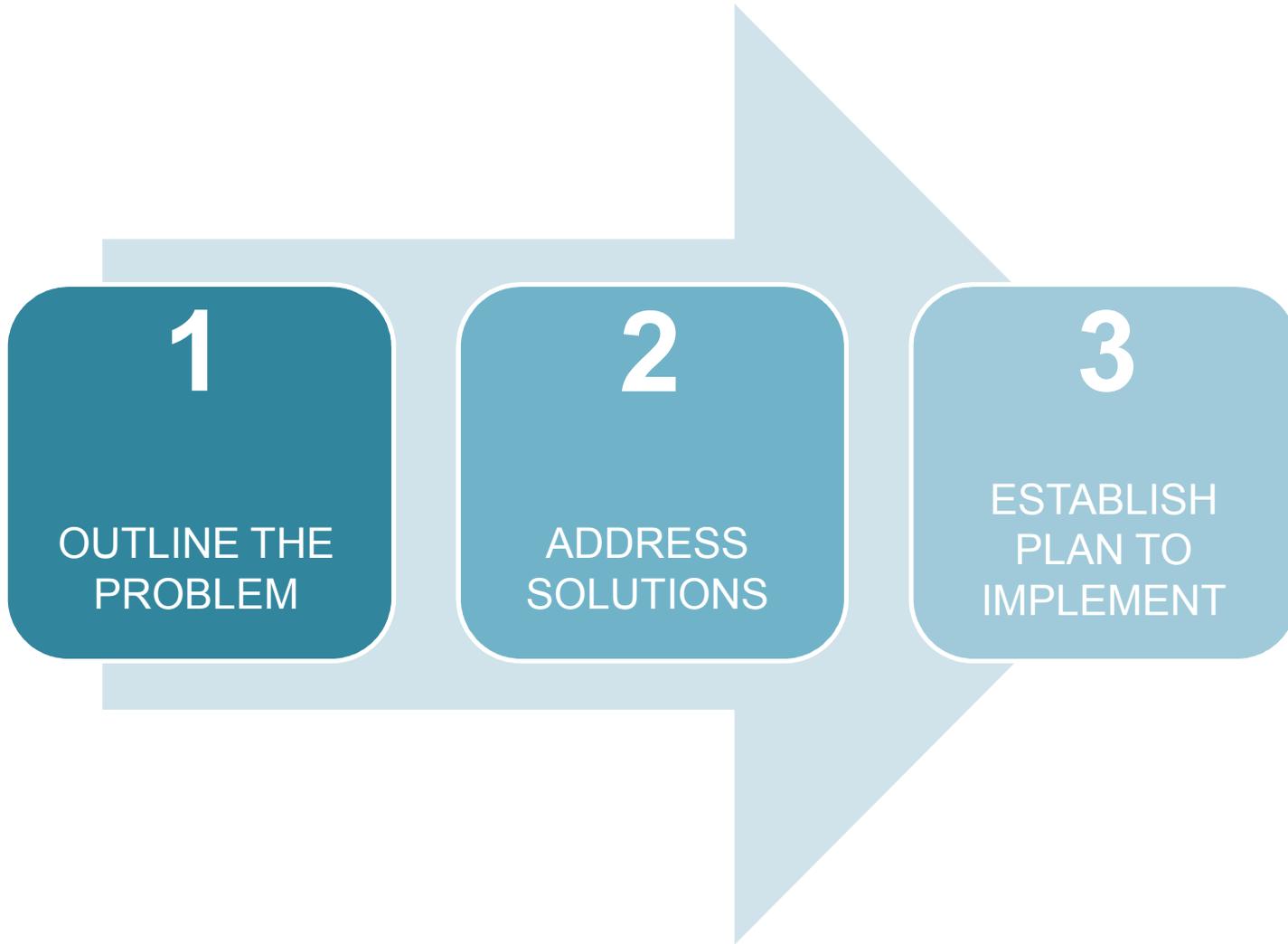




10 August 2016 | School Board Meeting

LONG-RANGE VISIONING STUDY



**ASSESSMENT STUDY
+ LONG-RANGE VISIONING**

PROCESS UPDATE

- Surveyed Each School Site's Buildings, Finishes, & Systems
- Analyzed **Enrollment** Data & Future **Growth**; Identified Program Deficiencies, Capacity Needs & Project Options
- Completed existing **energy usage** analysis; Established EUI for all existing facilities
- Met with maintenance, food service, + transportation staff to understand how various **school operations** might be affected by future projects

PROCESS UPDATE

MEETINGS

Feb 09	Principal Meetings & Facilities Tours
Feb 16	Principal Meetings & Facilities Tours
April 13	School Board Meeting
April 27	Facilities Committee Meeting
May 16	Public Meeting
May 31	Meeting with Elementary Staff
May 31	Meeting with Middle & High Staff
July 20	Maintenance & Transportation Meeting
July 25	Food Service Meeting
Aug 03	Public Meeting



PEOPLE + PROGRAMS

Our Client's Client

GROWTH + CAPACITY ANALYSIS

GCPS Growth

2005-2015

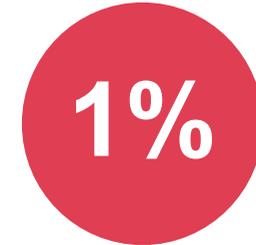


2010-2015



PROJECTIONS

2015-2018



Weldon Cooper

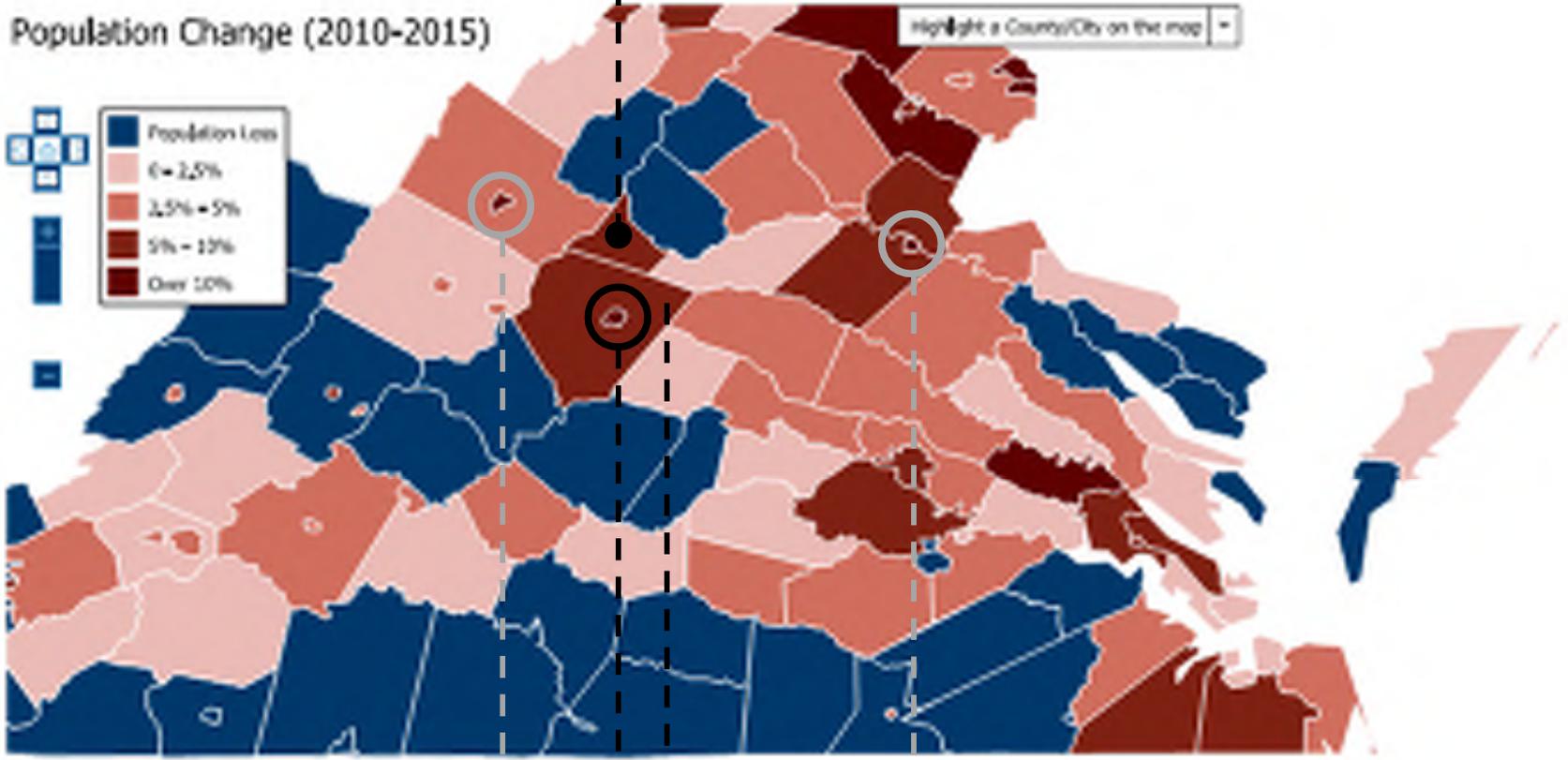
VA Employment
Commission



Greene County
(7.8%)

Population Change (2010-2015)

Highlight a County/City on the map



Harrisonburg
(10.1%)

Fredericksburg
(11%)

Charlottesville
(10.8%)

Albemarle Co
(6%)

GROWTH

Weldon Cooper | 2010-2015

- Proximity to:

Albemarle Co.

Charlottesville

Harrisonburg (to some degree)

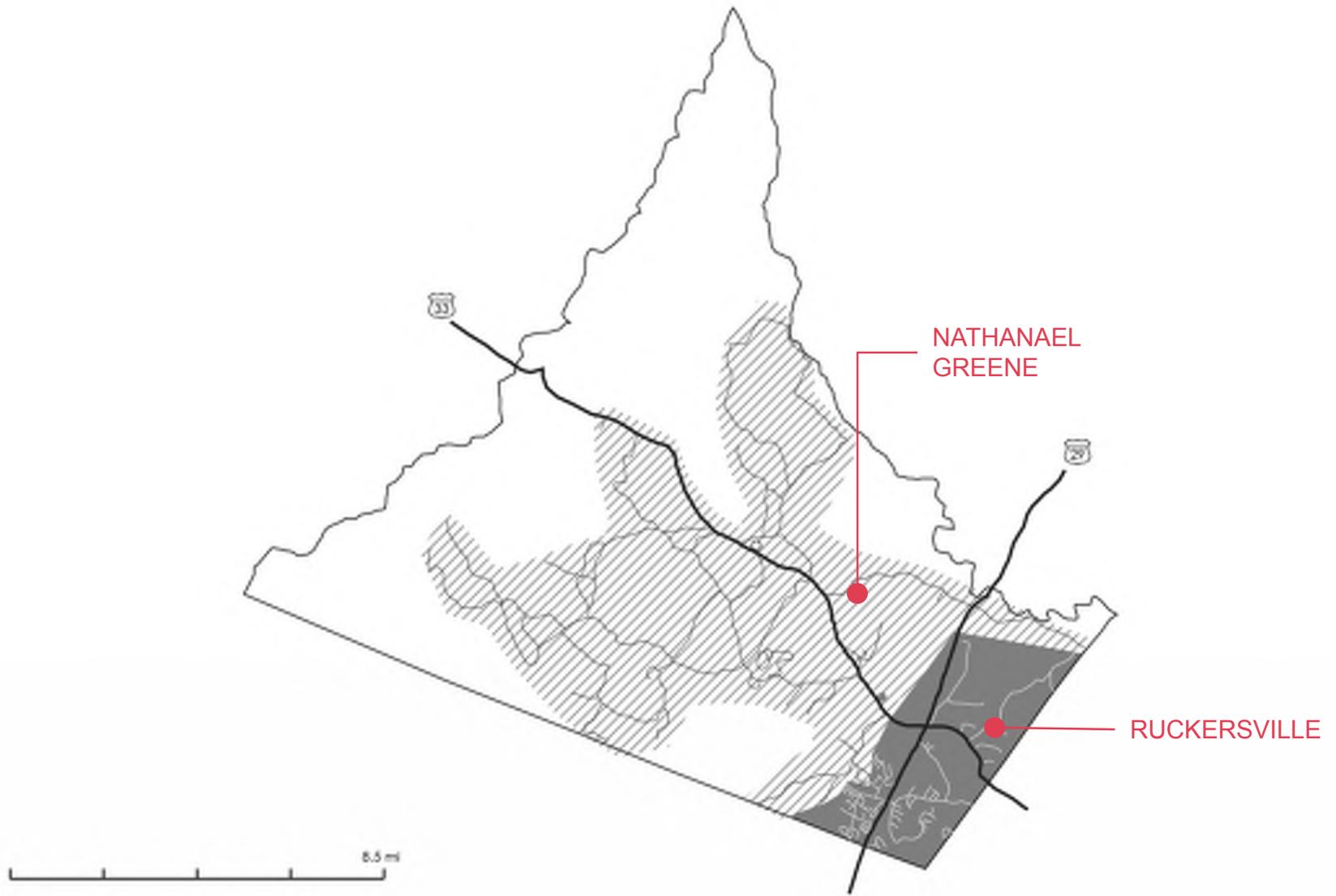
- Development-ready land along US-29

- Recent Development

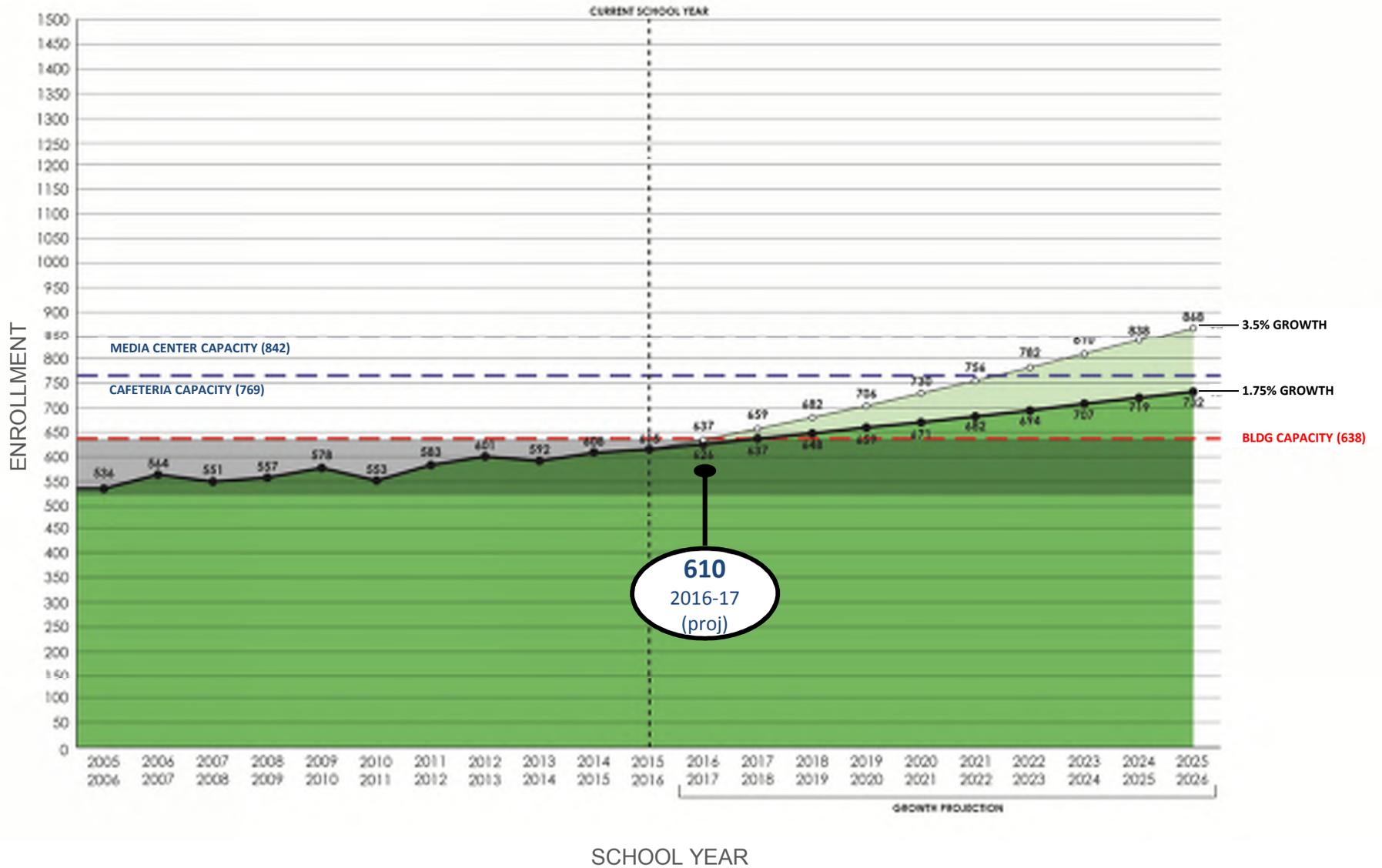
N.G.I.C.

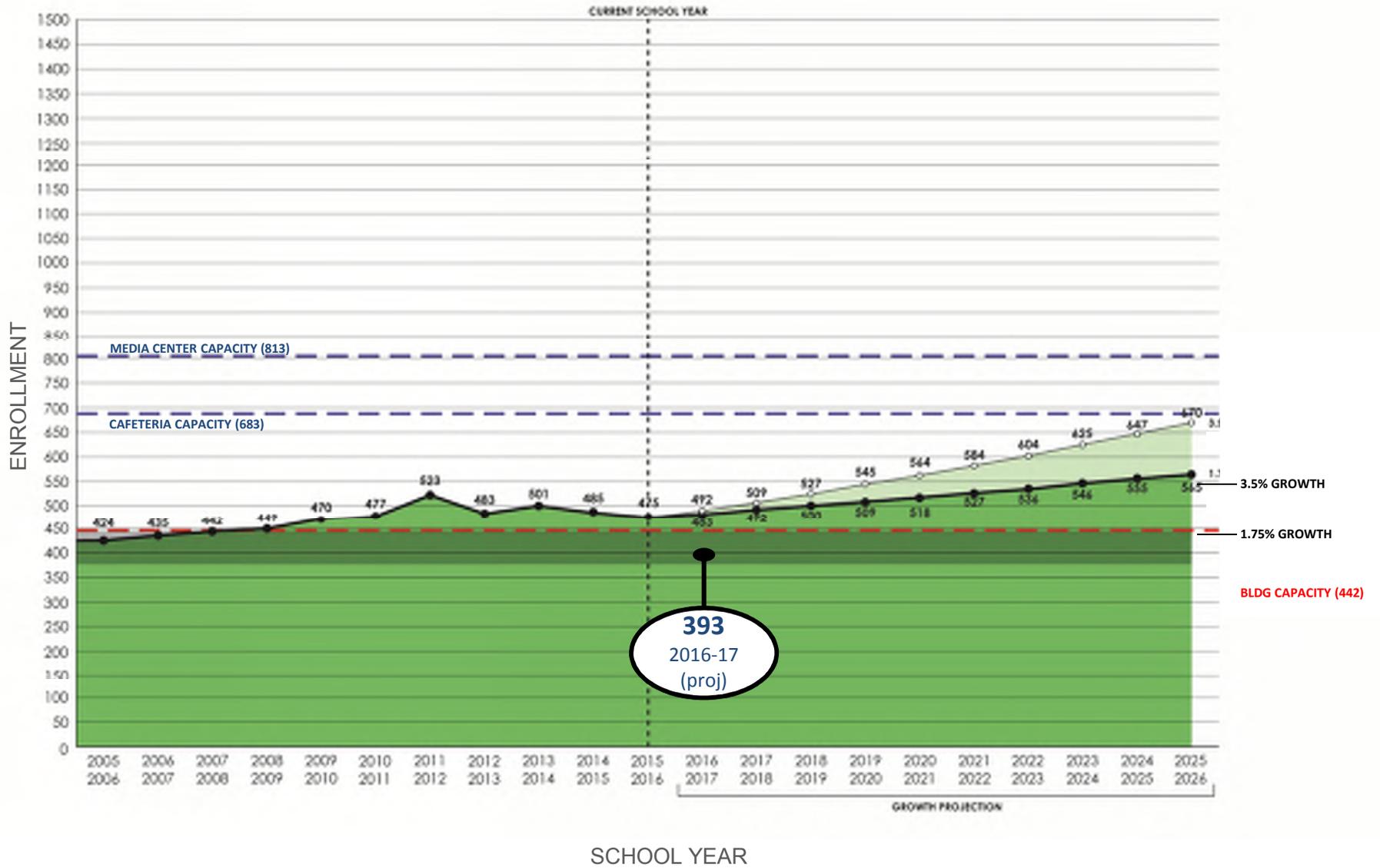
Highway Safety Crash Center

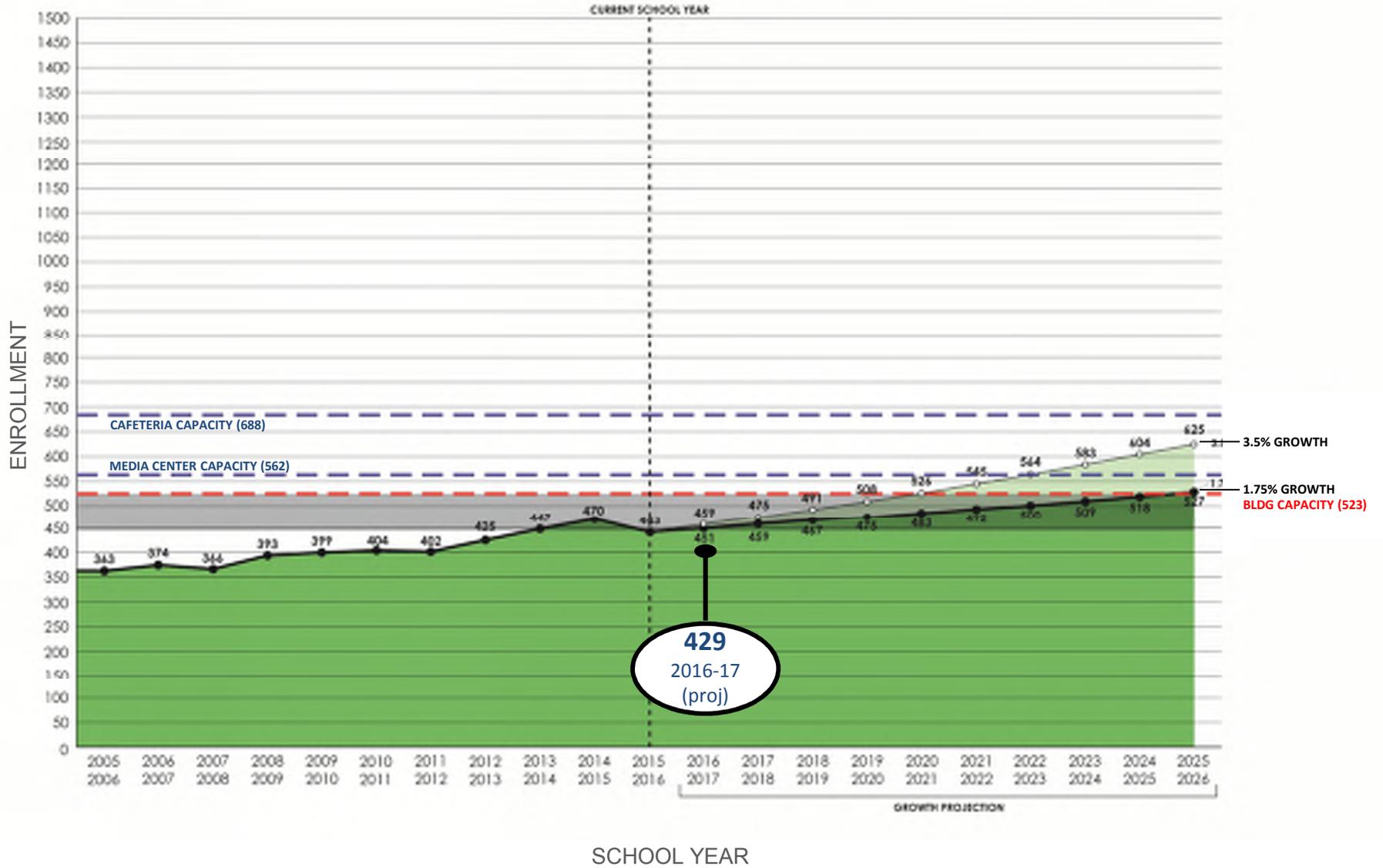
New/expanded Retail + Housing



ELEMENTARY ATTENDANCE ZONES

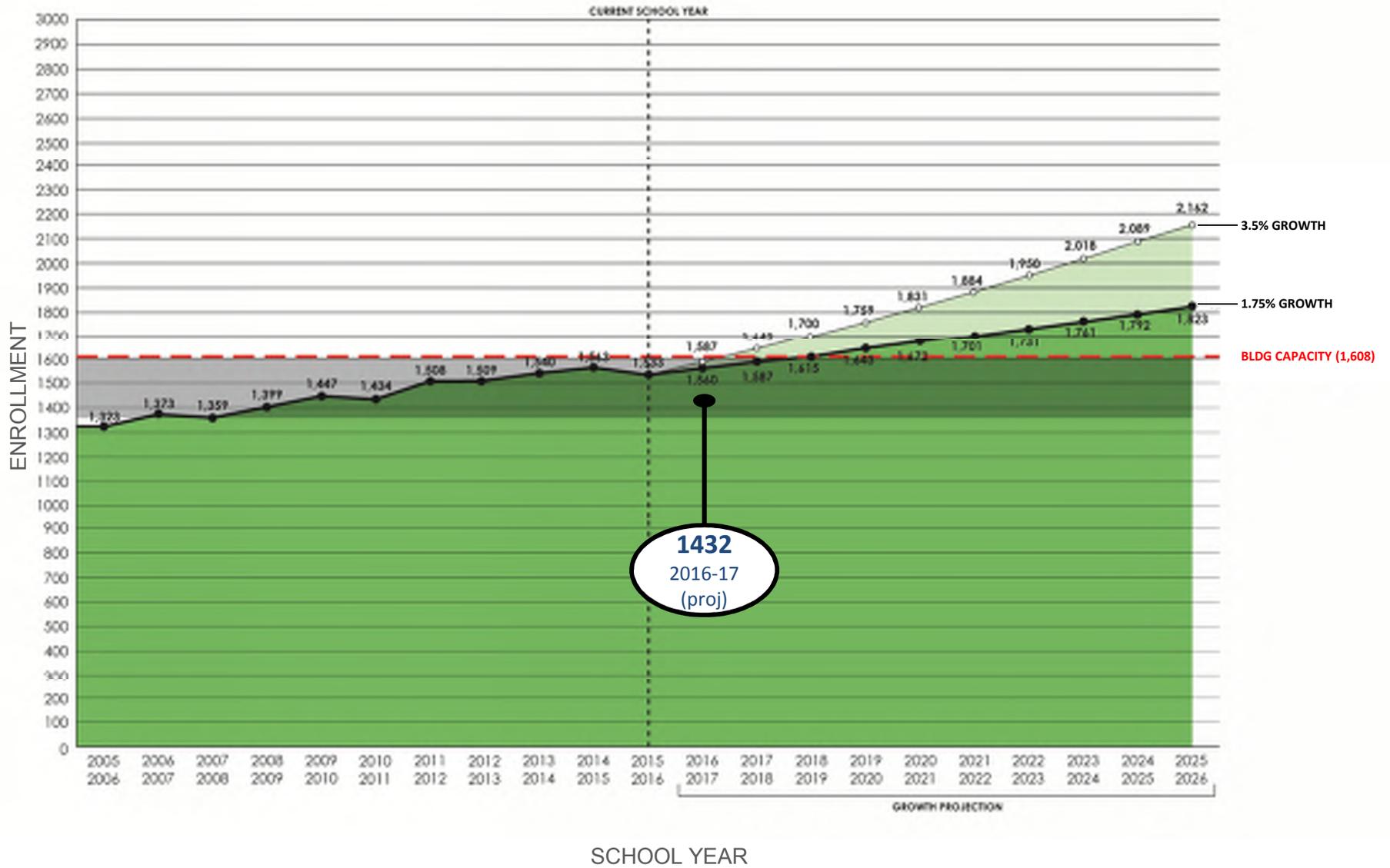






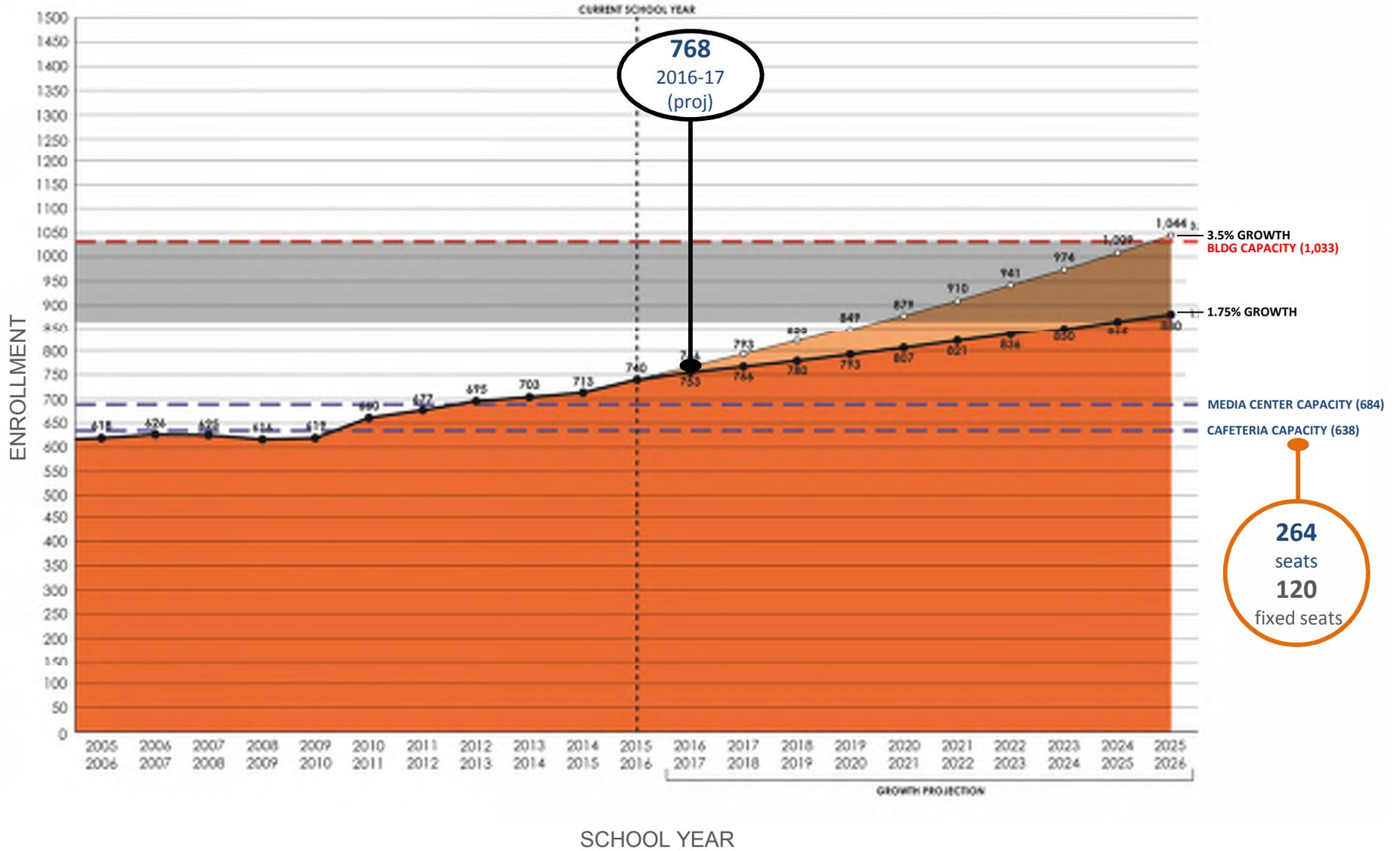
NATHANAEL GREENE ELEMENTARY

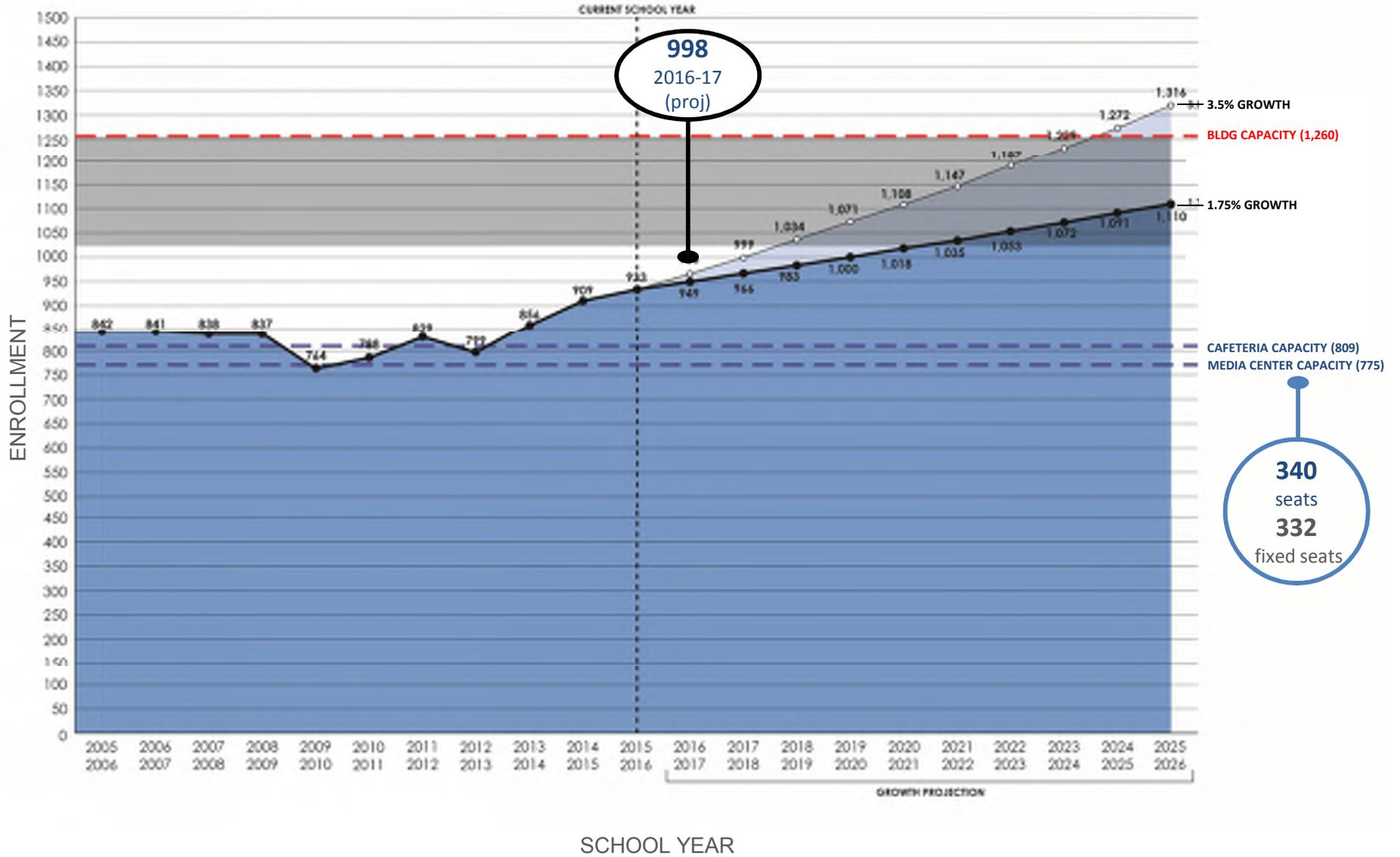
PAST ENROLLMENT + GROWTH PROJECTIONS



COMBINED ELEMENTARY SCHOOL

PAST ENROLLMENT + GROWTH PROJECTIONS





HIGH SCHOOL
PAST ENROLLMENT + GROWTH PROJECTIONS

QUALITY ASSESSMENT

State Averages – New Construction

	Elementary	Middle	High
2009-2010	125	134	
2010-2011	123		164
2011-2012	111		175
2012-2013	124	168	166
2013-2014	129		158
2014-2015	109		183
2015-16	111	151	
Avg (sf)	119	151	169

State Averages – New Construction

	Elementary	Middle	High
2009-2010	125	134	
2010-2011	123		164
2011-2012	111		175
2012-2013	124	168	166
2013-2014	129		158
2014-2015	109		183
2015-16	111	151	
Avg (sf)	119	151	169

Elementary

	GSF	VDOE Capacity	SF/Pupil
NG Primary	47,500	440	108
NG Elem	50,424	526	96
Ruckersville	67,460	632	107
Average			103

Middle

	GSF	VDOE Capacity	SF/Pupil
W. Monroe	92,504	1,033	90

High

	GSF	VDOE Capacity	SF/Pupil
W. Monroe	142,972	1,260	113

ENERGY EFFICIENCY + OPERATING COSTS

DESIGN, ENERGY + COSTS

K–12 **energy costs** are second only to **personnel costs** as the leading draw on school district operating budgets.

Each **energy unit** reduction saved in design + construction results in **continuous** monthly savings in operation over the life of the building.

ANALYSIS

- Every school approaching or over **CAPACITY**
- Every school lacking **QUALITATIVE PROGRAM** space to support education
- Middle School + High School **KITCHEN + DINING** spaces insufficient for current and growing enrollment; most kitchen equipment in district is nearing replacement
- Every school has **TRAFFIC + PARKING** issues

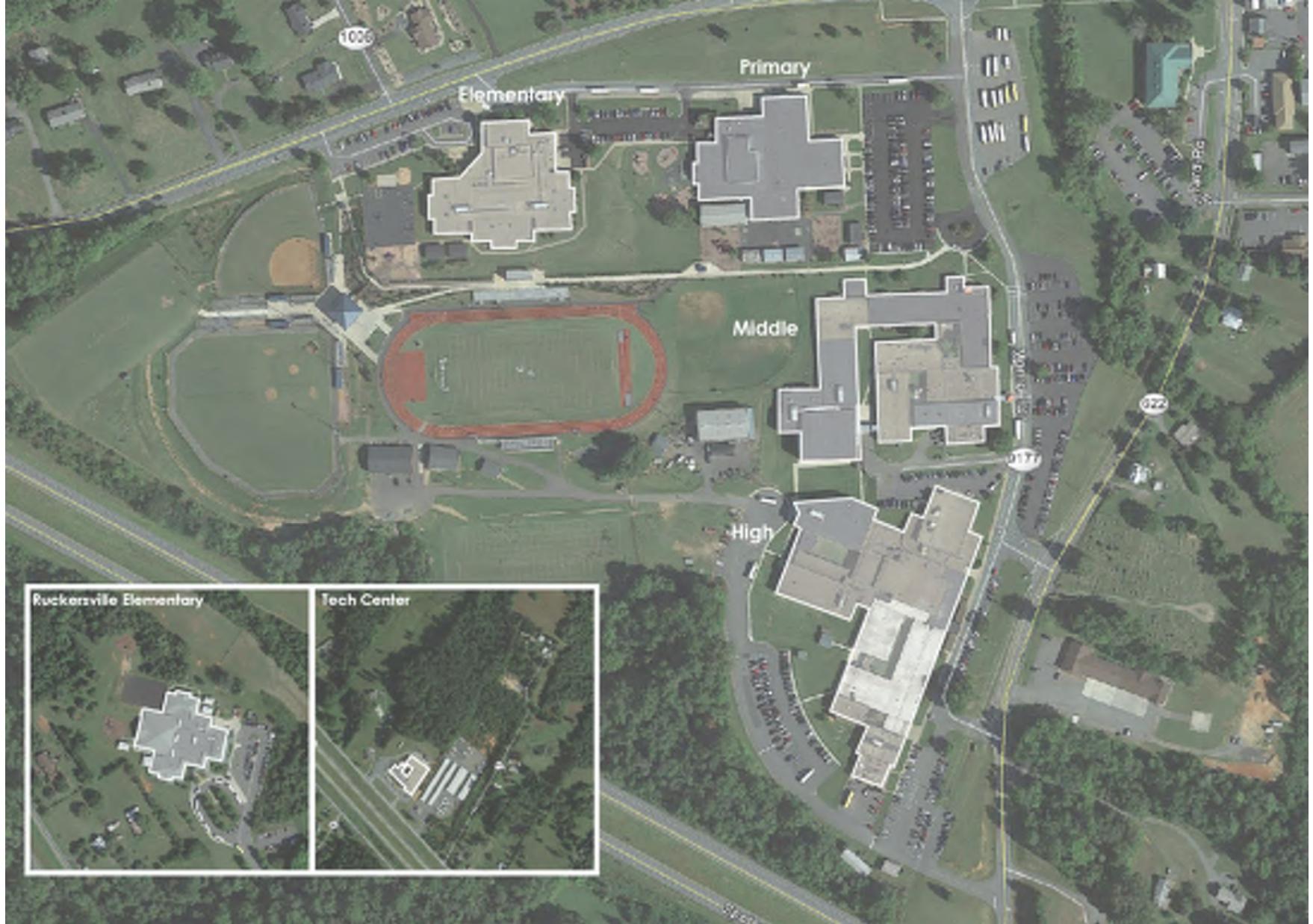
SITE OPTIONS

WHAT WE'VE HEARD

- **Traffic + safety** are top priorities at all schools
- More **pedestrian** space needed on all sites
- Consider adding bus routes to reduce # of car drop-offs?
- Need for a **more direct path** from ES to HS; ES students walk over to MS/HS to meet parents (staff)
- Would be nice to have a more defined **walking/running circuit** at Stanardsville campus
- Little to **no MS recess/PE space**
- **Lack of outdoor space** → more injuries, less healthy kids
- Aesthetics of site + school entries does not make a good **1st impression** (asphalt, highway barriers, minimal green space)

WHAT WE PROPOSE

- **Vehicular Flows + Pedestrian Safety** must be addressed
- **Outdoor** learning, recreation + athletic space must be increased
- **School Identity** can be improved through site moves
- A **new school** is needed to alleviate density issues on all other school sites
- **Remove bus parking** from school sites



EXISTING SITE

STANARDSVILLE CAMPUS



SCHOOL SITE BOUNDARIES

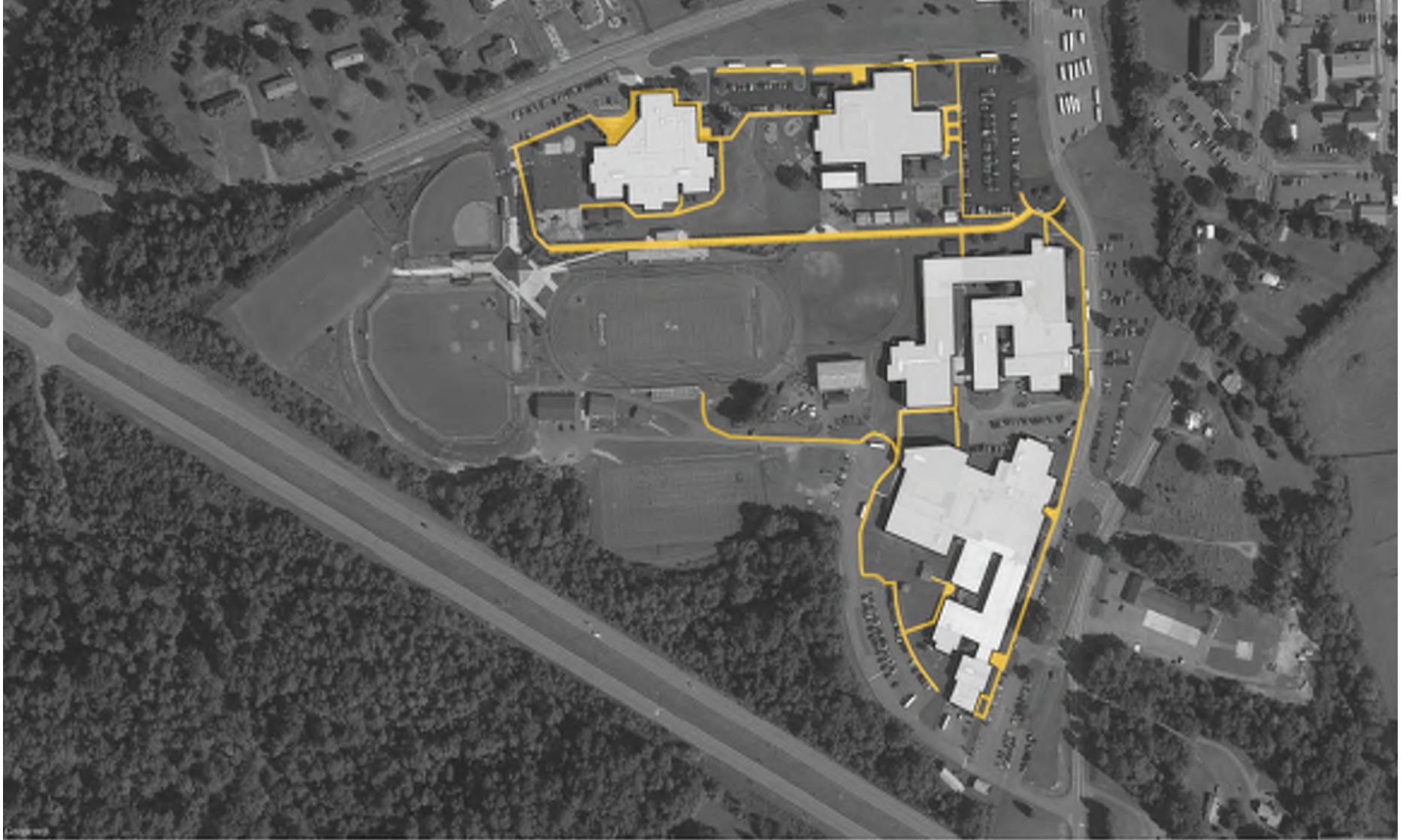
STANARDSVILLE CAMPUS



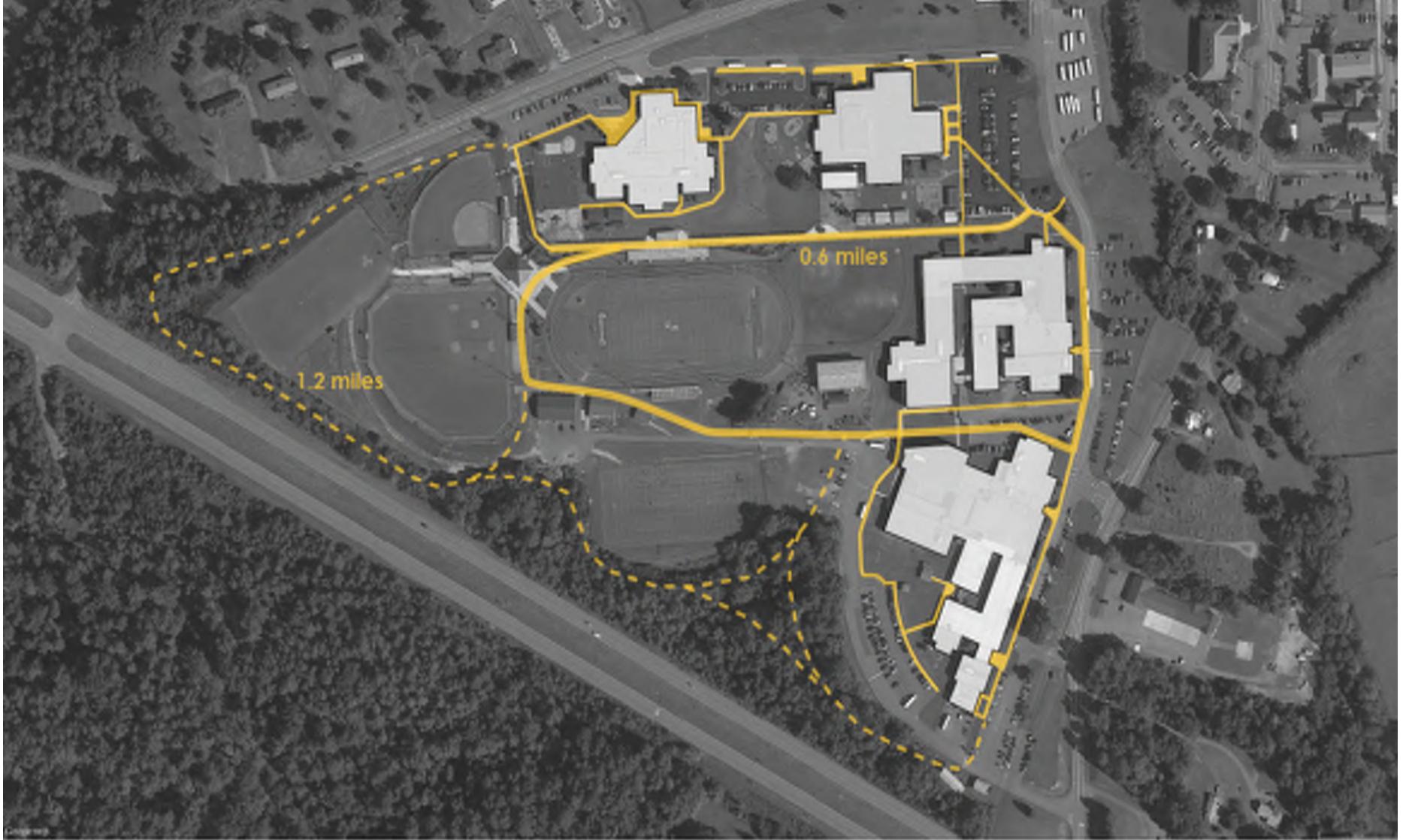
REVISED VEHICULAR CIRCULATION
ONE-WAY TRAFFIC



REVISED VEHICULAR CIRCULATION
STANARDSVILLE CAMPUS



CURRENT PEDESTRIAN PATHS
STANARDSVILLE CAMPUS



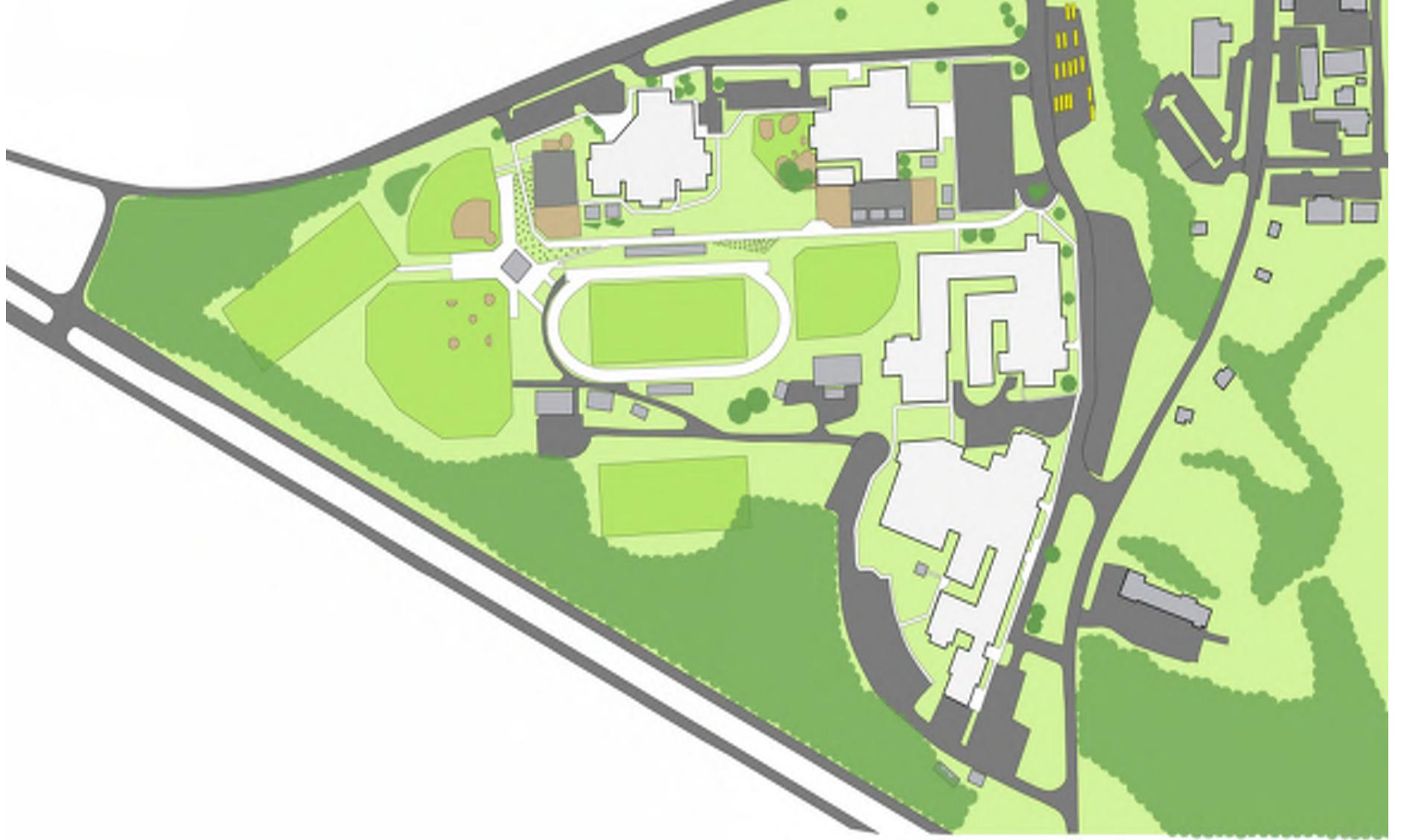
PROPOSED PEDESTRIAN PATHS
STANARDSVILLE CAMPUS



CURRENT PARKING PLAN
STANARDSVILLE CAMPUS



PROPOSED PARKING PLAN
STANARDSVILLE CAMPUS



CURRENT CAMPUS PLAN

STANARDSVILLE CAMPUS



PROPOSED MASTER PLAN

STANARDSVILLE CAMPUS



CURRENT MASTER PLAN
RUCKERSVILLE CAMPUS



SITE BOUNDARY
RUCKERSVILLE CAMPUS



CURRENT DROP OFF PLAN
RUCKERSVILLE CAMPUS



CURRENT PARKING PLAN
RUCKERSVILLE CAMPUS



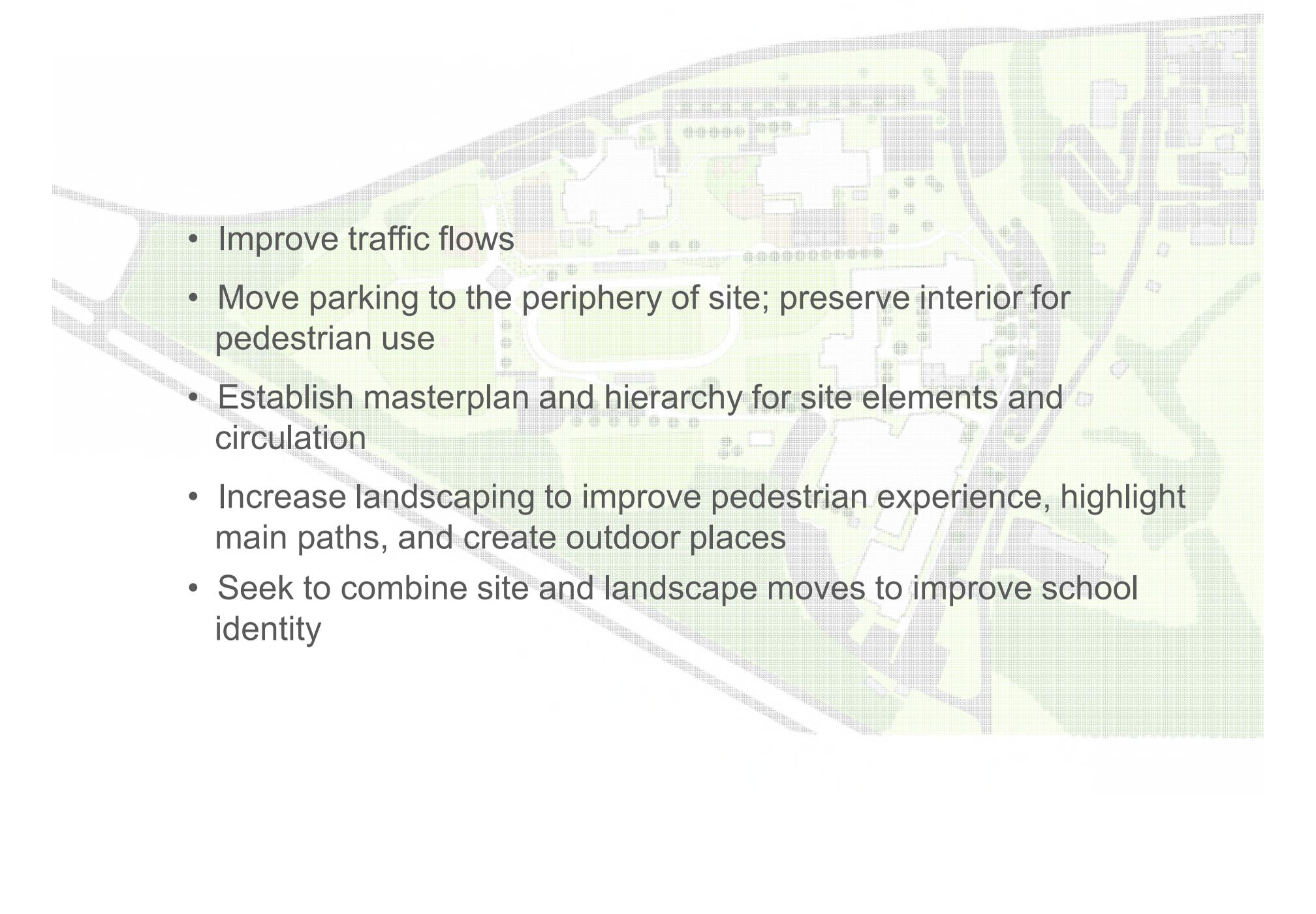
PROPOSED PARKING PLAN
RUCKERSVILLE CAMPUS



PROPOSED PARKING PLAN
RUCKERSVILLE CAMPUS



PROPOSED PEDESTRIAN TRAILS
RUCKERSVILLE CAMPUS

- 
- An aerial photograph of a school campus with a semi-transparent site plan overlaid. The plan shows building footprints, parking lots, and walkways. Green and yellow highlights are used to indicate areas for improvement, such as new landscaping, pedestrian paths, and reconfigured parking areas. A road with a white dashed line runs along the left side of the campus.
- Improve traffic flows
 - Move parking to the periphery of site; preserve interior for pedestrian use
 - Establish masterplan and hierarchy for site elements and circulation
 - Increase landscaping to improve pedestrian experience, highlight main paths, and create outdoor places
 - Seek to combine site and landscape moves to improve school identity

BUILDING OPTIONS

WHAT WE'VE HEARD

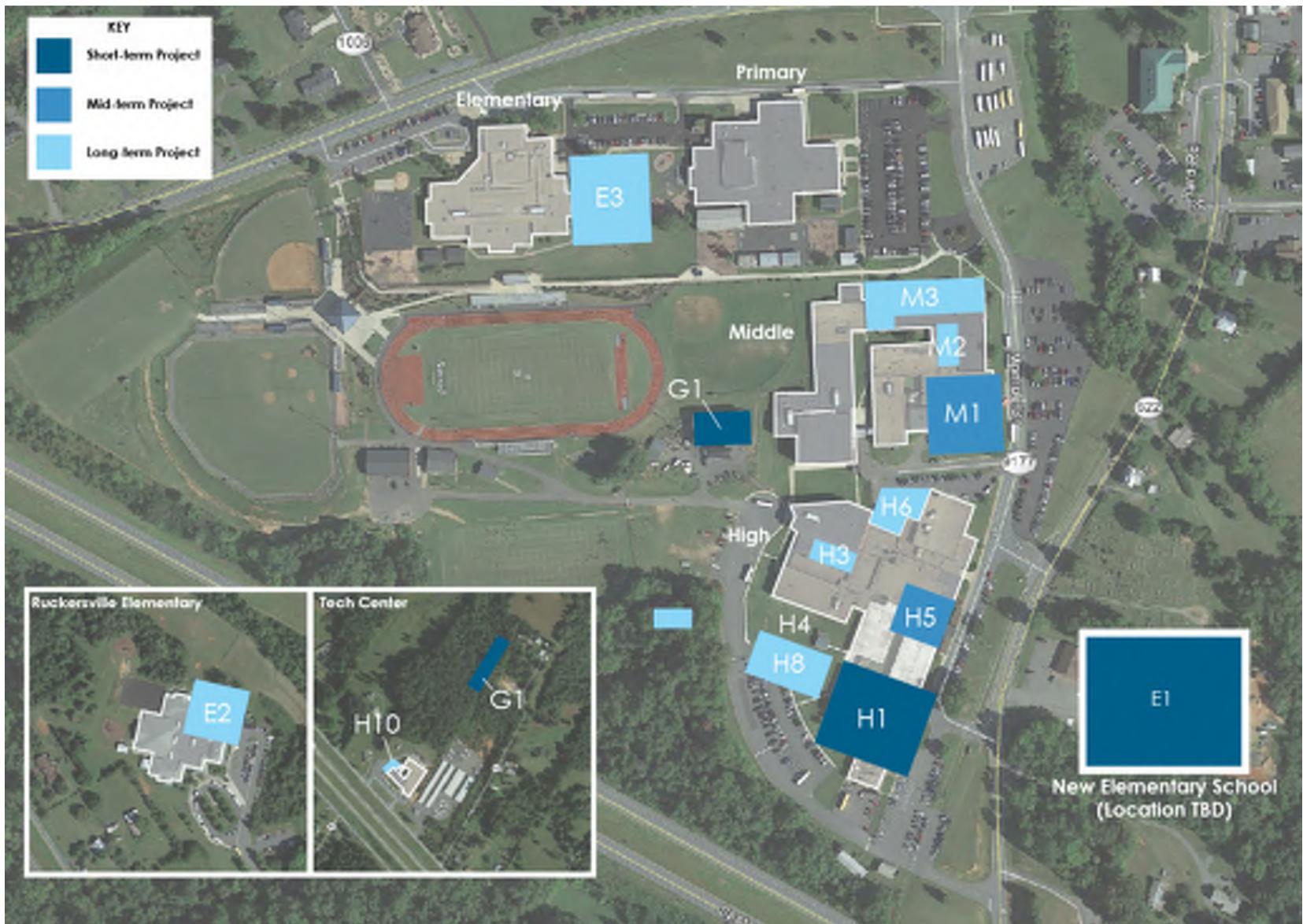
- Consider building a **new high school**, in lieu of new elementary
- Why are we considering a new elementary, when all students come together at the **middle school** (bigger bodies, larger enrollment)
- Convert HS gym to cafeteria/media center; build **new gym**
- Give more attention to improving Tech Center **interior environment**
- Find **another use for NGPS** (that is not a school)
- Immediate NGPS **concerns**: toilets, water, mice, HVAC, acoustics
- **Add classrooms** to Tech Center to alleviate needs at HS
- **MS Capacity** may be sufficient by a room count; however the reality is very different (former renovations have reduced class size)
- Concerns about **existing finishes** and **interior experience** (at all schools)

WHAT WE'VE HEARD

- Are there options for serving **lunch at the Tech Center**, to alleviate HS cafeteria congestion?
- How do you improve the **experience of HS + MS lunch** with only 24 minutes to work with?
- If a Central Kitchen is built, what are **possibilities for reuse** of existing kitchens and space?
- Are we **attracting growth** by building a new elementary school?
- **Build vertical** for future projects
- **Avoid incremental moves** that do not fully address a deficiency
- Do any projects require others to go first? Or go with?

WHAT WE PROPOSE

- High School and Middle School Kitchen + Cafeteria deficiencies must be addressed
- Another school is needed to provide capacity relief
- A Central Operations Facility is an innovative solution to a number of issues (building and site)
- Qualitative Space to be found or created at all schools



PROJECT OPTIONS
BUILDING

CENTRAL OPERATIONS FACILITY

- Four (4) **aging kitchens** on same site, all of which are undersized for the growing enrollments
- **Cook/Chill system** would prepare food 3-5 days in advance, and hold it (refrigerated) until delivery
- Close **proximity** of all schools makes **transport** relatively easy
- **Equipment** required at school sites significantly **reduced**; along with associated operational costs
- **Reduced energy costs** to district overall, in reducing number of kitchens that require a full daily start-up to (1)
- **Wholesale/bulk orders** for district vs. individual
- **Single point of delivery** and stocking (reduced vehicle trips to schools)
- Estimated equipment cost for Central Kitchen would be similar to cost to upgrade equipment at all existing kitchens

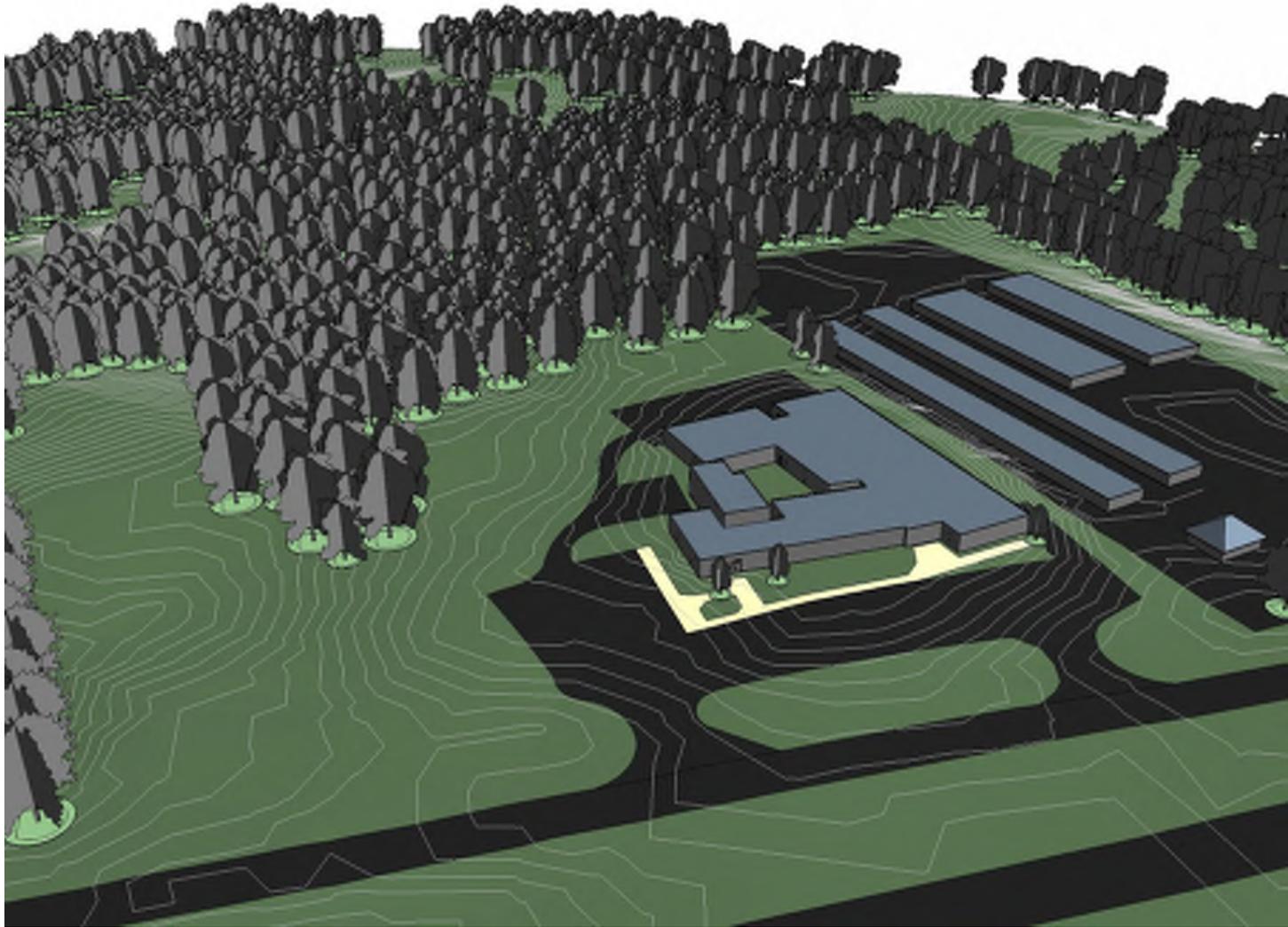
- Opportunities for **increased menu options**
- Potential for **farm-to-table**, local grown ingredients to be part of menu
 - Tie to student programs?
- **Equipment needs reduced** at schools to refrigeration, warming and serving
- More space at schools can be **devoted to serving**, perhaps of a more **diverse menu**
 - traditional hot meals
 - cold and/or a la carte options (pre-packaged salads, sandwiches, etc)
- Potential to provide **lunch to Tech Center**, alleviating some stress at high school (and possibly increasing instruction time)
- Potential for **apprenticeships** with existing CTE programs at Tech Center



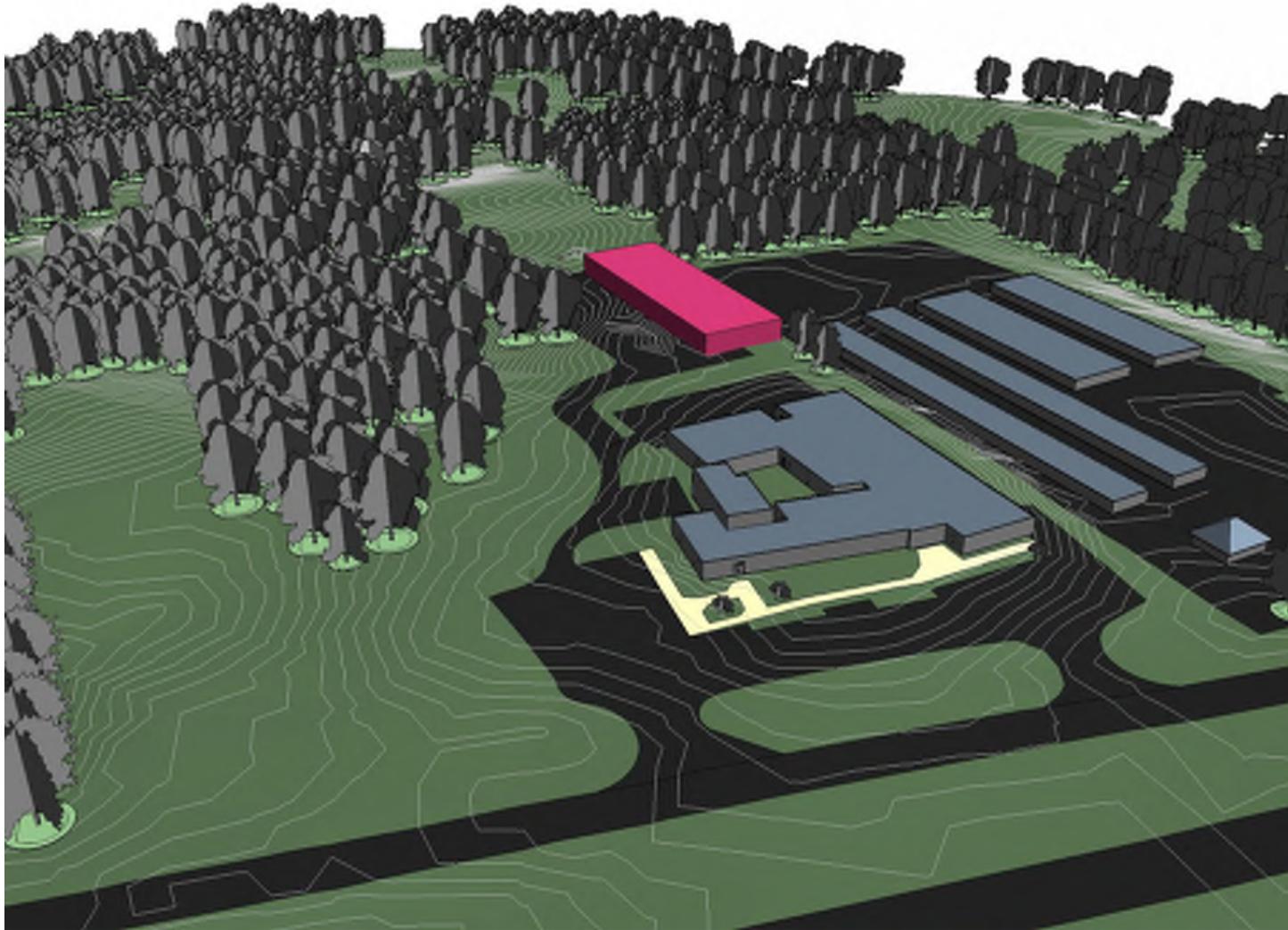
CENTRAL OPERATIONS FACILITY
TECH CENTER



CENTRAL OPERATIONS FACILITY
TECH CENTER

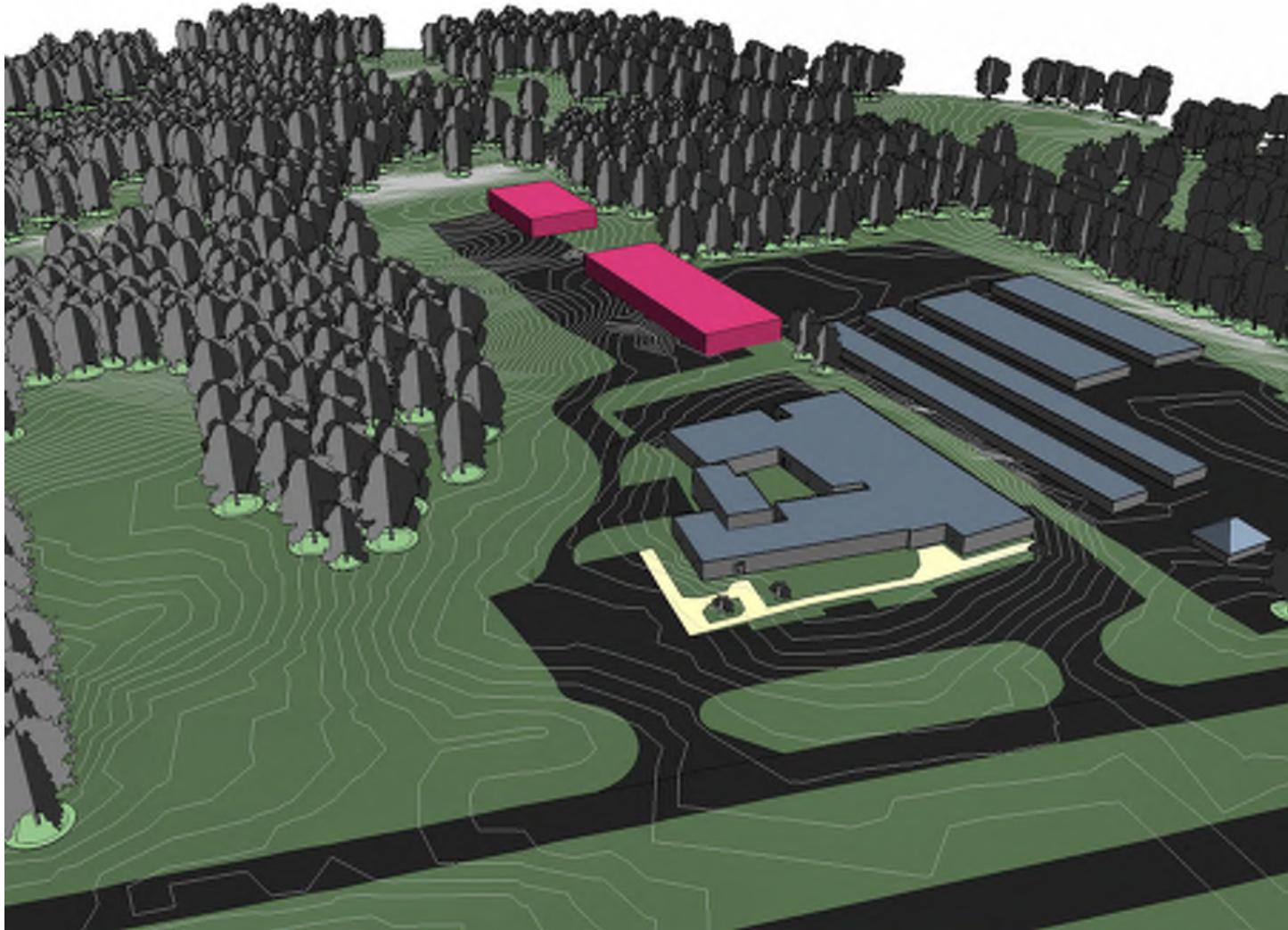


CENTRAL OPERATIONS FACILITY
TECH CENTER



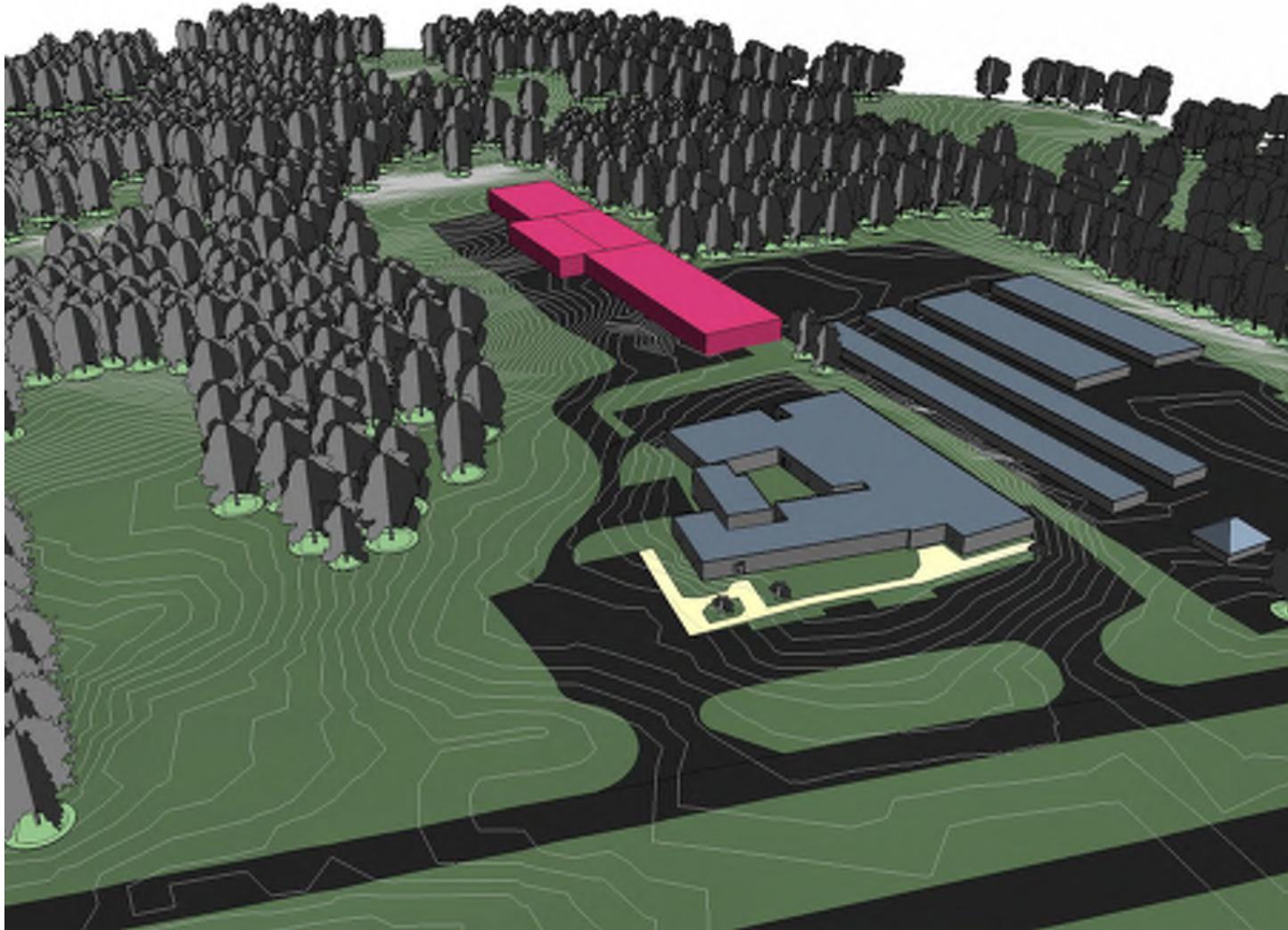
CENTRAL OPERATIONS FACILITY

CENTRAL KITCHEN



CENTRAL OPERATIONS FACILITY

MAINTENANCE

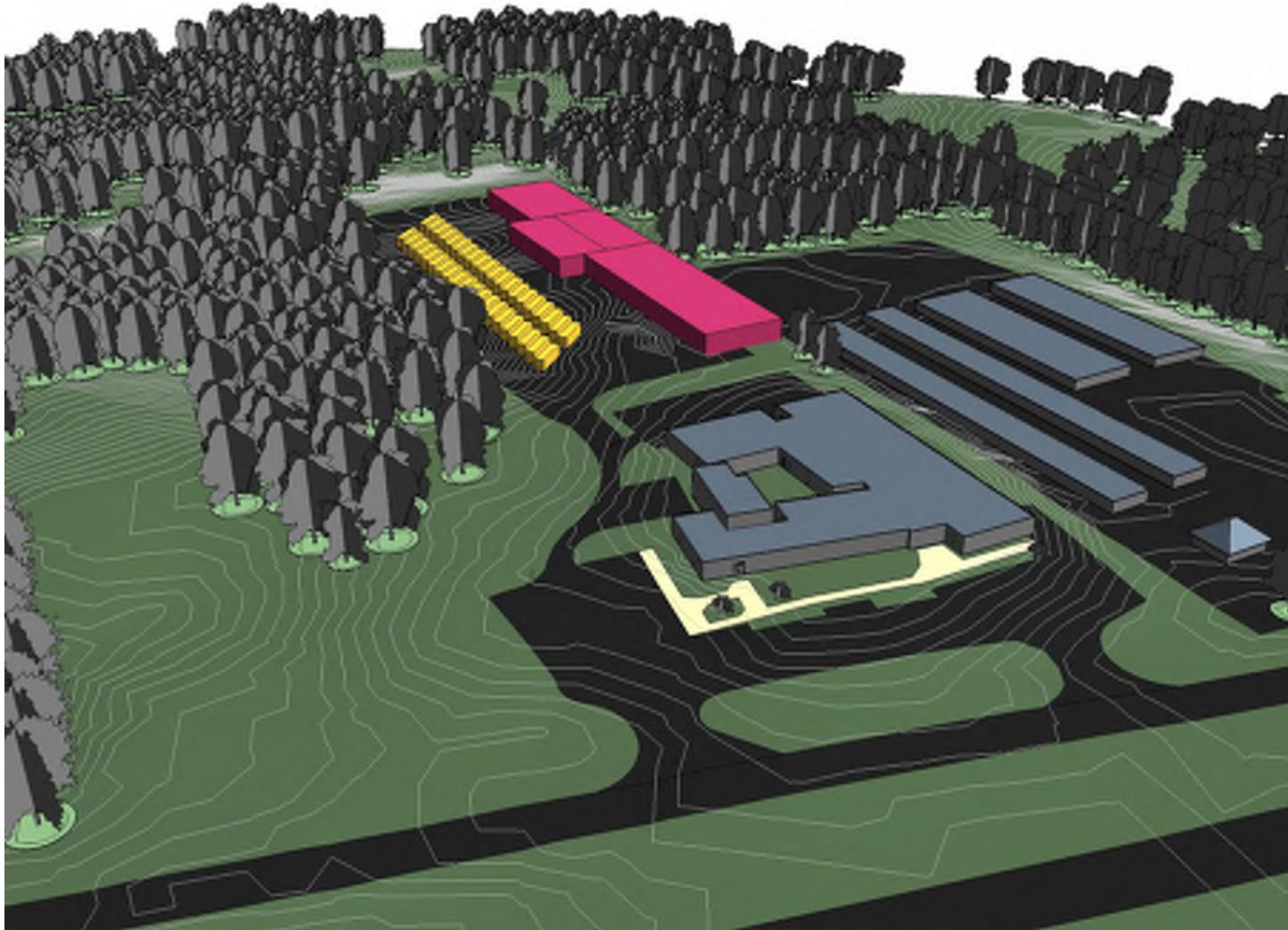


CENTRAL OPERATIONS FACILITY

OFFICES, STORAGE + TRAINING

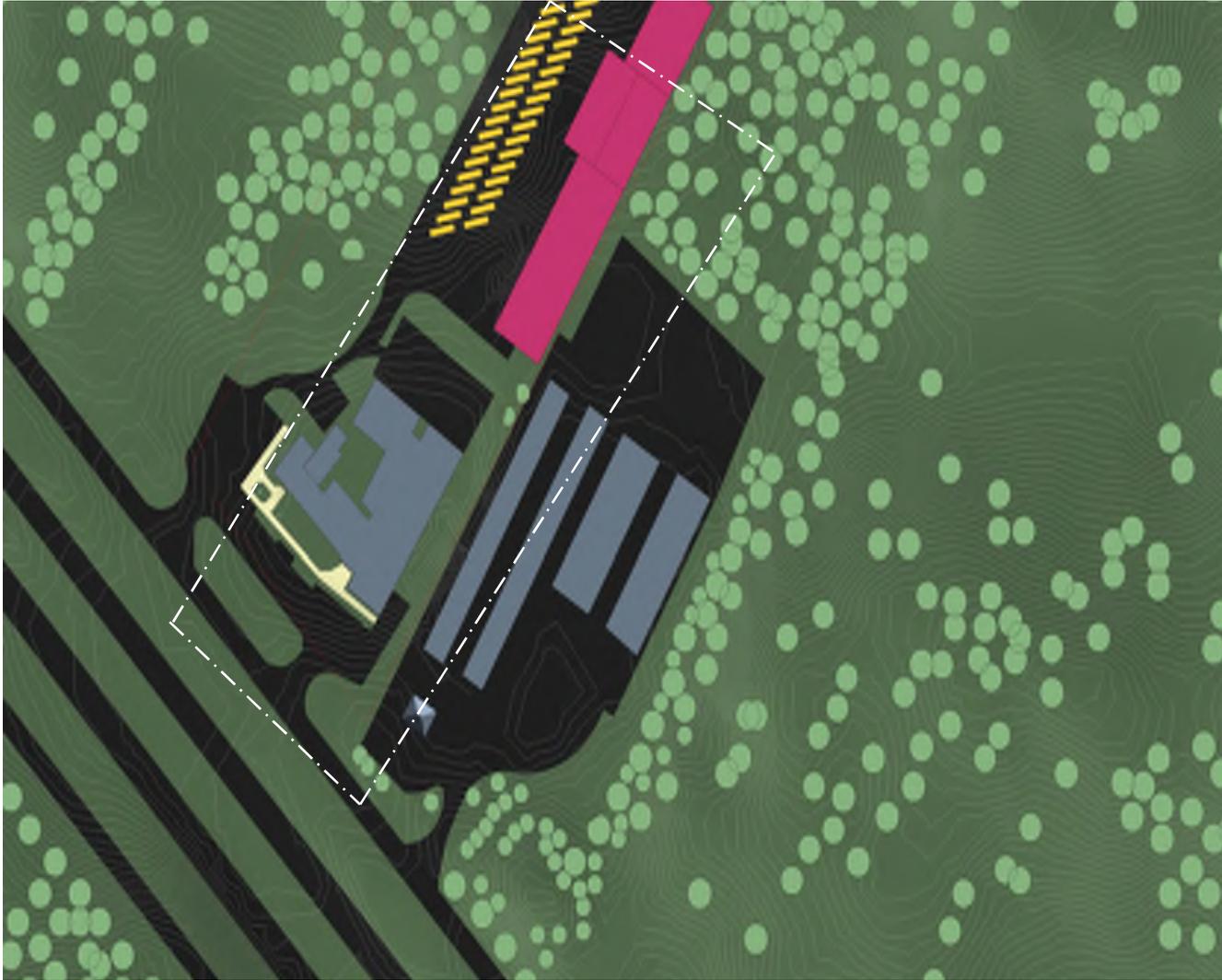
- Relocate **maintenance** to a long-term **central location** in district
 - opens up possibility for converting former space to school use (site or classroom)
- Central location for **all district deliveries** (food, supplies, furniture), in conjunction with **district storage** space
- Centralize administrative + office functions for district operations
 - With space for meetings, interviews, personnel issues
- Provide **training rooms** for district and community use
- Opportunities to **connect Tech Center** programs with **professionals** associated with the various fields
 - job shadowing ?
 - intern- or apprenticeships ?

CENTRAL OPERATIONS FACILITY



CENTRAL OPERATIONS FACILITY

CENTRAL BUS PARKING



CENTRAL OPERATIONS FACILITY

TECH CENTER



VMDO PRECEDENT - BUS STORAGE FACILITY

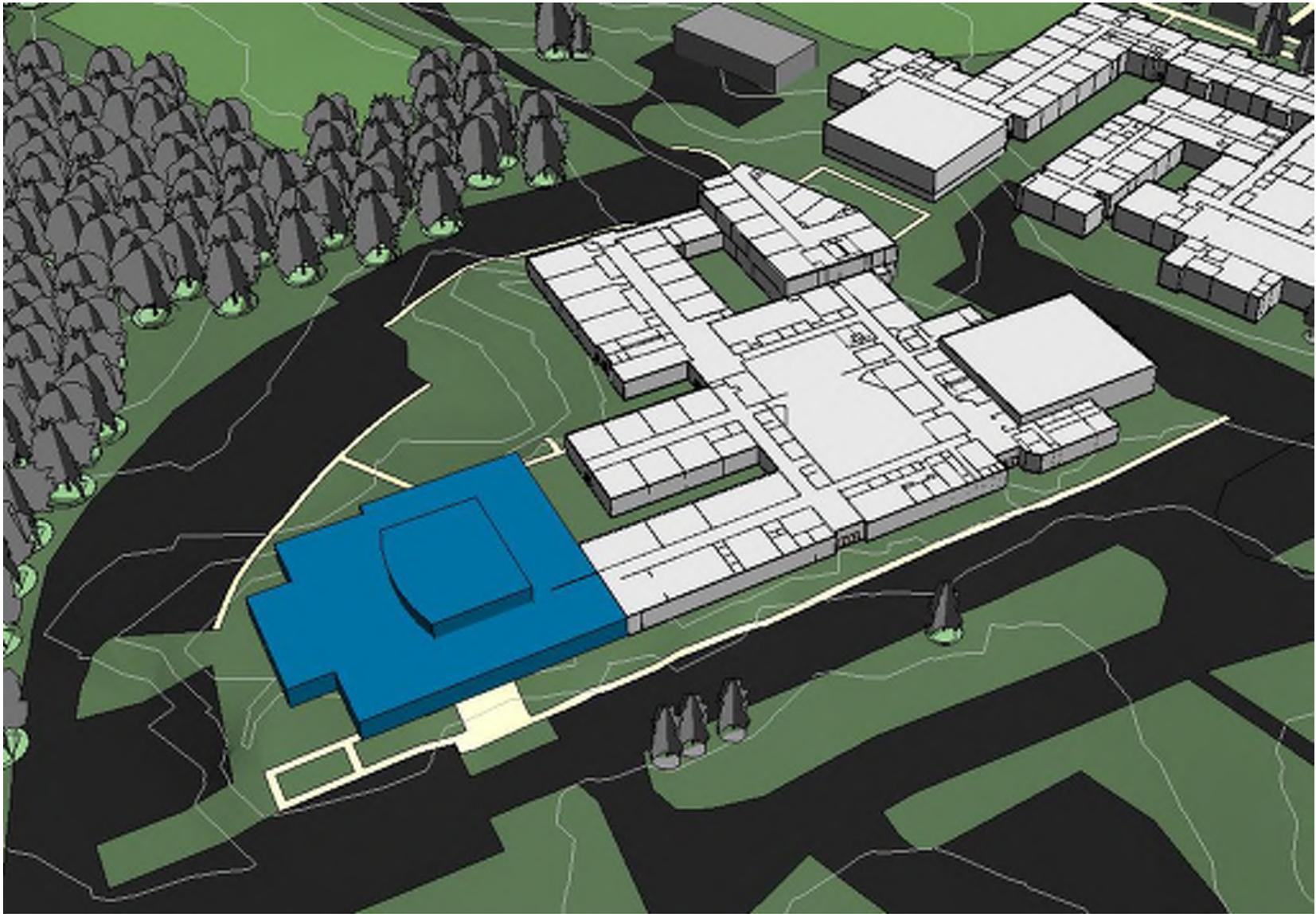
BUCKINGHAM PUBLIC SCHOOLS | DILLWYN, VA

- Ability to **secure** buses when not in use
- Streamline bus **cleaning + upgrades**
 - Proximity to county facility
- **Reduce presence of buses** at individual school sites
 - Give parking back to staff + visitors
 - Ability to use bus loop as visitor parking
 - Avoid obstructing views of main entries, schools
 - Improve the pedestrian experience on campuses, by reducing overall number of vehicles

HIGH SCHOOL



EXISTING
WILLIAM MONROE HIGH SCHOOL



PROPOSED DINING/MEDIA CENTER RENOVATION

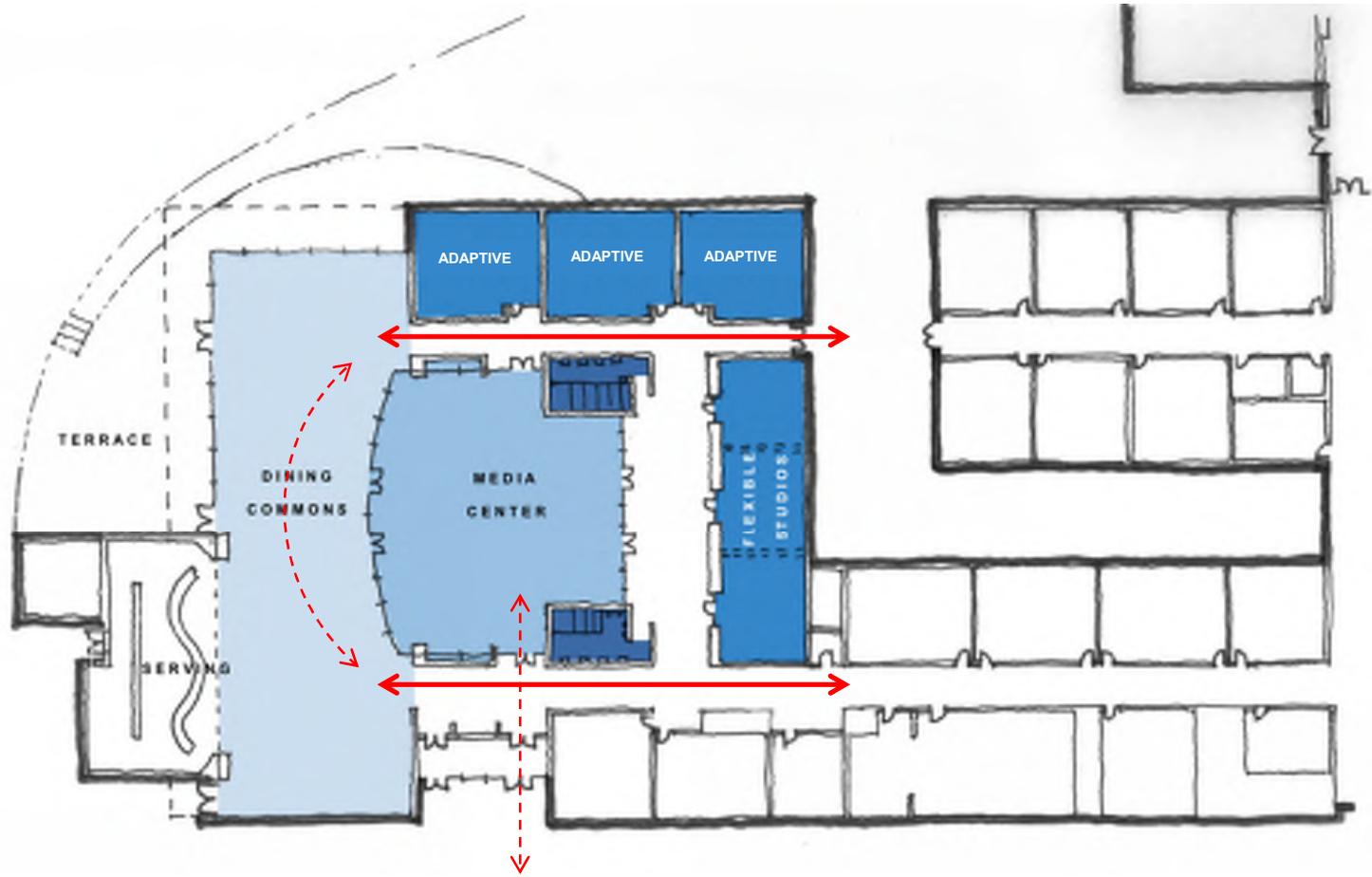
WILLIAM MONROE HIGH SCHOOL



370 Seats Dining, 630 Seats Assembly
(340 fixed seats currently)

PROPOSED DINING/MEDIA CENTER RENOVATION

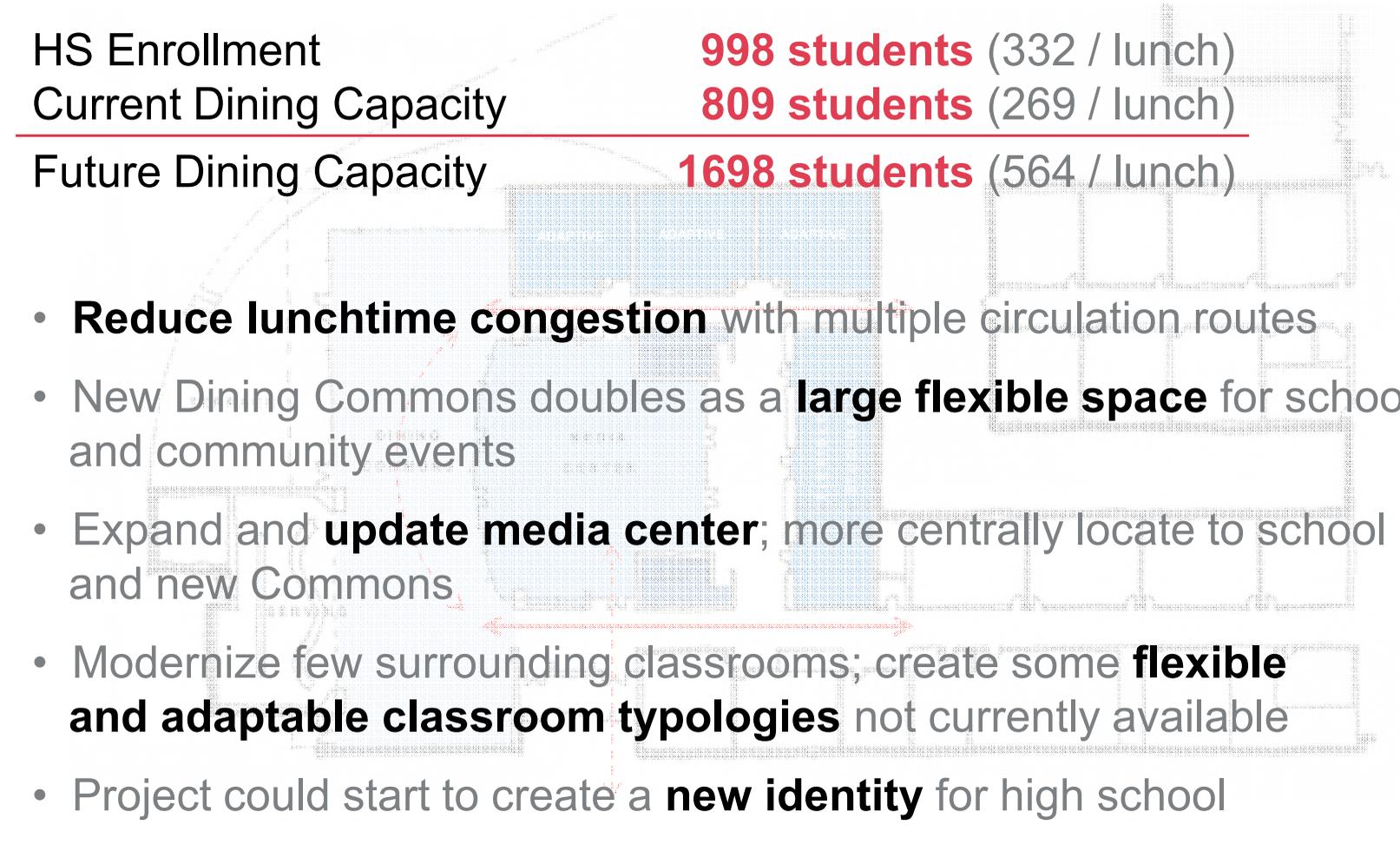
WILLIAM MONROE HIGH SCHOOL



370 Seats Dining, 630 Seats Assembly
(340 fixed seats currently)

PROPOSED DINING/MEDIA CENTER RENOVATION

WILLIAM MONROE HIGH SCHOOL



HS Enrollment	998 students (332 / lunch)
Current Dining Capacity	809 students (269 / lunch)
Future Dining Capacity	1698 students (564 / lunch)

- **Reduce lunchtime congestion** with multiple circulation routes
- New Dining Commons doubles as a **large flexible space** for school and community events
- Expand and **update media center**; more centrally locate to school and new Commons
- Modernize few surrounding classrooms; create some **flexible and adaptable classroom typologies** not currently available
- Project could start to create a **new identity** for high school

PROPOSED DINING/MEDIA CENTER RENOVATION

WILLIAM MONROE HIGH SCHOOL



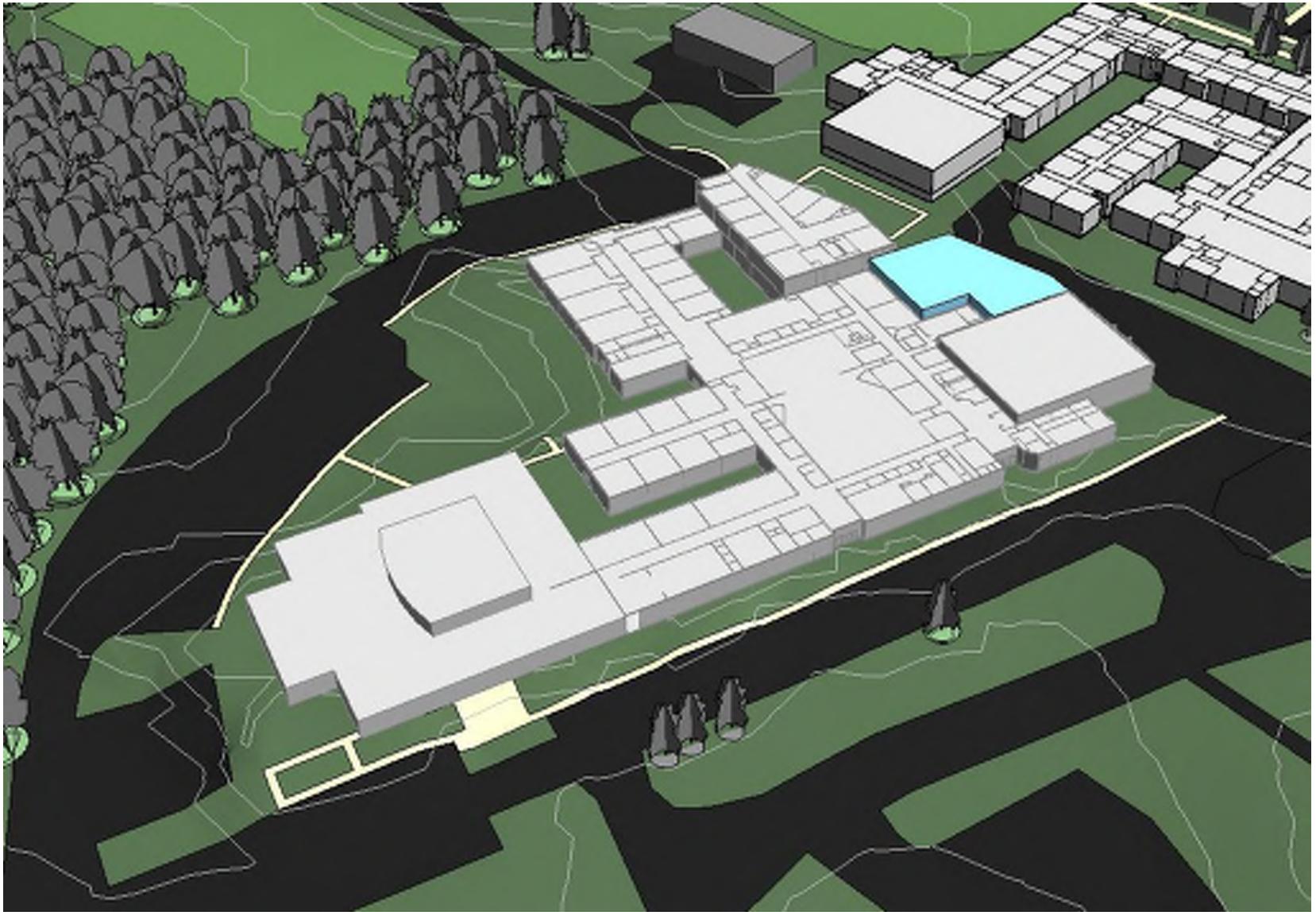
VMDO Precedent - DINING

DISCOVERY ELEMENTARY | ARLINGTON, VA



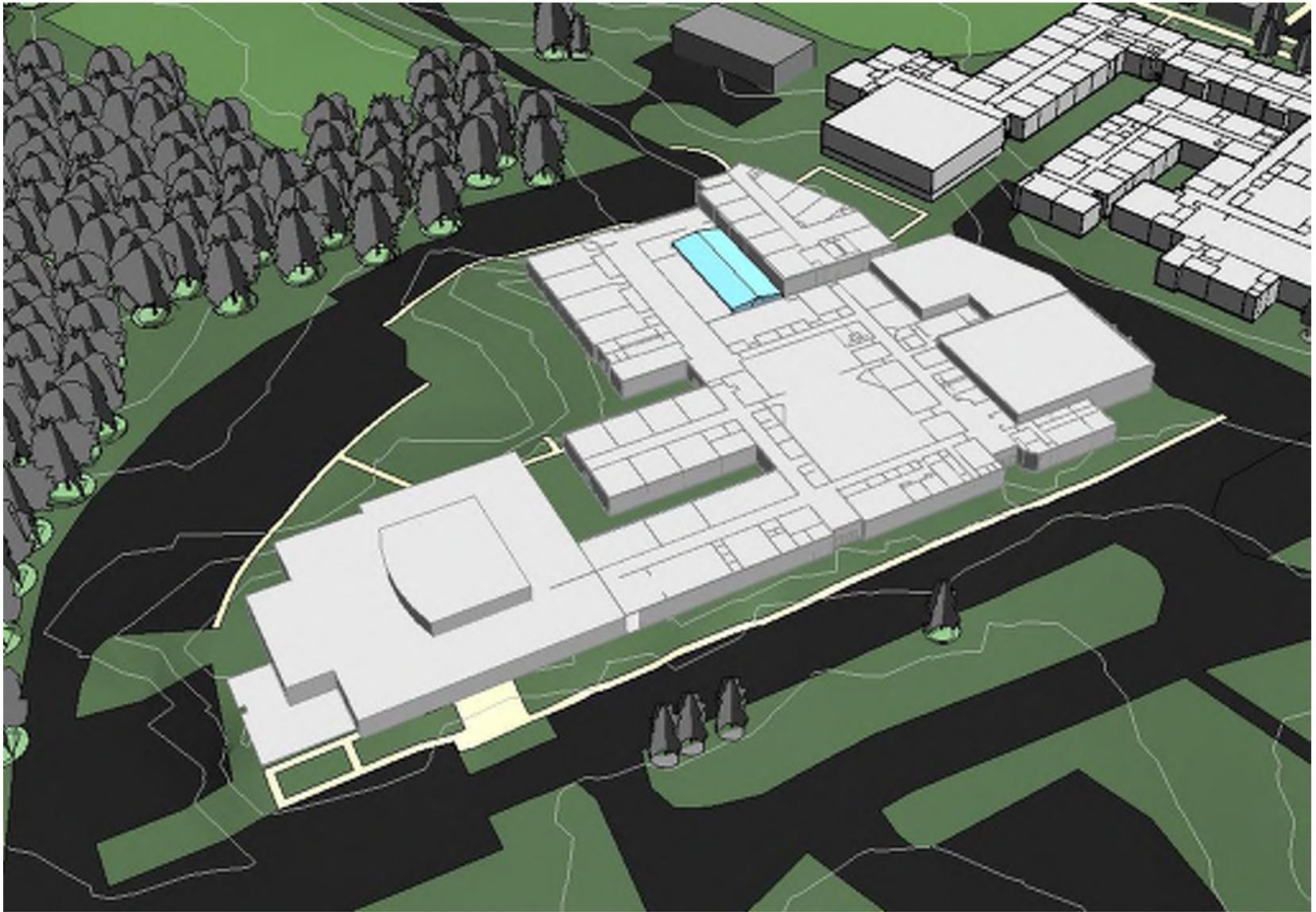
VMDO Precedent - DINING

BUCKINGHAM CO. ELEMENTARY | DILLWYN, VA



AUXILIARY GYM ADDITION

WILLIAM MONROE HIGH SCHOOL



INFILL EXTERIOR COURTYARD

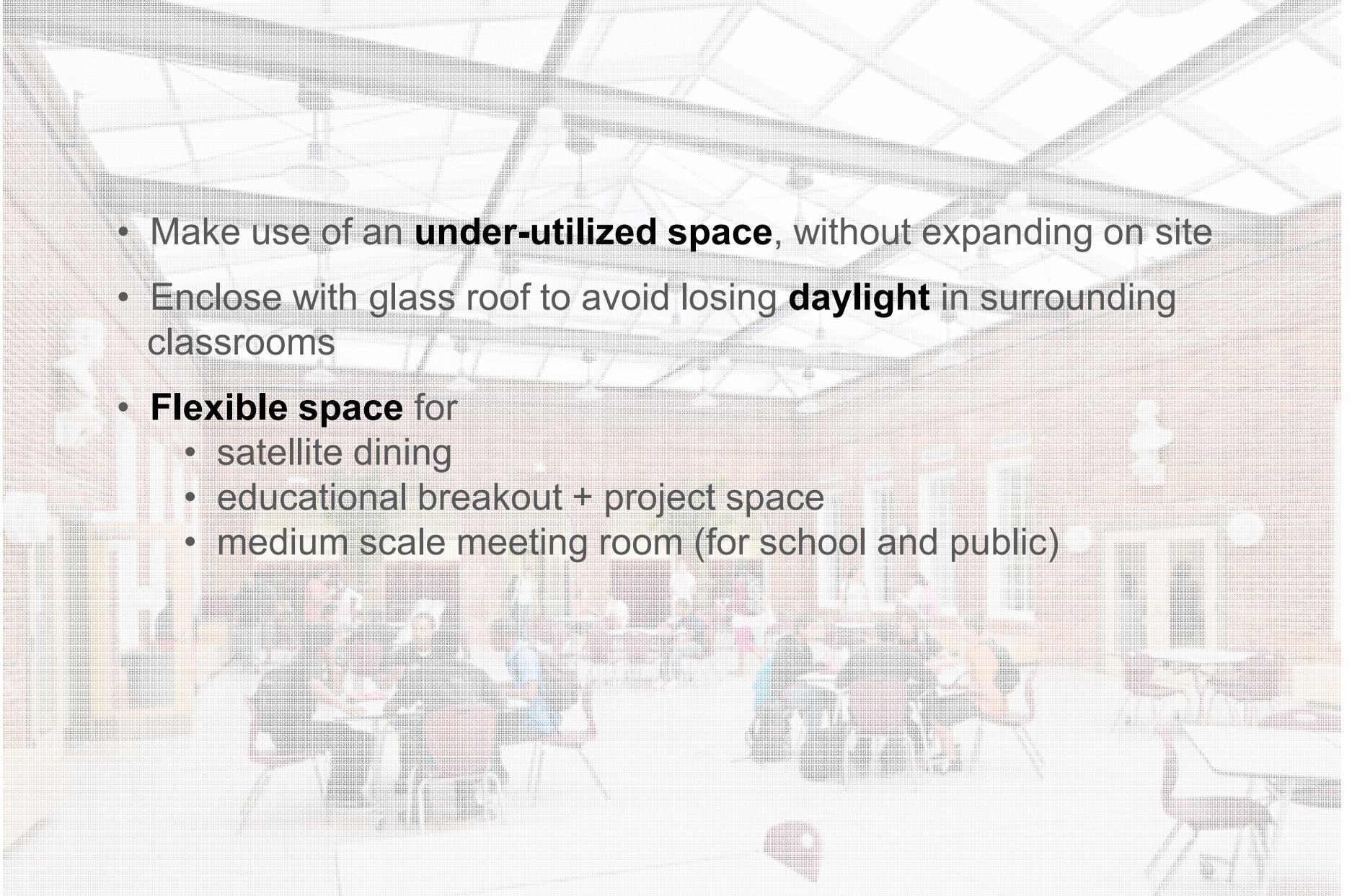
WILLIAM MONROE HIGH SCHOOL

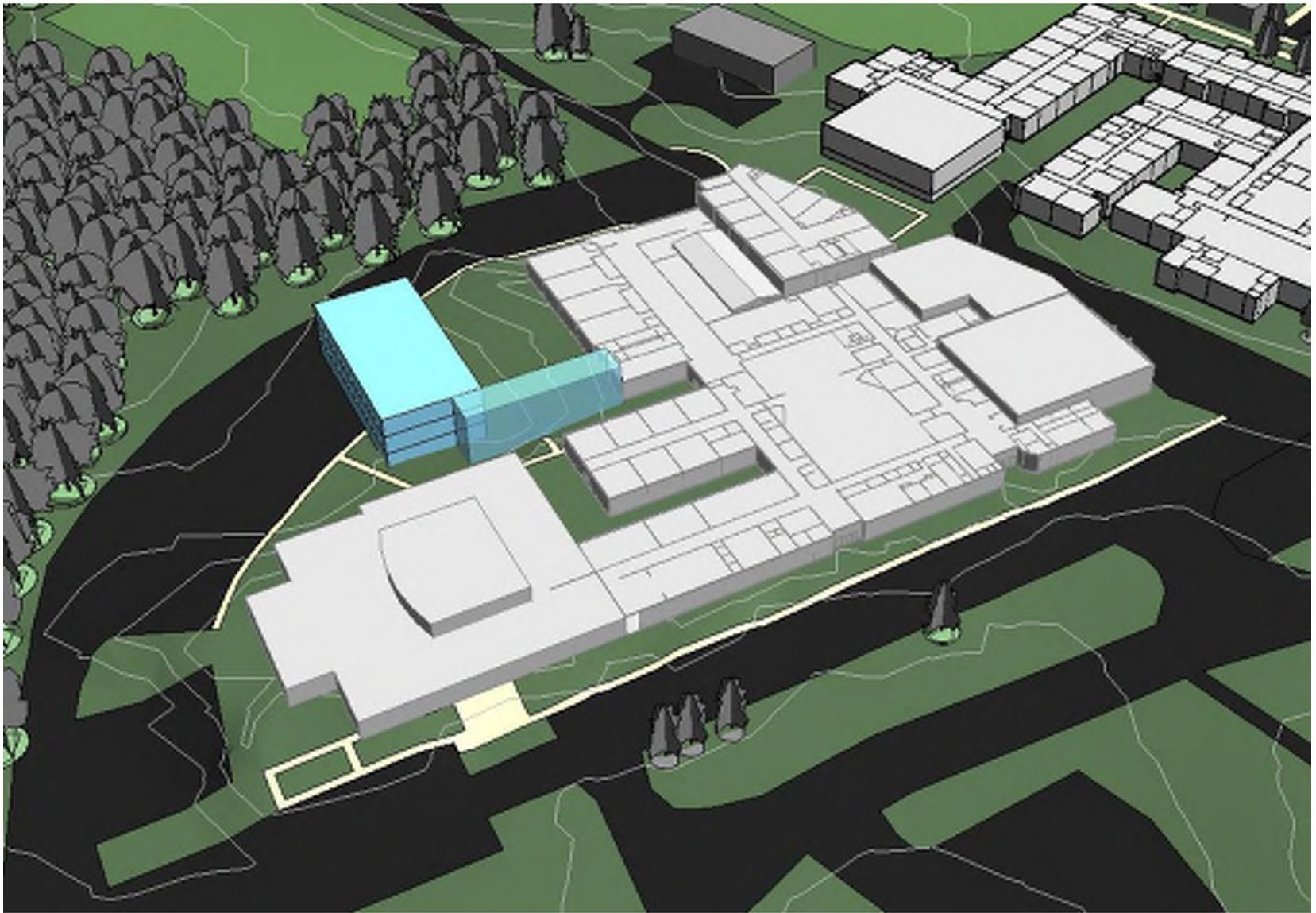


VMDO PRECEDENT - INFILL

JOHN HANDLEY HIGH SCHOOL | WINCHESTER, VA

- Make use of an **under-utilized space**, without expanding on site
- Enclose with glass roof to avoid losing **daylight** in surrounding classrooms
- **Flexible space** for
 - satellite dining
 - educational breakout + project space
 - medium scale meeting room (for school and public)



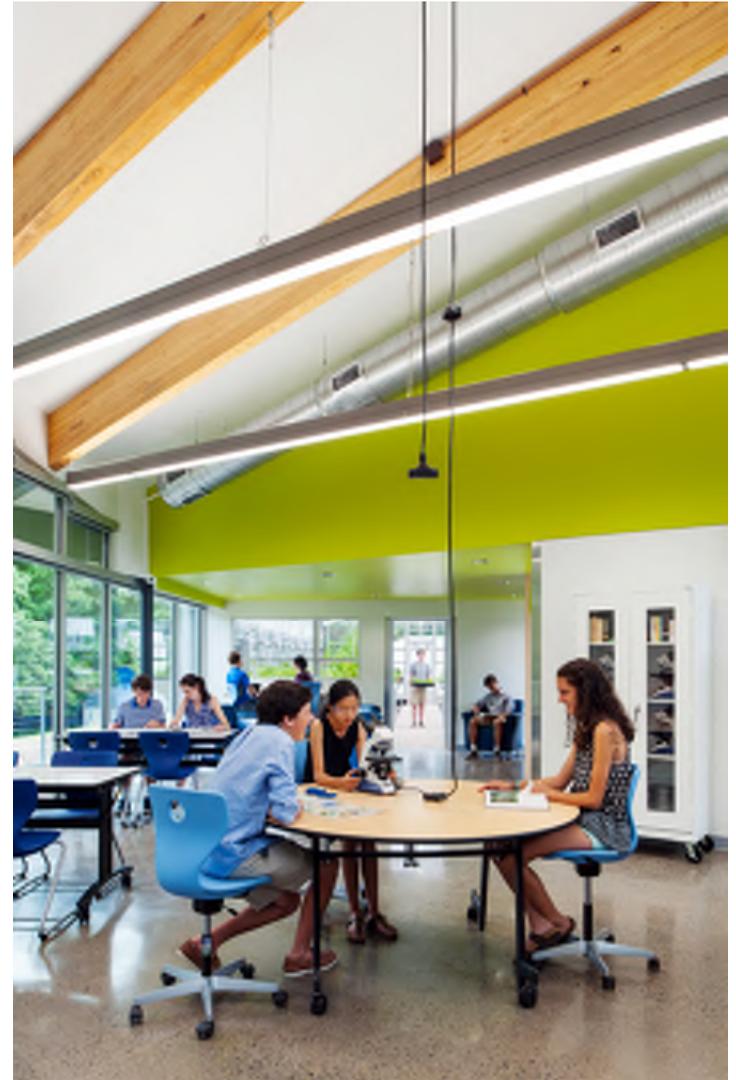


CLASSROOM ADDITION (+300 students)

WILLIAM MONROE HIGH SCHOOL



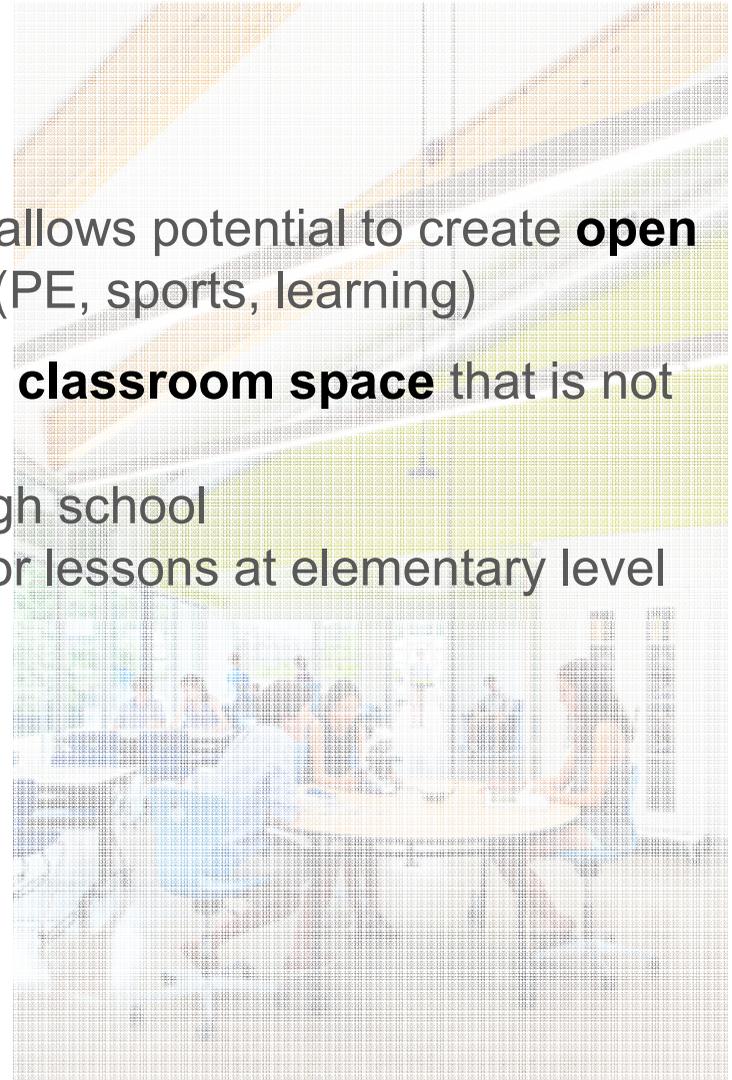
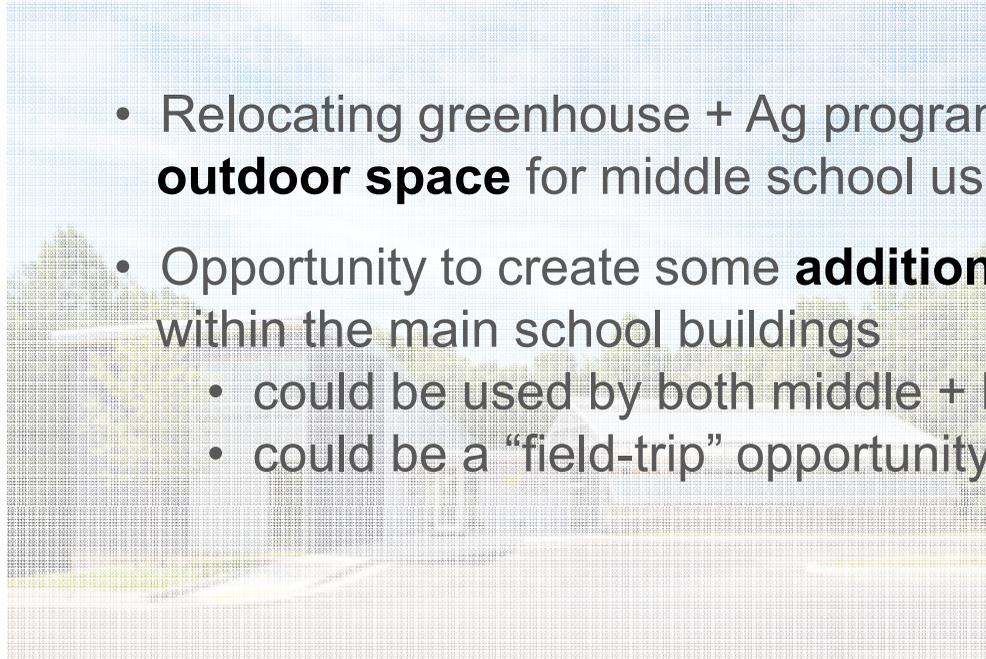
RELOCATE AG/SHOP
WILLIAM MONROE HIGH SCHOOL



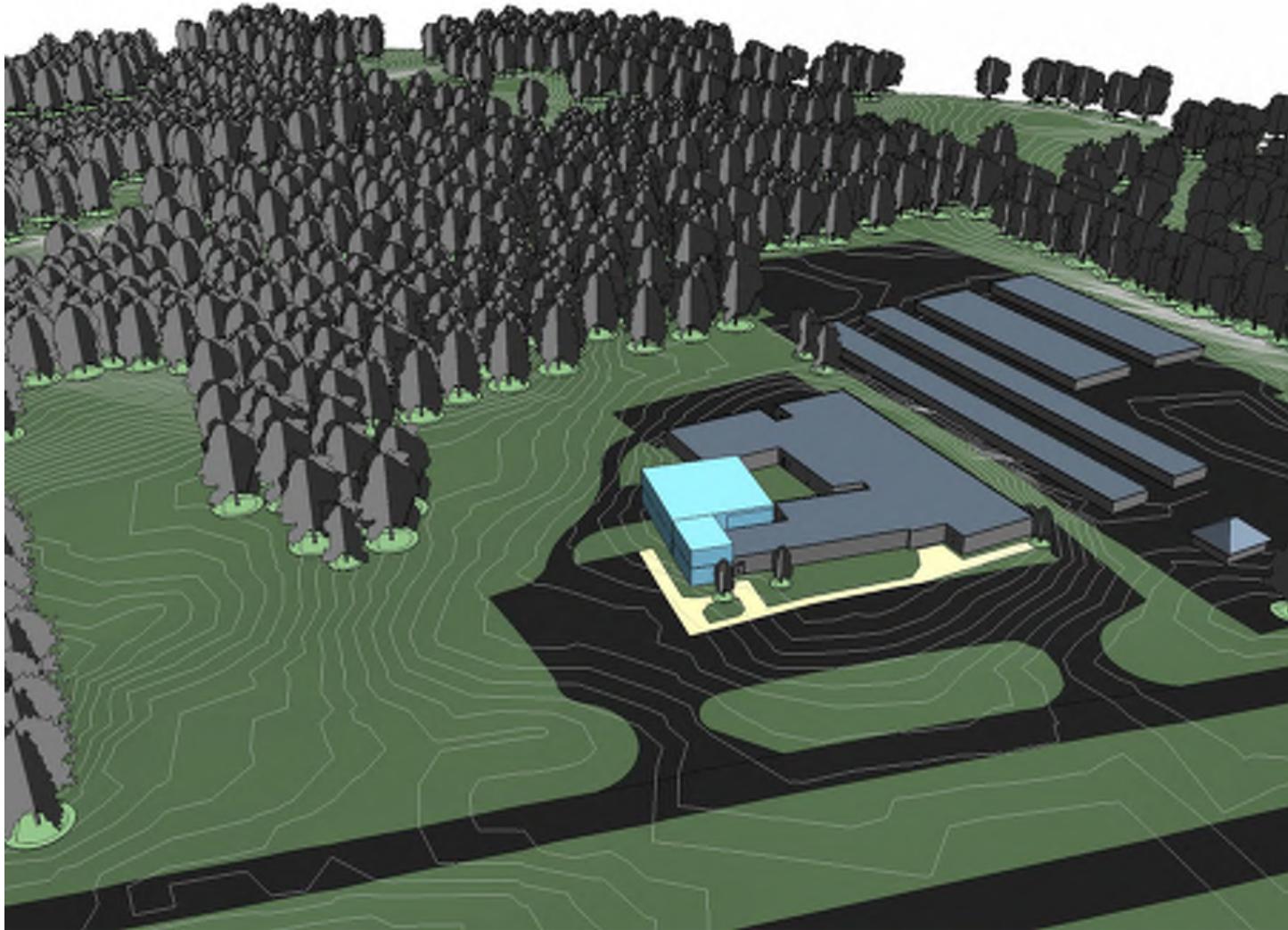
VMDO Precedent – ENVIRONMENTAL SCIENCE ACADEMY

WESTERN ALBEMARLE HIGH | CROZET, VA

- Relocating greenhouse + Ag program allows potential to create **open outdoor space** for middle school use (PE, sports, learning)
- Opportunity to create some **additional classroom space** that is not within the main school buildings
 - could be used by both middle + high school
 - could be a “field-trip” opportunity for lessons at elementary level



TECH CENTER



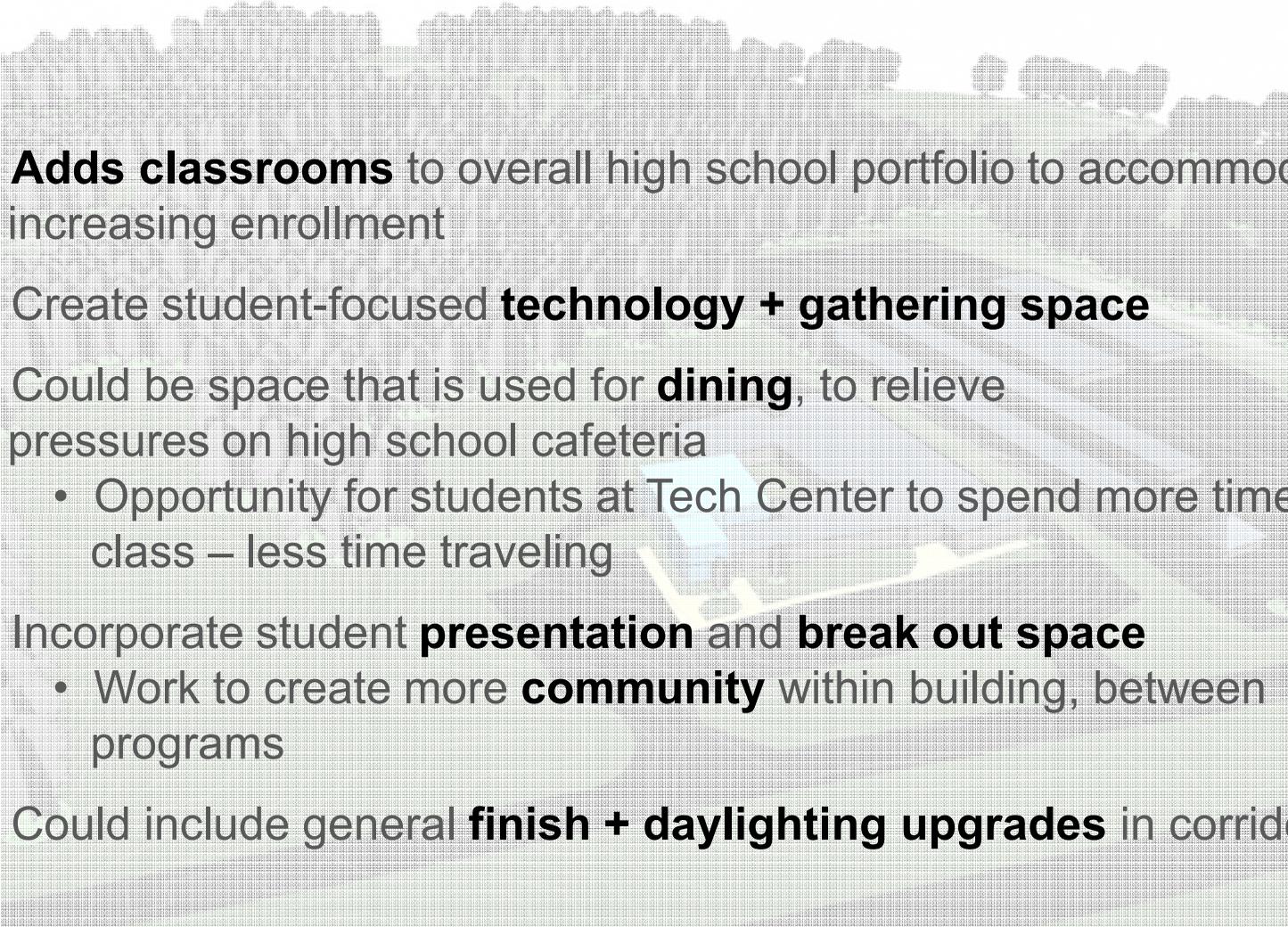
TECHNOLOGY HUB/CLASSROOM ADDITION

TECH CENTER



TECHNOLOGY HUB/CLASSROOM ADDITION

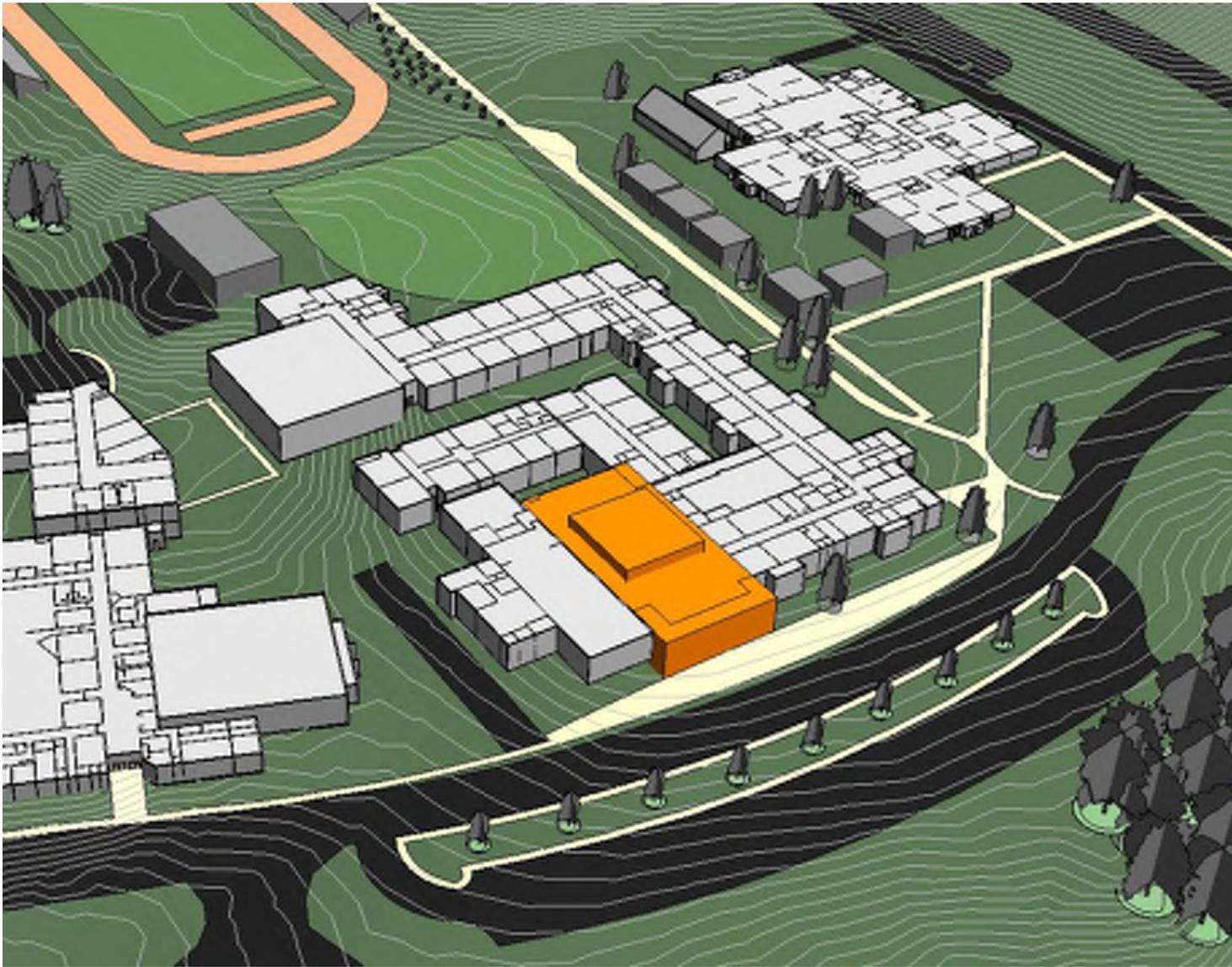
TECH CENTER

- 
- **Adds classrooms** to overall high school portfolio to accommodate increasing enrollment
 - Create student-focused **technology + gathering space**
 - Could be space that is used for **dining**, to relieve pressures on high school cafeteria
 - Opportunity for students at Tech Center to spend more time in class – less time traveling
 - Incorporate student **presentation** and **break out space**
 - Work to create more **community** within building, between programs
 - Could include general **finish + daylighting upgrades** in corridors

MIDDLE SCHOOL



William Monroe MIDDLE SCHOOL
EXISTING



RENOVATE DINING/MEDIA + RELOCATE ADMIN

MIDDLE SCHOOL



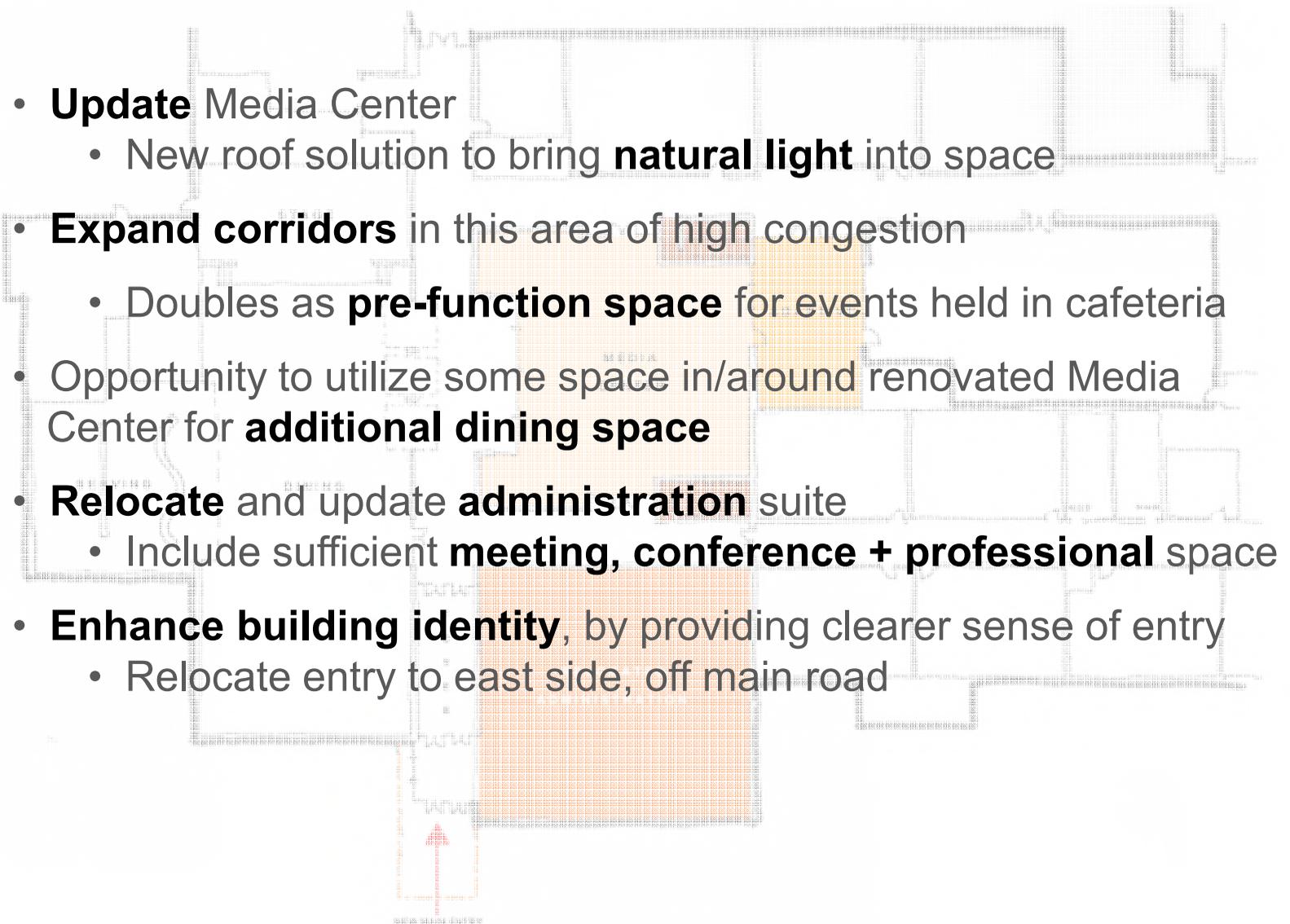
RENOVATE DINING/MEDIA + RELOCATE ADMIN

MIDDLE SCHOOL



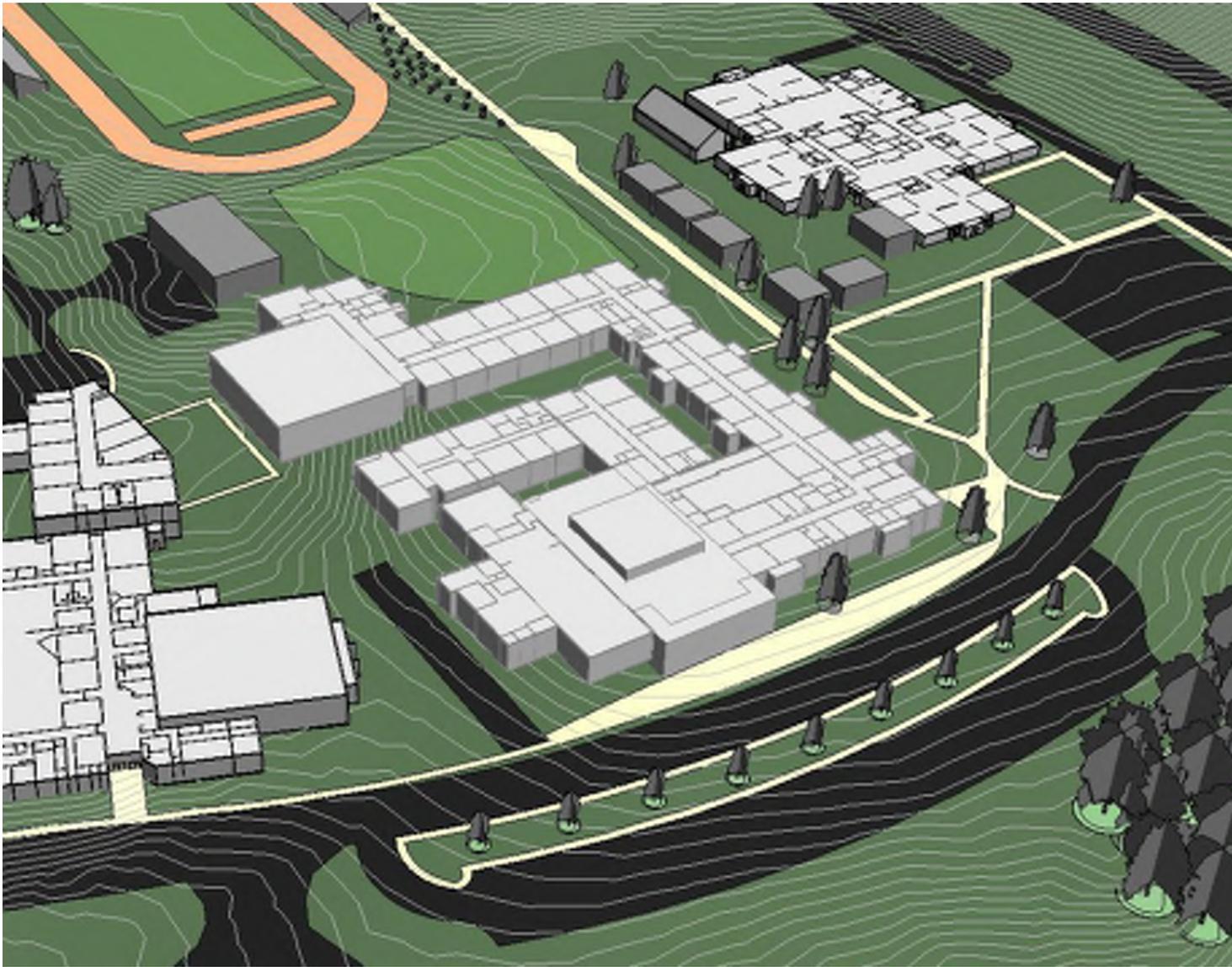
CSO Architects

MIDDLE SCHOOL - NEW IDENTITY

- 
- **Update Media Center**
 - New roof solution to bring **natural light** into space
 - **Expand corridors** in this area of high congestion
 - Doubles as **pre-function space** for events held in cafeteria
 - Opportunity to utilize some space in/around renovated Media Center for **additional dining space**
 - **Relocate** and update **administration** suite
 - Include sufficient **meeting, conference + professional** space
 - **Enhance building identity**, by providing clearer sense of entry
 - Relocate entry to east side, off main road

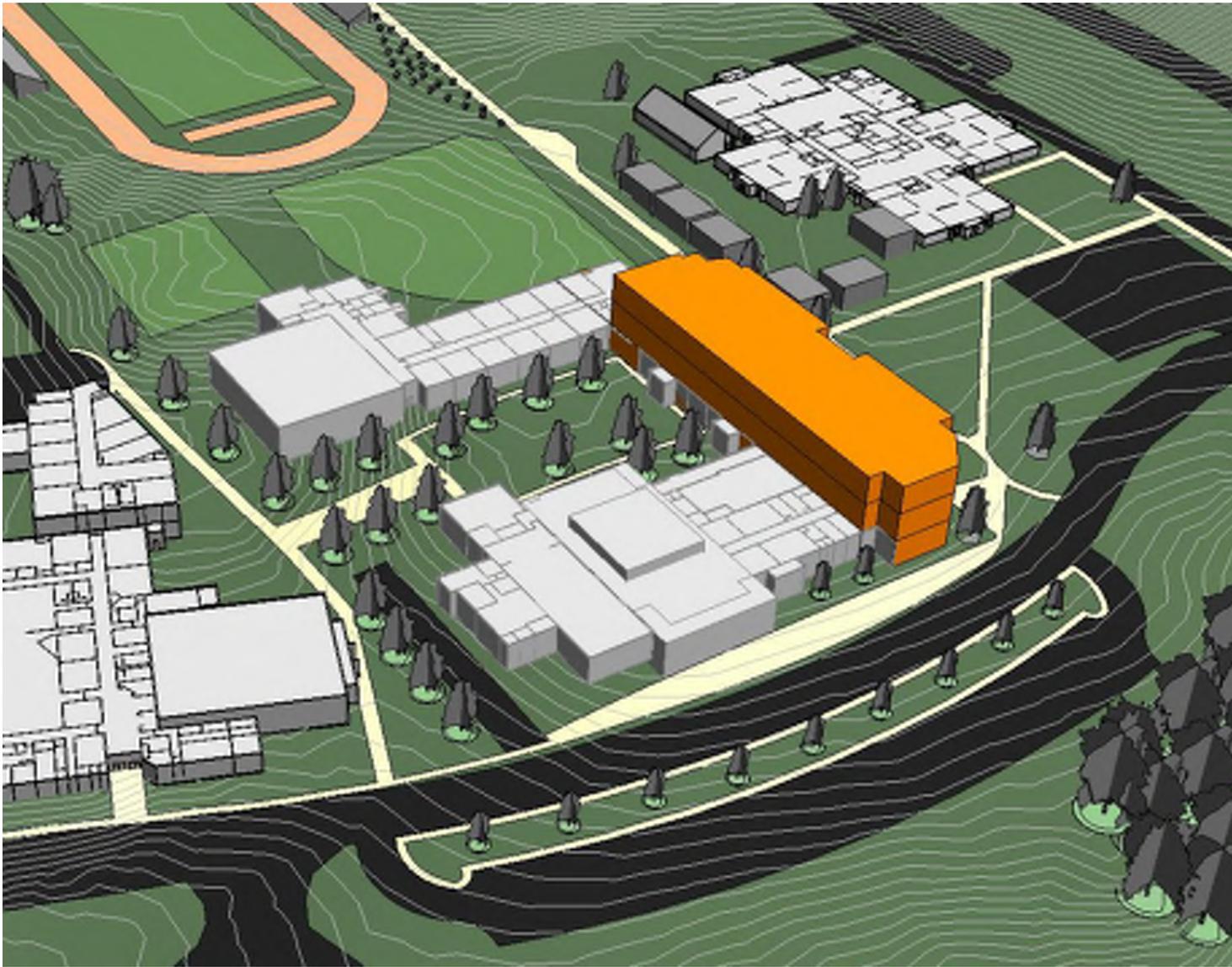
RENOVATE DINING/MEDIA + RELOCATE ADMIN

MIDDLE SCHOOL



VERTICAL CLASSROOM ADDITION & QUAD

MIDDLE SCHOOL



VERTICAL CLASSROOM ADDITION & QUAD

MIDDLE SCHOOL



VMDO PRECEDENT - VERTICAL ADDITION

FAUQUIER HIGH | WARRENTON, VA

ELEMENTARY SCHOOL



NEW ELEMENTARY SCHOOL

SITE TBD



VMDO Precedent - ELEMENTARY

MANASSAS PARK ELEMENTARY | MANASSAS PARK, VA

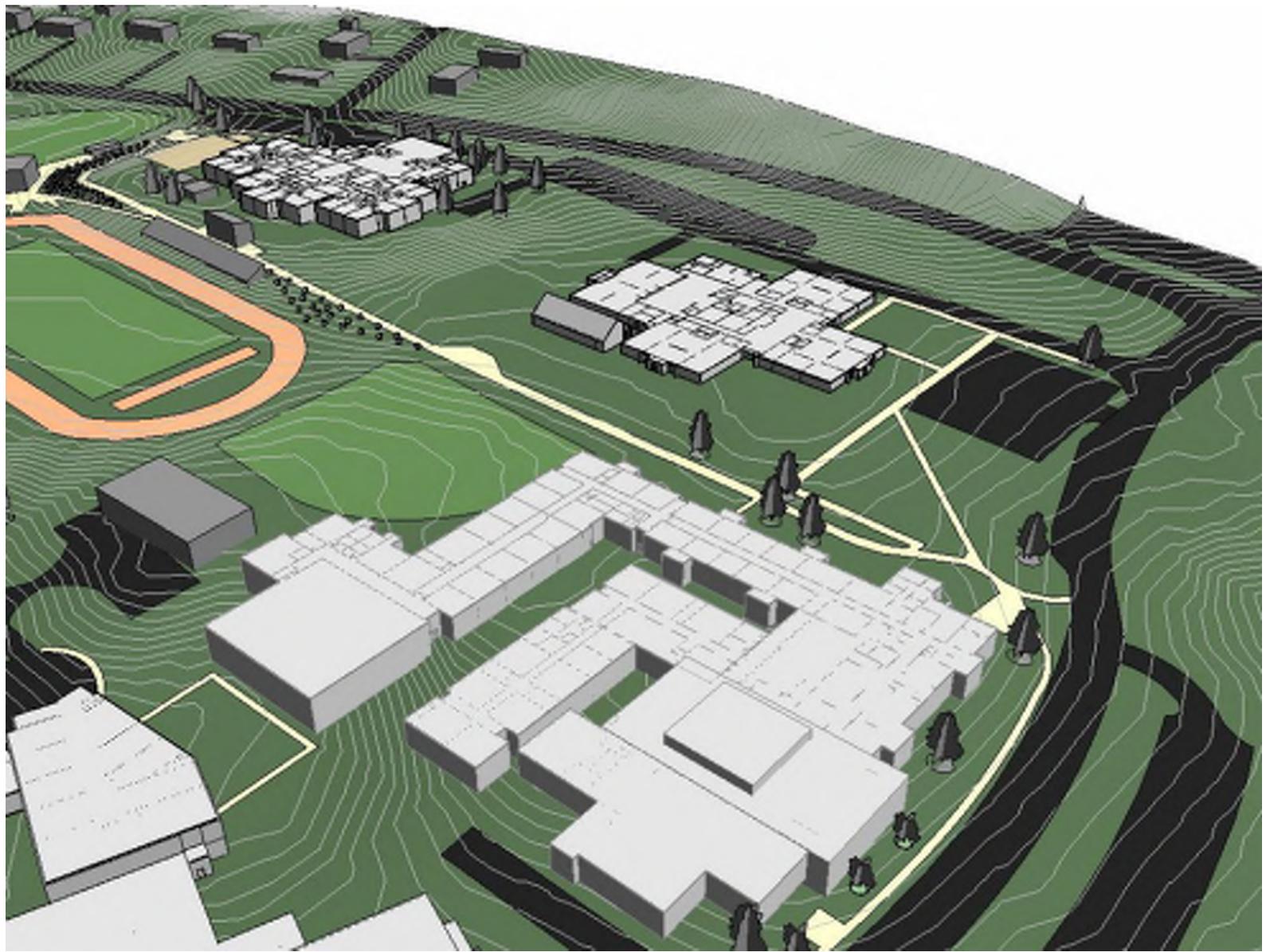
QUESTIONS

- DATE NEEDED ?
- SIZE + CAPACITY ?
- LOCATION ?

Ruckersville, east side of county

Route 810

other?



COMBINED NATHANAEL GREENE ELEMENTARY

STANARDSVILLE CAMPUS



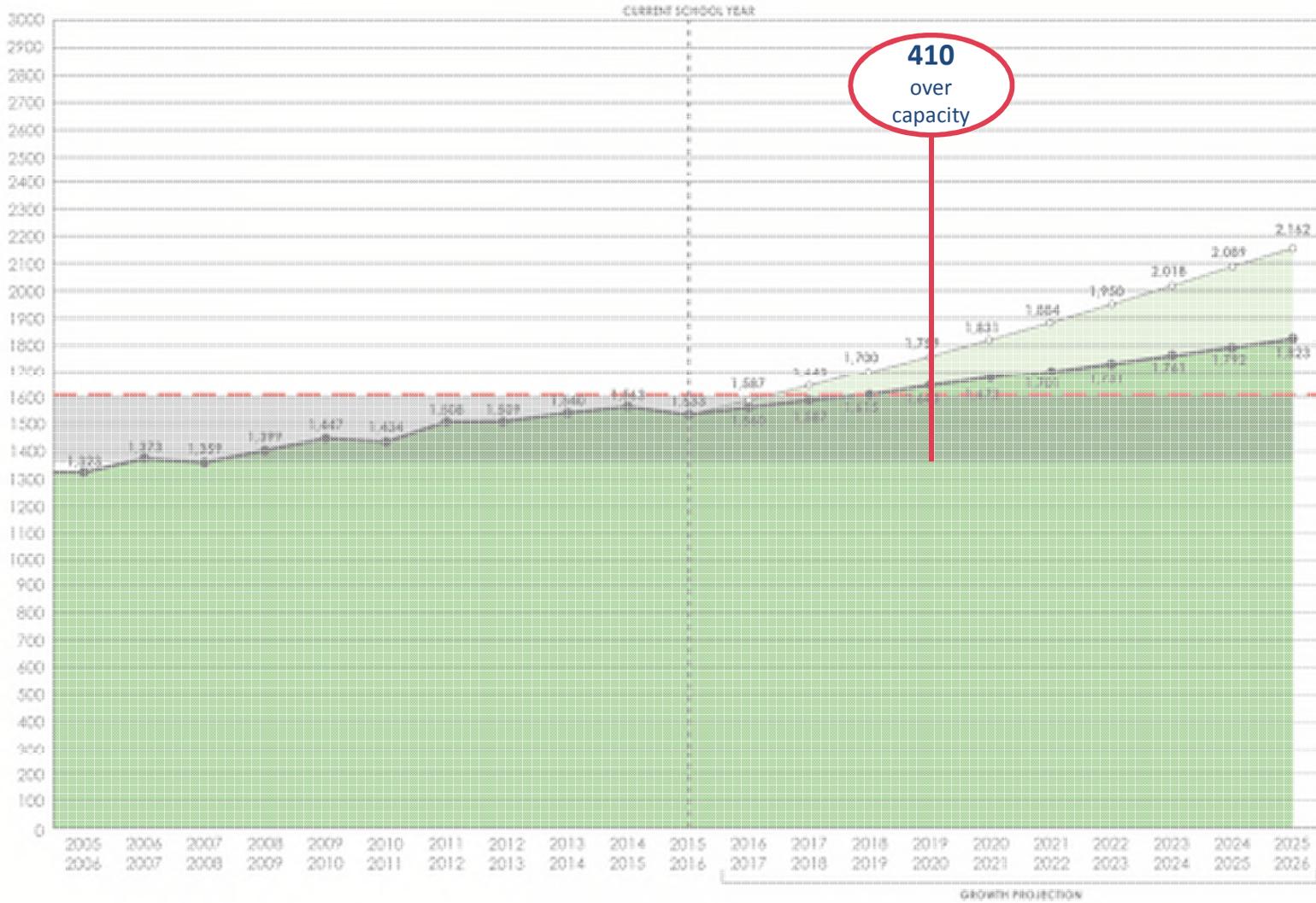
COMBINED NATHANAEL GREENE ELEMENTARY

STANARDSVILLE CAMPUS



COMBINED NATHANAEL GREENE ELEMENTARY

STANARDSVILLE CAMPUS



410
over
capacity

SCHEDULE + NEED
ELEMENTARY CAPACITY

STUDENT LIFE + INTERIOR ENVIRONMENT

- Provide **spatial relief** in congested corridors
- Break up long corridors with **connection to the outdoors**
- Create unique student and class **gathering + breakout** spaces
- Locations could also be converted to **teacher centers**
- Strategies applicable at **all facilities**



Scale: 1" = 40'

EXISTING CORRIDORS

WILLIAM MONROE HIGH SCHOOL



CORRIDOR EXPANSION (STUDENT LIFE)

WILLIAM MONROE HIGH SCHOOL



Scale: 1" = 40'

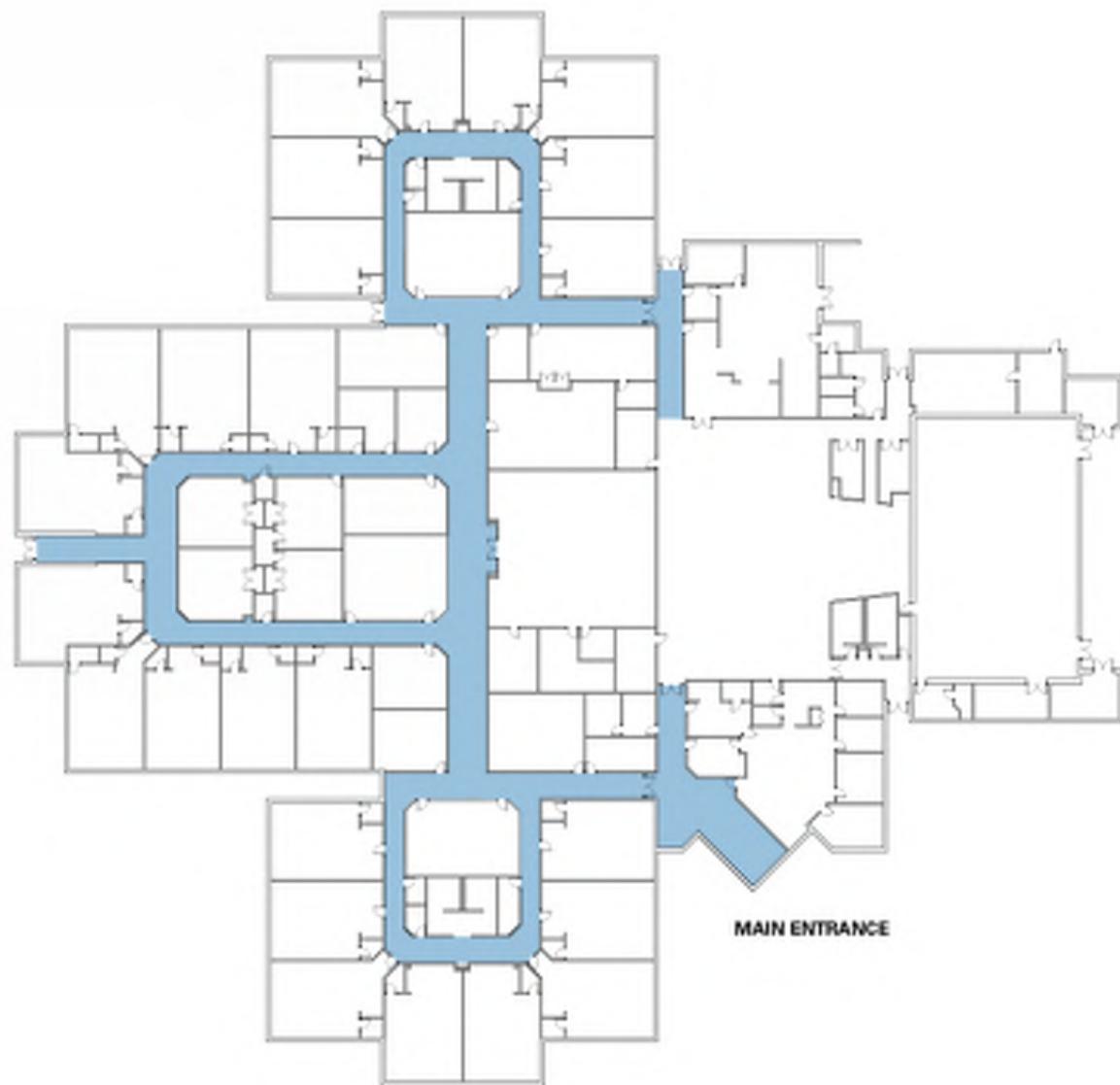
EXISTING CORRIDORS
MIDDLE SCHOOL



Scale: 1" = 40'

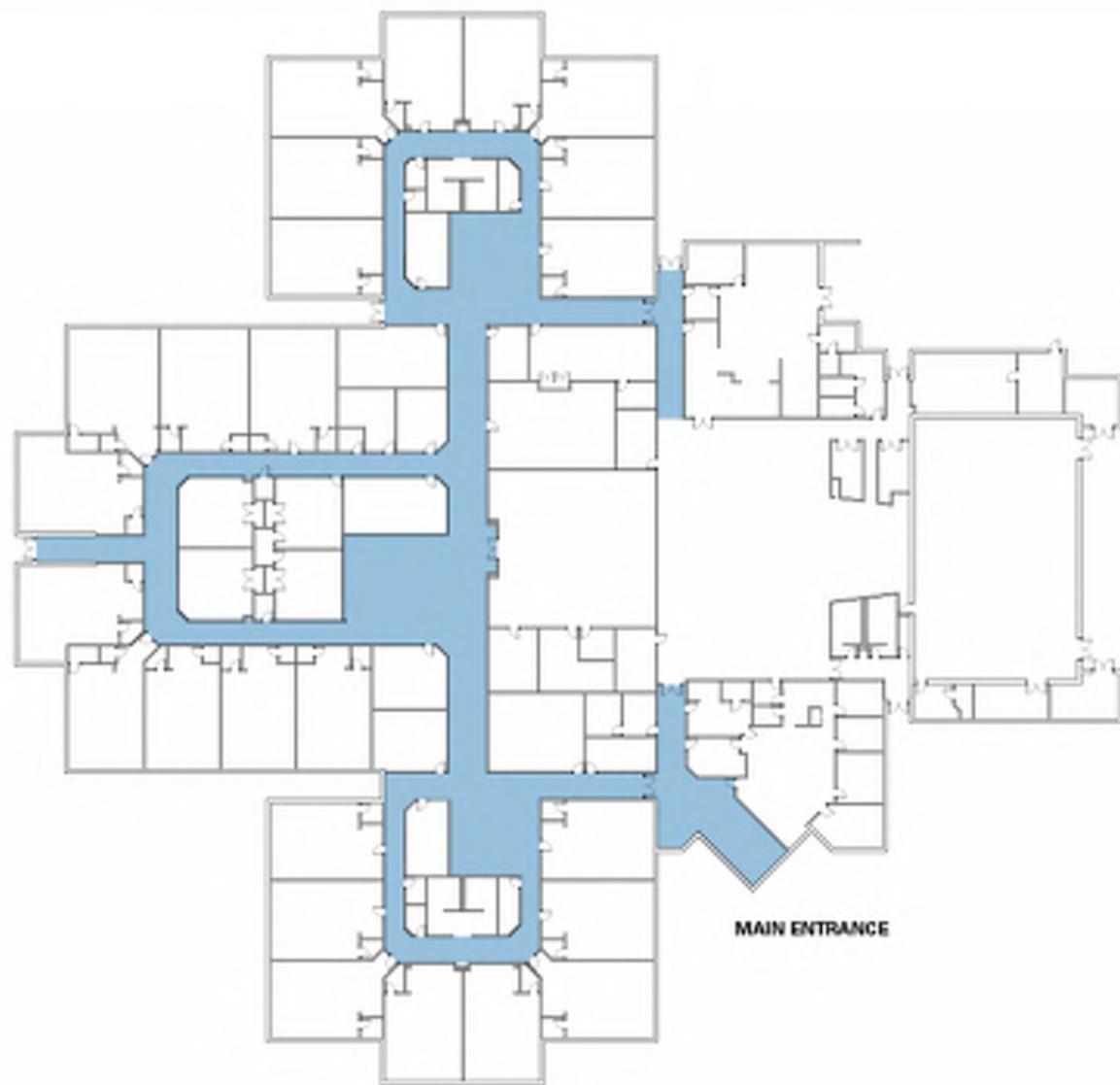
CORRIDOR EXPANSION (STUDENT LIFE)

MIDDLE SCHOOL



EXISTING CORRIDORS

ELEMENTARY SCHOOL



MAIN ENTRANCE

EXTENDED LEARNING
ELEMENTARY SCHOOL



VMDO PRECEDENT- BREAKOUT SPACES

FAUQUIER HIGH | WARRENTON, VA



VMDO PRECEDENT- BREAKOUT SPACES

FAUQUIER HIGH | WARRENTON, VA



VMDO PRECEDENT- BREAKOUT SPACES

BUCKINGHAM ELEMENTARY | DILLWYN,
VA



VMDO PRECEDENT- BREAKOUT SPACES
BUCKINGHAM ELEMENTARY | DILLWYN, VA



VMDO Precedent – ELEMENTARY SCHOOL BREAKOUT

BUCKINGHAM CO. ELEMENTARY | DILLWYN, VA



VMDO Precedent – ELEMENTARY SCHOOL BREAKOUT

DISCOVERY ELEMENTARY | ARLINGTON, VA



VMDO Precedent – ELEMENTARY SCHOOL BREAKOUT
DISCOVERY ELEMENTARY | ARLINGTON, VA



VMDO Precedent – STUDENT-CENTRIC SPACES

BUCKINGHAM CO. ELEMENTARY | DILLWYN, VA



VMDO Precedent – STUDENT-CENTRIC SPACES

DISCOVERY ELEMENTARY | ARLINGTON, VA

NEXT STEPS

- **School Board Meeting – Aug 10th**
 - Obtain a sense of interest, priority, feasibility
 - VMDO to refine project options to recommendations, based on feedback
- **School Board Meeting – Sept 7th**
 - Present recommendations to Board, with early project timelines
 - Obtain final comments
- **School Board Meeting – Oct 5th**
 - Provide project recommendations
 - Provide estimated timeline for projects + data on how capacity is affected at each stage
 - Provide cost estimates for recommended projects

NEXT STEPS

V M D O