' that accurately captures how a school building is used.
- Calculate remaining classrooms at a multiplier derived from budgeted staffing levels. This results in different multipliers for different schools (similar to method used from 2000-2008).
- The utilization factor is increased from 85% to 87.5%. This represents that each room is used 7 out of 8 periods per day.

Proposed Policy Revision:

Middle & high school capacity is based on the number of classrooms available for regular classroom instruction, including the gymnasium and excluding specialty classrooms for areas such as computer lab(s), gifted resource, SPED resource, ESOL or teacher planning. The number of exclusions is based on the school's specific programs & population.

The regular size classrooms not excluded are multiplied by the following figures:

- Self-contained Special Education classes are calculated at an 8 students per classroom.
- Career & Technical Education (CTE) classes are calculated at a 20 students per classroom.
- The gym is calculated at 50 students.
- Academic classrooms are calculated at a multiplier derived from budgeted staffing levels and based on the formula outlined below. Once calculated, the multipliers are then rounded to whole numbers. The multipliers will be recalculated every 3 years or under special circumstance (i.e. redistricting).

Enrollment*

$$\frac{\text{Enrollment}^*}{\text{Class Size}^{**} + X} + (\text{Differentiated Staff FTE}/2)^{***}$$

* Enrollment Projection Used for Teacher Allocation in the Budget Book

**Class size is the ratio at which staffing is determined in the Budget Book.

X=1 at Burley, Jouett, & Walton to accommodate for an extra staff member.

*** Differentiated Staff is additional staff allocated to a school based on the number of students who qualify for free and reduced lunch. It is up to the discretion of the principal how these additional staff members are used, but this calculation is based on the assumption that half of them will be used as regular teachers.

A 12.5% reduction in the calculated capacity is then applied to account for complexity of scheduling and class size variation. This represents that each room is used 7 out of 8 periods

Proposed Classroom Multipliers

| SCHOOL | | 2012/13 Enrollment*# Used for Teacher Allocation | Differentiated FTE | Calculated Multiplier | Adjusted Classroom Multiplier |
|------------|-------------------|---|-----------------------|--------------------------|-------------------------------------|
| ELEMENTARY | GREER | 416 | 9.89 | 16.84 | 17 |
| | YANCEY | 150 | 3.42 | 16.98 | |
| | WOODBROOK | 301 | 5.13 | 17.85 | 18 |
| | RED HILL | 155 | 2.78 | 17.71 | |
| | SCOTTSVILLE | 191 | 3.17 | 17.92 | |
| | AGNOR-HURT | 551 | 9.11 | 17.93 | |
| | CALE | 589 | 8.05 | 18.40 | |
| | STONY POINT | 273 | 2.76 | 19.03 | 19 |
| | STONE ROBINSON | 398 | 3.47 | 19.28 | |
| | CROZET | 287 | 2.35 | 19.38 | |
| | BAKER-BUTLER | 575 | 3.44 | 19.80 | 20 |
| | BROWNSVILLE | 644 | 3.73 | 19.84 | |
| | BROADUS WOOD | 270 | 1.55 | 19.85 | |
| | HOLLYMEAD | 432 | 1.77 | 20.18 | |
| | MERIWETHER LEWIS | 462 | 1.36 | 20.42 | |
| | MURRAY | 261 | 0.71 | 20.46 | |
| MIDDLE | JOUETT | 563 | 4.93 | 20.43 | 20 |
| | WALTON | 425 | 3.18 | 20.46 | |
| | BURLEY | 533 | 4.30 | 20.53 | 21 |
| | HENLEY | 780 | 2.18 | 22.63 | 23 |
| | SUTHERLAND | 600 | 1.89 | 22.54 | |
| HIGH | ALBEMARLE | 1662 | 7.65 | 22.92 | 23 |
| | MONTICELLO | 1005 | 6.22 | 22.51 | |
| | WESTERN ALBEMARLE | 1017 | 2.88 | 23.40 | |

Multiplier Formulas:

ELEM.
$$\frac{\text{Enrollment}^*}{(Enrollment^*/21.05^{**}) + (Differential\ Staff\ FTE/2)}$$

* Enrollment used for Teacher Allocation in the Budget

** Weighted Average of K-3 & 4-5 Class Size in Budget

*** Class Size Ratio in Budget Book

MIDDLE
$$\frac{\text{Enrollment}^*}{[(Enrollment^*/23.37^{***}) + X] + (Differential\ Staff\ FTE/2)}$$

X= 1 for Burley, Jouett, Walton to
accommodate for extra staff member

HIGH
$$\frac{\text{Enrollment}^*}{(Enrollment^*/24.2^{***}) + (Differential\ Staff\ FTE/2)}$$

Proposed Changes in Building Capacity by School

| SCHOOL | | CAPACITY | | | |
|------------|-------------------|-------------------------------|--------------------------------|-------------|-------------------------|
| | | Current (Building Only) | Proposed (Building Only) | Difference | Proposed (+Trailers) |
| ELEMENTARY | AGNOR-HURT | 552 | 464 | 84% | 500 |
| | BAKER-BUTLER | 652 | 632 | 97% | 632 |
| | BROADUS WOOD | 400 | 360 | 90% | 360 |
| | BROWNSVILLE | 716 | 756 | 106% | 756 |
| | CALE | 752 | 642 | 85% | 642 |
| | CROZET | 380 | 342 | 90% | 342 |
| | GREER | 626 | 559 | 89% | 559 |
| | HOLLYMEAD | 496 | 488 | 98% | 568 |
| | MERIWETHER LEWIS | 391 | 380 | 97% | 440 |
| | MURRAY | 316 | 316 | 100% | 336 |
| | RED HILL | 196 | 160 | 82% | 232 |
| | SCOTTSVILLE | 196 | 178 | 91% | 214 |
| | STONE-ROBINSON | 620 | 515 | 83% | 515 |
| | STONY POINT | 288 | 225 | 78% | 301 |
| | WOODBROOK | 456 | 312 | 68% | 366 |
| | YANCEY | 176 | 135 | 77% | 169 |
| | <i>Subtotal</i> | <i>7213</i> | <i>6464</i> | <i>90%</i> | <i>6932</i> |
| MIDDLE | BURLEY | 726 | 711 | 98% | 711 |
| | HENLEY | 950 | 928 | 98% | 928 |
| | JOUETT | 699 | 646 | 92% | 646 |
| | SUTHERLAND | 709 | 730 | 103% | 730 |
| | WALTON | 552 | 523 | 95% | 523 |
| | <i>Subtotal</i> | <i>3636</i> | <i>3538</i> | <i>97%</i> | <i>3538</i> |
| HIGH | ALBEMARLE | 1774 | 1812 | 102% | 1812 |
| | MONTICELLO | 1274 | 1264 | 99% | 1264 |
| | WESTERN ALBEMARLE | 1084 | 1114 | 103% | 1235 |
| | <i>Subtotal</i> | <i>4132</i> | <i>4190</i> | <i>101%</i> | <i>4311</i> |
| TOTAL | | 14981 | 14192 | 95% | 14781 |

Analysis of Proposed Methodology

Change in Numbers

With this proposed methodology the overall capacity of the division decreases by 789 seats which is about a 5% decrease. It should be noted, though, that the elementary schools actually decrease by 10%, the middle schools decrease by 3 % & the high school capacities actually increase by 1%. The decrease at the elementary school can largely be attributed to excluding additional specialty classrooms as well as adjusting the multiplier. Previously all schools were calculated at 20 students per classroom. In this proposed method, ten elementary schools are calculated at less than 20 and six elementary schools are more than 20. The increase at the high schools is largely attributed to an increase in the classroom multiplier. The new multiplier is a better reflection of the budgeted staffing levels. The utilization factor was increased from 85% to 87.5%, but the difference is negligible. The change was made more so to provide logic behind the percentage number (87.5% is equal to using the room 7 out of 8 periods).

Classroom Multiplier

In simplest terms, the proposed classroom multiplier is the number of students divided by the number of teachers. This determines how many children would normally been in a classroom. The formula doesn't just account for regular staffing, though. It takes it a step further and incorporates 50% of the differentiated staffing. School principals have discretion on how to deploy differentiated staffing. This additional staffing is calculated as a function of enrollment and the percentage of students that qualify for free and reduced lunch. The primary intent is to provide more instructional staff to overcome the disadvantages inherent to many of these students. If building space allows it, differential staffing adds teachers, resulting in smaller class s size. The formulas for calculating adjusted classroom multipliers assume that 50% of differentiated staffing are teachers with a separate classroom.

Specialty Classrooms

A key aspect of the proposed change is an increase in the number of classrooms that would be excluded. Art, music and a computer lab are excluded at the elementary level in the current policy. This is still appropriate and applicable. These are spaces that are used by the majority of the school population so the students are already accounted for in their regular classroom. A classroom for the gifted program, ESOL, SPED resource, and Title 1 were identified as common uses for full size classrooms as they are all pull-out programs. The exclusion for any of these 7 specialty classroom varies by school, though. For instance, schools that exclude an ESOL classroom have multiple FTE (full time employees) teaching ESOL and thus need the space. Schools that don't have a large ESOL population don't warrant the need to designate a large classroom for the program. Another example is a Title 1 classroom. Larger Title 1 schools exclude a classroom to accommodate the space needed for reading specialists and other related staff positions. This is not needed at all schools. This flexibility in identifying specialty classrooms allows the capacity figure to more accurately reflect the 'program capacity' of the school's population.

The specialty classrooms do not have as much weight at the high school & middle school levels since the overall classroom count is much higher. However, the exclusion of such spaces is still warranted and needs to be identified. Computer, SPED Resource, Gifted, ESOL, & Teacher work areas are all potential exclusions in

the proposed policy. Teacher work areas are included to acknowledge that if a classroom was used 7 out of 8 periods a day (as the utilization factor is based on) teachers will need work & planning areas outside of their classroom. Certain older buildings do not have such spaces and thus must be accommodated in regular classrooms (i.e. Albemarle High School as compared to Monticello High School).

Special Education (SPED)

Special Education (SPED) is mentioned in the policy in two separate instances. Below are explanations of the referenced SPED spaces:

SPED Resource Room: Students who need intensive help to keep up with grade-level work in a particular subject may be served in a Resource Room, where a special-education teacher works with a small group of students, using techniques that work more efficiently with a special-needs population. Resource Rooms have the benefit of providing help where needed while letting the student remain generally with the mainstream, but they lack the structure and routine of a self-contained classroom. It is excluded as a full-size classroom when other spaces in the building are not available for such use. In most instances, the classroom accommodates multiple specialists at one time.

SPED Self-Contained Class: Placement in a self-contained classroom means that a child with special needs will be removed from the general school population for all academic subjects to work in a small controlled setting with a special-education teacher. Students in a self-contained class may be working at all different academic levels, with different textbooks and different curricula. Self-contained classes offer structure, routine, and appropriate expectations, but some students may require a higher level of specialization.

Core Spaces

Neither the current policy nor the proposed one mention core spaces such as cafeterias & media centers. These spaces obviously have a role in how many students a building can accommodate. They are intentionally kept separate as the spaces can be modified independent of classroom space. It is common practice to analyze these spaces before building onto a school. If required, expansion or renovation of core spaces is included in the scope of work. On the flip side, if these spaces are the limiting factor of why a building cannot adequately manage its full capacity, a focused capital project may be requested (i.e. expanding a cafeteria) rather than building a full-blown addition when it may not be needed. The state publishes guidelines on how the capacity of these spaces can be calculated based on square footage of the space. Appendix C is a table of the capacity of cafeterias & media centers by school as compared to its new calculated capacity.

Trailers

The new policy does not include or mention trailers when calculating capacity. The building capacity number assumes that the trailers are not available. So for instance, even if music or art is being held in a trailer currently, a classroom in the building is excluded for that use. While trailers are not permanent structures, they do provide additional seats when in use, and the reality is that trailers are used. In response, two capacity numbers are displayed: one without trailers & one with trailers. The trailers are calculated at the same multiplier as the regular academic classroom at the respective school.

Capacity Conflicts

Changing capacities cannot be done in an economic vacuum. While the approach was objective & not influenced by economic factors, its impact on the budget needs to be acknowledged.

- A. Based on enrollment projects for the next 5 years, the following capacity conflicts have been created or exasperated:

of Students Over Capacity

| <i>School</i> | <i>Current Method</i> | <i>Proposed Method</i> | <i>Proposed Method w/Trailers</i> | <i>Year</i> |
|------------------|-----------------------|------------------------|-----------------------------------|---------------------|
| Agnor-Hurt | 36 | 124 | 88 | 2012/13 School Year |
| | 96 | 184 | 148 | 5 Year Projection |
| Meriwether-Lewis | 72 | 83 | 17 | 2012/13 School Year |
| | 86 | 97 | 31 | 5 Year Projection |
| Red Hill | (24) | 12 | (60) | 2012/13 School Year |
| | (9) | 27 | (45) | 5 Year Projection |
| Scottsville | 13 | 31 | (5) | 2012/13 School Year |
| | 21 | 39 | 3 | 5 Year Projection |
| Stony Point | 3 | 66 | (10) | 2012/13 School Year |
| | 50 | 113 | 37 | 5 Year Projection |
| Woodbrook | (136) | 8 | (46) | 2012/13 School Year |
| | (115) | 29 | (25) | 5 Year Projection |
| Yancey | (30) | 11 | (23) | 2012/13 School Year |
| | (9) | 32 | (2) | 5 Year Projection |

(Numbers in parentheses indicate extra seats or students under capacity)

- B. Based on enrollment projects for the next 5 years, the following capacity conflicts have been delayed or negated:

of Students Over Capacity

| <i>School</i> | <i>Current Method</i> | <i>Proposed Method</i> | <i>Proposed Method w/Trailers</i> | <i>Year</i> |
|----------------------|-----------------------|------------------------|-----------------------------------|---------------------|
| Albemarle HS | (23) | (61) | (61) | 2012/13 School Year |
| | 92 | 54 | 54 | 5 Year Projection |
| Western Albemarle HS | (23) | (53) | (174) | 2012/13 School Year |
| | 50 | 20 | (101) | 5 Year Projection |

(Numbers in parentheses indicate extra seats or students under capacity)

Changes in Capacity by School Year

Appendix A

| SCHOOLS | | BUILDING CAPACITY | | | | | | | | | | | | | | |
|---------------------------|---------------------------|-------------------|--------------|---------|--------------|------------|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------|
| | | 1997/98 | 1998/99 | 1999/00 | 2000/01 | 2001/02 | 2002/03 | 2003/04 | 2004/05 | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 |
| ELEMENTARY | AGNOR-HURT | 572 | 572 | 572 | 495 | 495 | 495 | 495 | 495 | 495 | 495 | 458 | 552 | 552 | 552 | 552 |
| | BAKER-BUTLER | 0 | 0 | 0 | 0 | 0 | 600 | 600 | 600 | 600 | 600 | 660 | 632 | 652 | 652 | 652 |
| | BROADUS WOOD | 418 | 418 | 418 | 375 | 375 | 375 | 375 | 375 | 375 | 375 | 380 | 380 | 400 | 400 | 400 |
| | BROWNSVILLE | 330 | 330 | 330 | 285 | 285 | 285 | 456 | 456 | 456 | 456 | 456 | 516 | 716 | 716 | 716 |
| | CALE | 528 | 528 | 528 | 432 | 432 | 432 | 432 | 432 | 432 | 432 | 648 | 752 | 752 | 752 | 752 |
| | CROZET | 396 | 396 | 396 | 342 | 323 | 323 | 342 | 342 | 342 | 342 | 342 | 380 | 380 | 380 | 380 |
| | GREER | 528 | 528 | 528 | 432 | 432 | 432 | 432 | 432 | 432 | 432 | 408 | 486 | 452 | 452 | 452 |
| | HOLLYMEAD | 594 | 594 | 594 | 554 | 554 | 554 | 500 | 500 | 500 | 500 | 488 | 496 | 496 | 496 | 496 |
| | MERIWETHER | 462 | 462 | 462 | 430 | 430 | 430 | 430 | 430 | 430 | 430 | 420 | 391 | 391 | 391 | 391 |
| | MURRAY | 308 | 308 | 308 | 264 | 264 | 264 | 264 | 264 | 264 | 264 | 268 | 316 | 316 | 316 | 316 |
| | RED HILL | 198 | 198 | 198 | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 144 | 196 | 196 | 196 | 196 |
| | SCOTTSVILLE | 220 | 220 | 220 | 187 | 187 | 187 | 187 | 187 | 187 | 187 | 162 | 196 | 196 | 196 | 196 |
| | STONE ROBINSON | 616 | 616 | 616 | 532 | 532 | 532 | 532 | 532 | 532 | 532 | 532 | 628 | 620 | 620 | 620 |
| | STONY POINT | 308 | 308 | 308 | 276 | 276 | 276 | 276 | 276 | 276 | 276 | 266 | 288 | 288 | 288 | 288 |
| | WOODBROOK | 382 | 382 | 382 | 332 | 332 | 332 | 410 | 390 | 390 | 390 | 360 | 456 | 456 | 456 | 456 |
| | YANCEY | 176 | 176 | 176 | 134 | 134 | 134 | 134 | 134 | 134 | 134 | 128 | 176 | 176 | 176 | 176 |
| | SUBTOTAL | 6,036 | 6,036 | 6,036 | 5,234 | 5,215 | 5,815 | 6,029 | 6,009 | 6,009 | 6,009 | 6,120 | 6,841 | 7,039 | 7,039 | 7,039 |
| | Change from Previous Year | | 0.00% | 0.00% | -15.32% | -0.36% | 10.32% | 3.55% | -0.33% | 0.00% | 0.00% | 1.81% | 10.54% | 2.81% | 0.00% | 0.00% |
| MIDDLE | BURLEY | 434 | 434 | 434 | 415 | 415 | 646 | 646 | 646 | 646 | 646 | 625 | 726 | 726 | 726 | 726 |
| | HENLEY | 690 | 690 | 690 | 675 | 675 | 675 | 675 | 675 | 900 | 905 | 884 | 958 | 950 | 950 | 950 |
| | JOUETT | 514 | 514 | 514 | 503 | 503 | 503 | 669 | 669 | 669 | 669 | 633 | 700 | 699 | 699 | 699 |
| | SUTHERLAND | 712 | 712 | 712 | 712 | 712 | 712 | 660 | 660 | 660 | 660 | 645 | 710 | 709 | 709 | 709 |
| | WALTON | 566 | 566 | 566 | 535 | 535 | 535 | 514 | 514 | 514 | 514 | 499 | 543 | 542 | 542 | 542 |
| | SUBTOTAL | 2,916 | 2,916 | 2,916 | 2,840 | 2,840 | 3,071 | 3,237 | 3,164 | 3,389 | 3,394 | 3,286 | 3,637 | 3,626 | 3,626 | 3,626 |
| | Change from Previous Year | | 0.00% | 0.00% | -2.68% | 0.00% | 7.52% | 5.13% | -2.31% | 6.64% | 0.15% | -3.29% | 9.65% | -0.30% | 0.00% | 0.00% |
| HIGH | ALBEMARLE | 1,791 | 1,791 | 1,791 | 1,791 | 1,791 | 1,791 | 1,635 | 1,635 | 1,635 | 1,635 | 1,602 | 1,538 | 1,765 | 1,774 | 1,774 |
| | MONTICELLO | 0 | 1,046 | 1,046 | 1,028 | 1,028 | 1,028 | 926 | 1,226 | 1,235 | 1,278 | 1,271 | 1,430 | 1,159 | 1,274 | 1,274 |
| | WESTERN ALBEMARLE | 1,148 | 1,148 | 1,148 | 1,148 | 1,148 | 1,148 | 1,035 | 1,035 | 1,035 | 1,035 | 1,042 | 1,154 | 1,057 | 1,084 | 1,084 |
| | SUBTOTAL | 2,939 | 3,985 | 3,985 | 3,967 | 3,967 | 3,967 | 3,596 | 3,896 | 3,905 | 3,948 | 3,915 | 4,122 | 3,981 | 4,132 | 4,132 |
| | Change from Previous Year | | 26.25% | 0.00% | -0.45% | 0.00% | 0.00% | -10.32% | 7.70% | 0.23% | 1.09% | -0.84% | 5.02% | -3.54% | 3.65% | 0.00% |
| TOTAL | | 11,891 | 12,937 | 12,937 | 12,041 | 12,022 | 12,853 | 12,862 | 13,069 | 13,303 | 13,351 | 13,321 | 14,600 | 14,646 | 14,797 | 14,797 |
| Change from Previous Year | | | 8.09% | 0.00% | -7.44% | -0.16% | 6.47% | 0.07% | 1.58% | 1.76% | 0.36% | -0.23% | 8.76% | 0.31% | 1.02% | 0.00% |

1. **Bolded Figures** indicate a change from previous year. Change could be attributed to change in formula, change in program (i.e. SPED or Pre-K program), or other reason

2. **Bolded & Underlined Figures** indicates a renovation, addition or new school all together was built which affected capacity.

Comparison Tables of Common Methods to Calculate Capacity

Appendix B

| Method | Description | Pros | Cons |
|-------------------------|--|--|---|
| Beaverton | (Total SF – Special Use CRs)/(SF per Student Factor), plus # students per portable | <ul style="list-style-type: none"> • Current method • Objective • Easy to calculate • Deducts space used for special programs • Partly accounts for core limitations | <ul style="list-style-type: none"> • Not well-accepted by Principals • Does not subtract unusable square footage (building layout efficiency issue) • Does not account for core facility limitations (library, cafeteria, gym) as portables are added. • Not curriculum-driven • Masks grade-level granularity space impacts |
| Number of Classrooms | Students Per Classroom Factor | <ul style="list-style-type: none"> • Objective • Could account for differences between elementary, MS, HS • Easy to calculate • Could account for (deduct) special program rooms | <ul style="list-style-type: none"> • Does not account for program/curriculum issues • Requires common definition of what a classroom is • Does not account for differences in classroom size between older and newer facilities • Does not consider core building limitations |
| Core Capacity | Determined by building code or educational specifications | <ul style="list-style-type: none"> • Objective • Illuminates core building limitations | <ul style="list-style-type: none"> • Adding portables would not increase capacity • Most people not familiar with code or spec requirements • More difficult to calculate • Restricts District flexibility to respond to overcrowding |
| Number of Teachers | Students per teacher ratio | <ul style="list-style-type: none"> • Objective • Easy to calculate | <ul style="list-style-type: none"> • Does not account for special programs • Difficult to maintain consistency • Changes frequently & far faster than building physical changes can be made undermining method's credibility • Difficult to keep capacity data current • Requires definition of 'teacher' (vs. aid, coach, etc.) |
| Support Facilities | # of restrooms, field & playground space, parking spaces, etc. | <ul style="list-style-type: none"> • Illuminates support facilities limitations | <ul style="list-style-type: none"> • No connection to curriculum • Restricts District flexibility to respond to overcrowding • Difficult to calculate |
| Funding | Determined by resources to fund school operation | | <ul style="list-style-type: none"> • Unpredictable • Lots of available \$\$ could overcrowd schools • Confusing |
| Wyoming | # Teaching Stations x # Student Stations x Defined Utilization Percentage | <ul style="list-style-type: none"> • Objective | <ul style="list-style-type: none"> • No connection to curriculum/ programs • Doesn't account for special programs • Complicated • Does not consider core building limitations • Requires definition of 'teaching station' and 'student station' |
| Chicago Design Capacity | # Students/classroom, varies with classroom size | <ul style="list-style-type: none"> • Objective • Predictable • Easy to calculate • Differs by school level | <ul style="list-style-type: none"> • Does not consider core building limitations • Does not account for program/curriculum limitations • Requires common definition of what a classroom is • Does not account for difference in classroom size between older and newer facilities • Difficult to calculate |

Comparison Tables of Common Methods to Calculate Capacity

Appendix B

| | | | |
|---------------------------|--|--|---|
| Phoenix, AZ | SF – Special Uses – 0.1 Corridor Factor/min adequate SF per student + design SF per student/2 | | <ul style="list-style-type: none"> • Very confusing, difficult to calculate • Unclear how to determine minimum adequate SF • Difficult to explain to laypersons • Different formula for HS and MS |
| Salem/ Keizer, OR | ES = (regular CRs grades 1-5 x staffing ratio) + (# KG session x staffing ratio) + (12 students/SpEd CR) MS and HS = (all regular classrooms x staffing ratio) + (12 students per special needs, band and choir room) | <ul style="list-style-type: none"> • Fairly predictable, assuming staffing ratios remain constant • Compensates for special program uses | <ul style="list-style-type: none"> • Requires common definition of 'regular classroom' • Different formula for elementary, middle & high • More complicated formula • Does not address portables |
| North Clackamas, OR | Practical capacity = # re CRs x avg # students per CR Maximum capacity adds 2-3 students more per classroom than in practical capacity formula | <ul style="list-style-type: none"> • Fairly predictable, assuming staffing ratios remain constant • Gives absolute upper limit | <ul style="list-style-type: none"> • Requires common definition of 'regular classroom', 'average number of students per classroom' • Does not address portables • Does not compensate for special program uses |

Credit: Issue Paper #4: School Capacity Formula by the Beaverton School District

http://www.beaverton.k12.or.us/pdf/facil/facil_Issue%20Paper%204.pdf

Capacity of Core Spaces

Appendix C

NOTE: Cafeteria & Media Center Capacities calculated per VDOE Guidelines.

| | SCHOOL | Proposed Capacity | | Cafeteria Capacity Range ¹ | | | Media Center Capacity ² | |
|------------|-------------------|-------------------|---------------|---------------------------------------|--------------------------|----------------------------|------------------------------------|----------|
| | | Building Only | Inc. Trailers | Cafeteria Size (sf) | Capacity at 8 sf/student | Capacity at 14 sf/ student | Sq Feet | Capacity |
| ELEMENTARY | AGNOR-HURT | 464 | 500 | 2745 | 858 | 490 | 2160 | 705 |
| | BAKER-BUTLER | 632 | 632 | 2880 | 900 | 514 | 3129 | 1190 |
| | BROADUS WOOD | 360 | 360 | 2040 | 638 | 364 | 2400 | 825 |
| | BROWNSVILLE | 756 | 756 | 3802 | 1188 | 679 | 1875 | 563 |
| | CALE | 642 | 642 | 2798 | 874 | 500 | 2544 | 897 |
| | CROZET | 342 | 342 | 2677 | 837 | 478 | 1600 | 425 |
| | GREER | 559 | 559 | 3649 | 1140 | 652 | 2116 | 683 |
| | HOLLYMEAD | 488 | 568 | 3096 | 968 | 553 | 1624 | 437 |
| | MERIWETHER | 380 | 440 | 3135 | 980 | 560 | 2711 | 981 |
| | MURRAY | 316 | 336 | 2294 | 717 | 410 | 2720 | 985 |
| | RED HILL | 160 | 232 | 1890 | 591 | 338 | 952 | 101 |
| | SCOTTSVILLE | 178 | 214 | 2322 | 726 | 415 | 2207 | 729 |
| | STONE ROBINSON | 515 | 515 | 2857 | 893 | 510 | 1775 | 513 |
| | STONY POINT | 225 | 301 | 1617 | 505 | 289 | 1383 | 317 |
| | WOODBROOK | 312 | 366 | 2408 | 753 | 430 | 1890 | 570 |
| | YANCEY | 135 | 169 | 1628 | 509 | 291 | 1060 | 155 |
| | SCHOOL | Proposed Capacity | | Cafeteria Capacity Range ³ | | | Media Center Capacity ⁴ | |
| | | Building Only | Inc. Trailers | Cafeteria Size (sf) | Capacity at 9 sf/student | Capacity at 14 sf/ student | Sq Feet | Capacity |
| MIDDLE | BURLEY | 711 | 711 | 3380 | 1127 | 724 | 2922 | 641 |
| | HENLEY | 928 | 928 | 3976 | 1325 | 852 | 2966 | 655 |
| | JOUETT | 646 | 646 | 3976 | 1325 | 852 | 3335 | 778 |
| | SUTHERLAND | 730 | 730 | 3294 | 1098 | 706 | 3493 | 831 |
| | WALTON | 523 | 523 | 3920 | 1307 | 840 | 3576 | 859 |
| | SCHOOL | Proposed Capacity | | Cafeteria Capacity Range ⁵ | | | Media Center Capacity ⁴ | |
| | | Building Only | Inc. Trailers | Cafeteria Size (sf) | Capacity at 9 sf/student | Capacity at 14 sf/ student | Sq Feet | Capacity |
| HIGH | ALBEMARLE | 1812 | 1812 | 6520* | 1778 | 1397 | 6093 | 1698 |
| | MONTICELLO | 1264 | 1264 | 5593 | 1525 | 1199 | 4845 | 1282 |
| | WESTERN ALBEMARLE | 1114 | 1235 | 6858 | 1870 | 1470 | 4356 | 1119 |

¹ The formula for determining the size of an Elementary School Cafeteria is a size range of 8 to 14 square feet per student, with 2.5 seatings per day. This Cafeteria capacity formula was provided by the Virginia Department of Education.

² The formula for determining the size of an Elementary School Media Center is: 750 square feet, plus 2 square feet times the total school enrollment. This Media Center capacity formula was provided by the Virginia Department of Education.

³ The formula for determining the size of a Middle School Cafeteria is a size range of 9 to 14 square feet per student, with 3 seatings per day. This Cafeteria capacity formula was provided by the Virginia Department of Education.

⁴ The formula for determining the size of a Middle or High School Media Center is: 1000 square feet, plus 3 square feet times the total school enrollment. This Media Center capacity formula was provided by the Virginia Department of Education.

⁵ The formula for determining the size of a High School Cafeteria is a size range of 11 to 14 square feet per student, with 3 seatings per day. This Cafeteria capacity formula was provided by the Virginia Department of Education.

* Albemarle Cafeteria square footage does not include outdoor covered area.

DETAIL OF NEW CAPACITY CALCULATION

| Pre-K K-5 SPED (SCC) Art Music Computer SPED Resource Gifted ESOL Title 1 <i>Total Full Size Classrooms</i> BUILDING CAPACITY Mobile Unit Capacity Total Capacity | AGNOR-HURT | | | | | BAKER BUTLER | | | | | BROADUS WOOD | | | | | BROWNSVILLE | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------------|------------|-------|-------|-----|--------------|------------|----|-------|-----|-------------------|------------|----|-------|-----|-------------|------------|----|-------|-----|-------------------|--|--|--|-----|--|-------|--|---|--|-------------------|--|--|--|--|--|--|--|--|--|
| | Qty | Multiplier | | Total | | Qty | Multiplier | | Total | | Qty | Multiplier | | Total | | Qty | Multiplier | | Total | | | | | | | | | | | | | | | | | | | | | |
| | 2 | x | 16 | = | 32 | 2 | x | 16 | = | 32 | 0 | x | 16 | = | 0 | 1 | x | 16 | = | 16 | | | | | | | | | | | | | | | | | | | | |
| | 24 | x | 18 | = | 432 | 30 | x | 20 | = | 600 | 18 | x | 20 | = | 360 | 37 | x | 20 | = | 740 | | | | | | | | | | | | | | | | | | | | |
| | 0 | x | 8 | = | 0 | 0 | x | 8 | = | 0 | 0 | x | 8 | = | 0 | 0 | x | 8 | = | 0 | | | | | | | | | | | | | | | | | | | | |
| | 1 | - | | | | 1 | - | | | | 1 | - | | | | 1 | - | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | - | | | | 1 | - | | | | 1 | - | | | | 1 | - | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | - | | | | 1 | - | | | | 1 | - | | | | 0 | - | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | - | | | | 1 | - | | | | 1 | - | | | | 1 | - | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | - | | | | 1 | - | | | | 1 | - | | | | 1 | - | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | - | | | | 0 | - | | | | 0 | - | | | | 0 | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | - | | | | 0 | - | | | | 0 | - | | | | 0 | - | | | | | | | | | | | | | | | | | | | | | | | | |
| | 31 | | | | | | | | 37 | | | | | | | | 23 | | | | | | | | 42 | | | | | | | | | | | | | | | |
| | 464 | | | | | | | | 632 | | | | | | | | 360 | | | | | | | | 756 | | | | | | | | | | | | | | | |
| | 2 | | 18.00 | | 36 | | | | 0 | | 20.00 | | 0 | | | | 0 | | 20.00 | | 0 | | | | 0 | | 20.00 | | 0 | | | | | | | | | | | |
| | 500 | | | | | | | | 632 | | | | | | | | 360 | | | | | | | | 756 | | | | | | | | | | | | | | | |
| | Previous: 552/592 | | | | | | | | | | Previous: 652/652 | | | | | | | | | | Previous: 400/400 | | | | | | | | | | Previous: 716/716 | | | | | | | | | |

| Pre-K K-5 SPED (SCC) Art Music Computer SPED Resource Gifted ESOL Title 1 <i>Total Full Size Classrooms</i> BUILDING CAPACITY Mobile Unit Capacity Total Capacity | CALE | | | | | CROZET | | | | | GREER* | | | | | HOLLYMEAD | | | | |
|---|------|---|------------|---|---------------------|--------|---|------------|---|---------------------|--------|---|------------|---|----------------------|-----------|---|------------|---|-------|
| | Qty | | Multiplier | | Total | Qty | | Multiplier | | Total | Qty | | Multiplier | | Total | Qty | | Multiplier | | Total |
| | 2 | x | 16 | = | 32 | 0 | x | 16 | = | 0 | 2 | x | 16 | = | 32 | 0 | x | 16 | = | 0 |
| | 33 | x | 18 | = | 594 | 18 | x | 19 | = | 342 | 31 | x | 17 | = | 527 | 24 | x | 20 | = | 480 |
| | 2 | x | 8 | = | 16 | 0 | x | 8 | = | 0 | 0 | x | 8 | = | 0 | 1 | x | 8 | = | 8 |
| | 1 | | - | | | 1 | | - | | | 1 | | - | | | 1 | | - | | |
| | 1 | | - | | | 1 | | - | | | 1 | | - | | | 1 | | - | | |
| | 1 | | - | | | 1 | | - | | | 1 | | - | | | 0 | | - | | |
| | 1 | | - | | | 0 | | - | | | 1 | | - | | | 1 | | - | | |
| | 1 | | - | | | 1 | | - | | | 1 | | - | | | 1 | | - | | |
| | 1 | | - | | | 0 | | - | | | 1 | | - | | | 0 | | - | | |
| | 1 | | - | | | 0 | | - | | | 1 | | - | | | 0 | | - | | |
| 44 | | | | | 22 | | | | | 40 | | | | | 29 | | | | | |
| 642 | | | | | 342 | | | | | 559 | | | | | 488 | | | | | |
| 0 18.00 0 | | | | | 0 19.00 0 | | | | | 0 17.00 0 | | | | | 4 20.00 80 | | | | | |
| 642 | | | | | 342 | | | | | 559 | | | | | 568 | | | | | |
| Previous: 752/752 | | | | | Previous: 380/380 | | | | | Previous: 626/626 | | | | | Previous: 496/596 | | | | | |

Notes:

*Greer includes proposed
new addition

SPED(SCC):

Self-Contained Classroom

Previous Capacities:

Current Building Capacity/

Capacity Including Mobile Units

DETAIL OF NEW CAPACITY CALCULATION

| | MERIWETHER LEWIS | | | | | MURRAY | | | | | RED HILL | | | | | SCOTTSVILLE | | | | |
|----------------------------|-------------------|------------|----|------------|-----|-------------------|------------|----|------------|-----|-------------------|------------|----|------------|-----|-------------------|------------|----|------------|-----|
| | Qty | Multiplier | | Total | | Qty | Multiplier | | Total | | Qty | Multiplier | | Total | | Qty | Multiplier | | Total | |
| Pre-K | 0 | x | 16 | = | 0 | 1 | x | 16 | = | 16 | 1 | x | 16 | = | 16 | 1 | x | 16 | = | 16 |
| K-5 | 19 | x | 20 | = | 380 | 15 | x | 20 | = | 300 | 8 | x | 18 | = | 144 | 9 | x | 18 | = | 162 |
| SPED (SCC) | 0 | x | 8 | = | 0 | 0 | x | 8 | = | 0 | 0 | x | 8 | = | 0 | 0 | x | 8 | = | 0 |
| Art | 1 | - | | | | 1 | - | | | | 1 | - | | | | 1 | - | | | |
| Music | 1 | - | | | | 1 | - | | | | 1 | - | | | | 1 | - | | | |
| Computer | 1 | - | | | | 0 | - | | | | 1 | - | | | | 0 | - | | | |
| SPED Resource | 1 | - | | | | 1 | - | | | | 1 | - | | | | 0 | - | | | |
| Gifted | 1 | - | | | | 0 | - | | | | 0 | - | | | | 0 | - | | | |
| ESOL | 0 | - | | | | 0 | - | | | | 0 | - | | | | 0 | - | | | |
| Title 1 | 0 | - | | | | 0 | - | | | | 0 | - | | | | 0 | - | | | |
| Total Full Size Classrooms | 24 | | | | | 19 | | | | | 13 | | | | | 12 | | | | |
| BUILDING CAPACITY | | | | 380 | | | | | 316 | | | | | 160 | | | | | 178 | |
| Mobile Unit Capacity | 3 | | 20 | | 60 | 1 | | 20 | | 20 | 4 | | 18 | | 72 | 2 | | 18 | | 36 |
| Total Capacity | | | | 440 | | | | | 336 | | | | | 232 | | | | | 214 | |
| | Previous: 391/451 | | | | | Previous: 316/316 | | | | | Previous: 196/276 | | | | | Previous: 196/276 | | | | |

| | STONE ROBINSON | | | | | STONY POINT | | | | | WOODBROOK | | | | | YANCEY | | | | |
|----------------------------|-------------------|------------|----|------------|-----|-------------------|------------|----|------------|-----|-------------------|------------|----|------------|-----|-------------------|------------|----|------------|-----|
| | Qty | Multiplier | | Total | | Qty | Multiplier | | Total | | Qty | Multiplier | | Total | | Qty | Multiplier | | Total | |
| Pre-K | 2 | x | 16 | = | 32 | 1 | x | 16 | = | 16 | 1 | x | 16 | = | 16 | 1 | x | 16 | = | 16 |
| K-5 | 25 | x | 19 | = | 475 | 11 | x | 19 | = | 209 | 16 | x | 18 | = | 288 | 7 | x | 17 | = | 119 |
| SPED (SCC) | 1 | x | 8 | = | 8 | 0 | x | 8 | = | 0 | 1 | x | 8 | = | 8 | 0 | x | 8 | = | 0 |
| Art | 1 | - | | | | 1 | - | | | | 1 | - | | | | 1 | - | | | |
| Music | 1 | - | | | | 1 | - | | | | 1 | - | | | | 1 | - | | | |
| Computer | 1 | - | | | | 1 | - | | | | 1 | - | | | | 0 | - | | | |
| SPED Resource | 1 | - | | | | 1 | - | | | | 1 | - | | | | 1 | - | | | |
| Gifted | 1 | - | | | | 1 | - | | | | 1 | - | | | | 0 | - | | | |
| ESOL | 0 | - | | | | 0 | - | | | | 1 | - | | | | 0 | - | | | |
| Title 1 | 0 | - | | | | 1 | - | | | | 1 | - | | | | 0 | - | | | |
| Total Full Size Classrooms | 33 | | | | | 18 | | | | | 25 | | | | | 11 | | | | |
| BUILDING CAPACITY | | | | 515 | | | | | 225 | | | | | 312 | | | | | 135 | |
| Mobile Unit Capacity | 0 | | 19 | | 0 | 4 | | 19 | | 76 | 3 | | 18 | | 54 | 2 | | 17 | | 34 |
| Total Capacity | | | | 515 | | | | | 301 | | | | | 366 | | | | | 169 | |
| | Previous: 620/620 | | | | | Previous: 288/368 | | | | | Previous: 456/516 | | | | | Previous: 176/216 | | | | |

Notes:
 SPED(SCC):
 Self-Contained Classroom

Previous Capacities:
 Current Building Capacity/
 Capacity Including Mobile Units

DETAIL OF NEW CAPACITY CALCULATION

| | BURLEY | | | | | HENLEY | | | | | JOUETT | | | | | SUTHERLAND | | | | | WALTON | | | | | |
|---------------------------------|----------------------------|------------|---|----|-------|---------------|------------|---|----|-------|---------------|------------|---|----|-------|---------------|------------|---|----|-------|-------------------|------------|---|----|-------|-----|
| | Qty | Multiplier | | | Total | Qty | Multiplier | | | Total | Qty | Multiplier | | | Total | Qty | Multiplier | | | Total | Qty | Multiplier | | | Total | |
| | Academic | 35 | x | 21 | = | 735 | 41 | x | 23 | = | 943 | 32 | x | 20 | = | 640 | 32 | x | 23 | = | 736 | 24 | x | 20 | = | 480 |
| | CTE | 1 | x | 20 | = | 20 | 3 | x | 20 | = | 60 | 2 | x | 20 | = | 40 | 2 | x | 20 | = | 40 | 3 | x | 20 | = | 60 |
| | SPED (SCC) | 1 | x | 8 | = | 8 | 1 | x | 8 | = | 8 | 1 | x | 8 | = | 8 | 1 | x | 8 | = | 8 | 1 | x | 8 | = | 8 |
| | Gym | 1 | x | 50 | = | 50 | 1 | x | 50 | = | 50 | 1 | x | 50 | = | 50 | 1 | x | 50 | = | 50 | 1 | x | 50 | = | 50 |
| | Computer | 1 | - | | | | 2 | - | | | | 3 | - | | | | 1 | - | | | | 0 | - | | | |
| | SPED Resource | 2 | - | | | | 3 | - | | | | 2 | - | | | | 2 | - | | | | 1 | - | | | |
| | Gifted | 1 | - | | | | 1 | - | | | | 1 | - | | | | 1 | - | | | | 1 | - | | | |
| | ESOL | 1 | - | | | | 0 | - | | | | 3 | - | | | | 0 | - | | | | 0 | - | | | |
| | Teacher Work Area | 2 | - | | | | 3 | - | | | | 2 | - | | | | 1 | - | | | | 2 | - | | | |
| | Total Full Size Classrooms | 45 | | | | 813 | 55 | | | | 1061 | 47 | | | | 738 | 41 | | | | 834 | 33 | | | | 598 |
| Utilization Factor ² | | | | | 0.875 | | | | | 0.875 | | | | | 0.875 | | | | | 0.875 | | | | | 0.875 | |
| BUILDING CAPACITY | | | | | 711 | | | | | 928 | | | | | 646 | | | | | 730 | | | | | 523 | |
| Mobile Unit Capacity | 0 | 21 | | | 0 | 0 | 23 | | | 0 | 0 | 20 | | | 0 | 0 | 23 | | | 0 | 0 | 20 | | | 0 | |
| Total Capacity | | | | | 711 | | | | | 928 | | | | | 646 | | | | | 730 | | | | | 523 | |
| | Previous: 726 | | | | | Previous: 950 | | | | | Previous: 699 | | | | | Previous: 709 | | | | | Previous: 552/592 | | | | | |

| | ALBEMARLE | | | | | MONTICELLO | | | | | WESTERN | | | | |
|----------------------------|---------------------|------------|----|---|-------|---------------------|------------|----|---|-------|---------------------|------------|----|---|--------|
| | Qty | Multiplier | | | Total | Qty | Multiplier | | | Total | Qty | Multiplier | | | Total |
| Academic | 80 | x | 23 | = | 1840 | 54 | x | 23 | = | 1242 | 46 | x | 23 | = | 1058 |
| CTE | 7 | x | 20 | = | 140 | 6 | x | 20 | = | 120 | 7 | x | 20 | = | 140 |
| SPED (SCC) | 2 | x | 8 | = | 16 | 1 | x | 8 | = | 8 | 0 | x | 8 | = | 0 |
| Gym | 1 | x | 50 | = | 50 | 1 | x | 50 | = | 50 | 1 | x | 50 | = | 50 |
| Auxiliary Gym | 1 | x | 25 | = | 25 | 1 | x | 25 | = | 25 | 1 | x | 25 | = | 25 |
| Computer | 1 | - | | | | 1 | - | | | | 1 | - | | | |
| SPED Resource | 1 | - | | | | 1 | - | | | | 1 | - | | | |
| Gifted | 1 | - | | | | 1 | - | | | | 0 | - | | | |
| ESOL | 0 | - | | | | 0 | - | | | | 0 | - | | | |
| Teacher Work Area | 5 | - | | | | 0 | - | | | | 3 | - | | | |
| Total Full Size Classrooms | 99 | 2071 | | | | 66 | 1445 | | | | 60 | 1273 | | | |
| Utilization Factor² | | 0.875 | | | | | 0.875 | | | | | 0.875 | | | |
| BUILDING CAPACITY | | 1812 | | | | | 1264 | | | | | 1114 | | | |
| Mobile Unit Capacity | 0 | 23 | | | 0 | 0 | 23 | | | 0 | 6 | 20.13 | | | 120.75 |
| Total Capacity | | 1812 | | | | | 1264 | | | | | 1235 | | | |
| | Previous: 1774/1774 | | | | | Previous: 1274/1274 | | | | | Previous: 1084/1204 | | | | |

Notes:

²Utilization Factor: assumes classroom being used 7 out of 8 periods (87.5%)

SPED(SCC): Self-Contained Classroom

Previous Capacities:
 Current Building Capacity/
 Capacity Including Mobile Units

Capacity vs. Enrollment

Appendix E

| SCHOOL | | Current Capacity | Capacity Conflicts with Projected Enrollments | | | | | | | | | | # of Trailers |
|------------|------------------------|-------------------|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------------|
| | | Proposed Capacity | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | |
| ELEMENTARY | AGNOR-HURT** | 552 | (36) | (62) | (75) | (87) | (96) | (90) | (92) | (94) | (97) | (100) | 2 |
| | | 464 | (124) | (150) | (163) | (175) | (184) | (178) | (180) | (182) | (185) | (188) | |
| | BAKER-BUTLER** 1 | 652 | 43 | 38 | 11 | 24 | 12 | 8 | 7 | 14 | 26 | 23 | 0 |
| | | 632 | 23 | 18 | (9) | 4 | (8) | (12) | (13) | (6) | 6 | 3 | |
| | BROADUS WOOD | 400 | 127 | 127 | 126 | 117 | 117 | 106 | 104 | 98 | 96 | 97 | 0 |
| | | 360 | 87 | 87 | 86 | 77 | 77 | 66 | 64 | 58 | 56 | 57 | |
| | BROWNSVILLE* | 716 | 52 | 30 | (8) | (12) | (9) | (16) | (23) | (30) | (37) | (45) | 0 |
| | | 756 | 92 | 70 | 32 | 28 | 31 | 24 | 17 | 10 | 3 | (5) | |
| | CALE ** | 752 | 127 | 118 | 104 | 99 | 104 | 96 | 92 | 83 | 81 | 76 | 0 |
| | | 642 | 17 | 8 | (6) | (11) | (6) | (14) | (18) | (27) | (29) | (34) | |
| | CROZET | 380 | 92 | 88 | 88 | 77 | 79 | 65 | 65 | 71 | 74 | 82 | 0 |
| | | 342 | 54 | 50 | 50 | 39 | 41 | 27 | 27 | 33 | 36 | 44 | |
| | GREER** | 626 | 169 | 164 | 157 | 161 | 150 | 144 | 142 | 138 | 136 | 131 | 0 |
| | | 559 | 102 | 97 | 90 | 94 | 83 | 77 | 75 | 71 | 69 | 64 | |
| | HOLLYMEAD ¹ | 496 | 58 | 33 | 26 | 29 | 18 | 7 | 6 | 9 | 6 | (3) | 4 |
| | | 488 | 44 | 18 | 11 | 15 | 3 | (1) | (2) | 1 | (2) | (11) | |
| | MERIWETHER | 391 | (72) | (72) | (86) | (93) | (86) | (87) | (90) | (115) | (130) | (139) | 3 |
| | | 380 | (83) | (83) | (97) | (104) | (97) | (98) | (101) | (126) | (141) | (150) | |
| | MURRAY* | 316 | 37 | 40 | 35 | 29 | 29 | 24 | 23 | 23 | 27 | 26 | 1 |
| | | 316 | 37 | 40 | 35 | 29 | 29 | 24 | 23 | 23 | 27 | 26 | |
| | RED HILL* | 196 | 24 | 29 | 14 | 15 | 9 | 10 | 11 | 12 | 16 | 16 | 4 |
| | | 160 | (12) | (7) | (22) | (21) | (27) | (26) | (25) | (24) | (20) | (20) | |
| | SCOTTSVILLE* | 196 | (13) | (3) | (12) | (26) | (21) | (22) | (22) | (24) | (28) | (28) | 2 |
| | | 178 | (31) | (21) | (30) | (44) | (39) | (40) | (40) | (42) | (46) | (46) | |
| | STONE ROBINSON** | 620 | 187 | 197 | 184 | 165 | 173 | 153 | 150 | 154 | 163 | 170 | 0 |
| | | 515 | 82 | 92 | 79 | 60 | 68 | 48 | 45 | 49 | 58 | 65 | |
| | STONY POINT * | 288 | (3) | (16) | (26) | (49) | (50) | (59) | (60) | (63) | (63) | (63) | 4 |
| | | 225 | (66) | (79) | (89) | (112) | (113) | (122) | (123) | (126) | (126) | (126) | |
| | WOODBROOK* | 456 | 136 | 133 | 130 | 127 | 115 | 114 | 113 | 107 | 106 | 101 | 3 |
| | | 312 | (8) | (11) | (14) | (17) | (29) | (30) | (31) | (37) | (38) | (43) | |
| | YANCEY* | 176 | 30 | 24 | 20 | 20 | 9 | 9 | 8 | 11 | 16 | 15 | 2 |
| | | 135 | (11) | (17) | (21) | (21) | (32) | (32) | (33) | (30) | (25) | (26) | |
| | Subtotal | 7213 | 958 | 868 | 688 | 596 | 553 | 462 | 434 | 394 | 392 | 359 | 25 |
| | | 6464 | 203 | 112 | -68 | -159 | -203 | -287 | -315 | -355 | -357 | -390 | |

* - Includes 16 pre-k students

** -Includes 32 pre-k students

¹ Enrollment Projections take into account approved Redistricting Option A

Capacity vs. Enrollment

Appendix E

| SCHOOL | | Current Capacity | Capacity Conflicts with Projected Enrollments | | | | | | | | | | # of Trailers |
|--------|-------------------|-------------------|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------------|
| | | Proposed Capacity | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | |
| MIDDLE | BURLEY | 726 | 179 | 172 | 166 | 180 | 136 | 124 | 132 | 185 | 203 | 194 | 0 |
| | | 711 | 164 | 157 | 151 | 165 | 121 | 109 | 117 | 170 | 188 | 179 | |
| | HENLEY | 950 | 152 | 116 | 115 | 84 | 44 | 27 | 10 | 13 | (53) | (87) | 0 |
| | | 928 | 130 | 94 | 93 | 62 | 22 | 5 | (12) | (9) | (75) | (109) | |
| | JOUETT | 699 | 122 | 120 | 142 | 109 | 121 | 129 | 152 | 135 | 125 | 99 | 0 |
| | | 646 | 69 | 67 | 89 | 56 | 68 | 76 | 99 | 82 | 72 | 46 | |
| | SUTHERLAND | 709 | 99 | 107 | 111 | 78 | 78 | 67 | 77 | 28 | (32) | (70) | 0 |
| | | 730 | 120 | 128 | 132 | 99 | 99 | 88 | 98 | 49 | (11) | (49) | |
| | WALTON | 552 | 149 | 145 | 150 | 173 | 192 | 185 | 178 | 186 | 170 | 165 | 0 |
| | | 523 | 120 | 116 | 121 | 144 | 163 | 156 | 149 | 157 | 141 | 136 | |
| | Subtotal | 3636 | 701 | 660 | 684 | 624 | 571 | 532 | 549 | 547 | 413 | 301 | 0 |
| | | 3538 | 603 | 562 | 586 | 526 | 473 | 434 | 451 | 449 | 315 | 203 | |
| HIGH | ALBEMARLE | 1774 | 23 | (6) | (83) | (59) | (92) | (114) | (137) | (153) | (204) | (199) | 0 |
| | | 1812 | 61 | 32 | (45) | (21) | (54) | (76) | (99) | (115) | (166) | (161) | |
| | MONTICELLO | 1274 | 199 | 169 | 170 | 109 | 87 | 109 | 114 | 122 | 171 | 167 | 0 |
| | | 1264 | 189 | 159 | 160 | 99 | 77 | 99 | 104 | 112 | 161 | 157 | |
| | WESTERN ALBEMARLE | 1084 | 23 | 36 | 4 | (31) | (50) | (78) | (109) | (171) | (171) | (201) | 6 |
| | | 1114 | 53 | 66 | 34 | (1) | (20) | (48) | (79) | (141) | (141) | (171) | |
| | Subtotal | 4132 | 245 | 199 | 91 | 19 | -55 | -83 | -132 | -202 | -204 | -233 | 6 |
| | | 4190 | 303 | 257 | 149 | 77 | 3 | -25 | -74 | -144 | -146 | -175 | |
| TOTAL | | 14981 | 1904 | 1727 | 1463 | 1239 | 1069 | 911 | 851 | 739 | 601 | 427 | 31 |
| | | 14192 | 1109 | 931 | 667 | 444 | 273 | 122 | 62 | -50 | -188 | -362 | |