Albemarle County Public Schools

High School Facilities Planning Study









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The Study

Albemarle County Public Schools | High School Facilities Planning Study

HBA Architecture & Interior Design and Fielding Nair International (HBA x FNI), have been commissioned as an integrated design team of architects, planners and educators to recommend how to best address capacity needs and future enrollment growth at the high school level for Albemarle County.

The study includes concepts of how High School 2022 can be implemented across the school division and county. The primary focus is to find ways to give every student access to opportunities that support their passion, whether they be in or out of high school buildings.

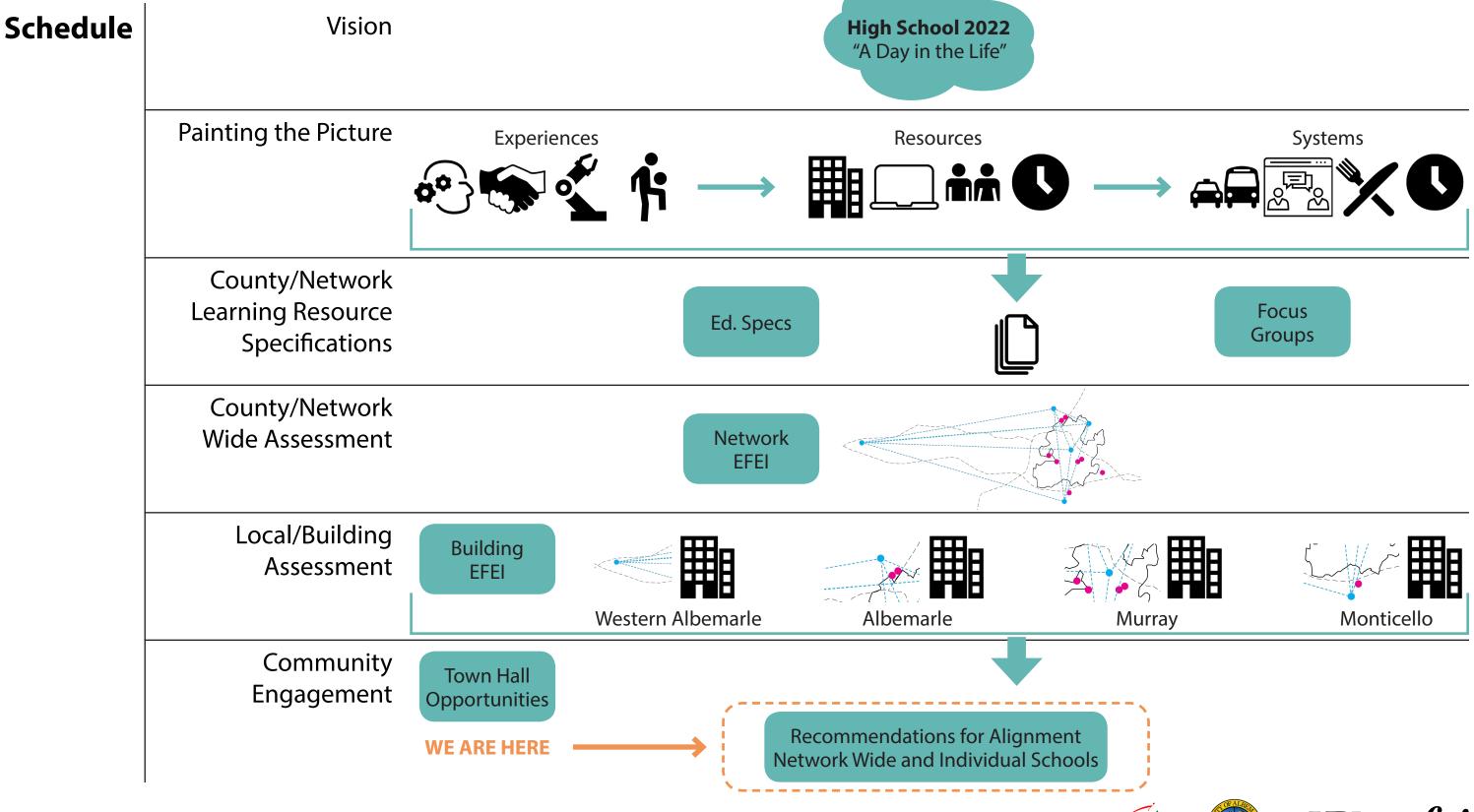






Process

Project Framework







Process

Discovery | Engagement



Discovery Visit



Discovery Findings Visit



Community Engagement



Presentation of Draft Recommendations/ Scenarios





Process

Context | Questions

Context ······→ 4 Essential Questions

- ACPS Mission/Vision/Core Values
- Success of ACPS Specialized Programming
- . High School 2022
- . The Adolescent Brain
- Global Context

- 1. How do we respond to enrollment pressure in the North & West?
- 2. What does each school site need?
- 3. How do we expand opportunity for all?
- 4. How do we use space as a catalyst for High School 2022?





Question 1

How do we respond to enrollment pressure in the North & West?





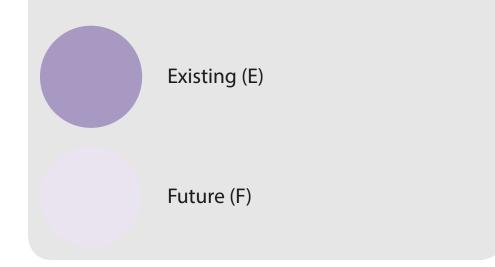


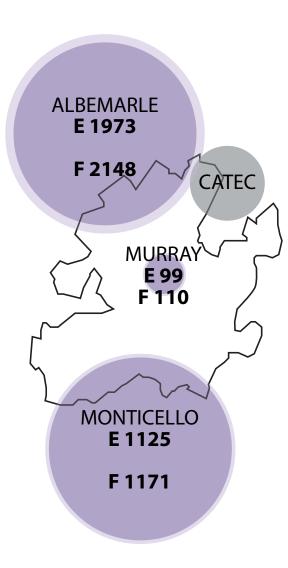
Enrollment | Existing* & Future** (8-Year Peak)

NOTES

- * Existing Enrollment numbers are for 2017/2018 School Year based on Albemarle County Public Schools Enrollment Projections FY 2018/2019 to FY 2027/2028.
- ** Future Enrollment numbers are for 2024/2025 School Year (peak enrollment) based on Albemarle County Public Schools Enrollment Projections FY 2018/2019 to FY 2027/2028.













Enrollment Projections* | High School (8-Year Peak)

High School enrollment projections suggest significant growth in the West and moderate growth in the North.

LEGEND

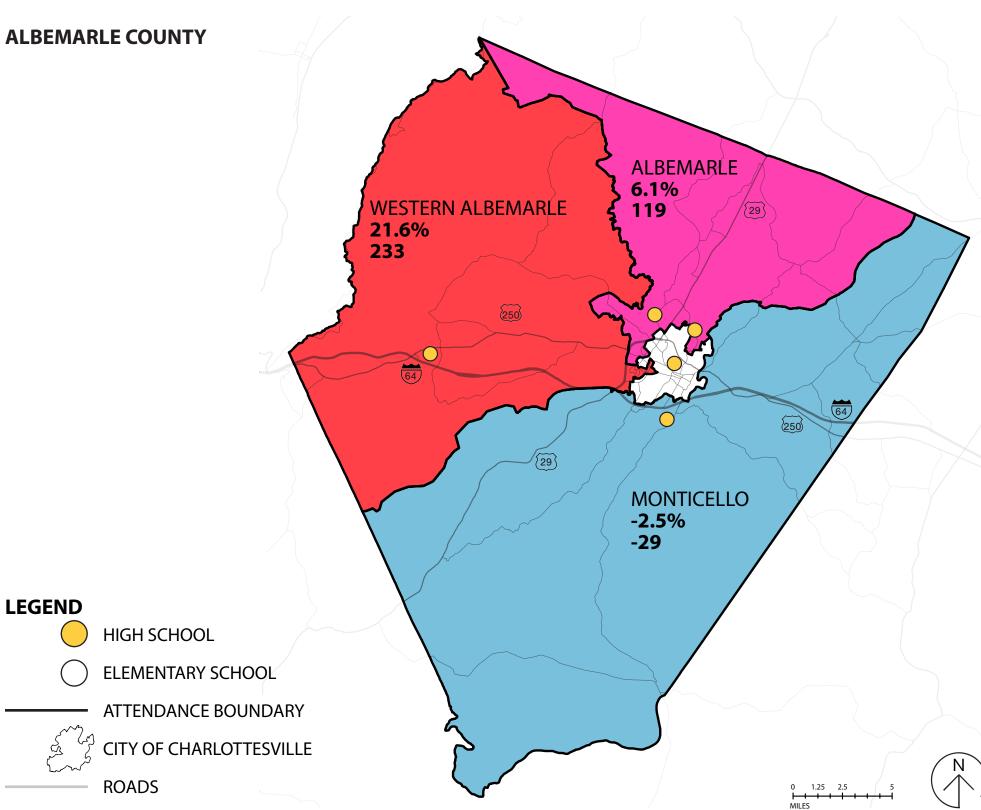
PROJECTED ENROLLMENT CHANGE

- The labels on the map indicate change in total enrollment and percent increase.
- Data Sources: Albemarle CPS; Albemarle Co., VA; City of Charlottesville, VA; ESRI Cartographer: ZS, October 2017



>10.00%

* Enrollment numbers based on Albemarle County Public Schools Enrollment Projections FY 2017/2018 to FY 2026/2027.









Enrollment Projections* | High School (10-Year)

Beyond the peak high school enrollment in 2024/2025, there is a slight decrease in growth in both the West and North.

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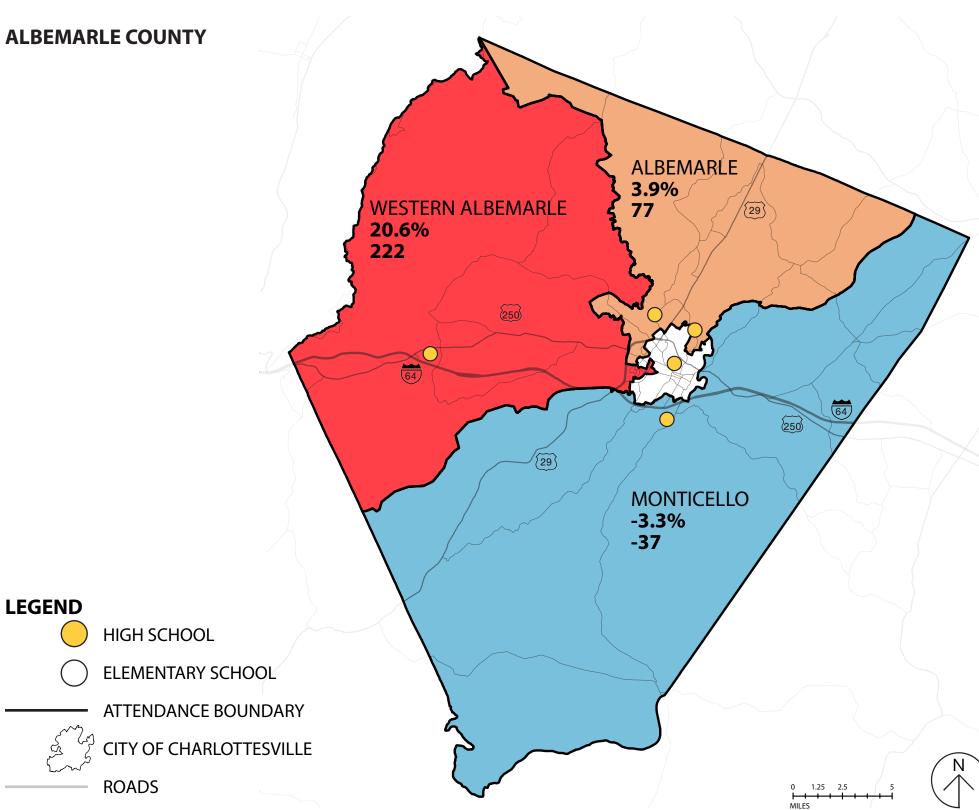
PROJECTED ENROLLMENT CHANGE

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>10.00%

* Enrollment numbers based on Albemarle County Public Schools Enrollment Projections FY 2017/2018 to FY 2026/2027.









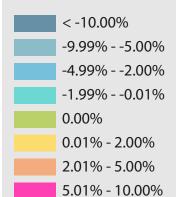
Enrollment Projections* | Elementary School (8-Year Peak)

Beyond the horizon of this study, the elementary school enrollment projections suggest the majority of growth will be in the West and South.

LEGEND

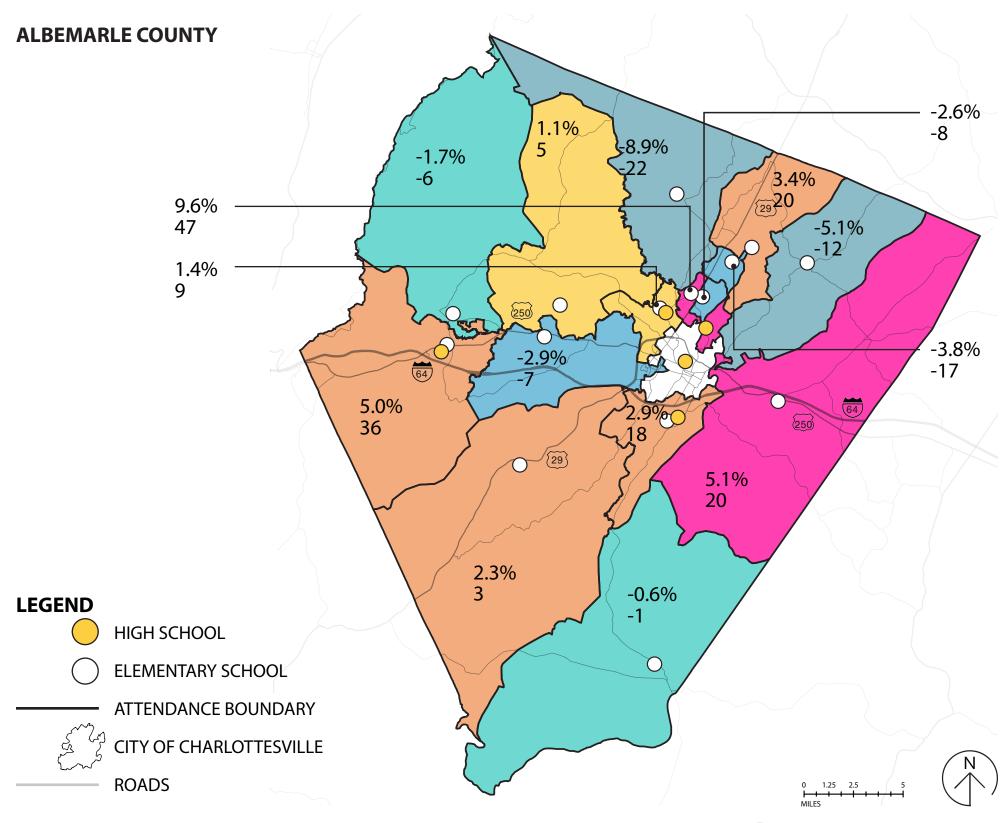
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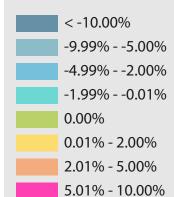
Enrollment Projections* | Elementary School (10-Year)

A 10-year look at elementary school growth suggests steady increases in enrollment across the county with the exception of the North.

LEGEND

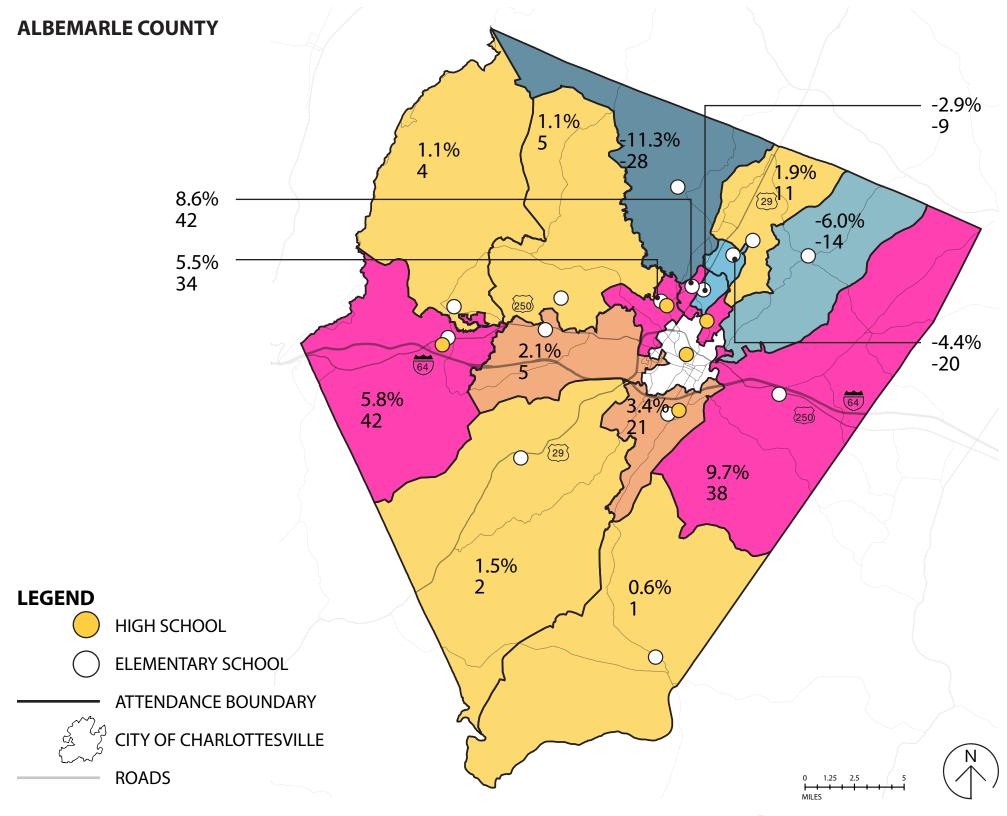
PROJECTED ENROLLMENT CHANGE

- The labels on the map indicate change in total enrollment and percent increase.
- Data Sources: Albemarle CPS; Albemarle Co., VA; City of Charlottesville, VA; ESRI Cartographer: ZS, October 2017



>10.00%

* Enrollment numbers based on Albemarle County Public Schools Enrollment Projections FY 2017/2018 to FY 2026/2027.









Capacity | Existing* v Learning Community Modernization**

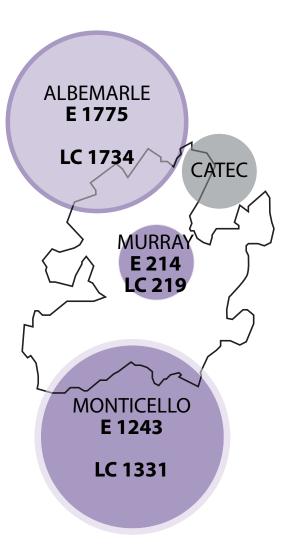
NOTES

- * Existing Capacity as calculated per current ACPS guidelines. Refer to Appendix A for complete calculations and additional diagrams.
- ** Learning Community Modernization Capacity as calculated for renovations to academic areas to support High School 2022. See diagrams in "Modernization" section.



Existing (E)

Modified Programming
w/Learning Communities
(LC)





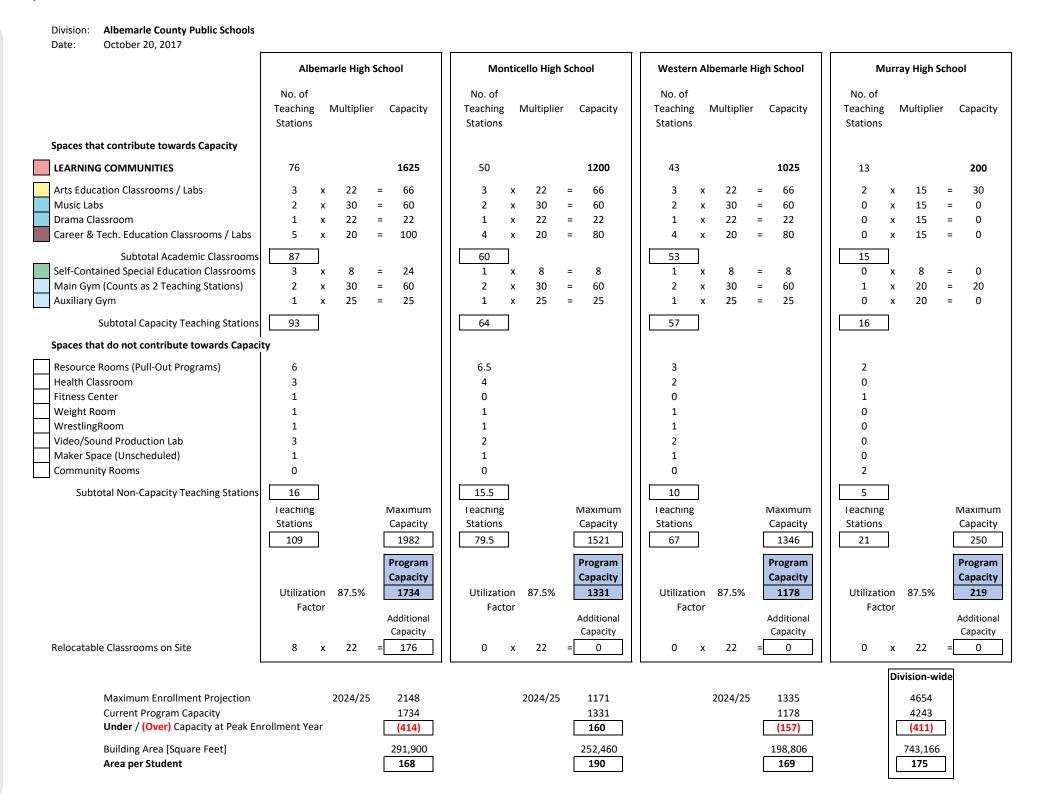




Capacity | Learning Community Modernization*

NOTES

* Learning Community Modernization Capacity as calculated for renovations to academic areas to support High School 2022. See adjacent table and diagrams in "Modernization" section.







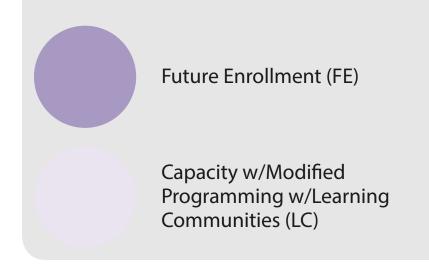


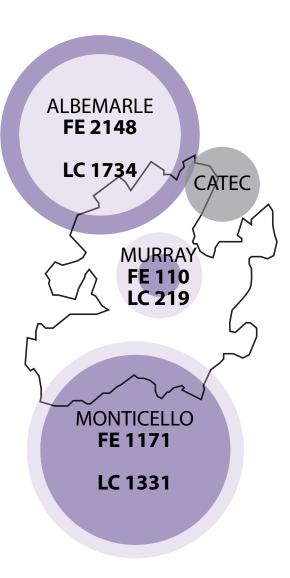
Future Enrollment* (8-Year Peak) | Capacity w/Learning Community Modernization**

NOTES

- * Future Enrollment numbers are for 2024/2025 School Year (peak enrollment) based on Albemarle County Public Schools Enrollment Projections FY 2018/2019 to FY 2027/2028.
- ** Learning Community Modernization Capacity as calculated for renovations to academic areas to support High School 2022. See diagrams in "Modernization" section.













Question 2

What does each school site need?







Existing Conditions & Future Projections | Investment Needed

EFEI - Education Facilities Effectiveness Instrument

Facilities Conditions Assessment

\$60 M (Million) = Estimated capital renewal investment needed over next 20 years at 3 Comprehensive High Schools

Opportunity Photos



Albemarle Sustainability



Western Albemarle Transparency



MonticelloStudent-Crafted Learning

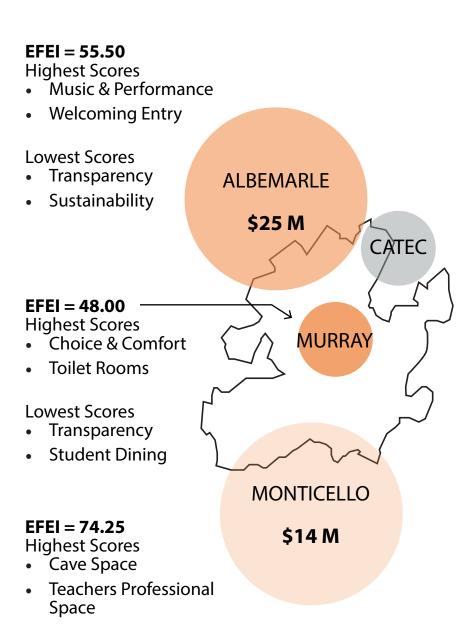


EFEI = 46.75 Highest Scores

- Technology
- Shared Learning Resources

Lowest Scores

- Transparency
- Sustainability







- Sustainability
- Student-Crafted Learning

EFEI* Analysis | Summary

EFEI - Education Facilities Effectiveness Instrument

 A tool used as part of the Educational Adequacy Assessment to measure each school building for its potential to support the envisioned high school program.

LEGEND



		Albemarle HS	Monticello HS	Western Albemarle HS	Murray HS
1	FLEXIBILITY	2.25	2.75	1.75	2.50
2	MAKING EVERYWHERE	0.75	1.25	0.75	1.25
3	TRANSPARENCY	0.00	2.75	0.00	0.00
4	CHOICE AND COMFORT	3.00	1.75	2.25	3.25
5	WATERING HOLE SPACE	1.50	2.25	1.50	1.75
6	CAVE SPACE	1.25	4.75	0.50	0.75
7	UNIVERSAL DESIGN	1.00	3.50	1.25	1.50
8	TECHNOLOGY	3.25	3.50	3.75	2.75
9	ACOUSTICS	2.50	2.25	2.50	2.25
10	TEACHERS PROFESSIONAL SPACE	1.25	4.50	2.50	1.25
11	WELCOMING ENTRY	3.75	4.25	2.75	2.50
12	SHARED LEARNING RESOURCES	3.50	3.75	3.25	2.00
13	STUDENT-CRAFTED LEARNING	0.50	0.75	0.50	2.50
14	ARTS STUDIOS	3.25	2.50	2.25	2.00
15	MUSIC AND PERFORMANCE	4.75	3.50	3.25	0.50
16	HEALTH & PHYSICAL FITNESS	3.75	3.75	3.25	1.50
17	TOILET ROOMS	1.75	3.25	3.00	4.25
18	STUDENT DINING	2.00	2.25	1.75	0.50
19	SAFE LEARNING SPACES	2.50	4.50	2.75	2.00
20	DAYLIGHTING AND ARTIFICIAL LIGHTING QUALITY	2.75	3.25	0.25	2.50
21	INSIDE/OUTSIDE CONNECTIONS	3.50	3.75	2.00	2.75
22	NATURAL VENTILATION	1.50	1.75	0.75	1.75
23	SUSTAINABILITY	0.25	0.50	0.00	0.50
24	LOCAL SIGNATURE	1.00	2.00	0.50	1.25
25	CONNECTED TO COMMUNITY	2.00	2.25	2.25	2.00
26	AESTHETICS	2.00	3.00	1.50	2.25
	EFEI ASSESSMENT SCORE (out of 130 possible points)	55.50	74.25	46.75	48.00







Question 3

How do we expand opportunity for all?







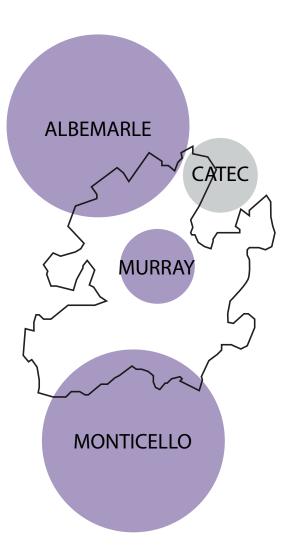
Existing Programs

Existing High School Academic Programs

- Academies
- Pathway Programs
- Advanced Placement (AP)
- Team
- AVID
- Special Education (A Base/B Base)
- Peer Tutoring
- Fusion/Interdisciplinary Courses
- Dual Enrollment
- ESOL
- TPRS World Language
- Career and Technical Education Courses
- PLC
- STEAM
- Library
- Work-based Learning
- GIS
- Design Lab
- Student-design Course Credit
- Industrial Arts
- Multi-use Library-learning Resource Center
- Music Studio
- Broadcase Studio
- Career Connector
- Auto Mech
- Auto Body
- Cosmetology
- Computer Network Design







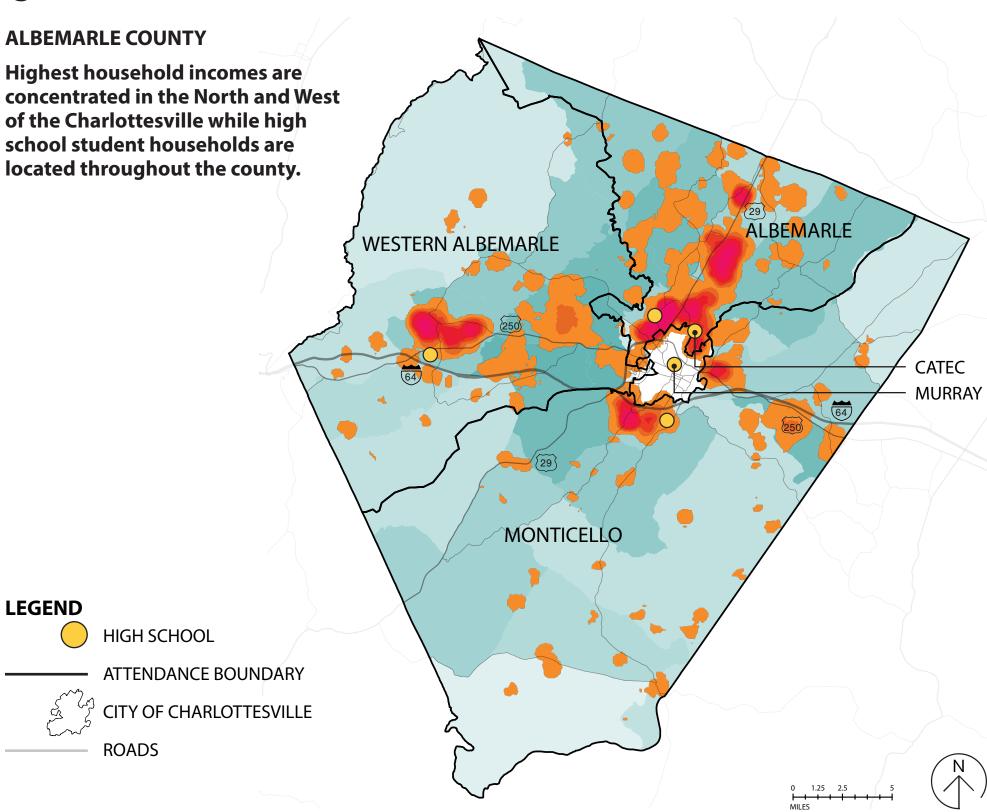






Median Household Income | High School Students

LEGEND CONCENTRATION OF HIGH SCHOOL STUDENTS (2017/2018) • Concentration represents counts of students w/in a half-mile radius. • Concentrations of less than 6 students are excluded. • Data Sources: Albemarle CPS; Albemarle Co., VA; City of Charlottesville, VA; ESRI Cartographer: ZS, October 2017 200 - 240 170 - 190 140 - 160 98 - 130 80 - 97 63 - 79 45 - 62 27 - 44 6 - 26 MEDIAN HOUSEHOLD INCOME BY BLOCK GROUP (2017/2018) • In the past 12 months • Data Sources: Albemarle CPS; Albemarle Co., VA; City of Charlottesville, VA; U.S. Census Bureau, 2015 American Community Survey; ESRI Cartographer: ZS, October 2017 \$131,964.01 - \$175,682.00 \$106,250.01 - \$131,964.00 \$88,047.01 - \$106,250.01 \$73,457.01 - \$88,047.00 \$63,977.01 - \$73,457.00 \$58,214.01 - \$63,977.00 \$48,750.01 - \$58,214.00 \$41,705.01 - \$48,750.00 \$20,590.01 - \$41,705.00 \$8,043.00 - \$20,590.00









Median Household Income | Academy Student Participation

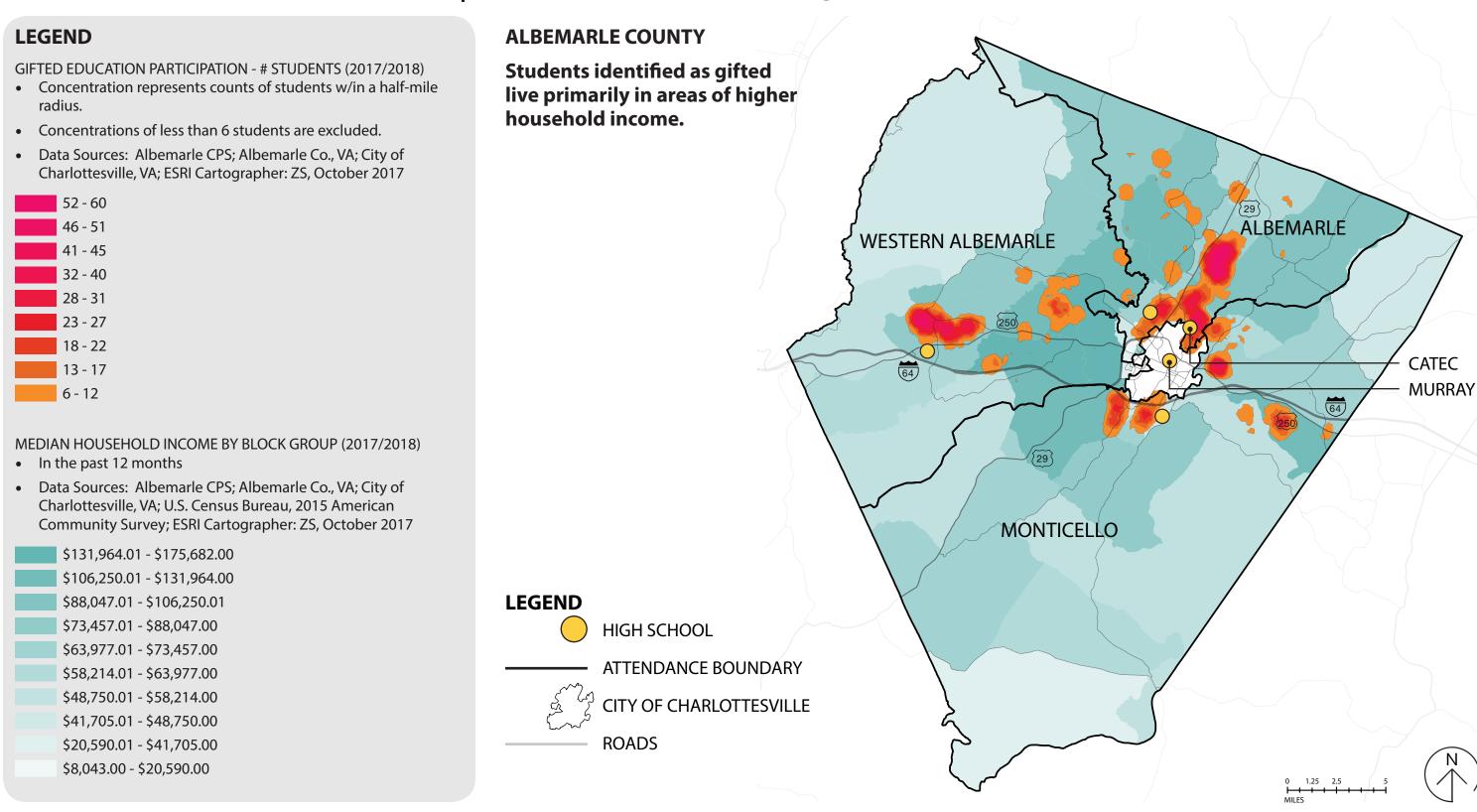
LEGEND ALBEMARLE COUNTY ACADEMY PARTICIPATION - # STUDENTS (2017/2018) **Academy student participation is** • Concentration represents counts of students w/in a half-mile concentrated in areas of higher radius. household income. • Concentrations of less than 6 students are excluded. • Data Sources: Albemarle CPS; Albemarle Co., VA; City of Charlottesville, VA; ESRI Cartographer: ZS, October 2017 31 - 33 ALBEMARLE 28 - 30 WESTERN ALBEMARLE 25 - 27 20 - 24 17 - 19 15 - 16 12 - 14 **CATEC** 10 - 11 **MURRAY** 6 - 26 MEDIAN HOUSEHOLD INCOME BY BLOCK GROUP (2017/2018) • In the past 12 months • Data Sources: Albemarle CPS; Albemarle Co., VA; City of Charlottesville, VA; U.S. Census Bureau, 2015 American Community Survey; ESRI Cartographer: ZS, October 2017 MONTICELLO \$131,964.01 - \$175,682.00 \$106,250.01 - \$131,964.00 **LEGEND** \$88,047.01 - \$106,250.01 \$73,457.01 - \$88,047.00 **HIGH SCHOOL** \$63,977.01 - \$73,457.00 ATTENDANCE BOUNDARY \$58,214.01 - \$63,977.00 \$48,750.01 - \$58,214.00 CITY OF CHARLOTTESVILLE \$41,705.01 - \$48,750.00 **ROADS** \$20,590.01 - \$41,705.00 \$8,043.00 - \$20,590.00







Median Household Income | Gifted Education Program Participation

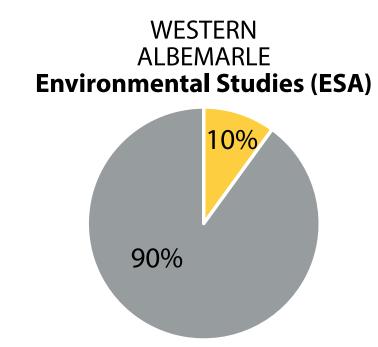








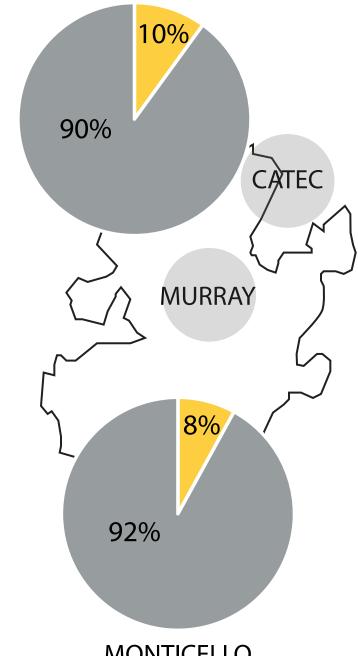
Academy Program Participation Rates*





* Program Participation Rates are calculated from student database information (2017/2018) and enrollment numbers for 2017/2018 School Year based on Albemarle County Public Schools Enrollment Projections FY 2018/2019 to FY 2027/2028.

ALBEMARLE Math, Engineering, Science (MESA)



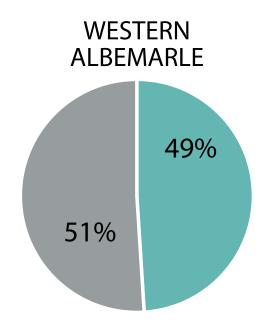
MONTICELLO Health Medical Sciences (HMSA)





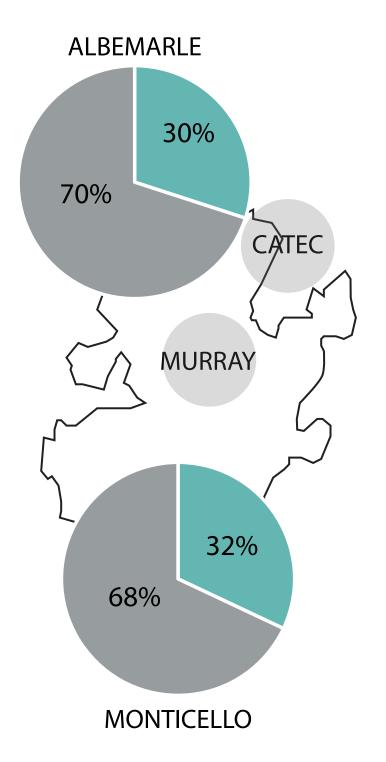


AP Program Participation Rates*





* Program Participation Rates are calculated from student database information (2017/2018) and enrollment numbers for 2017/2018 School Year based on Albemarle County Public Schools Enrollment Projections FY 2018/2019 to FY 2027/2028.









Question 4

How do we use space as a catalyst for High School 2022?







Design Principles | Great Learning Is...

ACCESSIBLE TO ALL (EQUITY)

Systems designed for great learning remove barriers to accessing specialty programs, unique resources, and professionals for every learner, within and beyond the immediate school community, and allow each learner to pursue their evolving passions, projects and personal development.

STUDENT-DESIGNED

Great learning is, as much as possible, designed and led by the learner.

INTERDISCIPLINARY

Great learning occurs when learners are immersed in authentic contexts that allow them to create meaning by making connections across traditional discipline boundaries.

COMMUNITY ORIENTED

We believe learning is a social process enriched and expanded through interactions in our communities. Great learning happens in communities within and outside of schools.

FOSTERING LIFE/CAREER & CITIZEN SUCCESS

We believe that the high school experience must prepare students to be successful in life as learners, in career, and as citizens in their communities. Therefore, programs, curricula, assessments and pedagogy are designed to develop in our students, life-long competencies including the skills to be collaborative, creative, logical, analytical, effectual, and entrepreneurial. Great learning happens when we prepare our students by empowering them to develop the social and emotional strengths necessary to question, inquire, persevere and find success.

MENTORED

Great learning happens when students are connected and supported by adults and peers (teachers, community experts, leaders) who serve as mentors in academic pursuits and character development.

AUTHENTIC

We believe the real world is the most relevant context in which to learn. Great learning happens when learners apply passion, knowledge and skills to challenges that impact their immediate and broader communities. Authentic contexts provide the learner with a greater sense of meaning and purpose to their learning.

TRANSPARENT

We believe great learning happens when learning and work are visible, and serve as an inspiration to others to inquire and join.



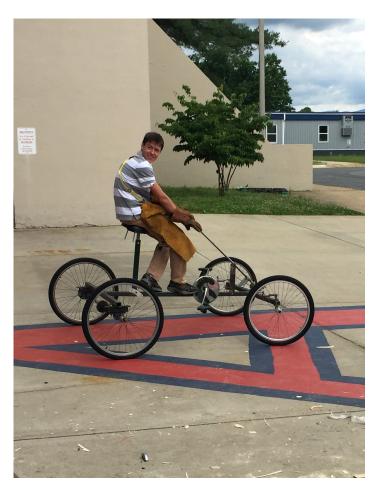




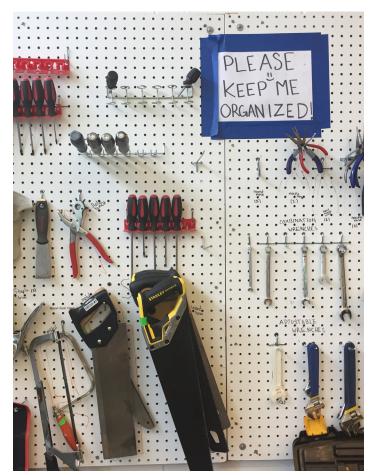
Design Principles | Great Learning Is...







STUDENT-DESIGNED



INTERDISCIPLINARY



COMMUNITY ORIENTED



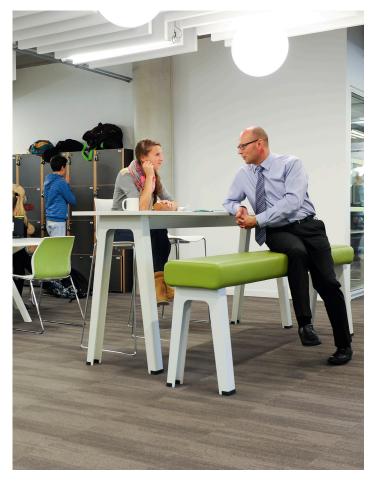




Design Principles | Great Learning Is...







MENTORED



AUTHENTIC



TRANSPARENT







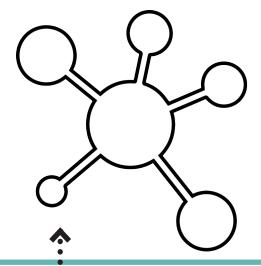
Design Principles

PEDAGOGICAL RESOURCES

- Fusion Courses
- Student Designed Pathways
- Academies
- Theme-Based Curricular Design
- Interdisciplinary Instructional Teams

INTERDISCIPLINARY LEARNING

Great learning occurs when learners are immersed in authentic contexts that allow them to create meaning.



EXPERIENCES/ACTIVITIES

- Themes as lens and organizing principle for learning experiences
- Required and optional interdisciplinary experiences
- Collaborative team projects
- Products, presentations, performance
- Authentic community-based problem solving, place-based learning

INFRASTRUCTURE RESOURCES

- Learning Community with watering hole & disbursed dining
- Transportation for offcampus learning
- On-line learning platform
- Interdisciplinary curriculum mapping
- 24/7 Access to on-line platforms for learning
- Flexible timetable / schedule for extended learning

SENVIRONMENTAL RESOURCES

- Learning Communities
- Learning Suites
- Dispersed Learning Cafes
- Satellite Learning Centers
- Brainstorming Walls
- Teacher Collaboration Rooms
- Innovation Labs and Makerspaces







Resources | Environmental



Fisher STEAM School

Learning Communities

Learning Communities are subdivisions of teachers and students within a larger school. When students operate in groups of 50 to 150 members, they form stronger and more meaningful relationships with their peers and have a greater sense of belonging. Rather than isolated classrooms along a corridor, Learning Communities comprise a variety of spaces such as Teacher Collaboration Rooms, Small Group Rooms, and Learning Studios.

Supporting Design Principles: Interdisciplinary Learning, Community-Oriented

Spatial Qualities

Variety of spaces
Diversity of teaching
Central commons

Typ. size: Varies based on number of students per community



Nova Iskra Design Incubator

Project & Business Incubator

An incubator is a workspace created to offer students access to the resources they need to develop a project or business idea. In addition to the spatial resources, access is provided to expert advisors, mentors, and/or administrative support. The space supports presentations so students can practice or seek critique and feedback during R&D. The incubator is a temporary launching pad for students to explore new ideas.

Supporting Design Principles: Student-Designed, Authentic

Spatial Qualities

Public access Open space Ample storage Project equipment

Typ. size: 500 sf.



P.K. Yonge Development Research

Teacher Collaboration Rooms

Research has found that schools benefit most when teachers regularly meet and collaborate with their peers. A Teacher Collaboration Room offers educators a shared, professional working environment with adequate storage for personal and educational materials. In addition to planning curricula, educators can use these spaces to meet individually with parents or other specialists in order to best provide for their students.

Supporting Design Principles: Interdisciplinary Learning, Mentored Learning

Spatial Qualities

Natural daylight Open workspaces Shared meeting tables

Typ. size: 500-600 sf.







Resources | Pedagogical



Portfolio Platform

Moderation tools and easy access from any device make online portfolios an accessible way for students to publish finished as well as in-progress work. An authentic audience of peers transcends the boundaries of a single classroom, allowing for more productive feedback and focusing on process rather than product.

Resources

Kidblog (pictured)

Edublogs

Weebly

Wordpress

Agile / Flexible Master Schedule

The Flexible Scheduling philosophy recognizes that one size does not fit all when it comes to learning, and different students have varied interests and needs that are not always supported by a typical class block structure. Additionally, it is believed that students should be provided the opportunity to interact with

Resources

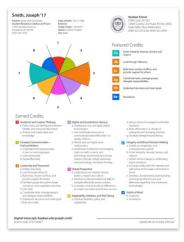
<u>College & Career Academy Support Network: Master</u> Schedule Guide

Interdisciplinary Instructional Teams

A method by which teaching units can become thematic, spanning multiple curricular disciplines. This type of curriculum integration can be supported through the integration of collaborative learning spaces such as Learning Communities, Brainstorming Walls, and Teacher Collaboration Rooms.

Resources

Theory of Multiple Intelligences



Mastery Transcript

The Mastery Transcript Consortium is organized around an alternative model of assessment, crediting, and transcript generation, with the goal of better preparation for college and college admissions. Rather than focusing on letter grades, the transcript seeks to develop a reasonably consistent format that communicates student aptitude without necessitating standardization of curricular content.

Resources

Mastery Transcript Consortium



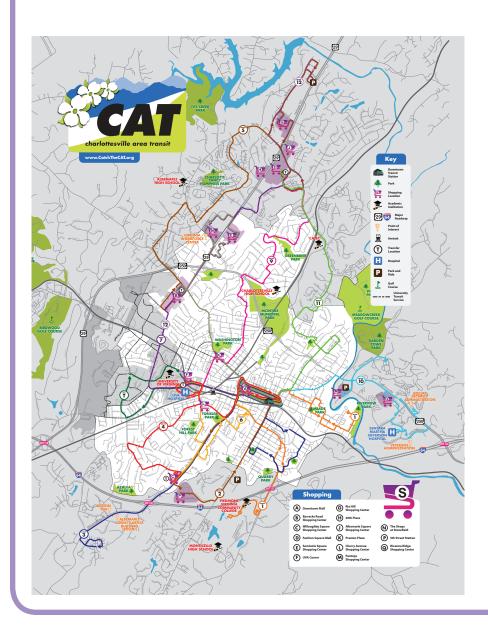




Resources | Infrastructural

Circulator Bus Service

In developing Satellite Learning Hubs and providing opportunities to earn credit through Internships or Job Shadowing, transportation between the school and off-site learning spaces becomes a necessity. By introducing a Circulator Bus Service, reliable scheduled transportation can be provided.



Examples

City of Charlottesville **Transportation Info**

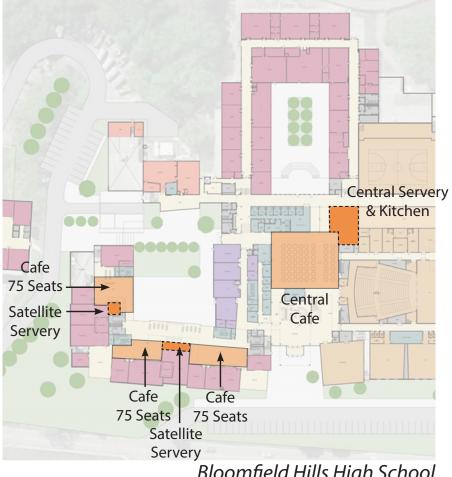
Charlottesville Area Transit (CAT) System Map

Distributed Dining

By dispersing serveries throughout Learning Communities, a working lunch can be enabled while providing an informal cafe learning space that can be utilized throughout the day. Satellite serveries can be established that are open during set hours, and given characteristics to differentiate and add character to the communities in which they are placed.

Examples

Bloomfield Hills High School



Bloomfield Hills High School







Modernization







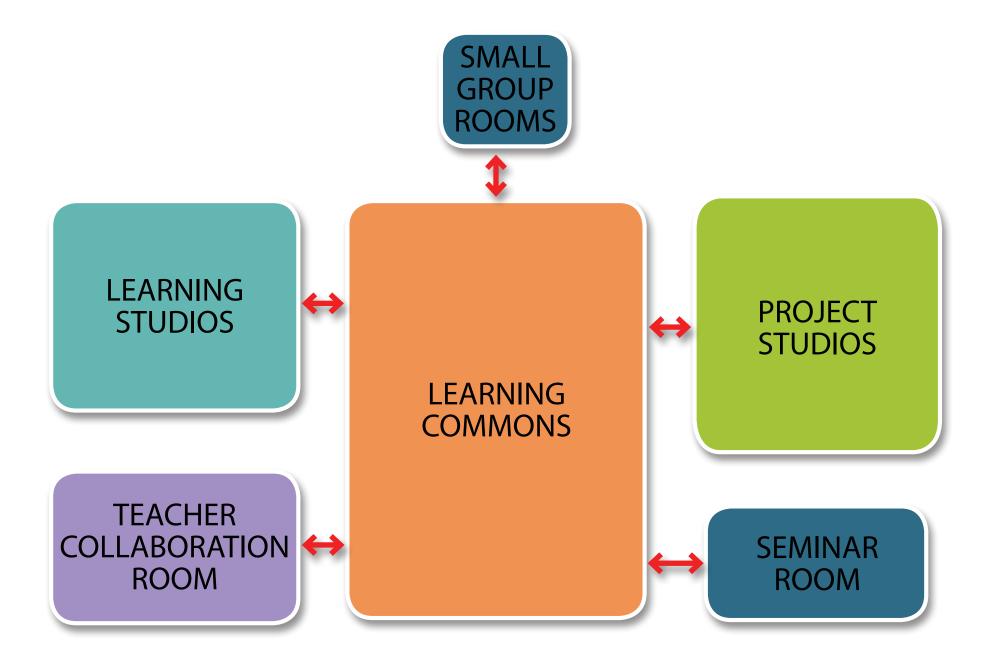
Learning in Community

When students operate in communities of 50 to 150 members, they form stronger and more meaningful relationships with their peers, and have a greater sense of belonging. Learning Communities comprise a variety of spaces such as Teacher Collaboration Rooms, Small Group Rooms, Seminar Rooms, Learning Studios, Project Studios, Makerspaces, and other learning spaces.

These spaces are united by a central Learning Commons, together forming a flexible environment in which teachers can work with students independently, in small groups, or in large classes throughout the day. This Commons provides a space for students to come together both academically and socially as a Community.



Fisher STEAM School









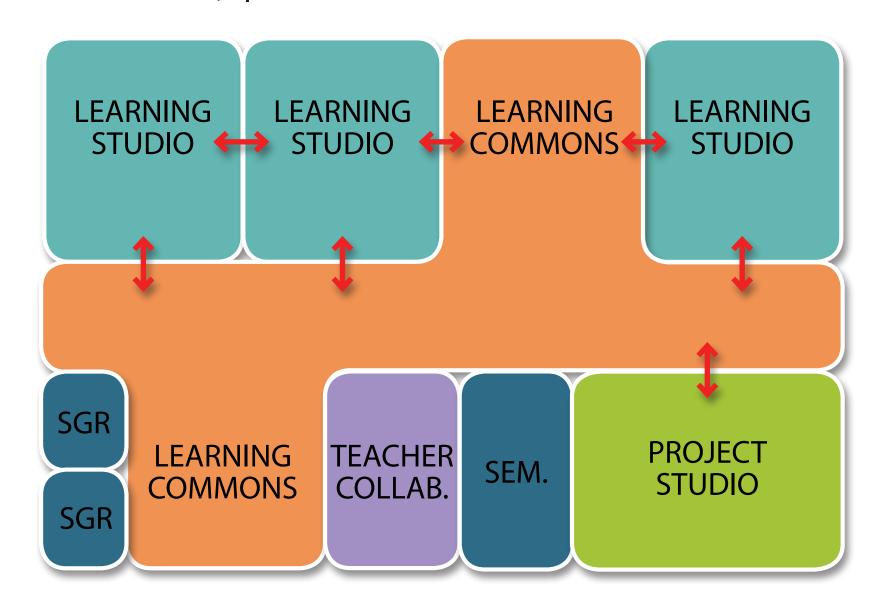
Learning Community Patterns | Interdisciplinary | Grade 9-10

Description

With a greater focus on Interdisciplinary Learning, Communities can be more all-inclusive, with a teaching staff comprised of educators from every department. This model allows for stronger peer and mentor relationships, as the student-teacher groupings interact throughout the day at all levels of learning, rather than through specified course material.

Typical Areas

Learning Commons	750 SF
Learning Commons	750 SF
Learning Studio	750 SF
Learning Studio	750 SF
Learning Studio	750 SF
Project Studio	1000 SF
Seminar Room	225 SF
Small Group Room	100 SF
Small Group Room	100 SF
Teacher Collaboration	450 SF
Total Net Area	5,625 SF
Estimated Gross Area (x1.25)	7,030 SF



Capacity

- Maximum Capacity for model shown = 175 students
- Averaging 85% Utilization, the Optimal Capacity for a Learning Community of this size would be ~150 students.







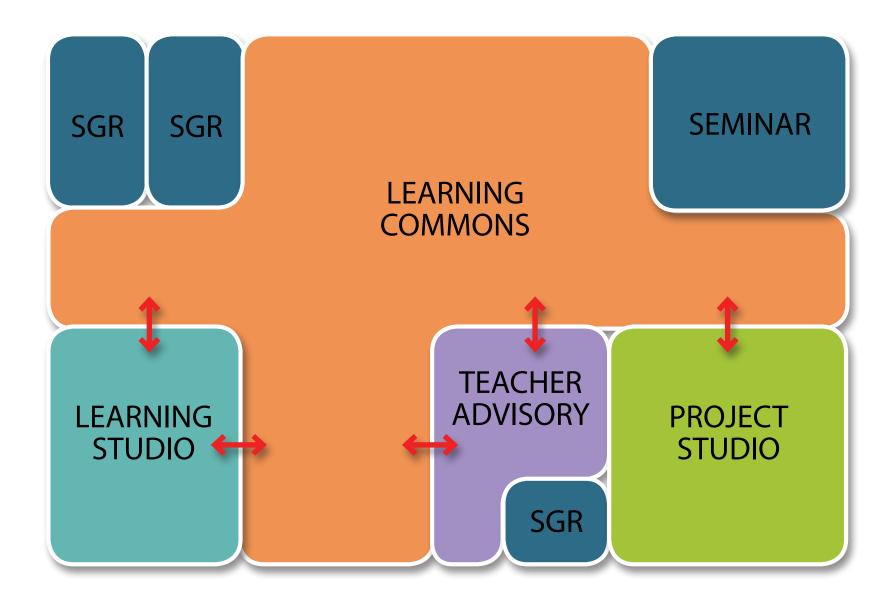
Learning in Community | Advisory Pattern | Grade 11-12

Description

Allowing for greater autonomy, the Advisory pattern allows students to develop their own learning pathways with guidance from a core team of teachers. Due to this, the larger common area becomes more personalized, often housing individual workstations where students can self-direct their own studies.

Typical Areas

Learning Commons	2250 SF
Learning Studio	750 SF
Project Studio	1000 SF
Seminar Room	225 SF
Small Group Room	150 SF
Small Group Room	150 SF
Small Group Room	100 SF
Teacher Advisory Station	500 SF
Total Net Area	5,125 SF
Estimated Gross Area (x1.25)	6,400 SF



Capacity

- Maximum Capacity for model shown = 175 students
- Averaging 85% Utilization, the Optimal Capacity for a Learning Community of this size would be ~150 students.







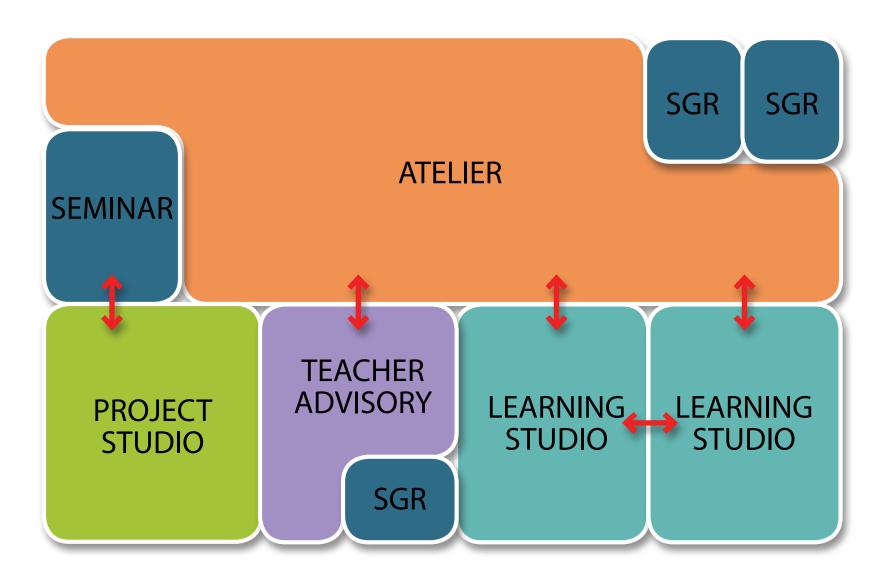
Learning in Community | Atelier Pattern | Grade 11-12

Description

The Atelier model provides the greatest individualization of study material. As such, teachers still play advisory roles and teach core course content, but students have access to an Atelier space with single workstations where they can focus on their own path.

Typical Areas

Atelier Commons	1300 SF
Learning Studio	750 SF
Learning Studio	750 SF
Project Studio	1000 SF
Seminar Room	225 SF
Small Group Room	100 SF
Small Group Room	100 SF
Small Group Room	100 SF
Teacher Advisory Station	500 SF
Total Net Area	4,825 SF
Estimated Gross Area (x1.25)	6,030 SF



Capacity

- Maximum Capacity for model shown = 175 students
- Averaging 85% Utilization, the Optimal Capacity for a Learning Community of this size would be ~150 students.

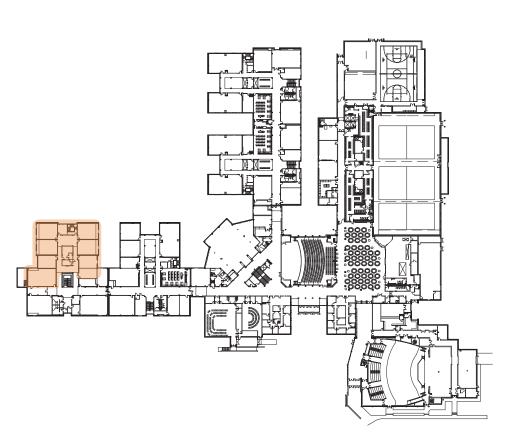




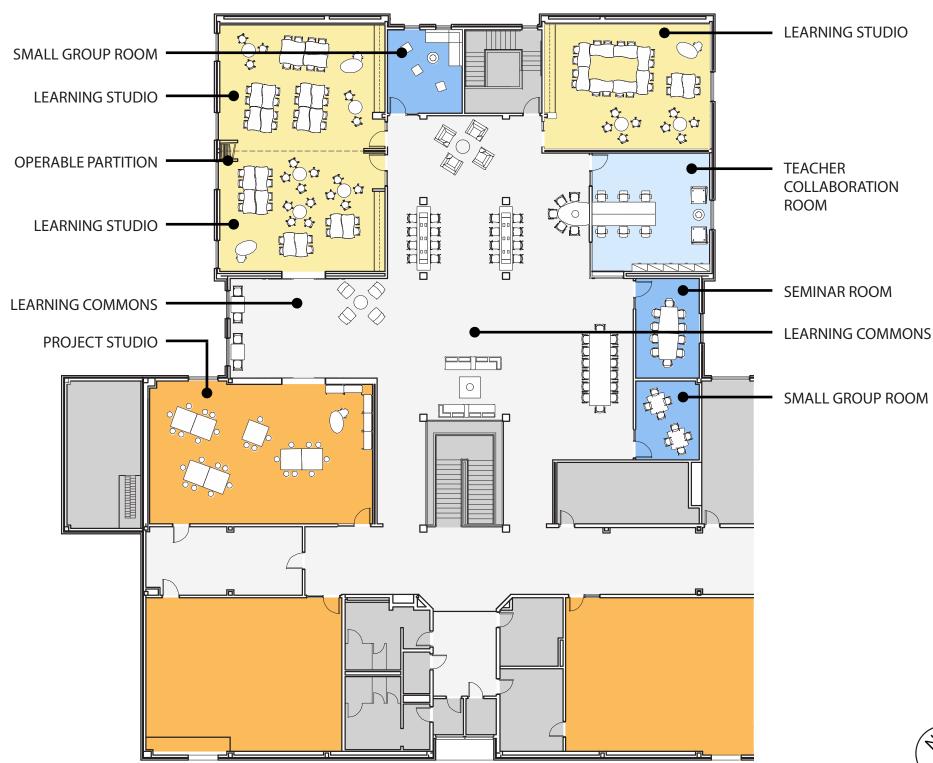


Learning Community Modernization | Monticello High School | Interdisciplinary Pattern

- 8,500 SF of Renovation (Gross)
- 150 Students Supported (9th & 10th)
- Best supports an interdisciplinary teaching team collaborating on course content for the entire Learning Community
- Teachers share all available spaces while teaching in teams, meeting with small groups of students, or advising individuals



Existing 2nd Floorplan and Area of Transformation



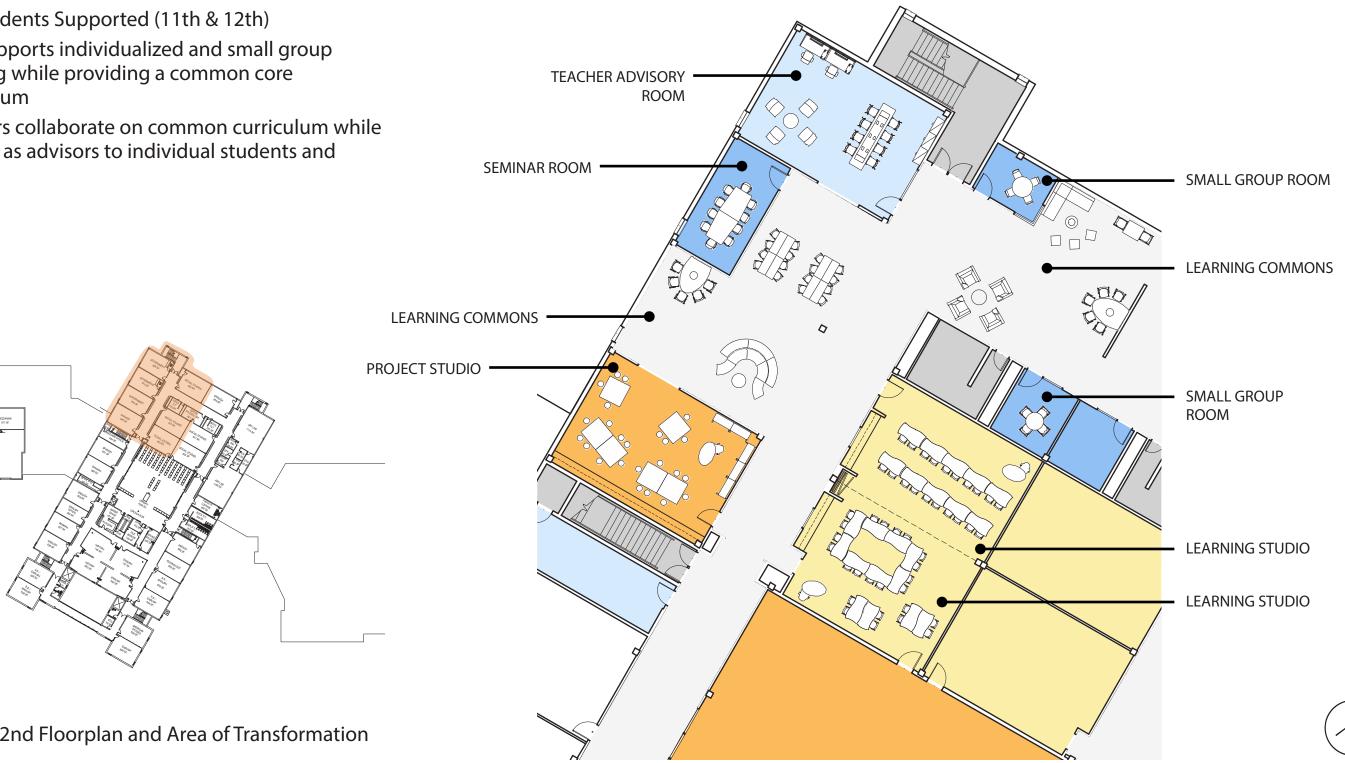






Learning Community Modernization | Western Albemarle High School | Advisory Pattern

- 6,500 SF of Renovation (Gross)
- 150 Students Supported (11th & 12th)
- Best supports individualized and small group learning while providing a common core curriculum
- Teachers collaborate on common curriculum while serving as advisors to individual students and groups





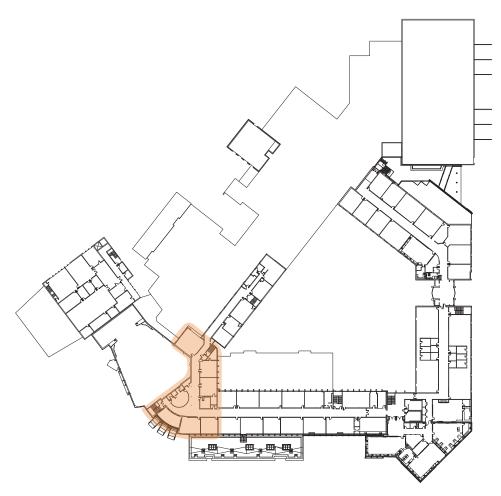




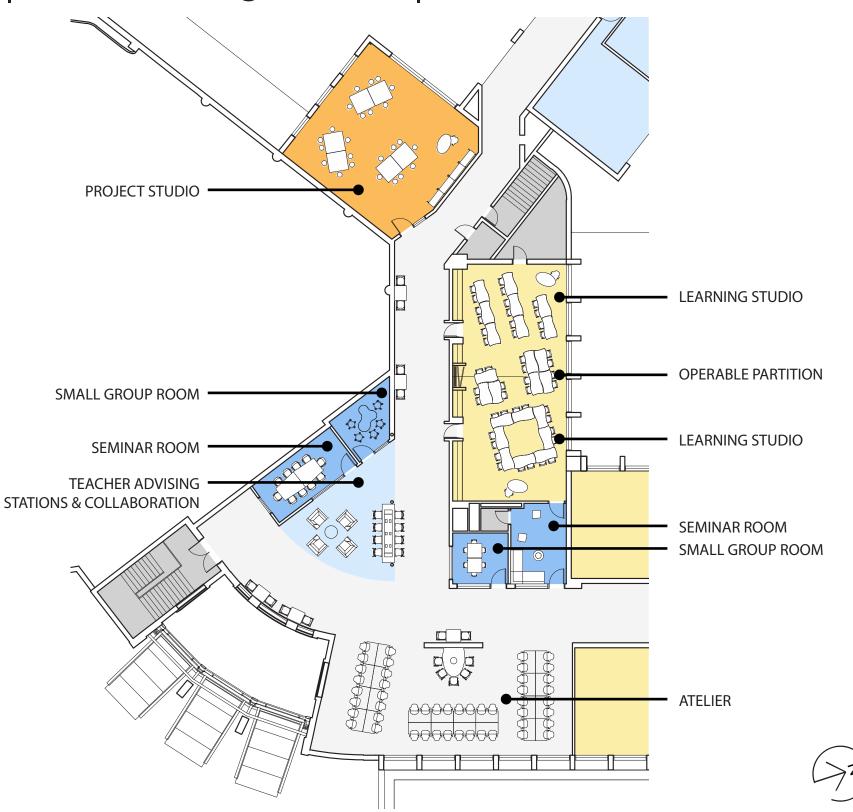


Learning Community Modernization | Albemarle High School | Atelier Pattern

- 6,000 SF of Renovation (Gross)
- 150 Students Supported (11th & 12th)
- Best supports individualized learning such as Pathways where each student is largely responsible for designing their own education
- Teachers serve primarily as individual and group advisors, but do still share some studio teaching spaces



Existing 2nd Floorplan and Area of Transformation







Learning Community Modernization | Monticello High School

Gross Square Footage by Learning Community

1 – 10,824 SF **2** – 9,629 SF

3 – 8,898 SF

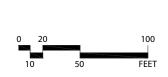
4 – 9,016 SF

TOTAL LEVEL 1 38,367 SF

TOTAL LEVEL 1 38,367 SF TOTAL LEVEL 2 38,676 SF **TOTAL COMBINED 77,043 SF**













Albemarle County High School Facilities Planning Study

Learning Community Modernization | Monticello High School

Gross Square Footage by Learning Community

11,442 SF 9,109 SF

9,132 SF

8,993 SF

TOTAL LEVEL 2 38,676 SF

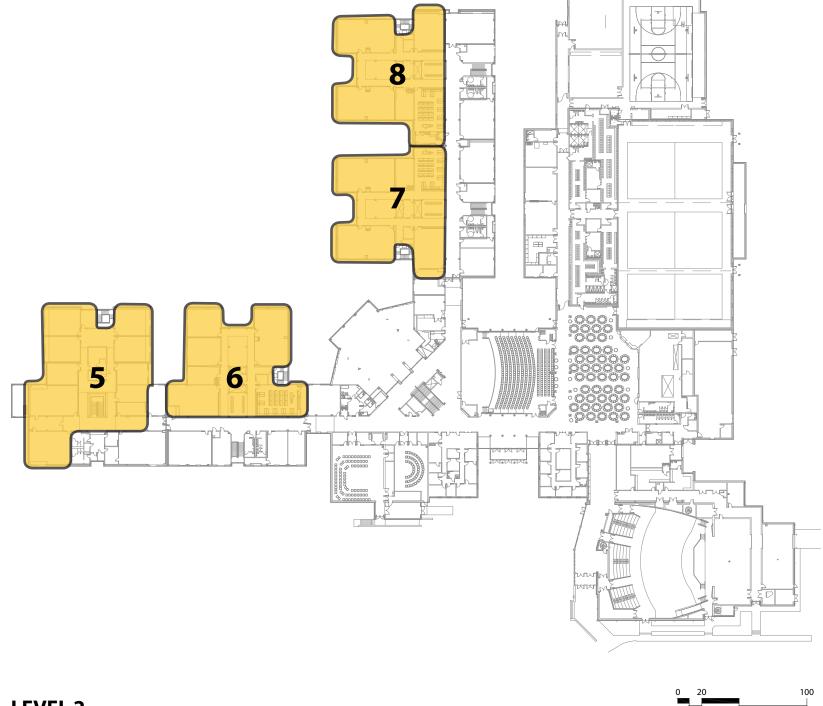
TOTAL LEVEL 1 38,367 SF TOTAL LEVEL 2 38,676 SF **TOTAL COMBINED** 77,043 SF

Gross Square Footage by Community

11,442 SF 9,109 SF

9,132 SF

8,993 SF









Learning Community Modernization | Western Albemarle High School

Gross Square Footage by Learning Community

1 – 6,762 SF **2** – 7,384 SF

3 – 7,513 SF

TOTAL LEVEL 1 21,659 SF

4 – 6,091 SF **5** – 6,696 SF **6** – 6,971 SF **7** – 7,269 SF

TOTAL LEVEL 2 27,027 SF

TOTAL LEVEL 1 21,659 SF TOTAL LEVEL 2 27,027 SF TOTAL COMBINED 48,686 SF





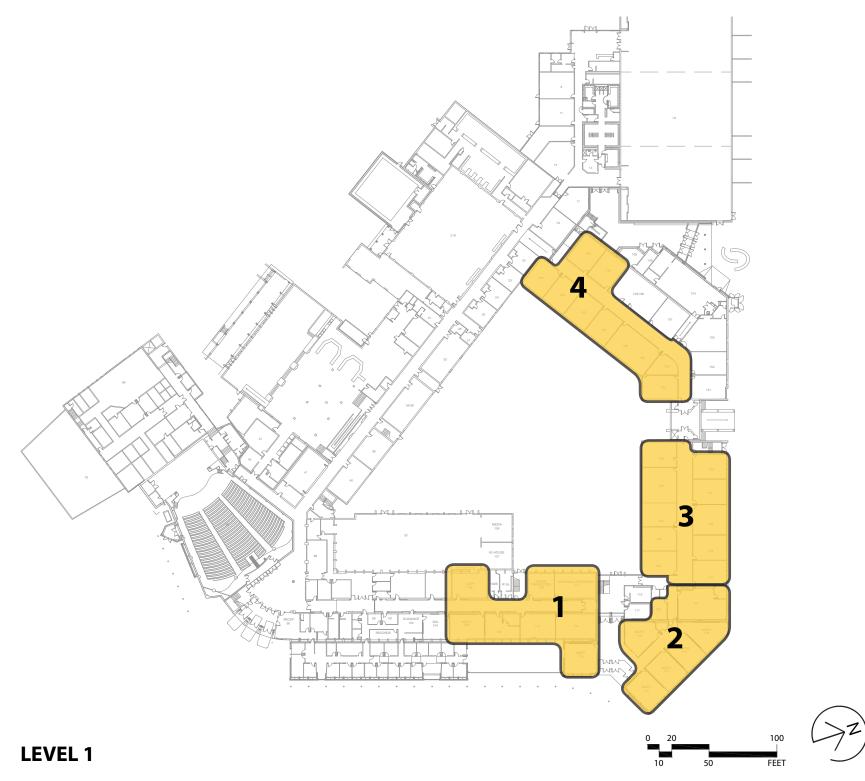




Learning Community Modernization | Albemarle High School

Gross Square Footage by Learning Community 1 7,912 SF 2 6,639 SF 3 9,267 SF 4 8,846 SF TOTAL LEVEL 1 32,664 SF

TOTAL COMBINED	84,691 SF
TOTAL LEVEL 2	52,027 SF
TOTAL LEVEL 1	32,664 SF



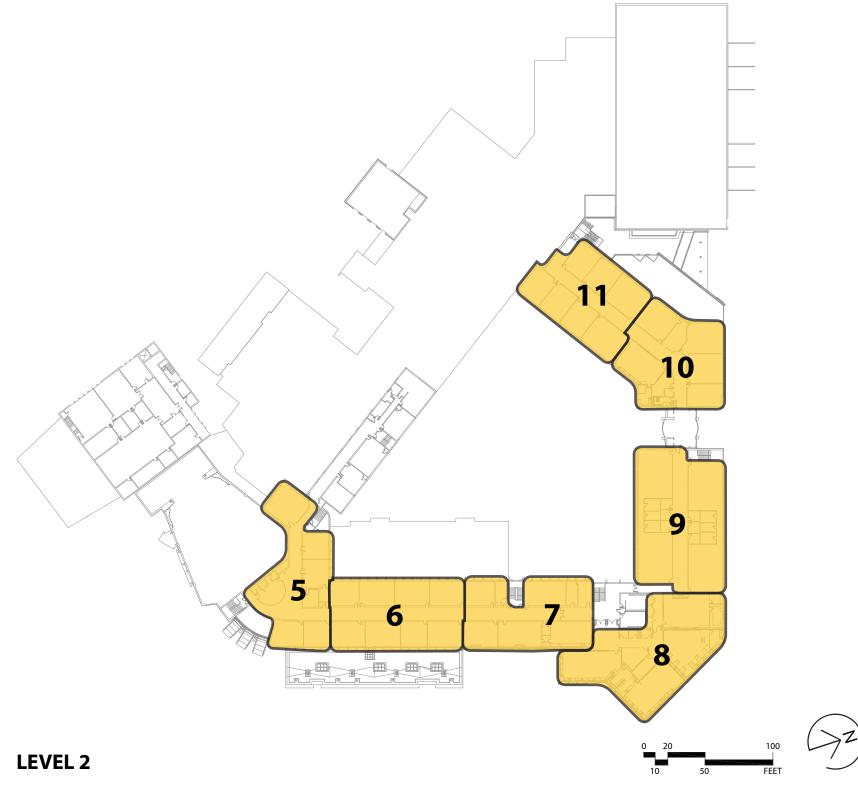






Learning Community Modernization | Albemarle High School

Gross Square Footage by Learning Community 6,356 SF 7,059 SF 6,446 SF 8,987 SF 9,269 SF 7,122 SF 6,788 SF **TOTAL LEVEL 2** 52,027 SF **TOTAL LEVEL 1** 32,664 SF TOTAL LEVEL 2 52,027 SF **TOTAL COMBINED** 84,691 SF









Scenarios







"Great innovations should not be forced on slender majorities."

- Thomas Jefferson





Scenarios

All scenarios propose the renovation of all 3 existing comprehensive schools and Murray to support interdisciplinary learning communities. The difference between them lies in the way they expand capacity to manage enrollment demand, distribute resources, and transform the student experience.

1 School-Based



2 Center-Based



3 Village-Based







Scenarios

Scope | Assessment

To better understand the opportunities and challenges of the scenarios, each scenario can be assessed against the Design Principles for learning.

1 School-Based



The School-based scenario adds a fourth comprehensive high school to the Division and balances enrollment to be roughly equal at each school. It imagines all four schools as individual and self sustaining; each housing multiple focus areas. Each school will support student pathways and interests within the school and its surrounding community. This approach will allow for students to stay close to their home school reducing the need for a drastic change in the transportation system.

DESIGN PRINCIPLES

ACCESSIBLE TO ALL (EQUITY)
STUDENT-DESIGNED
INTERDISCIPLINARY
COMMUNITY ORIENTED
FOSTERING LIFE/CAREER & CITIZEN SUCCESS
MENTORED
AUTHENTIC
TRANSPARENT

2 Center-Based



The Center-based scenario adds a new multi-discipline High School Center into the Division to address issues of capacity and access to specialized programming. The High School Center would be open enrollment and available to all students but located to reduce enrollment pressure at Albemarle and Western Albemarle. The High School Center would focus on specialized programming similar to the academies, and replace athletics with fitness facilities. The existing high school facilities would continue operating as they do today. Athletic team opportunities would continue at the three comprehensive high schools and those students who choose to participate in the High School Center would be able to pursue sports at the school within their attendance boundary. Additional High School Centers could be added in the future.

DESIGN PRINCIPLES

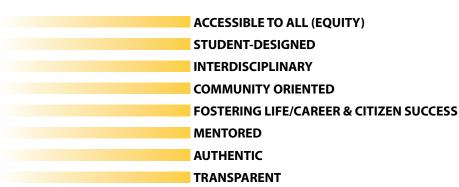
ACCESSIBLE TO ALL (EQUITY)
STUDENT-DESIGNED
INTERDISCIPLINARY
COMMUNITY ORIENTED
FOSTERING LIFE/CAREER & CITIZEN SUCCESS
MENTORED
AUTHENTIC
TRANSPARENT

3 Village-Based



The Village-based scenario adds two new multi-discipline High School Centers into the Division to address issues of capacity and access to specialized programming; one in the Northwest and one in the South. The existing high school facilities become home bases for students and are enhanced by new resources strategically placed to act as an interface between the school and community. Students would travel from home high schools to High School Centers of their choice. The Centers connect to various professional organizations that provide out-of-building learning experiences for students.

DESIGN PRINCIPLES









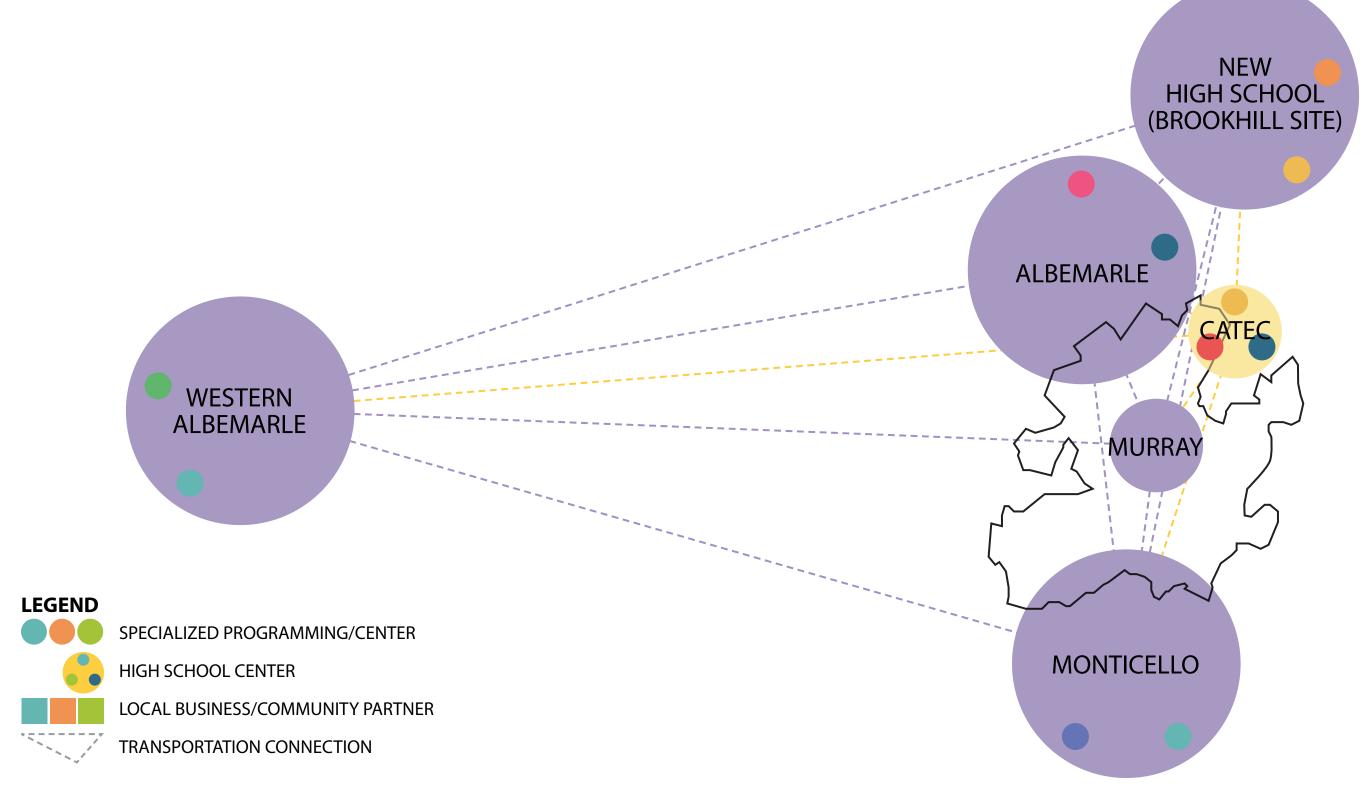








Scope





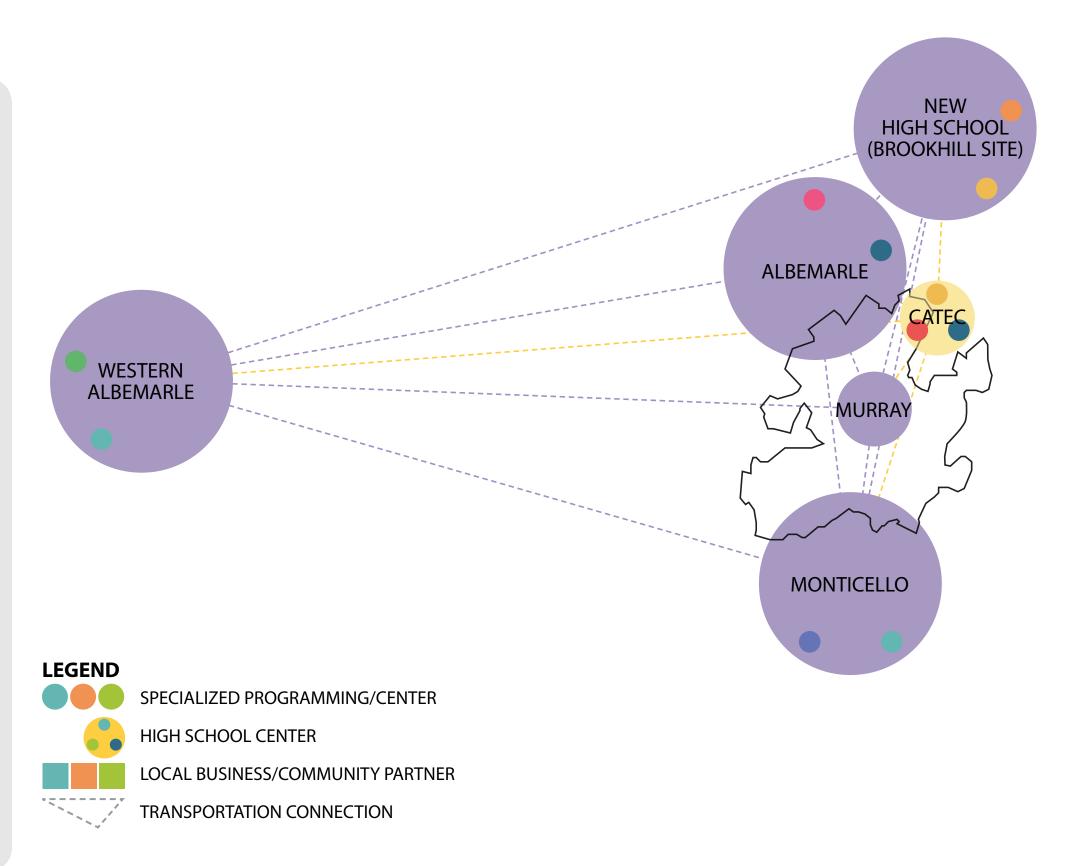




Program

ASSUMPTIONS

- Redistricting addresses Albemarle High School overcrowding and projected student population increase in Western Albemarle
- Pathways will become the organizing construct for the student experience.
- Renovations and new construction to create physical grade-level and Pathway learning communities at each high school.
- New school serves as model high school for 21st Century learning and learning environments.
- Expansion and replication of successful Pathways programs (Academies, TEAMs, student-designed etc.)









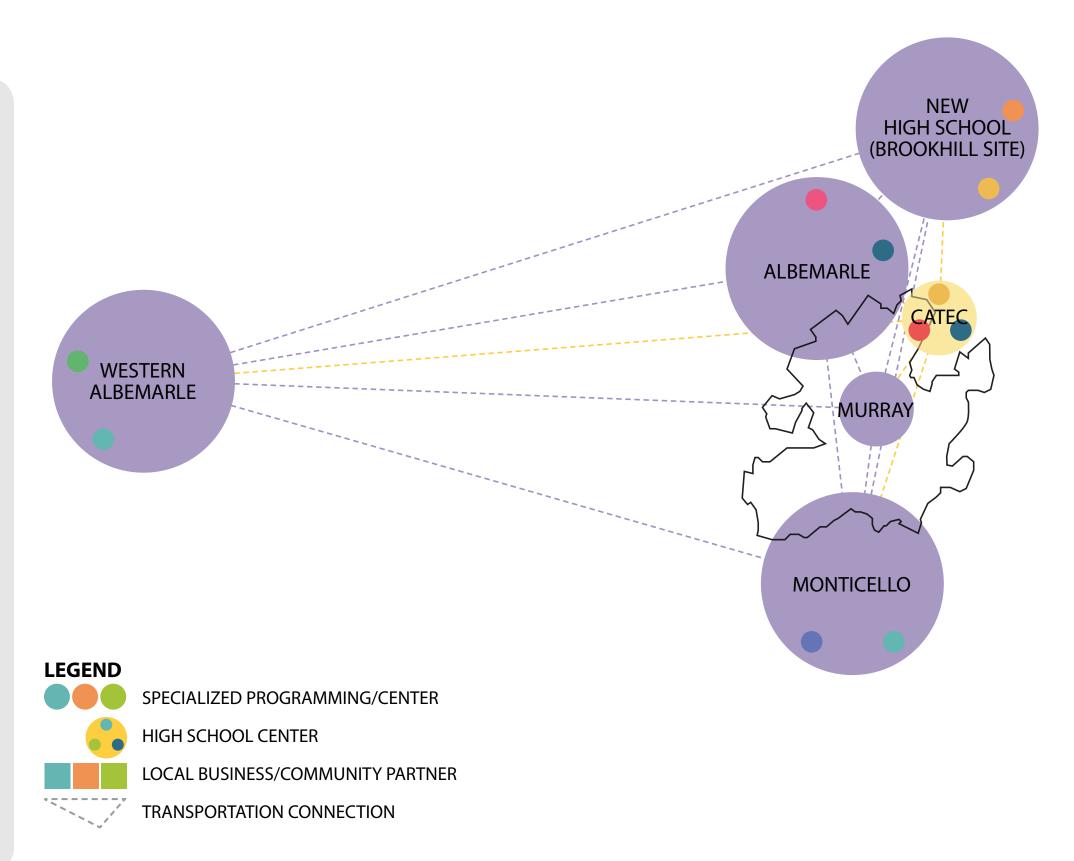
Scenarios | 1 School-Based Opportunities & Challenges

OPPORTUNITIES

- Learning Communities provide opportunities for personalized learning, P-based exploration, and interdisciplinary authentic learning.
- Greater equity in programming and opportunities across the school division with more equal sized high schools

CHALLENGES

- Access to business and community mentors and experiences could be limited by school location
- Redistricting is necessary
- Developing new specialty programs and Pathways to add breadth and equitable access
- Transportation of students to community-based learning experiences and/or experiences at other high schools.





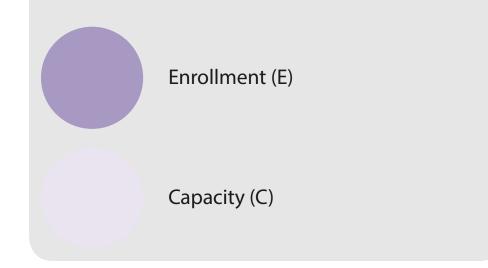


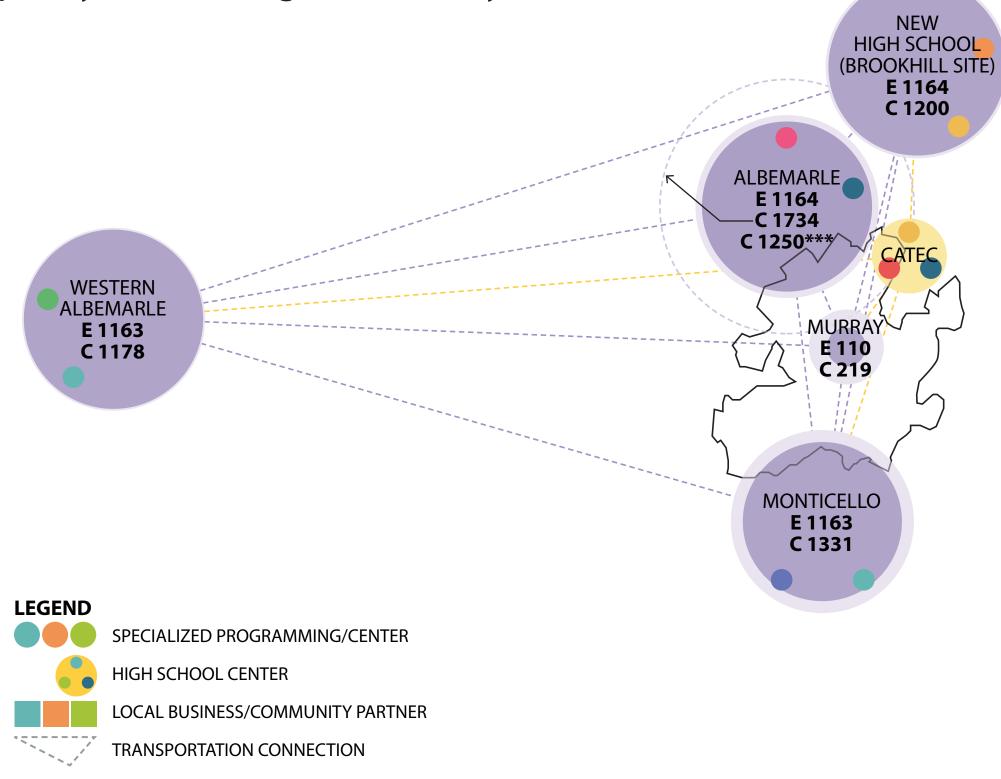


Enrollment* (8-Year Peak) | Capacity** (Learning Community Modernization)

NOTES

- Redistricting Required
- * Enrollment numbers for 2024/2025 School Year (peak enrollment) based on Albemarle County Public Schools Enrollment Projections FY 2018/2019 to FY 2027/2028.
- ** Learning Community Modernization Capacity as calculated for renovations to academic areas to support High School 2022. See diagrams in "Modernization" section.
- *** 23,179 SF (partial Level 2) at Albemarle repurposed to serve alternate Division needs.







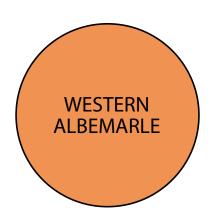


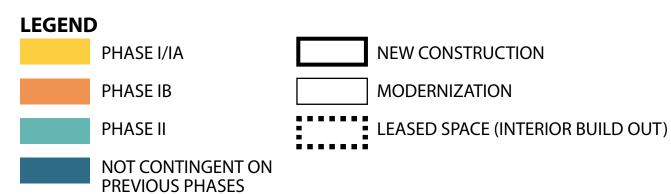


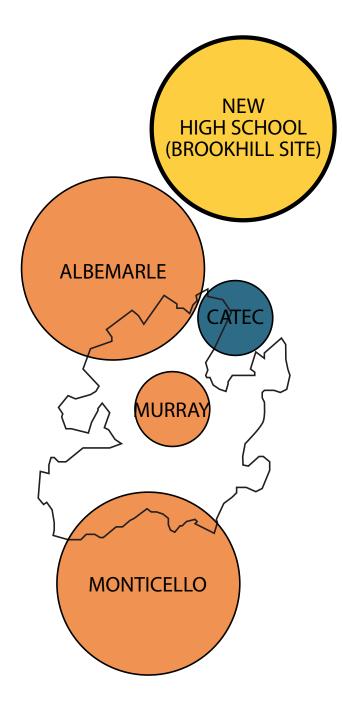
Phasing | Construction

NOTES

• Building the new comprehensive high school frees space at the three existing schools to allow for modernization.











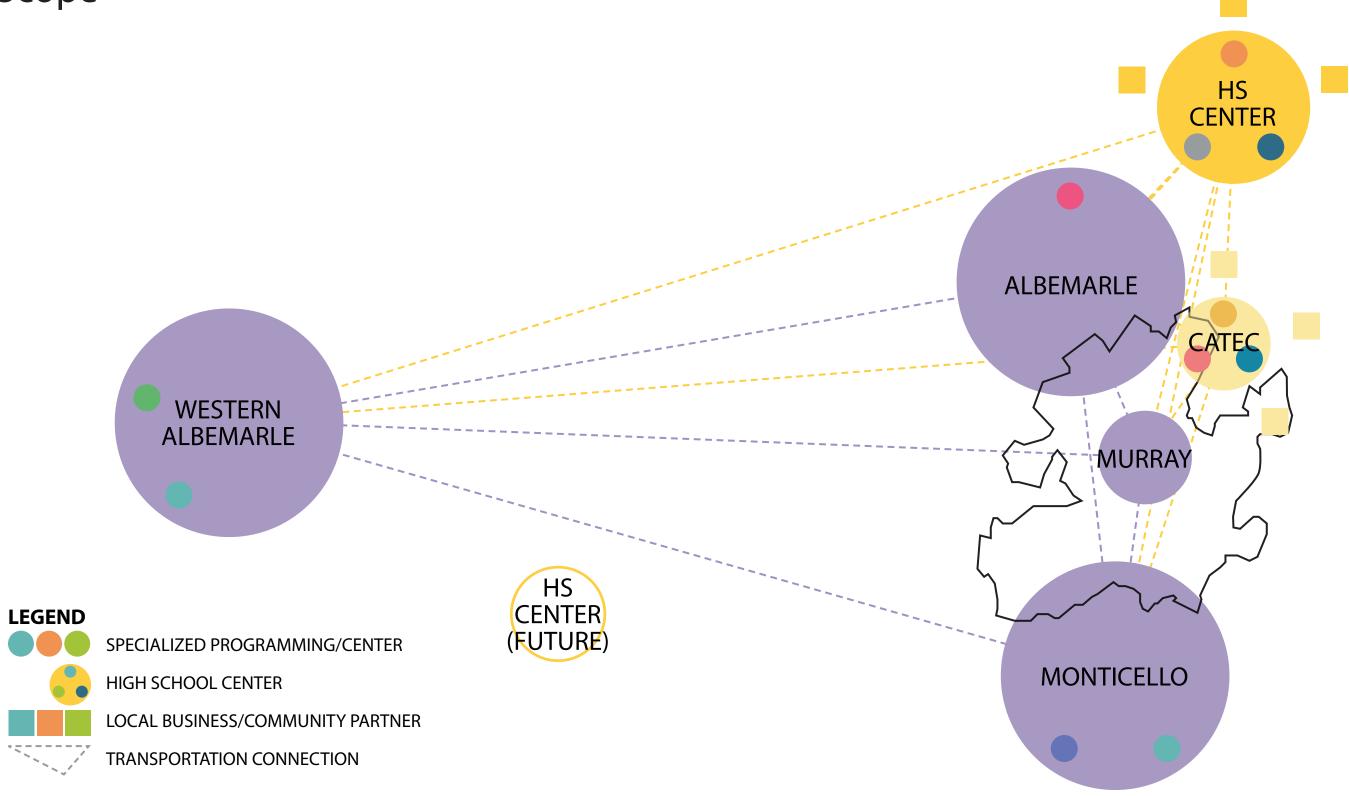








Scope



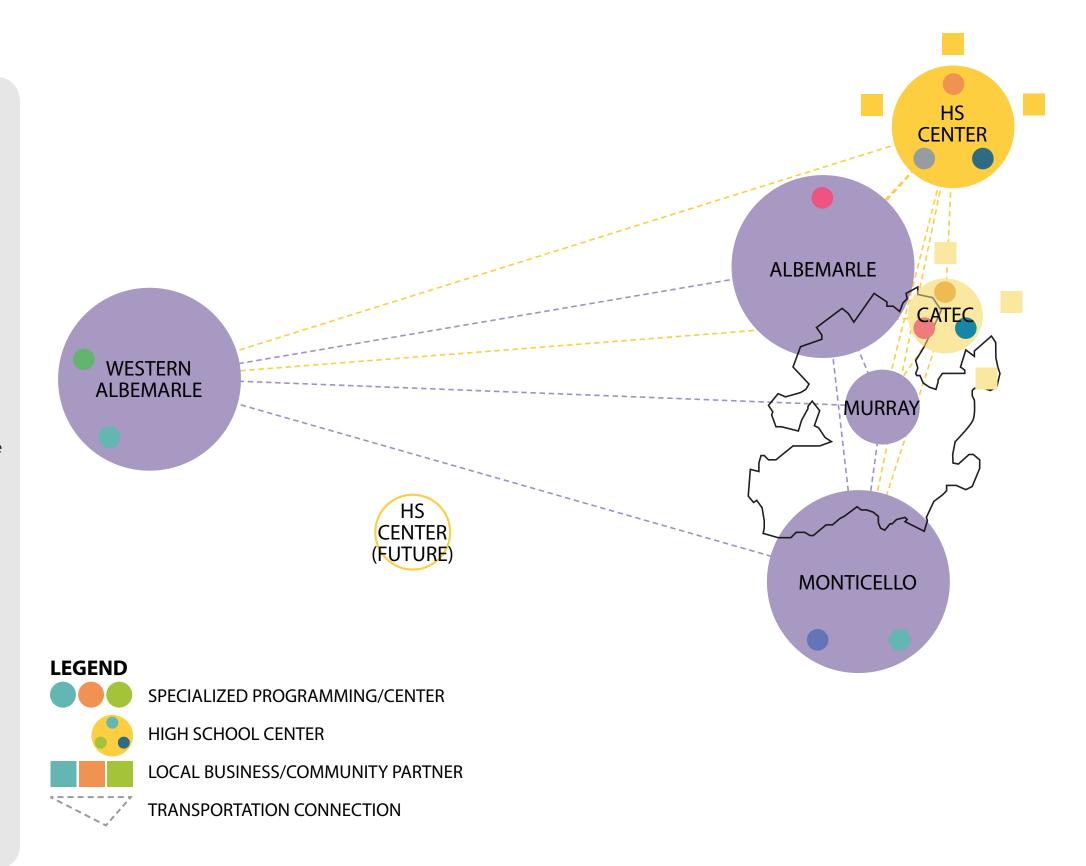




Program

ASSUMPTIONS

- Division-wide coherence and continuity in policy, practice, and programs
- The new High School Center will attract enough students from Albemarle and Western Albemarle to reduce overcrowding and enrollment pressure
- Some teachers for the existing high schools would move to the new High School Center in a thematic interdisciplinary learning program design.
- The new High School Center will provide opportunity to connect all students to professional and community-based learning either in the Center, or through internships, apprenticeships, and other opportunities.
- Renovations to Western Albemarle, Albemarle, and Monticello will create opportunity for more specialized programming, expanding opportunity to all students.
- Division-designed and student-designed Pathways will become the organizing construct for the student experience. Pathways may include postsecondary dual enrollment or other options available in the community.









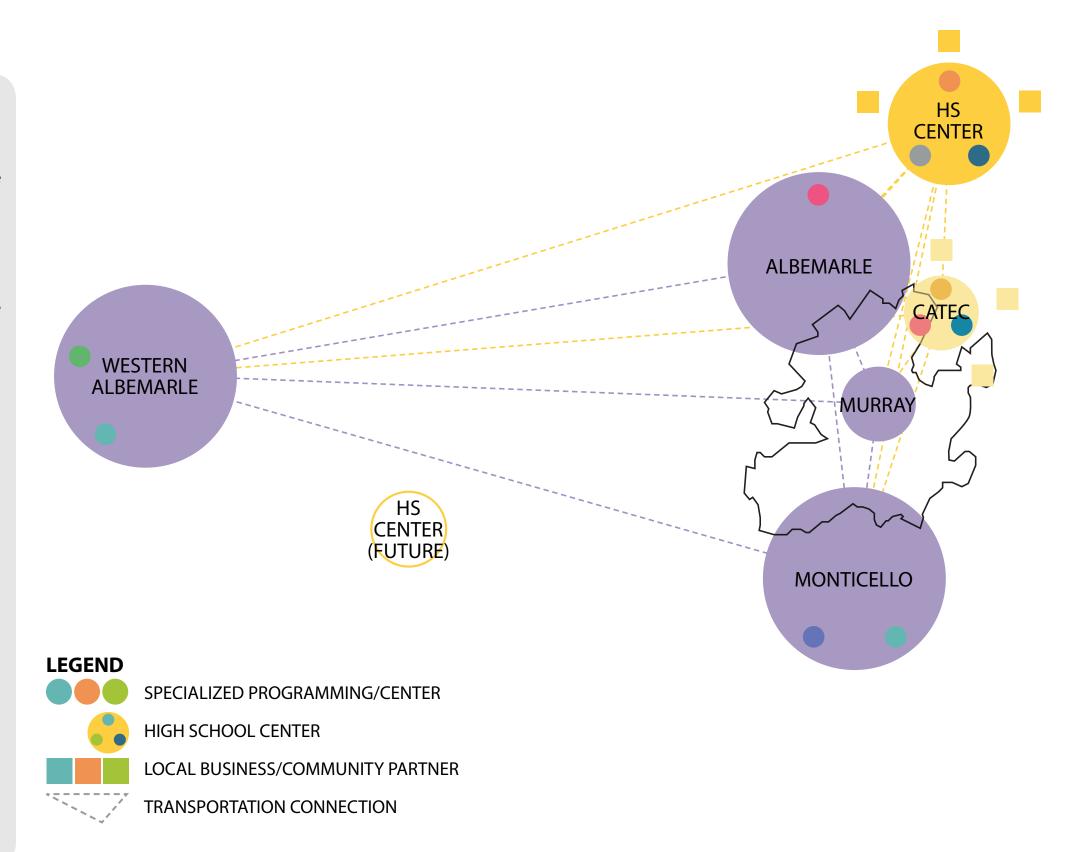
Scenarios | 2 Center-Based Opportunities & Challenges

OPPORTUNITIES

- Integration of community experts and advisors to students and teachers at the High School Center
- Reduce overcrowding at Albemarle HS, and enrollment pressure at Western Albemarle
- Stronger connection to leading-edge business practices, technologies
- Strong programmatic linkages to UVA, Piedmont Valley Community College, and other institutions of higher education.
- Students are exposed to and can cross collaborate with multiple Pathway programs in one High School Center

CHALLENGES

- Ensure equity of access to specialized programming for all students.
- Supporting teachers transitioning from isolated practitioners to members of multidisciplinary teams at High School Centers and home base high school learning communities.
- Revising graduation requirements and transcript to fully account for Pathways, community-based learning experiences, and Life-long skills development
- Transportation systems to move students to and from home to High School Center, and potentially to home base high school for extracurricular activities.
- Preparing teachers to support High School Center model and maintaining culture and practices across home base high schools, and high school centers.





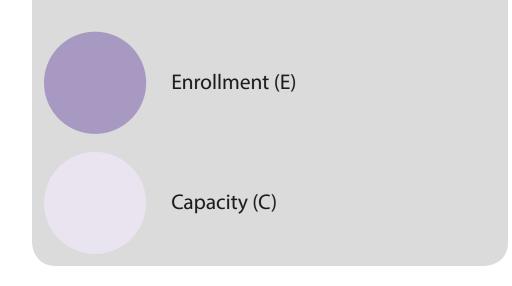


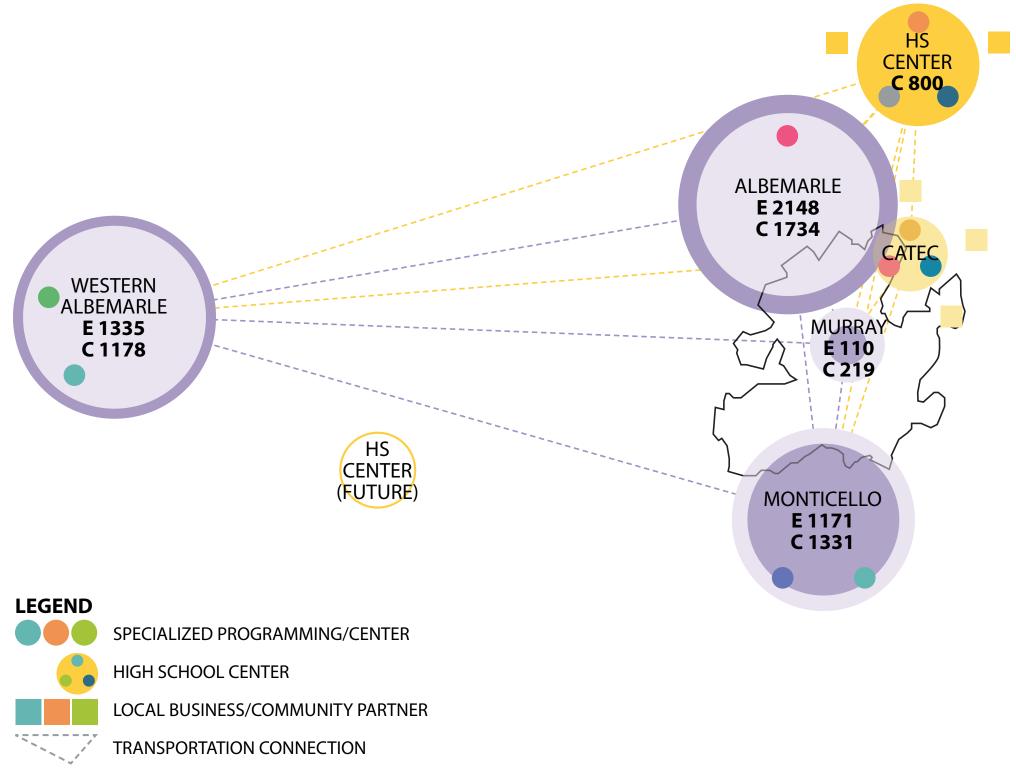


Enrollment* (8-Year Peak) | Capacity** (Learning Community Modernization)

NOTES

- No Redistricting Required
- * Enrollment numbers for 2024/2025 School Year (peak enrollment) based on Albemarle County Public Schools Enrollment Projections FY 2018/2019 to FY 2027/2028.
- ** Learning Community Modernization Capacity as calculated for renovations to academic areas to support High School 2022. See diagrams in "Modernization" section.







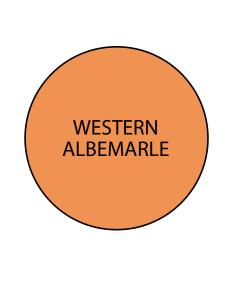




Scenarios | 2 Center-BasedPhasing | Construction

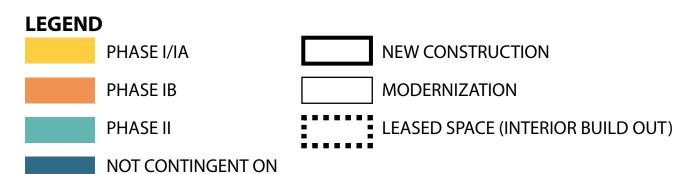
NOTES

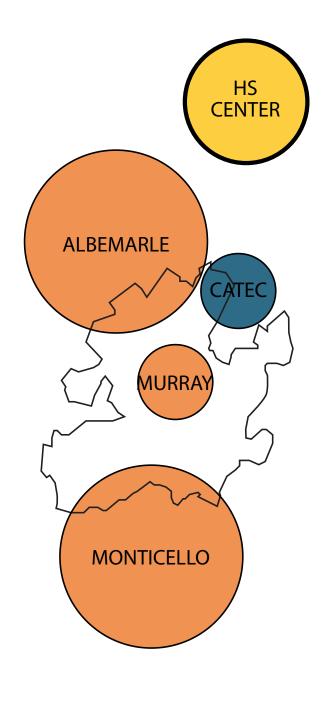
- Building and occupying the first High School Center frees space at the three comprehensive high schools to allow for modernization.
- Phase II is intended to absorb increased enrollment in later years. Size and capacity to be determined as needed.
- A smaller High School Center could be leased space and put into practice in advance of PHASE I.



PREVIOUS PHASES



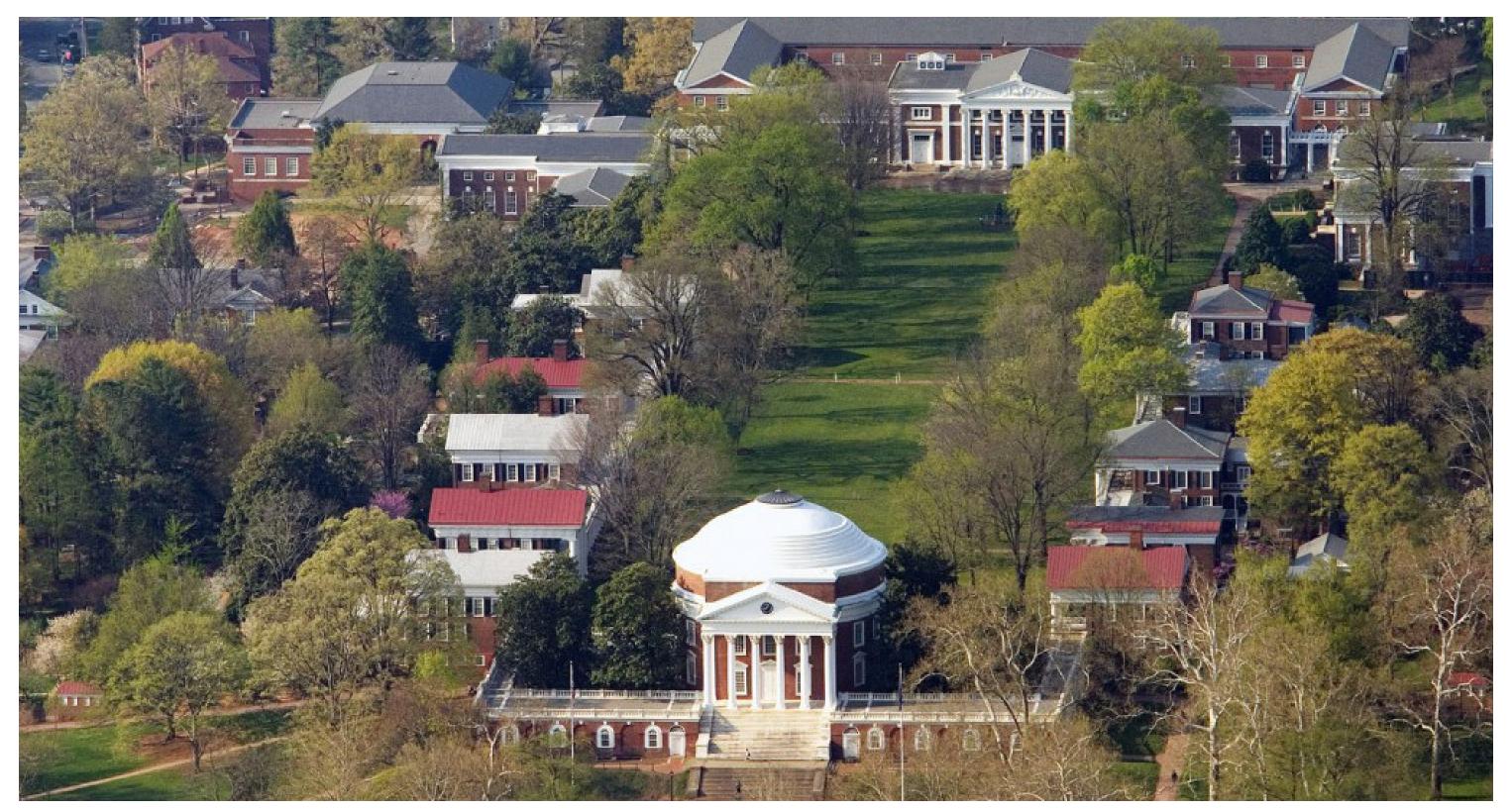








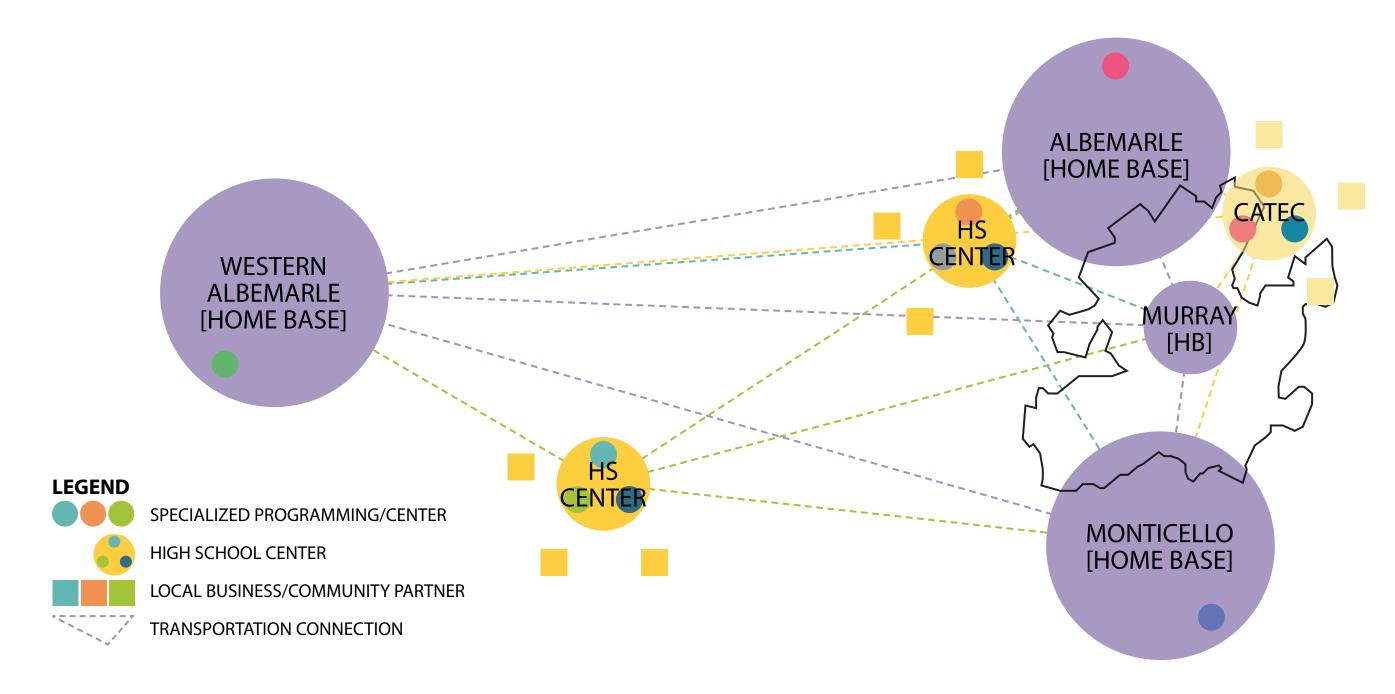








Scope



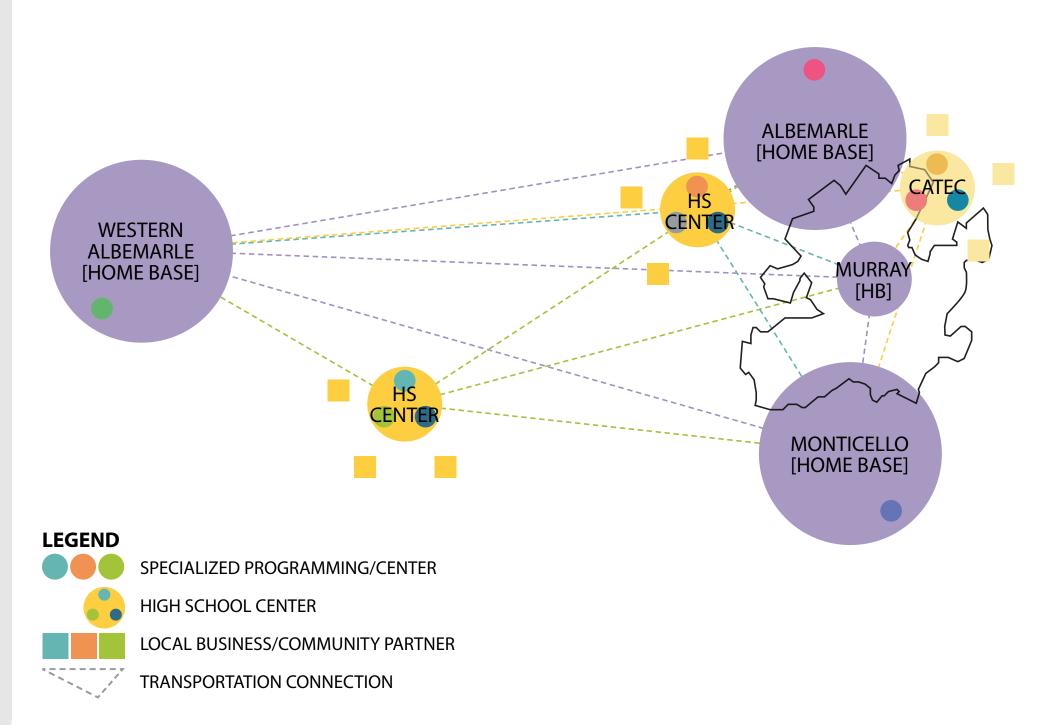




Program

ASSUMPTIONS

- Division-wide coherence and continuity in policy, practice, and programs
- Students earn elective or Core credits through High School Center or out-of-building immersive experiences
- The High School Centers provide opportunity to connect all students to professional and community-based learning either in the Center, or through internships, apprenticeships, and other opportunities.
- Division-designed and student-designed Pathways will become the organizing construct for the student experience. Pathways may include postsecondary dual enrollment or other options available in the community.
- Pathways program will include out of building learning experiences at the High School Centers, internships, apprenticeships, work-release, or service projects for at least half of the school day for all 11th and 12th graders. Participation could be phased.
- At High School Centers, Teacher/Advisors help students design Pathways, set goals, organize learning plans, help connect students to internships, service projects, and other out-ofbuilding learning. Most teacher/Advisors are members of a multi-disciplinary teams.
- 9th and 10th grade experiences will take place in a Learning Community at one of 3 existing "home base" high schools with occasional explorations at High School Centers.
- Division adjusts graduation requirements and transcripts to require and accredit community-based and learning in authentic professional settings.
- High School Learning Centers are located to optimize access to local businesses, agencies, and service learning opportunities and offer extended operational hours
- Some teachers from existing departments would shift to teach at High School Centers in a thematic interdisciplinary learning program design.
- Efficient transportation of students to and from High School Centers to home high school and to internships, field studies, and other off-campus learning activities.









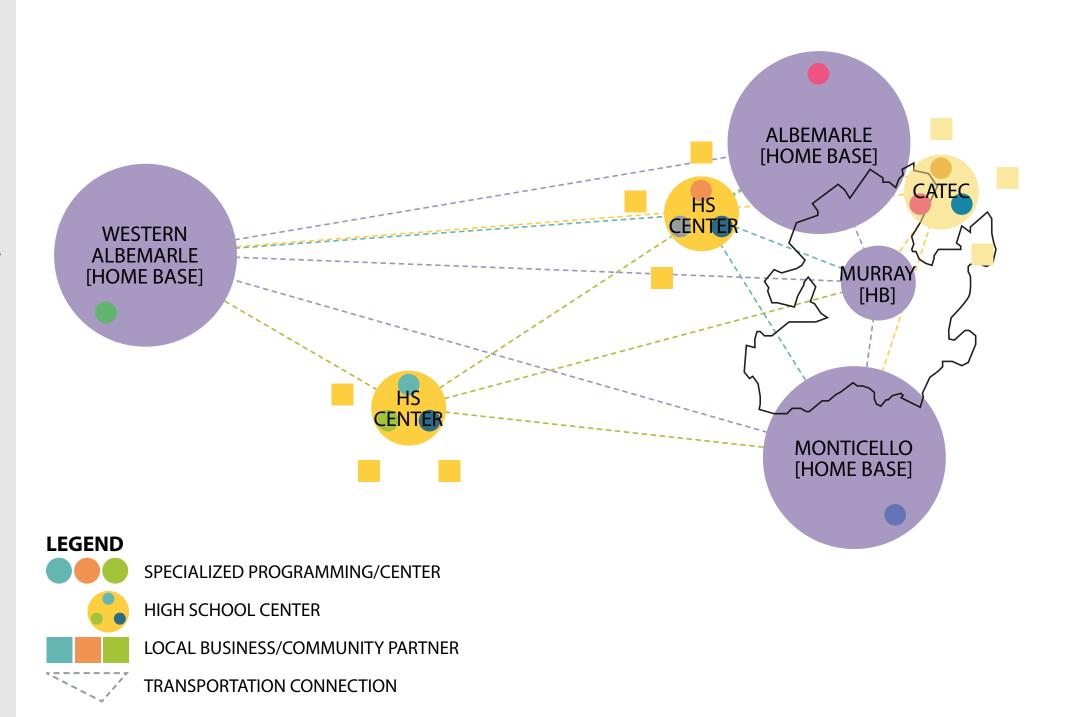
Scenarios | 3 Village-Based Opportunities & Challenges

OPPORTUNITIES

- Guaranteed authentic P-based learning in a community setting for all students
- High percentage of teachers engaged in innovative program and learning design, leading practices, leadership and community building
- Integration of community experts and advisors to students and teachers
- Stronger connection to leading-edge business practices, technologies
- Strong programmatic linkages to UVA, Piedmont Valley Community College, and other institutions of higher education.
- Students are exposed to and can cross collaborate with multiple Pathway programs in one High School Center

CHALLENGES

- Creating a new Division-wide ecosystem to support Pathway learning and High School Center professional experiences for 11/12th grade students
- Supporting teachers transitioning from isolated practitioners to members of multidisciplinary teams at High School Centers and home base high school learning communities.
- Revising graduation requirements and transcript to fully account for Pathways, community-based learning experiences, and Life-long skills development
- Transportation systems to move students to and from home high school and Super Hubs
- Teachers developing new methodologies for Student-designed and P-based learning.
- Preparing teachers to support High School Center model and maintaining culture and practices across home base high schools, and high school centers.





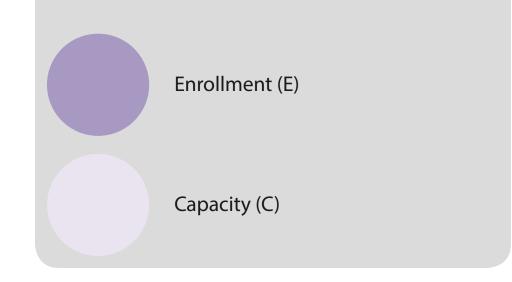


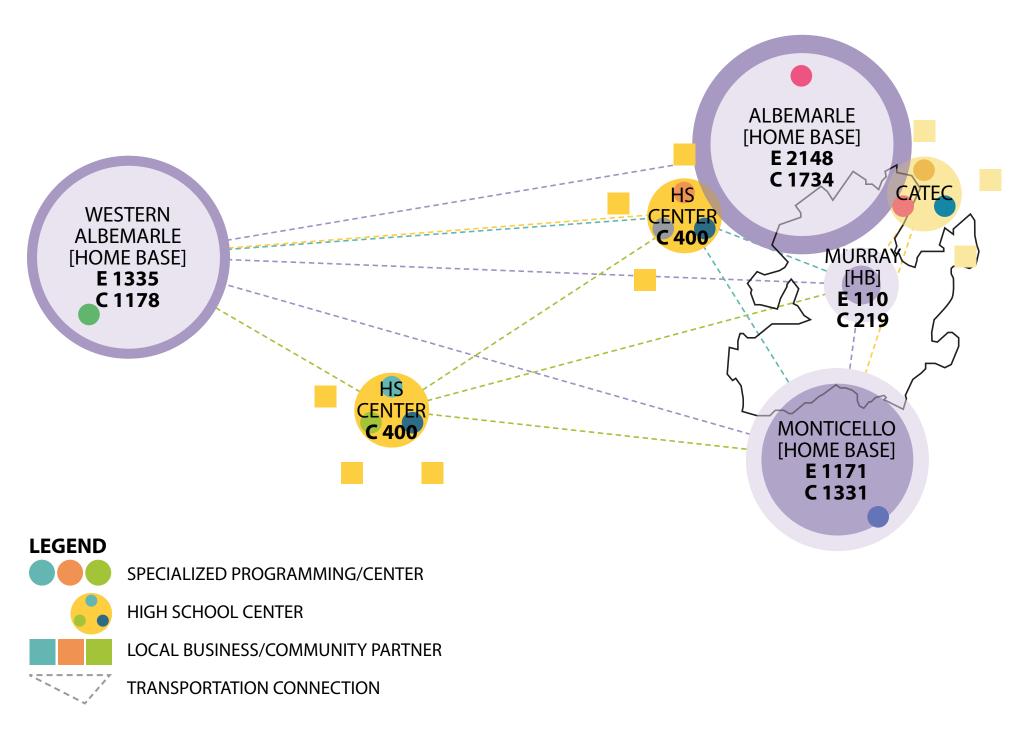


Enrollment* (8-Year Peak) | Capacity** (Learning Community Modernization)

NOTES

- No Redistricting Required
- * Enrollment numbers for 2024/2025 School Year (peak enrollment) based on Albemarle County Public Schools Enrollment Projections FY 2018/2019 to FY 2027/2028.
- ** Learning Community Modernization Capacity as calculated for renovations to academic areas to support High School 2022. See diagrams in "Modernization" section.







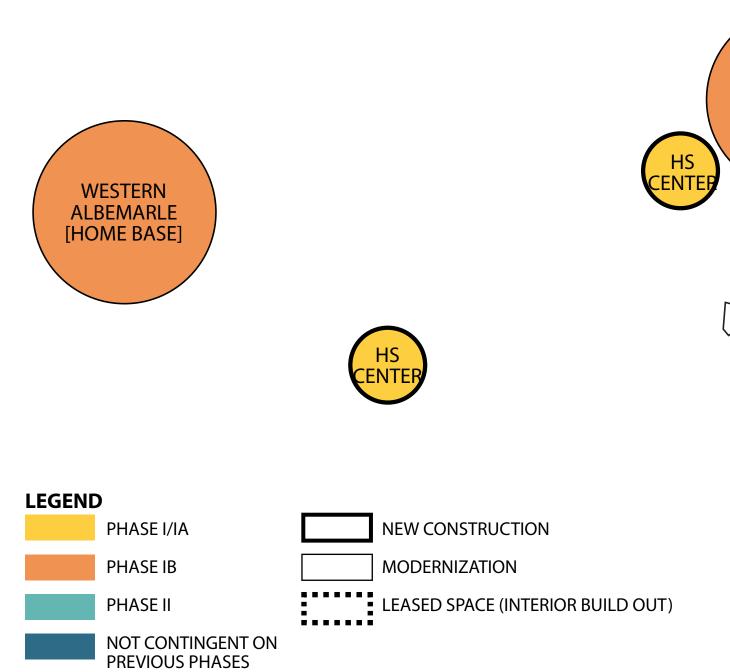




Phasing | Construction

NOTES

- Building and occupying High School Centers frees space at the three comprehensive high schools to allow for modernization.
- A smaller High School Center could be leased space and put into practice in advance of PHASE I.







ALBEMARLE

[HOME BASE]

MURRAY [HB]

MONTICELLO [HOME BASE]



Scenarios

Financial Analysis | Summary | Phase I

FINANCIAL ANALYSIS FOR HIGH SCHOOL FACILITIES SCENARIOS :: DRAFT ESTIMATED CAPITAL PROJECT BUDGETS

October 24, 2017

Scenario 1 School - Based

4 Comprehensive HS
New 1200 Student HS
@ Brookhill Site
Repurpose Part of AHS

Scenario 2 Center - Based

3 Home Base HS One 800 Student High School Center @ Brookhill Site

Scenario 3 Village - Based

3 Home Base HS 2 High School Centers @ 400

Phase 1

Albemarle HS - Learning Community Modernization
Albemarle HS - Reprogram/Repurpose Partial 2nd Floor Space
Monticello HS - Learning Community Modernization
W Albemarle HS - Learning Community Modernization
Murray HS - Learning Community Modernization
New Comprehensive HS - 1200 Students
High School Center - 800 Students (New Construction)
Brookhill Site Mass Grading / Rock Removal Allowance
High School Center - 400 Students x 2 (New Construction)

11,627,775	16,843,050
5,215,275	0
8,545,388	8,545,388
11,867,213	11,867,213
7,093,613	7,093,613
90,000,000	0
	51,800,000
4,000,000	4,000,000

4	
16	6,843,050
	0
8	,545,388
13	1,867,213
7	,093,613
	0
	0

38,080,000

Total Estimated Capital Project Budgets [2020 Dollars]

138,349,263

100,149,263

82,429,263

Cost Model Assumptions [2020 Dollars]:	Construction Cost		Soft Cost @ .25		Total Project Cost	
Comprehensive HS - New Construction	\$	300.00	\$	75.00	\$	375.00
High School Center - New Construction	\$	280.00	\$	70.00	\$	350.00
Major Modernization - AHS [60% of New CC]	\$	180.00	\$	45.00	\$	225.00
Major Modernization - WAHS & MuHS [65% of New CC]	\$	195.00	\$	48.75	\$	243.75
Moderate Modernization - MHS [30% of New CC]	\$	90.00	\$	22.50	\$	112.50







Appendix A | Capacity & Utilization Analysis





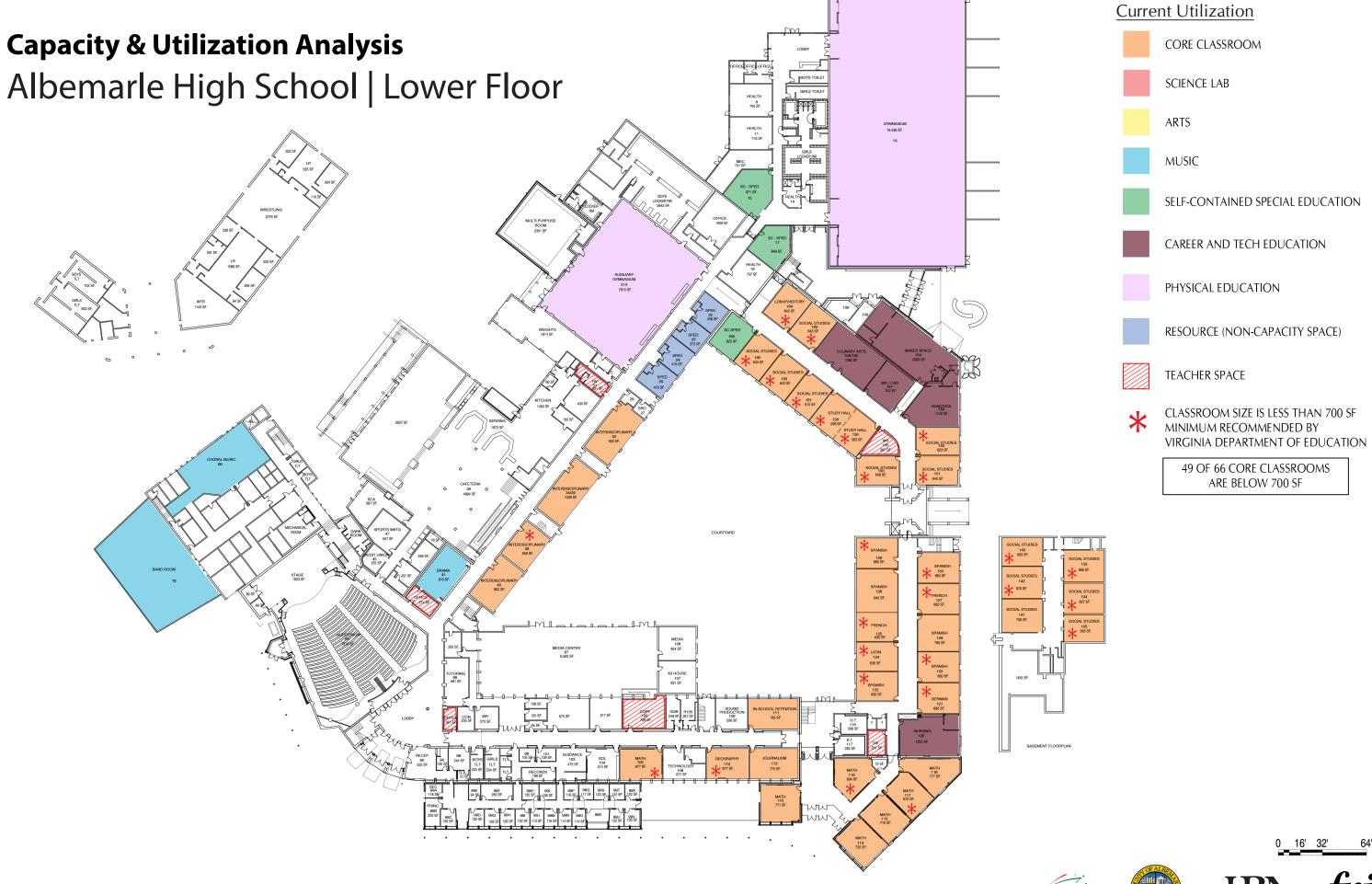
Estimated High School Student Capacities | 2017/2018 School Year

NOTES	Division: Albemarle County Public Schools Date: October 20, 2017				
		Albemarle High School	Monticello High School	Western Albemarle High School	Murray High School
* Calculations based on ACPS current practices.		No. of Teaching Multiplier Capacity Stations	No. of Teaching Multiplier Capacity Stations	No. of Teaching Multiplier Capacity Stations	No. of Teaching Multiplier Capacity Stations
	Spaces that contribute towards Capacity				
	Core Classrooms Science Labs Arts Education Classrooms / Labs Music Labs Drama Classroom Career & Tech. Education Classrooms / Labs Deduct to create Teacher Work/Plan Space	66 x 22 = 1452 14 x 22 = 308 3 x 22 = 66 2 x 30 = 60 1 x 22 = 22 5 x 20 = 100 (4.0) x 22 = (88.0)	38 x 22 = 836 12 x 22 = 264 3 x 22 = 66 2 x 30 = 60 1 x 22 = 22 4 x 20 = 80 0 x 22 = 0	38 x 22 = 836 9 x 22 = 198 3 x 22 = 66 2 x 30 = 60 1 x 22 = 22 4 x 20 = 80 (4.0) x 22 = (88.0)	12 x 15 = 180 1 x 15 = 15 2 x 15 = 30 0 x 15 = 0 0 x 15 = 0 0 x 15 = 0
			<u> </u>		15
	Subtotal Academic Classrooms Self-Contained Special Education Classrooms Main Gym (Counts as 2 Teaching Stations) Auxiliary Gym	3 x 8 = 24 2 x 30 = 60 1 x 25 = 25	1 x 8 = 8 2 x 30 = 60 1 x 25 = 25	1 x 8 = 8 2 x 30 = 60 1 x 25 = 25	15 0 x 8 = 0 1 x 20 = 20 0 x 20 = 0
	Subtotal Capacity Teaching Stations	93	64	57	16
	Spaces that do not contribute towards Capac	ity			
	Resource Rooms (Pull-Out Programs) Health Classroom Fitness Center Weight Room WrestlingRoom Video/Sound Production Lab Maker Space (Unscheduled) Community Rooms Subtotal Non-Capacity Teaching Stations	6 3 1 1 1 3 1 0	6.5 4 0 1 1 2 1 0	3 2 0 1 1 2 1 0	0 1 0 0 0 0 0 2
		leaching Maximum	l eaching Maximum	leaching Maximum	leaching Maximum
		Stations Capacity 109 Program Capacity Capacity	Stations Capacity 79.5 1421 Program Capacity	Stations Capacity 67 1267 Program Capacity	Stations Capacity 21 245 Program Capacity
	Relocatable Classrooms on Site	Utilization 87.5% 1775 Factor Additional Capacity 8 x 22 = 176	Utilization 87.5% 1243 Factor Additional Capacity 0 x 22 = 0	Utilization 87.5% 1109 Factor Additional Capacity 0 x 22 = 0	Utilization 87.5% Factor Additional Capacity 0 x 22 = 0
		49 of 66 [74%] Core Classrooms are below VADoE recommended		33 of 38 [87%] Core Classrooms are below VADoE recommended	Division-wide
	Maximum Enrollment Projection Current Program Capacity Under / (Over) Capacity at Peak Er	2024/25 2148 1775 prollment Year (373)	2024/25 1171 1243 72	2024/25 1335 1109 (226)	4654 4127 (527)
	Building Area [Square Feet] Area per Student	291,900 164	252,460 203	198,806 179	743,166 180



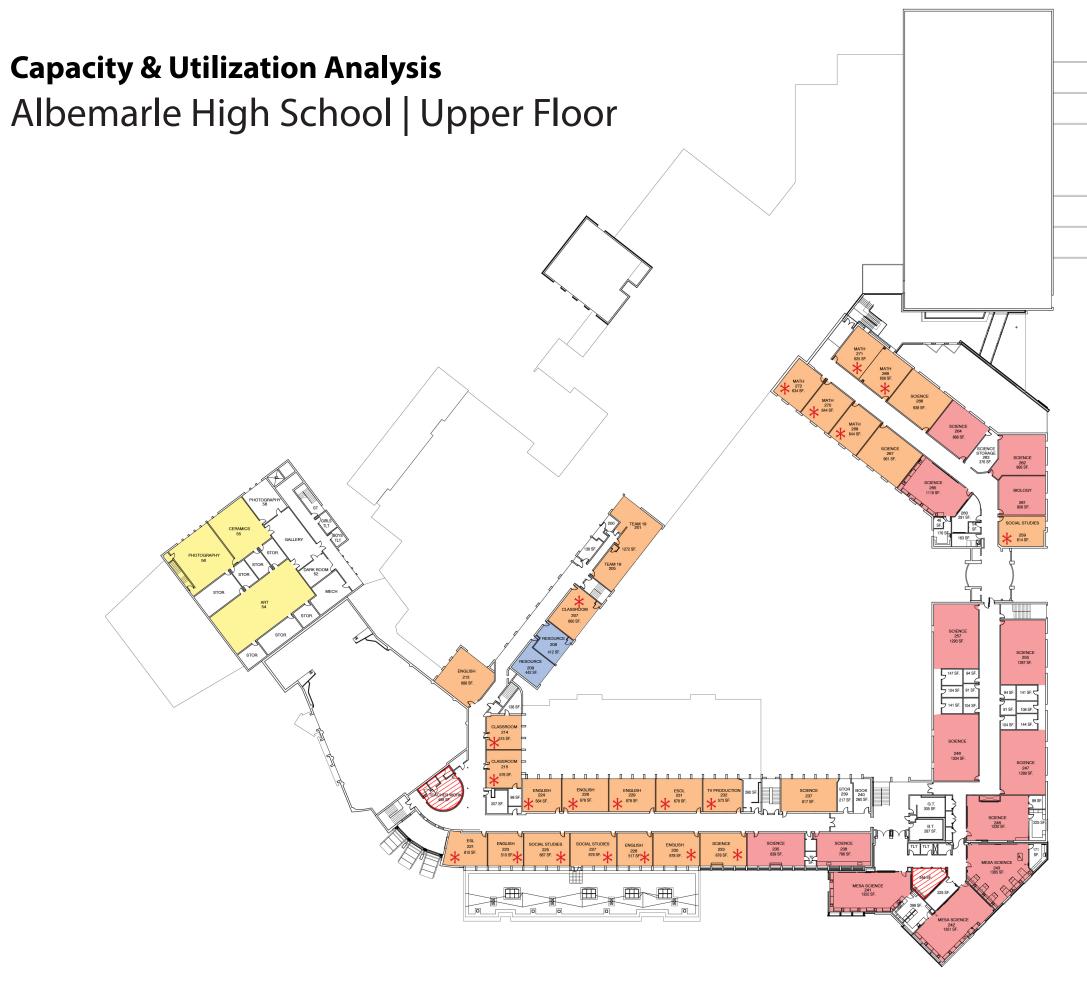


















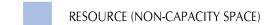














CLASSROOM SIZE IS LESS THAN 700 SF MINIMUM RECOMMENDED BY VIRGINIA DEPARTMENT OF EDUCATION

49 OF 66 CORE CLASSROOMS ARE BELOW 700 SF





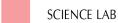


Monticello High School | Upper Floor



Current Utilization







MUSIC

SELF-CONTAINED SPECIAL EDUCATION

CAREER AND TECH EDUCATION

PHYSICAL EDUCATION

RESOURCE (NON-CAPACITY SPACE)

TEACHER SPACE

CLASSROOM SIZE IS LESS THAN 700 SF MINIMUM RECOMMENDED BY VIRGINIA DEPARTMENT OF EDUCATION

2 of 4 HEALTH CLASSROOMS ARE BELOW 700 SF





Monticello High School | Lower Floor



Current Utilization







MUSIC

SELF-CONTAINED SPECIAL EDUCATION

CAREER AND TECH EDUCATION

PHYSICAL EDUCATION

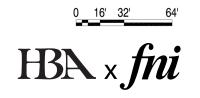
RESOURCE (NON-CAPACITY SPACE)

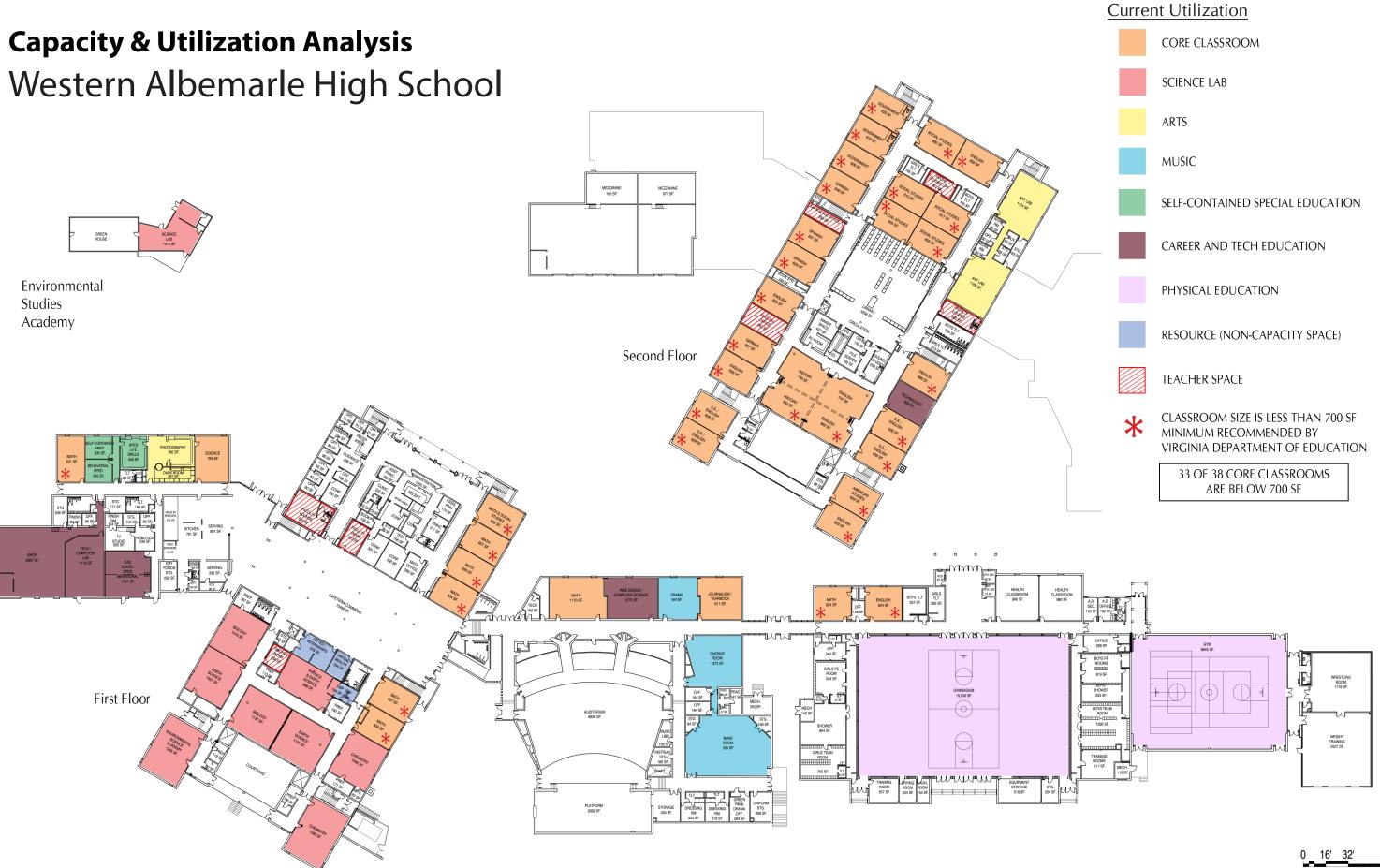
TEACHER SPACE

CLASSROOM SIZE IS LESS THAN 700 SF MINIMUM RECOMMENDED BY VIRGINIA DEPARTMENT OF EDUCATION

2 of 4 HEALTH CLASSROOMS ARE BELOW 700 SF



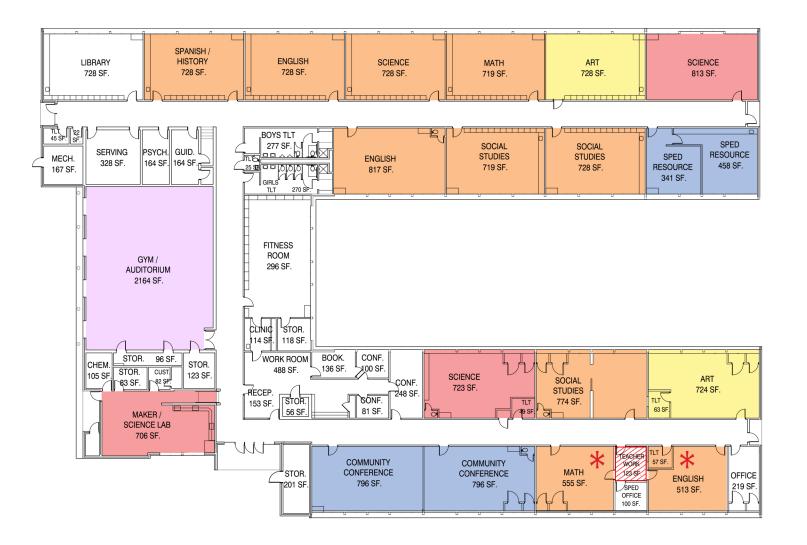








Murray High School











MUSIC

SELF-CONTAINED SPECIAL EDUCATION

CAREER AND TECH EDUCATION

PHYSICAL EDUCATION

RESOURCE (NON-CAPACITY SPACE)

TEACHER SPACE

CLASSROOM SIZE IS LESS THAN 700 SF
MINIMUM RECOMMENDED BY
VIRGINIA DEPARTMENT OF EDUCATION







CATEC



Current Utilization















RESOURCE (NON-CAPACITY SPACE)





