

PWCS VISION 2025

LAUNCHING THRIVING FUTURES

Capital Improvements Program

Fiscal Years 2023-32



Prince William County
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CAPITAL IMPROVEMENTS PROGRAM

Overview - Fiscal Years 2023-32

Prince William County Public Schools (PWCS) is the second largest of 132 school divisions in the Commonwealth of Virginia and the 36th largest school division in the country. The School Division provides services to over 7% of the state's student enrollment. The total 2021-22 enrollment is 89,468 students with permanent capacity for 95,218 students. This capacity is supplemented with 188 instructional portable classrooms.

PWCS is organized to focus on meeting the needs of its students and employees while managing 97 schools, along with administrative and support facilities. Capital needs are determined through the development of the Capital Improvements Program (CIP) which is annually updated to maintain a ten-year projection of the School Division's capital needs based upon student population growth and needed school facility renovations. It is a list of facility projects and associated funding allocations identified for the budget.

The CIP serves as a tool for planning and implementing the capital improvement projects needed to house students and employees adequately. Permanent capacity is set to increase by 6,541 seats over the next ten years with completion of the school facility construction identified within this CIP.

Since it is difficult, if not impossible, to address all county and School Division needs in a single year, a long-term approach to balance expenditures with anticipated revenues must occur. Therefore, the CIP is an ongoing plan designed to reduce portable classrooms by addressing the need for construction of new school facilities and classroom additions to existing schools. Elements of the CIP also include site acquisition, renovations of existing facilities, upgrading and maintaining the School Division's infrastructure, Title IX improvements, energy infrastructure improvements, and sustainability initiatives.

The CIP is a blueprint of work to be performed over the next ten-year period as determined in assessments of building infrastructure needs, school capacities, and school space utilization. Faced with continuing growth in enrollment, the CIP enables the School Division to address the changing enrollment patterns and utilize facilities in ways that are consistent with PWCS Vision 2025, Launching Thriving Futures Strategic Plan. The School Division budget provides funding for the CIP that focuses on the need for new facilities and additions to address growth. The CIP also funds multiple renovation projects to ensure older schools are modernized to the greatest extent possible within the provided budget.

The CIP is reviewed and updated on an annual basis, with long range plans adjusted based on enrollment projections and fiscal limitations (debt service and budget constraints). The projects designated for the first two years of the plan are the highest priority needs. Working cooperatively, the Prince William County School Board and the Prince William Board of County Supervisors, develop and implement a budget plan to address these needs.

Strategic Plan

The vision, mission, values, and commitments included in the PWCS Vision 2025, Launching Thriving Futures Strategic Plan, reflect a collective vision of the future of PWCS. The budget development process for Fiscal Year (FY) 2023 includes a commitment to align investments with the priorities and outcomes outlined in the PWCS Strategic Plan. The CIP specifically aligns with the following commitments and goals:

Commitment 2 – Positive Climate and Culture

Objective 2.3 - PWCS facilities will be welcoming, safe, and sustainable.

Goals

- 100% of all School Division facilities provide a welcoming environment conducive to learning by meeting PWCS established standards of quality and all applicable building code regulations
- 100% of schools will actively integrate Environmental Literacy into all grade levels
- PWCS will have at least five schools earn the U.S. Department of Education Green Ribbon School designation
- A 10% reduction of Division-wide greenhouse gas emissions year over year between FY23-FY26
- Complete the first Net Zero new construction school replacement in PWCS

Commitment 4 – Organizational Coherence

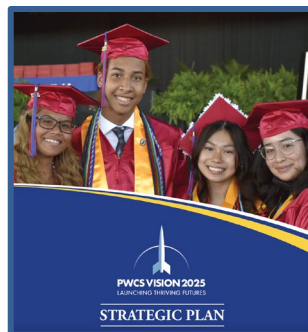
Objective 4.3 - PWCS will ensure that strategic priorities are driving investments.

Goal

- PWCS will complete eight school renovations between FY23 and FY26

Incorporating the PWCS Strategic Plan concentrates on the need for new facilities and additions to address growth, funding renovation projects to existing facilities, and focusing on advancing sustainability goals. Strategies include:

- Develop an annual Division-wide maintenance and facility plan
- High-quality learning experiences that promote environmental literacy
- Project-based learning, utilizing the school building as a teaching tool
- High-performing maintenance strategies and construction standards
- Base CIP investments on a facility condition index



Completed Projects

Gainesville High School



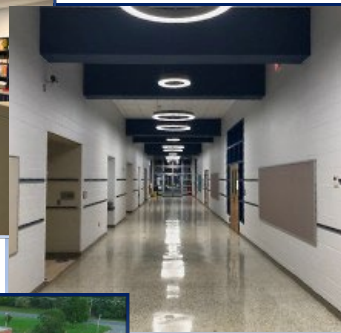
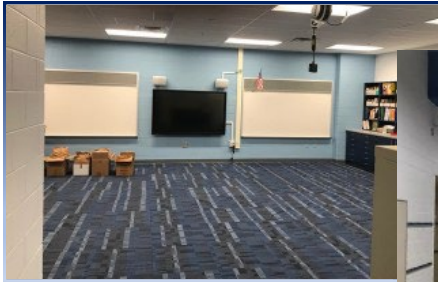
New Schools



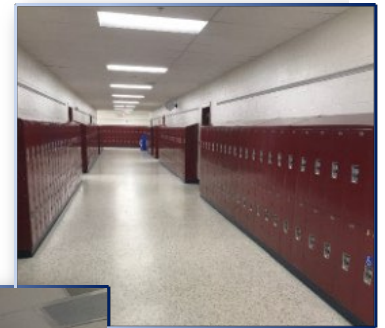
Potomac Shores Middle School

Renovations

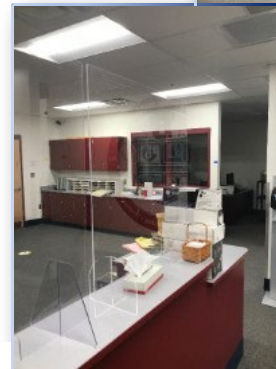
*Penn ES –
Renovation*



*Beville MS –
Renovation
and New
Music Suite*



*Mountain
View ES –
Renovation*



Completed Projects (Cont.)

Improvements



Auxiliary Gym Additions – Gar-Field and Woodbridge HS



Turf Fields – Battlefield and Forest Park HS



Planning

Planning for capital improvements is an ongoing process to meet critical system-wide capacity demands associated with current and projected enrollment growth. Priorities shift as conditions change at individual facilities, as programs change, and as the student population totals change. The official student enrollment count for PWCS, as of September 30, 2021, is 89,468 students, an increase of 392 students over September 30, 2020 (0.4%).

- Elementary School: +344 (0.9%)
- Middle School: -353 (-1.7%)
- High School: +429 (1.5%)

Student enrollment projections are utilized for a variety of planning and decision-making functions, among which operational and capital budgeting needs are most prominent. Predicting future student enrollment is important for long-range planning, budgeting, staffing, and predicting future building and capital needs for housing PWCS students. The forecasting methodology used to predict the number of students who will be enrolling in PWCS for the next 10 years is a combination of the Housing-Unit Method and Grade Progression Method, along with judgmental adjustment to fine-tune the forecasts. This combination of methods provides for very accurate forecasts and at the same time is relatively inexpensive to produce.

Annually, the status of student housing is assessed for the next ten years. This assessment includes determining the availability of space for students, assessing current student enrollment, projecting future student enrollment, and preparing recommendations for current and future housing of students. Individual school forecasts provide a snapshot of the anticipated changes that PWCS will encounter in the course of the current planning period.

2022-23 enrollment is projected to be 89,837 students, an increase of approximately 370 students overall. Growth of 3,413 students is projected in the next five years, with a total projection of 92,880 students in 2026-27. Examining student enrollment growth within school attendance areas, “Geographic Areas,” and school program capacities, guides the identification of the need for additional space for students. Possible solutions to overcrowding conditions include portable classrooms, relocation of special programs, changes in attendance area boundaries, additions, and the construction of new facilities. Where possible, additions are utilized as cost-effective alternatives to the construction of new facilities.

Planning Capacity vs. Program Capacity

The ***Planning Capacity*** of a school facility provides an estimate of the number of students who can be housed in a school based on averaged education program need and staffing. Whereas the ***Program Capacity*** of a school facility provides an estimate of the number of students who can be housed in a school based on the specific educational program currently utilized at the school facility. It is a more accurate and representative means of calculating a school’s facility’s capacity, based on the actual “program” in place at the school. The calculation of current programs housed at a specific elementary school include the effect of K-3 Class Size Reduction Grant (based on three-year average of free lunch eligibility percentage), special education program needs, gifted education program needs, and Pre-Kindergarten program needs. The educational program profile that exists at a specific middle school is made up of special education program placements, as well as ELL, CTE, flex, foreign language, gifted, LD, math support, and reading support classrooms.

The 2021 enrollment capacities and projections at the elementary and middle school levels utilize Program Capacity figures for the CIP and boundary planning and will be updated annually to recalculate program capacities. The capacity for high schools remains as Planning Capacity.

CIP Changes

New School Construction

- “Rosemount Lewis” Elementary School – moved one year from 2022 to 2023
- Potomac Shores Area Elementary School – moved from 2024 to 2026
- Route 1 South Area Elementary School – moved from 2029 to 2031
- Yorkshire Area Elementary School – moved one year from 2030 to 2031

Renovations

- Fred Lynn Middle School – 2027
- Unity Braxton Middle School – 2028
- Woodbridge Middle School – 2028
- Renovation of Transportation Support Facilities
 - Brentsville Center – 2024
 - Potomac Center – 2025
 - Central Center – 2026
 - McCuin Center – 2027

Specific School Projects

- Artificial Turf
 - Osbourn Park High School – Artificial Turf, Concession Building, 8-lane Track – 2024
 - Gar-Field High School – Artificial Turf, Concession Building – 2024
- CTE Plan
 - Freedom High School – Pharmacy Lab (design only) – 2023
 - Woodbridge High School – Cosmetology Lab Renovation – 2024



Funding

This CIP is presented by the Superintendent as part of the annual budget and reviewed and adopted by the Prince William County School Board after a public hearing. The CIP is then presented to the Prince William Board of County Supervisors as part of the School Division's budget for funding appropriation. Once the budget is adopted by the Board of County Supervisors, it becomes the basis for the CIP during the fiscal year.

Facilities Department funding includes costs related to the operation and maintenance of school buildings and equipment. Funds are included in the approved budget to support the CIP projects. The funding formula developed by the Chief Financial Officer provides targets for the construction and maintenance expenditures. The Facilities Department then prioritizes the work within the available funding to address the most critical needs.

It is impossible to address all School Division needs in a single year; therefore, a long-term approach is needed to balance expenditures with anticipated revenues. Future enrollment projections provide the analytical basis to implement this long-term approach and are important for long-range planning, budgeting, staffing, and predicting future building capital needs. Projects are carefully evaluated and prioritized to optimize the use of limited capital funds and to meet operational and facility needs. Funding for long-range plans is adjusted for Prince William County's overall bonding capacity to maintain a Triple-A bond rating, as directed by the Prince William Board of County Supervisors.

Funds from "Proffered" monetary contributions have also provided revenue. Monetary contribution proffers, or in-kind contributions from residential rezoning applications, help the School Division to mitigate the capital costs associated with residential development.

Construction Industry - Price Trends

The ongoing pandemic and other economic issues are causing a volatile market of rising construction material prices, supply chain breakdowns, and a shortage of skilled and unskilled labor. PWCS has experienced challenges with current construction projects, including higher than expected prices, extreme lead times for certain products, fewer vendors responding to bid solicitations, and vendors refusing to guarantee pricing for the required period.

These industry trends have direct impacts on current construction projects. The HVAC projects and renovations are seeing higher bids than initial estimates and mechanical systems projects are delayed due to equipment deliveries.

PWCS continues to analyze market trends, both locally and nationally, to prepare appropriately for current and future projects. Staff will continue to minimize negative consequences and adjust projects as necessary. The unexpected increase in costs have been built into the proposed construction costs.

New Construction

<i>Scheduled Completion</i>	<i>School/Facility</i>	<i>Total Project Budget</i>	<i>Additional Budget in FY 2023 CIP</i>
2022	Gainesville Middle School Addition (11 rooms)	\$5,337,000	\$837,000
	Reagan Middle School Addition (6 rooms)	\$4,557,000	\$400,000
2023	“Rosemount Lewis” Elementary School	\$40,855,000	\$3,500,000
2024	Woodbridge Area Elementary School	\$41,561,000	\$41,561,000
2025	Occoquan Elementary School Replacement	\$44,283,000	\$44,283,000
	Occoquan Elementary School – Net Zero Option	\$15,000,000	\$15,000,000
2026	14 th High School	\$157,000,000	\$157,000,000
	Potomac Shores Area Elementary School	\$45,392,000	\$45,392,000
2027	Kelly Leadership Center Office Addition	\$18,000,000	\$18,000,000
2031	Route 1 South Area Elementary School	\$53,892,000	\$53,892,000
	Yorkshire Area Elementary School	\$53,892,000	\$53,892,000
<i>New Construction TOTAL</i>			\$433,757,000

In the past five years, six new schools and additions to 11 existing schools have been constructed, adding capacity for more than 9,001 students. The new schools include three elementary schools (including the Kilby Elementary School Replacement), one middle school, one high school, and the Independence Nontraditional School. The Western Transportation Facility was also completed. Gainesville High School and Potomac Shores Middle School are the most recent schools completed, opening on time in 2021. The new “Rosemount Lewis” Elementary School is under construction and scheduled to open September 2023.

New Construction



“Rosemount Lewis” ES

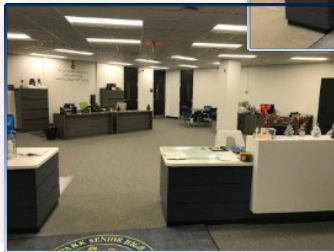
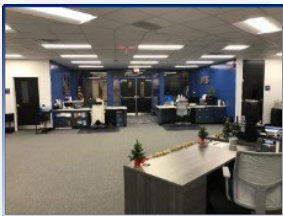
Reagan MS – 6-classroom addition



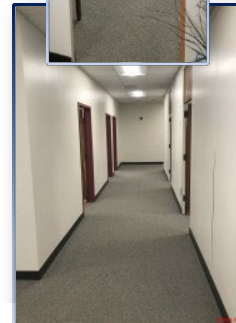
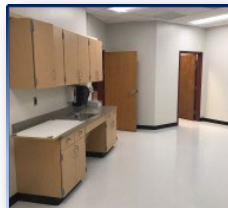
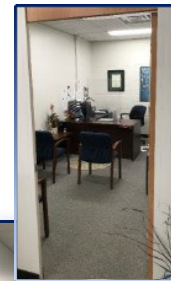
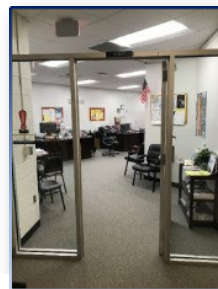
*Gainesville MS –
11-classroom
addition*

Specific School Projects

Osborn Park HS – Admin Area Renovation



Unity Reed HS – Admin Area Renovation



Specific School Projects

<i>Scheduled Completion</i>	<i>School/Facility</i>	<i>Total Project Budget</i>	<i>Additional Budget in FY 2023 CIP</i>
2022	Osborn Park High School – Fenestration Improvements	\$6,358,000	\$500,000
	Unity Reed High School – Fenestration Improvements	\$6,758,000	\$500,000
	Woodbridge High School – Tennis Court Lighting	\$375,000	
2023	Freedom High School – Pharmacy Lab Design	\$50,000	\$50,000
	Graham Park Middle School – Fenestration Improvements	\$2,652,000	\$2,350,000
2024	Gar-Field High School – Fenestration Improvements	\$7,382,000	\$7,382,000
	Gar-Field High School – Artificial Turf/Concession Building	\$4,400,000	\$4,400,000
	Woodbridge High School – Fenestration Improvements	\$7,382,000	\$7,382,000
	Woodbridge High School – Cosmetology Lab Renovation	\$900,000	\$900,000
	Osborn Park High School – Artificial Turf / Concession Building / 8-Lane Track	\$4,800,000	\$4,800,000
	Rippon Middle School – Artificial Turf with Lighting	\$1,720,000	\$1,720,000
2026	Brentsville High School – Tennis Court Lighting	\$375,000	\$375,000
	Gar-Field High School – Tennis Court Lighting	\$375,000	\$375,000
2027	Osborn Park High School – Tennis Court Lighting	\$375,000	\$375,000
<i>Specific School Projects TOTAL</i>			<i>\$31,109,000</i>

Site Acquisition

FY 2022 Property Acquisition

<i>School Facility</i>	<i>Acres</i>	<i>Date Acquired</i>	<i>Purchase Price</i>
Potomac Shores Area Elementary School	5.0	Final Settlement Pending	\$2,500,000
Vulcan (“Rosemount Lewis” ES Parking)	.9634	December 2021	\$109,000
14 th HS - 7 parcels	96	June – Oct. 2021	\$13,065,668
Woodbridge Area ES - 5 parcels	9,68	Oct. – Dec. 2021	\$4,992,415
<i>Property Acquisition TOTAL</i>			<i>\$20,667,083</i>

School Site Acquisition Needs

<i>Year to Open</i>	<i>Year to Acquire</i>	<i>Planned School Facility</i>	<i>Property Status</i>	<i>Estimated Funds Required</i>
2031	2025	Elementary School (Route 1 South Area)	Site Needed	\$9,568,000
2031	2025	Elementary School (Yorkshire Area)	Site Needed	\$9,380,000

Land acquisition for school sites is challenging as prime undeveloped land is purchased or optioned by developers for high-profit future residential, commercial, and industrial development. School staff reviews county residential development plans and maintains a database containing the number of anticipated housing units and the stage of development, which is used in making enrollment projections. The projected enrollments determine future school locations and attendance areas. School sites acquired must be located and sized in accordance with the adopted Prince William County Comprehensive Plan as determined by the Prince William County Planning Commission and the Prince William Board of County Supervisors.

Land acquisition will continue to figure prominently in this and future capital improvement budgets. Funding for school site acquisition comes from a combination of developer proffer contributions from rezoning cases, bond funds, and the operating budget. “Proffered” fund contributions to the School Division have helped to offset the impact of new residential development on schools.

Fifteen school sites have been acquired by proffers since 2000, with an estimated value of almost \$64,000,000. The School Division purchased land for construction of 17 schools and facilities since 2000, spending over \$85,000,000. Even with purchased and proffered sites, there are still two school sites needed by 2031.

Renovations

<i>Scheduled Completion</i>	<i>School/Facility</i>	<i>Total Project Budget</i>	<i>Additional Budget in FY 2023 CIP</i>
2022	Bennett Elementary School	\$11,320,000	\$6,000,000
2023	Bristow Run ES	\$11,320,200	\$6,100,000
	Hylton HS	\$36,220,000	
	Parkside MS	\$17,619,000	\$11,779,000
	Signal Hill ES	\$11,320,200	\$6,100,000
2024	Cedar Point ES	\$11,233,999	\$10,182,399
	Swans Creek ES	\$12,722,000	\$11,670,400
	Transportation – Brentsville Center	\$5,950,000	\$5,950,000
2025	Benton MS	\$18,960,000	\$18,960,000
	Featherstone ES	\$11,940,000	\$11,940,000
	Transportation - Potomac Center	\$2,200,000	\$2,200,000
2026	Brentsville HS	\$33,409,000	\$33,409,000
	Graham Park MS	\$14,765,000	\$14,765,000
	Transportation - Central Center	\$2,200,000	\$2,200,000
2027	Fred Lynn MS	\$30,246,000	\$30,246,000
	Transportation - McCuin Center	\$2,200,000	\$2,200,000
2028	Unity Braxton MS	\$26,407,000	\$26,407,000
	Woodbridge MS	\$25,758,000	\$25,758,000
	Division-wide Facility Assessments	\$2,250,000	\$2,250,000
	Major Renovations (locations TBD)	\$393,653,760	\$393,653,760
<i>Renovations TOTAL</i>			<i>\$621,770,559</i>

New construction projects are only part of the CIP picture. Buildings and equipment require continual maintenance. Therefore, renovations are programmed to assure that all schools are safe, functional, and provide the facilities necessary to support the current educational programs, regardless of the age of the building. School renovations are major infrastructure improvements that are important to improve capacity, provide adequate activity spaces, and to meet current instructional needs such as technology and music.

The Facilities Department maintains the current building inventory with periodic minor improvements through the “7/14-Year Maintenance Program,” which provides a minor refresh of building finishes every seven years. The goal is that when a building reaches approximately 25 years old, or approximately 25 years since its last major renovation, a major renovation will be provided. At that time, the Facilities Department will evaluate the building for physical or spatial needs and repair or replace building equipment including, but not limited to, mechanical, plumbing, electrical, technology, hardware, windows, and finishes such as paint, carpet, and tile.



Bennett Elementary School Renovation

55 of the School Division's 97 schools are 25 years or older. The Facilities Department continues to meet these challenges head-on to make dramatic improvements to the physical condition of schools. The projects contained in this plan are based on the planning, design review, and input from a team of in-house facility maintenance professionals, administration, school principals, and facility-condition evaluations conducted by architect and engineer consultants.

This CIP addresses reducing the backlog of renovation projects at older buildings, with the age of each school building the first consideration. The order of renovations may be altered when major components are addressed with previous projects, accelerated deterioration conditions warrant, and with funding constraints.

Over the past five years, major renovations were completed at 14 schools and over \$10.1M in major maintenance and Title IX projects were completed. Also, lighting, boilers, chillers, and other infrastructure upgrades were completed at many schools. Additionally, the School Division continues to assess and improve school safety, including multi-million-dollar enhancements in new school design and upgrades to existing buildings by providing controlled access entryways.

As new school facilities are constructed, differences exist between the new school facilities and those previously constructed. It is important to review the features provided in new school facilities versus those available in existing schools to ensure consistency of educational opportunities provided within the School Division. Facilities Department staff examine, evaluate, recommend, and prioritize a long-term plan for resolving facility inequities amongst school facilities.

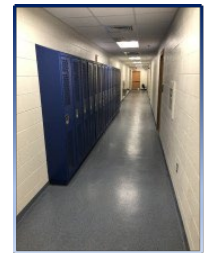
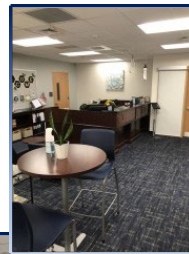
Budget – Renovations

The School Division budgets for repairs and renovations using the National Building Research Board recommendations. The School Board recommends that 2% to 4% of current replacement value of facilities be budgeted annually for repairs and renovations. The projected FY 2022 replacement value of schools is approximately \$3,376,095,000.

Prince William County Schools has established an average annual renovation and repair target of 3% of the current replacement value of facilities with 1.5% for preventive maintenance and 1.5% for repairs and renovations. The amount targeted to be budgeted each year varies from approximately 2.2% to 3.4%, dependent upon the year of the Commonwealth of Virginia’s biennium funding. The target to be budgeted in FY 2023 for repairs, renovations, and maintenance is \$101,283,000 (3.0% of value), with the estimated budget for maintenance, renovations, and energy improvements in FY 2023 at \$95,309,000 (2.8% of value); of which \$58,174,520 will be bond funded.

The list of capital projects identified provides a clear statement of school facility requirements that have been categorized within the limitation of projected funding. A school facility renovation prioritization list has been prepared by the Facilities Department. The list is based on the year the school was built or the year of the last renovation.

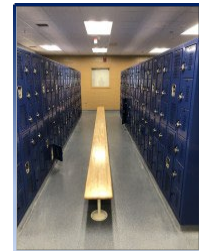
Hylton HS Renovation



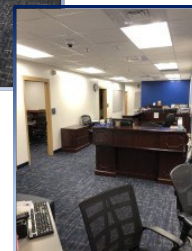
Hallways/Lockers



Admin Areas



Classrooms



Sustainability Initiative

In June 2020, the School Board issued the “Sustainability Initiative” outlining a strategy to improve Prince William County Schools’ carbon footprint, reduce dependency on fossil fuels, and change the educational culture surrounding sustainability. This important and broad-ranging set of goals will enhance the performance of energy consuming systems while increasing awareness and literacy for sustainability. Prince William Board of County Supervisors also passed a similar resolution on energy sustainability to work collaboratively on these efforts.

Initiatives

- Encourage culture change among all stakeholders in the PWCS community
- Strive to achieve Net Zero Energy, incorporating sustainable, and maintainable high-performing design standards, while balancing CIP needs and available funding
- Develop means of creating and utilizing clean, renewable energies (e.g., solar arrays)
- Create healthy learning environments where students and staff love to be, and love to learn and teach
- Environmental literacy will lead students and leaders to explore other opportunities to enhance our environment

The Superintendent’s Advisory Council on Sustainability recommends steps towards the implementation of sustainable schools.

Advisory Council Recommendations

Achievements/Initiatives In Progress

- Water bottle refilling stations
- Representatives for Joint Environmental Task Force (JET)
- Standalone air purification systems
 - Nursing/Isolation rooms
 - Mobile classrooms
- Develop a sustainability strategy
- Solar Power Purchase Agreement (PPA)

FY23 Budget Considerations

- Budget requests for staffing
- Smart irrigation controls
- LED replacement plan
 - Interior and exterior at all schools by 2026



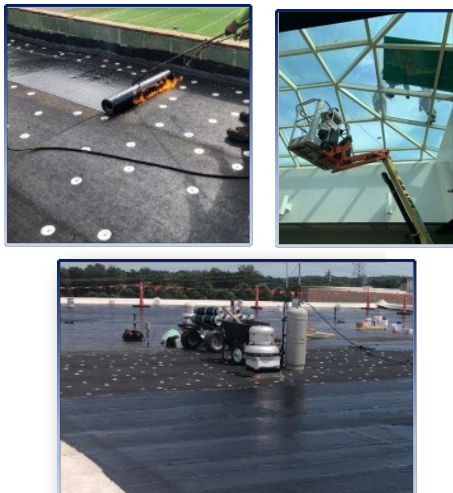
School Maintenance and Repair

To improve and maintain current facilities, each school is evaluated at seven-year intervals and major maintenance repairs are scheduled. Major maintenance work extends the useful life of the school facilities by improving, exchanging, or replacing building components that are at or near the end of their useful life. Repairs are made on an ‘as need’ basis until other funding sources become available.

<i>Project</i>	<i>Projected Cost</i>
Asphalt	\$22,510,000
Fenestration	\$13,608,000
HVAC	\$47,084,258
Kitchen	\$8,586,000
Maintenance	\$10,860,752
Municipal Separate Storm Sewer System (MS4)	\$8,075,000
Plumbing	\$100,000
Security Upgrades	\$6,025,000
Portable Classrooms (Trailers)	\$5,000,000
Roof Replacements and Repairs	\$52,350,000
Sustainability Initiatives	\$5,189,000
Energy Infrastructure Improvements	\$10,000,000
Title IX Improvements	\$3,640,000
TOTAL	\$193,028,010

Roofing Improvements

Battlefield and Freedom HS– Roof Replacement



Freedom HS – Roof Replacement Phasing



School Maintenance and Repair – Highlights

Sustainability

- Smart Irrigation
- Senseware Indoor Air Quality Monitoring
- Full Program for LED Lighting Upgrades- Interior and Exterior (4-year program)

Environmental

- Stormwater Pond Repairs
Hylton HS
Unity Reed HS
Fred Lynn MS
Rippon MS
Sinclair ES
Springwoods ES

Security Upgrades

- Interior and Exterior Measures
- Secure Entrances

HVAC

- Rippon MS – HVAC Replacement
- Washington-Reid PK – HVAC Replacement
- Bel Air ES – HVAC Replacement
- Enterprise ES – HVAC Replacement

Plumbing

- Water Heater Replacements
Various Schools

Roof Replacements

- Mountain View ES – Partial Replacement
- Sinclair ES – Partial Replacement
- Unity Braxton MS – Gutter Replacement
- Sudley ES – Gutter Replacement

Asphalt

- Bull Run MS – Tennis Court Resurfacing
- Benton MS – Tennis Court Resurfacing
- Woodbridge HS – Tennis Court Resurfacing
- Potomac HS – Track, Tennis Court Resurfacing

HVAC Improvements

Ellis ES

– Chiller Replacement



West Gate ES

– Chiller Replacement



Graham Park MS

– Rooftop Unit (HVAC) Replacement



Capital Improvements Program – 5-Year Summary

Category	Sched Comp	Location	Project	Budgets Approved in Prior Years	VDOE Grant Funds	Project Total	5-Year Totals by Revenue Source			
							Bonds	General Revenue	Grants	Total
New Schools and Additions	2023	Rosemount Lewis ES	New School Construction	\$37,355,000		\$40,855,000	\$3,500,000			\$3,500,000
	2024	Woodbridge Area ES	New School Construction			\$41,561,000	\$41,561,000			\$41,561,000
	2025	Occoquan ES	School Replacement			\$44,283,000	\$44,283,000			\$44,283,000
	2025	Occoquan ES	Net Zero Option			\$15,000,000	\$15,000,000			\$15,000,000
	2026	14th HS	New School Construction			\$157,000,000	\$157,000,000			\$157,000,000
	2026	Potomac Shores Area ES	New School Construction			\$45,392,000	\$45,392,000			\$45,392,000
	2031	Route 1 South Area ES	New School Construction			\$53,892,000				
	2031	Yorkshire Area ES	New School Construction			\$53,892,000				
	2022	Gainesville MS	School Addition [11 rooms]	\$4,500,000		\$5,337,000	\$837,000			\$837,000
	2022	Reagan MS	School Addition [6 rooms]	\$4,157,000		\$4,557,000	\$400,000			\$400,000
2027	Kelly Leadership Center	Office Addition			\$18,000,000	\$17,200,000			\$17,200,000	
Renovations	2021	Penn ES	Major Renovation	\$10,535,000		\$10,535,000				
	2022	Bennett ES	Major Renovation	\$5,320,000		\$11,320,000	\$5,000,000	\$1,000,000		\$6,000,000
	2023	Bristow Run ES	Major Renovation	\$5,220,200		\$11,320,200	\$6,000,000	\$100,000		\$6,100,000
	2023	Hylon HS	Major Renovation	\$36,220,000		\$36,220,000				
	2023	Parkside MS	Major Renovation	\$5,840,000		\$17,619,000	\$10,994,000	\$785,000		\$11,779,000
	2023	Signal Hill ES	Major Renovation	\$5,220,200		\$11,320,200	\$6,000,000	\$100,000		\$6,100,000
	2024	Cedar Point ES	Major Renovation	\$1,051,600		\$11,233,999	\$8,196,000	\$1,986,399		\$10,182,399
	2024	Swans Creek ES	Major Renovation	\$1,051,600		\$12,722,000	\$10,305,400	\$1,365,000		\$11,670,400
	2024	Transportation - Brentsville	Core Renovation / HVAC Repl			\$5,950,000	\$5,950,000			\$5,950,000
	2025	Benton MS	Major Renovation			\$18,960,000	\$13,523,000	\$5,437,000		\$18,960,000
	2025	Featherstone ES	Major Renovation			\$11,940,000	\$7,139,000	\$4,801,000		\$11,940,000
	2025	Transportation - Potomac Center	Core Renovation			\$2,200,000	\$2,200,000			\$2,200,000
	2026	Brentsville HS	Major Renovation			\$33,409,000	\$22,667,000	\$10,742,000		\$33,409,000
	2026	Graham Park MS	Major Renovation			\$14,765,000	\$10,314,000	\$4,451,000		\$14,765,000
	2026	Transportation - Central Center	Core Renovation			\$2,200,000	\$2,200,000			\$2,200,000
	2027	Fred Lynn MS	Major Renovation			\$30,246,000	\$28,551,240	\$1,694,760		\$30,246,000
	2027	Transportation - McCuin Center	Core Renovation			\$2,200,000	\$2,200,000			\$2,200,000
2028	Unity Braxton MS	Major Renovation			\$26,407,000	\$14,127,745			\$14,127,745	
2028	Woodbridge MS	Major Renovation			\$25,758,000	\$13,780,530			\$13,780,530	
		Division-wide	Facility Assessments			\$2,250,000		\$2,250,000		\$2,250,000
		Various	Major Renovations			\$393,653,760	\$25,590,785	\$17,339,700		\$42,930,485
Specific School Projects	2022	Osbourm Park HS	Fenestration Improvements	\$5,858,000		\$6,358,000	\$500,000			\$500,000
	2022	Unity Reed HS	Fenestration Improvements	\$6,258,000		\$6,758,000	\$500,000			\$500,000
	2023	Freedom HS	Pharmacy Lab - Design			\$50,000	\$50,000			\$50,000
	2023	Graham Park MS	Fenestration Improvements	\$302,000		\$2,652,000	\$2,350,000			\$2,350,000
	2024	Gar-Field HS	Fenestration Improvements			\$7,382,000	\$7,382,000			\$7,382,000
	2024	Woodbridge HS	Cosmetology Lab Renovation			\$900,000	\$900,000			\$900,000
	2024	Woodbridge HS	Fenestration Improvements			\$7,382,000	\$7,382,000			\$7,382,000
	2024	Gar-Field HS	Artificial Turf / Concession Bldg			\$4,400,000	\$4,400,000			\$4,400,000
	2024	Osbourm Park HS	Artificial Turf / Concession Bldg, 8-lane track			\$4,800,000	\$4,800,000			\$4,800,000
	2024	Rippon MS	Artificial Turf w/ Lighting			\$1,720,000	\$1,720,000			\$1,720,000
	2022	Woodbridge HS	Tennis Court Lighting	\$375,000		\$375,000				\$375,000
2026	Brentsville HS	Tennis Court Lighting			\$375,000		\$375,000		\$375,000	
2026	Gar-Field HS	Tennis Court Lighting			\$375,000		\$375,000		\$375,000	
2027	Osbourm Park HS	Tennis Court Lighting			\$375,000		\$375,000		\$375,000	
School Maintenance and Repair		Various Facilities (TBD based on existing conditions)	Asphalt	\$100,000		\$22,610,000		\$12,510,000		\$12,510,000
			Fenestration	\$462,286		\$14,070,286	\$2,670,286	\$2,537,714		\$5,208,000
			HVAC	\$10,310,000	\$10,319,129	\$57,394,258	\$10,300,000	\$16,465,129	\$10,319,129	\$37,084,258
			Kitchen	\$700,000		\$9,286,000		\$3,676,000		\$3,676,000
			Maintenance	\$2,100,000	\$1,720,000	\$12,960,752		\$9,140,752	\$1,720,000	\$10,860,752
			MS4	\$1,000,000		\$9,075,000		\$4,825,000		\$4,825,000
			Plumbing			\$100,000		\$100,000		\$100,000
			Security Upgrades			\$6,025,000		\$6,025,000		\$6,025,000
			Trailer			\$5,000,000		\$2,500,000		\$2,500,000
			Roof Replacements and Repairs	\$4,650,000		\$57,000,000	\$9,300,000	\$15,975,000		\$25,275,000
			Sustainability Initiatives			\$5,189,000	\$450,000	\$4,739,000		\$5,189,000
			Energy Infrastructure	\$1,000,000		\$11,000,000		\$5,000,000		\$5,000,000
	Title IX	\$310,000		\$3,950,000		\$1,690,000		\$1,690,000		
FY 2023 - 32 Capital Improvements Program Total					\$12,039,129	\$1,429,560,455	\$578,640,986	\$132,335,454	\$12,039,129	\$723,015,569

Capital Improvements Program – 10-Year Summary

Category	Sched Comp	Location	Project	10-Year Totals by Revenue Source				Additional Capacity	
				Bonds	General Revenue	Grants	Total	5-Year	10-Year
New Schools and Additions	2023	Rosemount Lewis ES	New School Construction	\$3,500,000			\$3,500,000	649	649
	2024	Woodbridge Area ES	New School Construction	\$41,561,000			\$41,561,000	632	632
	2025	Occoquan ES	School Replacement	\$44,283,000			\$44,283,000	226	226
	2025	Occoquan ES	Net Zero Option	\$15,000,000			\$15,000,000		
	2026	14th HS	New School Construction	\$157,000,000			\$157,000,000	2,557	2,557
	2026	Potomac Shores Area ES	New School Construction	\$45,392,000			\$45,392,000	721	721
	2031	Route 1 South Area ES	New School Construction	\$53,892,000			\$53,892,000		721
	2031	Yorkshire Area ES	New School Construction	\$53,892,000			\$53,892,000		678
	2022	Gainesville MS	School Addition [11 rooms]	\$837,000			\$837,000	231	231
	2022	Reagan MS	School Addition [6 rooms]	\$400,000			\$400,000	126	126
2027	Kelly Leadership Center	Office Addition	\$18,000,000			\$18,000,000			
Renovations	2021	Penn ES	Major Renovation						
	2022	Bennett ES	Major Renovation	\$5,000,000	\$1,000,000		\$6,000,000		
	2023	Bristow Run ES	Major Renovation	\$6,000,000	\$100,000		\$6,100,000		
	2023	Hylton HS	Major Renovation						
	2023	Parkside MS	Major Renovation	\$10,994,000	\$785,000		\$11,779,000		
	2023	Signal Hill ES	Major Renovation	\$6,000,000	\$100,000		\$6,100,000		
	2024	Cedar Point ES	Major Renovation	\$8,196,000	\$1,986,399		\$10,182,399		
	2024	Swans Creek ES	Major Renovation	\$10,305,400	\$1,365,000		\$11,670,400		
	2024	Transportation - Brentsville	Core Renovation / HVAC Repl	\$5,950,000			\$5,950,000		
	2025	Benton MS	Major Renovation	\$13,523,000	\$5,437,000		\$18,960,000		
	2025	Featherstone ES	Major Renovation	\$7,139,000	\$4,801,000		\$11,940,000		
	2025	Transportation - Potomac Center	Core Renovation	\$2,200,000			\$2,200,000		
	2026	Brentsville HS	Major Renovation	\$22,667,000	\$10,742,000		\$33,409,000		
	2026	Graham Park MS	Major Renovation	\$10,314,000	\$4,451,000		\$14,765,000		
	2026	Transportation - Central Center	Core Renovation	\$2,200,000			\$2,200,000		
	2027	Fred Lynn MS	Major Renovation	\$28,551,240	\$1,694,760		\$30,246,000		
	2027	Transportation - McCuin Center	Core Renovation	\$2,200,000			\$2,200,000		
	2028	Unity Braxton MS	Major Renovation	\$26,407,000			\$26,407,000		
2028	Woodbridge MS	Major Renovation	\$25,758,000			\$25,758,000			
		Division-wide	Facility Assessments		\$2,250,000		\$2,250,000		
		Various	Major Renovations	\$322,449,060	\$71,204,700		\$393,653,760		
Specific School Projects	2022	Osborn Park HS	Fenestration Improvements	\$500,000			\$500,000		
	2022	Unity Reed HS	Fenestration Improvements	\$500,000			\$500,000		
	2023	Freedom HS	Pharmacy Lab - Design	\$50,000			\$50,000		
	2023	Graham Park MS	Fenestration Improvements	\$2,350,000			\$2,350,000		
	2024	Gar-Field HS	Fenestration Improvements	\$7,382,000			\$7,382,000		
	2024	Woodbridge HS	Cosmetology Lab Renovation	\$900,000			\$900,000		
	2024	Woodbridge HS	Fenestration Improvements	\$7,382,000			\$7,382,000		
	2024	Gar-Field HS	Artificial Turf / Concession Bldg	\$4,400,000			\$4,400,000		
	2024	Osborn Park HS	Artificial Turf / Concession Bldg, 8-lane track	\$4,800,000			\$4,800,000		
	2024	Rippon MS	Artificial Turf w/ Lighting	\$1,720,000			\$1,720,000		
	2022	Woodbridge HS	Tennis Court Lighting						
	2026	Brentsville HS	Tennis Court Lighting		\$375,000		\$375,000		
2026	Gar-Field HS	Tennis Court Lighting		\$375,000		\$375,000			
2027	Osborn Park HS	Tennis Court Lighting		\$375,000		\$375,000			
School Maintenance and Repair		Various Facilities (TBD based on existing conditions)	Asphalt		\$22,510,000		\$22,510,000		
			Fenestration	\$2,670,286	\$10,937,714		\$13,608,000		
			HVAC	\$10,300,000	\$26,465,129	\$10,319,129	\$47,084,258		
			Kitchen		\$8,586,000		\$8,586,000		
			Maintenance		\$9,140,752	\$1,720,000	\$10,860,752		
			MS4		\$8,075,000		\$8,075,000		
			Plumbing		\$100,000		\$100,000		
			Security Upgrades	\$6,025,000			\$6,025,000		
			Trailer		\$5,000,000		\$5,000,000		
			Roof Replacements and Repairs	\$9,300,000	\$43,050,000		\$52,350,000		
			Sustainability Initiatives	\$450,000	\$4,739,000		\$5,189,000		
			Energy Infrastructure		\$10,000,000		\$10,000,000		
	Title IX		\$3,640,000		\$3,640,000				
FY 2023 - 32 Capital Improvements Program Total				\$1,008,339,986	\$259,285,454	\$12,039,129	\$1,279,664,569	5,142	6,541

School Facility Renovation Prioritization List

Based on Year Built or Last Renovation

School Facility Name	Year Opened	Effective Facility Age ¹	Most Recent Previous Renovation	Next Scheduled Renovation ²
Hylton, C.D. HS	1991	31		2023
Bennett ES	1996	26		2022
Bristow Run ES	1998	24		2023
Benton, Louise A. MS	2000	22		2025
Brentsville District HS	1965	22	2000	2026
Forest Park HS	2000	22		
Parkside MS	1963	22	2000	2023
Signal Hill ES	2000	22		2023
Cedar Point ES	2001	21		2024
Featherstone ES	1961	21	2001	2025
Graham Park MS	1963	21	2001	2026
Lynn, Fred M. MS	1963	21	2001	2027
Swans Creek ES	2001	21		2024
Ashland ES	2002	20		
Bull Run MS	2002	20		
Marsteller, E.H. MS	2002	20		
Occoquan ES	1927	20	2002	2025
Unity Braxton MS	1964	20	2002	2028
Alvey, J.W. ES	2003	19		
Gar-Field HS	1972	19	2003	
Woodbridge MS	1964	19	2003	2028
Battlefield HS	2004	18		
Ellis, Suella G. ES	2004	18		
Freedom HS	2004	18		
Porter, Mary G. TS	2004	18		
Sudley ES	1972	18	2004	
Williams, Mary ES	2004	18		
Woodbridge HS	1974	18	2004	
Glenkirk ES	2005	17		
Minnieville ES	1972	17	2005	
Potomac View ES	1964	17	2005	
Unity Reed HS	1973	17	2005	
Vaughan, Elizabeth ES	1964	17	2005	
Victory ES	2005	17		
Belmont ES	1967	16	2006	
Buckland Mills ES	2006	16		
Dale City ES	1967	16	2006	
Marumsco Hills ES	1966	16	2006	
Osbound Park HS	1975	16	2006	
Parks, Rosa ES	2006	16		
Potomac MS	2006	16		
Gainesville MS	2007	15		
Kerrydale ES	1973	15	2007	
Rockledge ES	1972	15	2007	
Tyler, George G. ES	1968	15	2007	
Bel Air ES	1968	14	2008	
Fitzgerald, Fannie W. ES	2008	14		
Gravelly, Samuel L., Jr. ES	2008	14		
Kelly Leadership Center	2008	14		
Coles ES	1968	13	2009	

School Facility Name	Year Opened	Effective Facility Age ¹	Most Recent Previous Renovation	Next Scheduled Renovation ²
Enterprise ES	1978	13	2009	
Neabsco ES	1969	13	2009	
Sinclair, C.A. ES	1968	13	2009	
West Gate ES	1964	13	2009	
Yorkshire ES	2009	13		
Hampton, George M. MS	1970	12	2010	
Rippon MS	1967	12	2010	
Triangle ES	2010	12		
Patriot HS	2011	11		
Piney Branch ES	2011	11		
Wood, T. Clay ES	2011	11		
PACE West	2012	10		
Pennington, Philip Michael TS	1969	10	2012	
Potomac HS	1981	10	2012	
Reagan, Ronald Wilson MS	2012	10		
Pattie, John F., Sr. ES	1978	9	2013	
Washington-Reid Preschool Center	1951	9	2013	
Dumfries ES	1939	8	2014	
Haymarket ES	2014	8		
Nokesville School, The	2014	8		
Yung, Chris ES	2015	7		
Colgan, Charles J., Sr. HS	2016	6		
Henderson, A. ES	1985	6	2016	
King, Martin Luther, Jr. ES	1981	6	2016	
Lake Ridge ES	1983	6	2016	
Loch Lomond ES	1962	6	2016	
Springwoods ES	1985	6	2016	
Wilson, Kyle R. ES	2016	6		
Covington-Harper ES	2017	5		
Kilby, R. Dean ES	2017	5		
Antietam ES	1990	4	2018	
Independence NT	2018	4		
Lake Ridge MS	1989	4	2018	
McAuliffe, Sharon C. ES	1989	4	2018	
Mullen, George P. ES	1990	4	2018	
River Oaks ES	1990	4	2018	
Saunders, Herbert J. MS	1988	4	2018	
Westridge ES	1989	4	2018	
Jenkins, John D. ES	2019	3		
Leesylvania ES	1996	3	2019	
Marshall, Thurgood ES	1994	3	2019	
Montclair ES	1991	3	2019	
Old Bridge ES	1995	3	2019	
Mountain View ES	1995	2	2020	
Beville, Stuart M. MS	1991	1	2021	
Gainesville HS	2021	1		
Penn, Sonnie ES	1998	1	2021	
Potomac Shores MS	2021	1		
Woodbine	1953	1	2021	

¹ Not including effect of scheduled renewals

² Per the Approved CIP

Summary

<i>Existing Conditions</i>	
Projected Growth in Students (2021-2031)	5,750
Student Enrollment (September 30, 2021)	89,468
Student Enrollment (September 30, 2031)	93,501
Current Student Capacity	95,218
Current Portable Classrooms in Use	188

<i>Proposed Capital Improvements Program</i>	
New School Facilities	7
New Elementary Schools	5
New Middle Schools	----
New High Schools	1
Replacement Elementary School	1
School Additions (Classrooms)	17
Elementary School Additions	----
Middle School Additions (2 Schools)	17
High School Additions	----
Support Facilities	1
Kelly Leadership Center	1
Proposed Capacity to be Constructed	6,541
Proposed Costs	\$1,279,664,569
New Construction	\$433,757,000
Renovations	\$621,770,559
Specific School Projects	\$31,109,000
Maintenance & Repair	\$193,028,010

Expenditure Highlights of Fiscal Year 2023 Budget

- Start up costs for opening “Rosemount Lewis” Elementary School
- Freedom High School – Pharmacy Lab Design
- Fenestration Improvements at Graham Park Middle School
- Renovations at:
 - Hylton High School
 - Parkside Middle School
 - Bristow Run Elementary School
 - Signal Hill Elementary School

APPENDIX A

School Facility Information

School Facility Information

- Count of Educational Facilities
- School Facilities – Detail Information
 - Elementary
 - Combined
 - Middle
 - High
 - Special
 - Administrative
 - Transportation
- Portable Classrooms

Count of Educational Facilities

Prince William County Schools 2016-17 to 2021-22

School Type	Count of School Facilities					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Elementary Schools	59	60	60	61	61	61
Combined Schools	3	3	3	3	3	3
Middle Schools	16	16	16	16	16	17
High Schools	12	12	12	12	12	13
Total (Regular Education)	90	91	91	92	92	94
Special Education	3	3	4	3	3	3
TOTAL	93	94	95	95	95	97

*Independence Non-Traditional School includes the New Dominion program, New Directions program and the PACE East program.

School Facilities – Summary Information Prince William County Schools 2021-22

Use Type	School Type	Facility Count	Program / Planning Capacity	Portable Class-rooms	Square Feet	Acres
Educational	Elementary	61	41,772	74	4,729,973	1,011.2
	Combined	3	2,438		271,423	80.1
	Middle	17	21,321	46	2,420,363	610.2
	High	13	28,754	67	3,940,005	926.3
	Special	3		1	187,559	32.6
Non-Educational	Administrative	5			339,812	65.3
	Transportation	6			98,350	104.2
Total		108	94,285	188	11,987,485	2,829.9

School Facilities – Detail Information by School Type

Prince William County Schools

Elementary School	Program Capacity	Portable Classrooms 2021-22	Regular Class-rooms	Year Opened	School Renovation		School Addition(s)			Building Square Feet	Site Acres	
					Next	Last	Addition #1 Year	# Class-rooms	Addition #2 Year			# Class-rooms
Alvey, J.W.	838		41	2003						83,084	20.2	
Antietam	939		45	1990		2018	2019	13		62,334	14.9	
Ashland	960		46	2002			2008	5		98,461	18.1	
Bel Air	410	2	28	1968		2008	2008	8		53,712	15.0	
Belmont	536		36	1967		2006	2006	4	2017	10	74,142	14.3
Bennett	828	1	40	1996	2022		2000	8			83,969	15.3
Bristow Run	828		40	1998	2023		2004	8			83,885	21.7
Buckland Mills	919		43	2006							89,936	15.0
Cedar Point	853		41	2001	2024						83,084	15.5
Coles	378	3	25	1968		2009					52,745	17.0
Covington-Harper	783		45	2017							101,288	21.4
Dale City	371	3	25	1967		2006	2001	4			44,333	14.8
Dumfries	370	4	27	1939		2014	1989	8			44,925	10.0
Ellis, Suella G.	492	3	32	2004							76,724	10.5
Enterprise	369	8	26	1978		2009					54,281	15.0
Featherstone	415	3	29	1961	2025	2001	2015	6			56,246	12.0
Fitzgerald, Fannie W.	773	2	46	2008							106,170	11.2
Glenkirk	838		41	2005							83,084	15.6
Gravelly, Samuel L., Jr.	936		43	2008							95,314	18.0
Haymarket	944	2	44	2014							98,736	24.3
Henderson, A.	915		42	1985		2016	2017	10			75,495	14.9
Jenkins, John D.	752		43	2019							100,264	17.2
Kerrydale	364	1	24	1973		2007					49,928	15.4
Kilby, R. Dean	684		45	2017							98,615	12.8
King, Martin Luther, Jr.	430		26	1981		2016					63,832	15.2
Lake Ridge ES	871		42	1983		2016	2019	13			83,358	15.1
Leesylvania	760		46	1996		2019	2019	4			83,084	16.3
Loch Lomond	462	7	30	1962		2016	2013	4			58,278	10.7
Marshall, Thurgood	738		35	1994		2019	1999	4			62,700	24.2
Marumsc Hills	550	4	35	1966		2006	2006	2	2009	4	56,651	12.2
McAuliffe, Sharon C.	446	2	28	1989		2018					59,517	15.1
Minnieville	601		39	1972		2005	2019	10			75,070	15.2
Montclair	592	2	35	1991		2019	2008	4			70,928	15.9
Mountain View	721		36	1995		2020	2002	4	2020	1	73,415	30.0
Mullen, George P.	730	1	43	1990		2018	1999	4	2013	6	82,219	15.0
Neabsco	680		43	1969		2009	2017	8			76,945	12.8
Occoquan	498	5	30	1927		2002	2003	5			55,225	10.1
Old Bridge	627		32	1995		2019	2019				77,804	17.9
Parks, Rosa	703		41	2006							83,084	15.2
Pattie, John F., Sr.	785		37	1978		2013	2018	11	2011		69,375	15.0
Penn, Sonnie	795		39	1998		2021	2013	7			87,542	16.9
Piney Branch	914		44	2011							104,448	21.0
Potomac View	516	2	37	1964		2005	2005	4	2009	4	60,756	12.4
River Oaks	612	1	38	1990		2018	2014	7			80,618	15.2
Rockledge	522	1	31	1972		2007	2009	7			64,769	16.2
Signal Hill	819		41	2000	2023						83,084	24.5
Sinclair, C.A.	652	7	42	1968		2009	2001	6	2013	11	75,698	15.0
Springwoods	928		42	1985		2016	2019	13			83,260	15.1
Sudley	639	1	38	1972		2004	2013	10			73,457	14.0
Swans Creek	653		38	2001	2024		2012	6			86,934	18.5
Triangle	740		44	2010							103,679	18.9
Tyler, George G.	574		28	1968		2007	2007	4			56,560	25.5
Vaughan, Elizabeth	566	3	36	1964		2005	2001	4	2009	9	58,967	13.6
Victory	857		43	2005							89,911	21.2
West Gate	489	5	36	1964		2009	2013	4			59,727	12.1
Westridge	709		34	1989		2018	2012	6			70,559	15.0
Williams, Mary	694	1	41	2004							83,084	13.6
Wilson, Kyle R.	872		49	2016							106,345	19.5
Wood, T. Clay	950		44	2011							104,448	33.8
Yorkshire	743		46	2009							106,614	13.3
Yung, Chris	839		46	2015							107,273	20.8
Total	41,772	74	2,312					225		45	4,729,973	1,011.2

School Facilities – Detail Information

Prince William County Schools

Combined School	Program Capacity	Portable Classrooms 2020-21	Regular Class-rooms	Year Opened	School Renovation		School Addition(s)				Building Square Feet	Site Acres
					Next	Last	Addition #1 Year	# Class-rooms	Addition #2 Year	# Class-rooms		
Nokesville School, The	1,106		56	2014							141,832	48.2
Pennington, Philip Michael	657		30	1969		2012					58,346	15.0
Porter, Mary G.	675		32	2004							71,245	16.9
Total	2,438		118								271,423	80.1

Middle School	Program Capacity	Portable Classrooms 2020-21	Regular Class-rooms	Year Opened	School Renovation		School Addition(s)				Building Square Feet	Site Acres
					Next	Last	Addition #1 Year	# Class-rooms	Addition #2 Year	# Class-rooms		
Benton, Louise A.	1,436		78	2000	2025		2013	11			151,130	48.2
Beville, Stuart M.	1,256		67	1991		2021	2021	2			137,540	42.1
Bull Run	1,153		65	2002							135,309	39.4
Gainesville MS	1,209	7	64	2007							135,309	39.4
Graham Park	863	3	48	1963	2026	2001	2001	4			110,514	21.9
Hampton, George M.	1,039	4	52	1970		2010	2002	8			124,610	30.0
Lake Ridge MS	1,495		78	1989		2018	2018	13			158,900	34.1
Lynn, Fred M.	1,139	8	61	1963	2027	2001					131,974	28.6
Marsteller, E.H.	1,217	5	65	2002							135,309	36.4
Parkside	1,381	5	75	1963	2023	2000	2014	15			145,677	30.0
Potomac MS	1,409		76	2006			2013	11			151,130	36.4
Potomac Shores	1,462		81	2021							197,954	52.5
Reagan, Ronald Wilson	1,236	5	64	2012							134,765	41.9
Rippon	1,394	2	75	1967		2010	2016	8			156,094	30.2
Saunders, Herbert J.	1,244	2	64	1988		2018					137,088	29.5
Unity Braxton	1,307		69	1964	2028	2002	2019	17			152,549	32.2
Woodbridge MS	1,081	5	56	1964	2028	2003					124,511	37.4
Total	21,321	46	1,138					89		0	2,420,363	610.2

High School	Planning Capacity	Portable Classrooms 2020-21	Regular Class-rooms	Year Opened	School Renovation		School Addition(s)				Building Square Feet	Site Acres
					Next	Last	Addition #1 Year	# Class-rooms	Addition #2 Year	# Class-rooms		
Battlefield	2,053	21	101	2004							285,086	78.8
Brentsville District	1,110		53	1965	2026	2000	2000	9	1980		163,066	29.0
Colgan, Charles J., Sr.	2,053	7	102	2016							308,058	108.4
Forest Park	2,053		101	2000							283,268	79.1
Freedom	2,053	8	101	2004							285,886	80.7
Gainesville HS	2,557		126	2021							334,885	83.5
Gar-Field	2,839		128	1972		2003	2021				374,138	91.5
Hylton, C.D.	2,053	2	101	1991	2023						282,346	74.8
Osborn Park	2,430	7	115	1975		2006					328,386	56.1
Patriot	2,053	15	101	2011							320,124	60.0
Potomac HS	2,357		113	1981		2012	2013	30			273,329	75.1
Unity Reed	2,409	7	117	1973		2005					328,540	56.6
Woodbridge HS	2,734		125	1974		2004	2021				372,893	52.7
Total	28,754	67	1,384					39		0	3,940,005	926.3

Special School	Planning Capacity	Portable Classrooms 2020-21	Regular Class-rooms	Year Opened	School Renovation		School Addition(s)				Building Square Feet	Site Acres
					Next	Last	Addition #1 Year	# Class-rooms	Addition #2 Year	# Class-rooms		
Independence			57	2018							122,850	9.9
PACE West		1	21	2012							39,998	13.5
Washington-Reid Preschool Center			9	1951		2013					24,711	9.2
Total	0	1	87					0		0	187,559	32.6

Administrative	Planning Capacity	Portable Classrooms 2020-21	Regular Class-rooms	Year Opened	School Renovation		School Addition(s)				Building Square Feet	Site Acres
					Next	Last	Addition #1 Year	# Class-rooms	Addition #2 Year	# Class-rooms		
Ann Ludwig				1975							14,220	4.8
Independent Hill Complex				1968							139,947	37.6
Kelly Leadership Center				2008							145,747	20.3
PWCS Aquatics Center				2016							31,578	0.8
Woodbine				1953		2021					8,320	1.9
Total	0	0	0					0		0	339,812	65.3

School Facilities – Detail Information

Prince William County Schools

Transportation	Planning Capacity	Portable Classrooms 2020-21	Regular Class-rooms	Year Opened	School Renovation		School Addition(s)				Building Square Feet	Site Acres
					Next	Last	Addition #1 Year	# Class-rooms	Addition #2 Year	# Class-rooms		
Brentsville Transportation Center				1979	2024						28,028	20.0
Central Transportation Center				2005	2026						14,934	29.9
McCuin Transportation Center				2002	2027						8,400	11.5
New Dominion Transportation Center				1975		2020					14,749	9.3
Potomac Transportation Center				2002	2025						14,565	16.8
Western Transportation Center				2019							17,674	16.7
Total	0	0	0					0		0	98,350	104.2

All Facilities	School Capacity	Portable Classrooms 2020-21	Regular Class-rooms	Year Opened	School Renovation		School Addition(s)				Building Square Feet	Site Acres
					Next	Last	Addition #1 Year	# Class-rooms	Addition #2 Year	# Class-rooms		
Total	94,285	188	5,039					353		45	11,987,485	2,829.9

Portable Classrooms

Current and Historical Totals By School Type, 1998 to 2021

Year	School Type					Total
	Elementary	Middle	High	Alternative	Special Education	
1998	101	21	28	0	5	155
1999	109	25	25	0	5	164
2000	118	31	5	10	5	169
2001	122	37	2	10	5	176
2002	130	26	2	10	5	173
2003	141	16	2	10	5	174
2004	168	19	2	10	5	204
2005	185	40	5	10	5	245
2006	179	27	8	10	5	229
2007	184	20	14	10	10	238
2008	171	20	21	10	10	232
2009	150	21	36	10	7	224
2010	145	21	37	10	10	223
2011	132	31	21	10	10	204
2012	136	29	18	10	9	202
2013	126	23	30	11	9	199
2014	121	22	37	11	9	200
2015	122	27	46	11	9	215
2016	128	30	41	11	1	211
2017	110	36	49	11	1	207
2018	107	47	51	0	1	206
2019	72	50	61	0	0	183
2020	66	58	67	0	0	191
2021	74	46	67	1	0	188

APPENDIX B

Student Enrollment & Housing Data

Student Enrollment & Housing Data

- Student Enrollment Forecasting
 - Housing Unit Method
 - Grade Progression Ratio Method
- Alternative Solutions to School Overcrowding
- Student Enrollment Data: Current and Projected Enrollment
 - by School (Elementary, Middle, High, and Special/Alternative Education), School Years 2021-31
- Historical and Projected Enrollment Data
- Student Enrollment Projections – Error Rate Analysis
- Housing Units in Residential Development
 - by School (Elementary, Middle, and High)
- Student Generation Factors Maps and Charts
- Geographic Areas – Map and Table
- Virginia Fall Membership Report Overview

Student Enrollment Forecasting

Most forecasts share common features. They tend to be an extrapolation of the past, involve some level of judgment, and are inherently not perfect predictors of the future. These features contribute to why it's indispensable to continually evaluate the forecasting methods used and the accuracy of their projections.

The primary goal in the enrollment forecasting process is to reduce statistical error so that the projections can become better predictors of future student enrollments, resulting in the ability to place greater confidence in them when planning future capital improvements. The forecasts rely on spatial and aspatial data that are manipulated and processed by Geographic Information System (GIS) software and statistical software packages, respectively. The methods used to produce student enrollment forecasts in PWCS are discussed in greater detail and communicated through flow charts in the following pages.

Methodology

The student enrollment forecasts are calculated combining two widely-used techniques in projecting student enrollment that are commonly referred to as the **Housing-Unit Method** and the **Grade Progression Method**. One caveat is that judgmental adjustments, which are common in forecasting, are often used to fine-tune the enrollment forecasts. The combination of statistical methods was chosen for two primary reasons. First, the model produced by them is supported by industry best practices and scholarly literature. Second, it is relatively inexpensive to produce. Each primary method is now discussed more extensively.

Housing-Unit Method

The Housing-Unit Method establishes a relationship between housing units and student enrollment. The relationship is calculated for a specific geography in Prince William County (PWC) by dividing the number of students residing in the geographic region by the number of existing housing units. In Prince William County Schools (PWCS), the resulting value is referred to as a Student Generation Factor. It can be interpreted as the number of students on average that housing units generated in a specific region. Factors are calculated at varying geographies (e.g., county-wide, elementary school attendance area, and Planning Zone) and for each housing unit type (e.g., single-family detached, townhouse, and multifamily). For future years, the projected ratio of students per housing unit, in concert with moving these ratios forward in time via the Grade Progression Ratio Method, is multiplied by the number of predicted housing units by year to produce the forecasts of total students in PWCS. The amount of new housing growth is fairly consistent with housing forecasts used for projecting population in PWC for the Metropolitan Washington Council of Governments (COG). The spatial distribution of new housing throughout PWC is determined by two factors. First, residential projects in the inventory pipeline guide where residential development is most likely to occur. Second, locations where additional housing-unit density is permitted in accordance with current zoning are utilized to guide where future, new housing is most likely to be constructed. These processes described are similar in spirit to the Build-out Analysis produced by the Planning Office in PWC Government, but differs by only considering the current zoning’s maximum residential development potential or, in other words, the maximum number of housing units that could exist on the property without undergoing rezoning.

Grade Progression Ratio Method

The Grade Progression Ratio Method used in PWCS, is the weighted average of historical grade progression ratios. The calculated ratio for each grade level is multiplied by its corresponding grade level cohort for a particular year to project the subsequent year’s enrollment. An example below is provided to help explain the method.

Below is a table that tabulates the historical record of total sixth and seventh grade students for the current year (i.e., Year₍₀₎) and the previous three years. Beneath the table is Grade Progression Ratio Method used with the provided data. For the sake of simplicity, no weighting is included in the example calculation, although more recent years are weighted more significantly in the actual projections used in PWCS. Averaging progression ratios for multiple years in the progression ratio calculation lessens the effect of any given year on the forecast, effectively smoothing the historical data. The forecaster can adjust the number of years used to calculate the progression ratio with the intent of attempting to control for outliers and to include the previous years that are believed to most closely represent the years being forecasted.

Grade	Year ₍₋₃₎	Year ₍₋₂₎	Year ₍₋₁₎	Year ₍₀₎	Progression Ratio	Year ₍₊₁₎
6 th	3,888	4,066	4,348	4,581		
7 th	N/A	4,024	4,184	4,525	1.0350	4,741

- Progression Ratio** = $(7^{\text{th}}_{\text{Year}(-2)} + 7^{\text{th}}_{\text{Year}(-1)} + 7^{\text{th}}_{\text{Year}(0)}) / (6^{\text{th}}_{\text{Year}(-3)} + 6^{\text{th}}_{\text{Year}(-2)} + 6^{\text{th}}_{\text{Year}(-1)})$
 $7^{\text{th}}_{\text{Year}(0)}$ indicates the 7th grade cohort of Current Year.
- Progression Ratio** = $(4,024 + 4,184 + 4,525) / (3,888 + 4,066 + 4,348) = 1.0350$
- Forecasted 7th Year₍₊₁₎ Student Enrollment** = $4,581 \times 1.0350 = 4,741$

Student Enrollment Forecast Accuracy

The model used to project student enrollment in PWCS is effective, and with accurate data and correctly forecasted parameters, can provide reasonably accurate forecasts of future. Historically, it has yielded smaller errors at larger geographies. An average error of less than 1 percent has been associated with the Division-wide one-year projections since the mid-1990s. Success at the school level, a relatively smaller geography, has varied by school. See charts on page 15 and 16 for historical error rates.

Student Enrollment Data Preparation



Elementary School
Level Data



Middle School
Level Data



High School
Level Data



Special School
Level Data



SMS Student Database - Extract Active
Students via SPSS Syntax to produce
the Official September 30th Enrollment



Import PWC Government
Shapefiles for Premise
Addresses, Parcels, and Roads

Import dataset into GIS



"Geocode" or assign each
student to a point on a map
based on the student's
residential address on file



Spatial join PZs and School
Assignments to the "Geocoded" student
point file in GIS to produce dataset

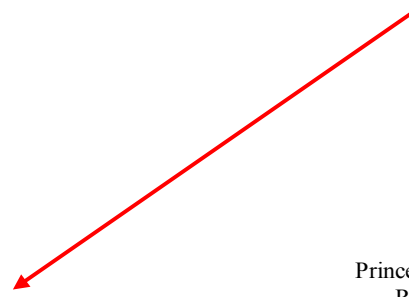
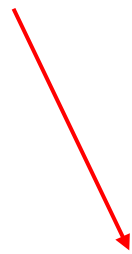
Analysis of Housing Unit Information



Prince William County Planning Office
Premise Points with Housing Unit Data



Prince William County Geographic Information System



Prince William County Planning Office
Residential Development Plans

PWCS Staff converts
information into
geographic data



Residential Information
Geodatabase in GIS



Outside data vendors provide additional
information on pace of development (e.g.,
PWC Revenue Committee, COG Housing
Forecasts, Residential Development, etc.)



Current and 10-Year
Projection of Housing
Units by Unit Type and
Planning Zone



This allows us to
prepare for Student
Enrollment Forecasting
continued on Page 5

Student Enrollment Forecasting Preparation



Residential Construction
(Generates students from new housing units based on forecasted build rates)

County-Wide Projection
forecasts the number of students anticipated in PWCS for the next 10 years



SPSS Syntax

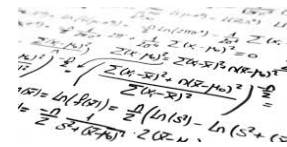
Calculate Current Student Generation Factors (SGF)
(Students per housing unit, by Unit Type, Planning Zone, and Grade)



Calculate Transfer Rates
(Percentage of students attending schools other than their geographically assigned school)



Progress student generation factor cohorts and transfer rates x-year forward



By Planning Zone:
Students (Grade X, Year Y) =
SGF_{Grade X-1 by Unit Type} * Units_{Year 0}
+ SGF_{Grade X by Unit Type} * Add'l Units_{Year 0 to Y}
* Transfer Rate_{Grade X}



Calculate new grade enrollments for each Planning Zone



Make "bottom-up" forecasts comply with "top-down" division-wide forecasts for improved accuracy

Allocate Planning Zones to Schools to create Enrollment Projections by School and Grade

Alternative Solutions to School Overcrowding

There are several general methods that have been considered to alleviate overcrowding in schools.

- Boundary changes – For the opening of new schools or to shift student populations
- Optimization of boundaries so all available space in the county will be used
- Placement of portable classrooms
- New construction
- Freezing transfers
- Program changes – Examples:
 - Shifting eighth grade to a high school with unused space;
 - Moving PK Special Education programs;
 - Increasing pupil/teacher ratio;
 - Split shift.
- Year-Round Schooling

The method chosen for relieving overcrowding at a given school is determined by several criteria. These criteria include continuity and quality of educational program; maintenance of continuous communities; transportation considerations; using centerline on divided highways when possible; and topographical features.

Student Enrollment Data: Current and Projected Enrollment
Elementary Schools
SY 2021-22 to SY 2031-32

Elementary School	Available Space		2021-22			2022-23			2026-27			2031-32		
	Program Capacity	Portable Classrooms	Students	+/-	Pct. Utilized	Students	+/-	Pct. Utilized	Students	+/-	Pct. Utilized	Students	+/-	Pct. Utilized
Alvey, J.W.	838	0	577	261	68.9%	557	281	66.5%	508	330	60.7%	484	354	57.8%
Antietam	939	0	732	207	78.0%	704	235	75.0%	643	296	68.5%	608	331	64.7%
Ashland	960	0	769	191	80.1%	749	211	78.0%	697	263	72.6%	660	300	68.7%
Bel Air	410	2	377	33	92.0%	384	26	93.7%	437	-27	106.6%	414	-4	100.9%
Belmont	536	0	462	74	86.2%	467	69	87.1%	449	87	83.7%	465	71	86.7%
Bennett	828	1	716	112	86.5%	749	79	90.5%	816	12	98.6%	798	30	96.4%
Bristow Run	828	0	629	199	76.0%	613	215	74.0%	682	146	82.3%	646	182	78.0%
Buckland Mills	919	0	735	184	80.0%	725	194	78.9%	649	270	70.6%	617	302	67.1%
Cedar Point	853	0	502	351	58.9%	488	365	57.2%	427	426	50.1%	410	443	48.0%
Coles	378	3	396	-18	104.8%	385	-7	101.9%	361	17	95.4%	350	28	92.5%
Covington-Harper	783	0	777	6	99.2%	852	-69	108.8%	1,171	-388	149.6%	1,308	-525	167.0%
Dale City	371	3	398	-27	107.3%	396	-25	106.7%	365	6	98.4%	345	26	93.1%
Dumfries	370	4	438	-68	118.4%	453	-83	122.4%	578	-208	156.3%	663	-293	179.2%
Ellis, Suella G.	492	3	426	66	86.6%	407	85	82.7%	509	-17	103.5%	624	-132	126.8%
Enterprise	369	8	378	-9	102.4%	378	-9	102.4%	414	-45	112.2%	392	-23	106.2%
Featherstone	415	3	493	-78	118.8%	478	-63	115.2%	486	-71	117.2%	462	-47	111.3%
Fitzgerald, Fannie W.	773	2	893	-120	115.5%	927	-154	119.9%	1,031	-258	133.4%	1,033	-260	133.6%
Glenkirk	838	0	613	225	73.2%	590	248	70.4%	519	319	61.9%	491	347	58.6%
Gravelly, Samuel L., Jr.	936	0	806	130	86.1%	805	131	86.0%	821	115	87.7%	809	127	86.4%
Haymarket	944	2	850	94	90.0%	883	61	93.5%	981	-37	103.9%	945	-1	100.1%
Henderson, A.	915	0	785	130	85.8%	789	126	86.2%	787	128	86.0%	750	165	82.0%
Jenkins, John D.	752	0	575	177	76.5%	573	179	76.2%	561	191	74.5%	560	192	74.5%
Kerrydale	364	1	314	50	86.3%	301	63	82.7%	272	92	74.6%	257	107	70.6%
Kilby, R. Dean	684	0	603	81	88.2%	601	83	87.9%	653	31	95.5%	678	6	99.2%
King, Martin Luther, Jr.	430	0	418	12	97.2%	410	20	95.3%	415	15	96.6%	393	37	91.3%
Lake Ridge ES	871	0	637	234	73.1%	633	238	72.7%	607	264	69.7%	574	297	65.9%
Leesylvania	760	0	657	103	86.4%	664	96	87.4%	734	26	96.6%	701	59	92.3%
Loch Lomond	462	7	515	-53	111.5%	515	-53	111.5%	533	-71	115.4%	505	-43	109.2%
Marshall, Thurgood	738	0	644	94	87.3%	632	106	85.6%	556	182	75.4%	533	205	72.2%
Marumsc Hills	550	4	529	21	96.2%	534	16	97.1%	540	10	98.1%	546	4	99.3%
McAuliffe, Sharon C.	446	2	416	30	93.3%	429	17	96.2%	509	-63	114.2%	482	-36	108.0%
Minnieville	601	0	566	35	94.2%	589	12	98.0%	678	-77	112.8%	641	-40	106.7%
Montclair	592	2	608	-16	102.7%	613	-21	103.5%	600	-8	101.4%	570	22	96.3%
Mountain View	721	0	474	247	65.7%	434	287	60.2%	332	389	46.0%	318	403	44.1%
Mullen, George P.	730	1	659	71	90.3%	679	51	93.0%	726	4	99.4%	687	43	94.1%
Neasco	680	0	635	45	93.4%	641	39	94.3%	689	-9	101.3%	652	28	95.8%
Nokesville School, The (ES)	658	0	730	-72	110.9%	736	-78	111.9%	749	-91	113.9%	885	-227	134.5%
Occoquan	498	5	617	-119	123.9%	637	-139	127.9%	767	-269	153.9%	756	-258	151.8%
Old Bridge	627	0	469	158	74.8%	468	159	74.6%	521	106	83.1%	494	133	78.7%
Parks, Rosa	703	0	570	133	81.1%	553	150	78.7%	511	192	72.7%	513	190	72.9%
Pattie, John F., Sr.	785	0	715	70	91.1%	703	82	89.6%	712	73	90.7%	674	111	85.9%
Penn, Sonnie	795	0	670	125	84.3%	685	110	86.2%	671	124	84.5%	639	156	80.4%
Pennington, Philip Michael (ES)	405	0	407	-2	100.5%	405	0	100.0%	405	0	100.0%	405	0	100.0%
Piney Branch	914	0	746	168	81.6%	736	178	80.5%	736	178	80.5%	696	218	76.2%
Porter, Mary G. (ES)	414	0	412	2	99.5%	420	-6	101.4%	420	-6	101.4%	420	-6	101.4%
Potomac View	516	2	523	-7	101.4%	539	-23	104.5%	575	-59	111.4%	568	-52	110.1%
River Oaks	612	1	548	64	89.5%	570	42	93.1%	587	25	96.0%	555	57	90.8%
Rockledge	522	1	488	34	93.5%	498	24	95.4%	493	29	94.5%	466	56	89.3%
Signal Hill	819	0	694	125	84.7%	706	113	86.2%	731	88	89.3%	720	99	87.9%
Sinclair, C.A.	652	7	764	-112	117.2%	755	-103	115.8%	736	-84	112.9%	696	-44	106.8%
Springwoods	928	0	806	122	86.9%	815	113	87.8%	877	51	94.5%	831	97	89.5%
Sudley	639	1	644	-5	100.8%	700	-61	109.5%	878	-239	137.4%	831	-192	130.0%
Swans Creek	653	0	592	61	90.7%	619	34	94.8%	686	-33	105.0%	679	-26	104.1%
Triangle	740	0	714	26	96.5%	738	2	99.7%	858	-118	115.9%	879	-139	118.8%
Tyler, George G.	574	0	431	143	75.1%	424	150	73.9%	465	109	81.1%	443	131	77.1%
Vaughan, Elizabeth	566	3	529	37	93.5%	566	0	100.0%	674	-108	119.0%	637	-71	112.6%
Victory	857	0	601	256	70.1%	616	241	71.9%	645	212	75.2%	611	246	71.3%
West Gate	489	5	554	-65	113.3%	577	-88	118.0%	629	-140	128.5%	598	-109	122.4%
Westridge	709	0	686	23	96.8%	687	22	96.9%	635	74	89.6%	602	107	84.9%
Williams, Mary	694	1	655	39	94.4%	651	43	93.8%	658	36	94.8%	622	72	89.7%
Wilson, Kyle R.	872	0	834	38	95.6%	835	37	95.8%	846	26	97.0%	812	60	93.1%
Wood, T. Clay	950	0	822	128	86.5%	802	148	84.4%	723	227	76.1%	692	258	72.8%
Yorkshire	743	0	751	-8	101.1%	762	-19	102.6%	857	-114	115.4%	871	-128	117.3%
Yung, Chris	839	0	760	79	90.6%	764	75	91.1%	804	35	95.8%	883	-44	105.2%
Total	43,249	74	38,734	4,515	89.6%	38,994	4,255	90.2%	40,586	2,663	93.8%	39,847	3,402	92.1%

Student Enrollment Data: Current and Projected Enrollment
Elementary Schools – Additional Space to be Constructed
SY 2021-22 to SY 2031-32

Elementary School	2021-22			2022-23			2026-27			2031-32		
	Students	+/-	% Util	Students	+/-	% Util	Students	+/-	% Util	Students	+/-	% Util
2023												
<i>Elementary School (West - Rosemont Lewis)</i>								649			649	
2024												
<i>Elementary (Woodbridge Area)</i>								632			632	
2025												
<i>Occoquan Replacement School</i>								226			226	
2026												
<i>Elementary School (Potomac Shores #2)</i>								721			721	
2031												
<i>Elementary School (Route 1 South Area)</i>											721	
<i>Elementary School (Yorkshire Area)</i>											678	
<i>Sum of Additional Seats</i>								2,228			3,627	
Totals (if new schools and additions were added)	38,734	4,515	89.6%	38,994	4,255	90.2%	40,586	4,891	89.2%	39,847	7,029	85.0%

Student Enrollment Data: Current and Projected Enrollment
Middle Schools
SY 2021-22 to SY 2031-32

Middle School	Available Space		2021-22			2022-23			2026-27			2031-32		
	Program Capacity	Portable Classrooms	Students	+/-	Pct. Utilized	Students	+/-	Pct. Utilized	Students	+/-	Pct. Utilized	Students	+/-	Pct. Utilized
Benton, Louise A.	1,436	.	1,388	48	96.7%	1,314	122	91.5%	1,194	242	83.1%	1,101	335	76.7%
Beville, Stuart M.	1,256	.	1,095	161	87.2%	1,089	167	86.7%	1,056	200	84.1%	1,146	110	91.2%
Bull Run	1,153	.	1,104	49	95.8%	1,090	63	94.5%	1,063	90	92.2%	1,008	145	87.4%
Gainesville MS	1,209 ¹ 1,440 ²	7	1,393	-184	115.2%	1,407	33	97.7%	1,331	109	92.4%	1,330	110	92.4%
Graham Park	863	3	718	145	83.2%	730	133	84.6%	850	13	98.5%	1,070	-207	124.0%
Hampton, George M.	1,039	4	926	113	89.1%	914	125	88.0%	1,019	20	98.1%	1,103	-64	106.2%
Lake Ridge MS	1,495	.	1,417	78	94.8%	1,369	126	91.6%	1,356	139	90.7%	1,358	137	90.8%
Lynn, Fred M.	1,139	8	1,138	1	99.9%	1,104	35	96.9%	1,262	-123	110.8%	1,457	-318	127.9%
Marsteller, E.H.	1,217	5	1,198	19	98.4%	1,152	65	94.7%	1,073	144	88.2%	1,196	21	98.3%
Nokesville School, The (MS)	448	.	406	42	90.6%	413	35	92.2%	448	0	100.0%	520	-72	116.1%
Parkside	1,381	5	1,455	-74	105.4%	1,476	-95	106.9%	1,521	-140	110.1%	1,713	-332	124.0%
Pennington, Philip Michael (MS)	252	.	249	3	98.8%	243	9	96.4%	243	9	96.4%	243	9	96.4%
Porter, Mary G. (MS)	261	.	259	2	99.2%	252	9	96.6%	252	9	96.6%	252	9	96.6%
Potomac MS	1,409	.	902	507	64.0%	898	511	63.7%	870	539	61.7%	1,000	409	71.0%
Potomac Shores	1,462	.	1,074	388	73.5%	1,096	366	75.0%	1,201	261	82.1%	1,444	18	98.8%
Reagan, Ronald Wilson	1,236 ¹ 1,362 ²	5	1,386	-150	112.1%	1,380	-18	101.3%	1,347	15	98.9%	1,404	-42	103.1%
Rippon	1,394	2	1,192	202	85.5%	1,191	203	85.4%	1,323	71	94.9%	1,453	-59	104.2%
Saunders, Herbert J.	1,244	2	1,191	53	95.7%	1,185	59	95.3%	1,073	171	86.3%	1,130	114	90.8%
Unity Braxton	1,307	.	1,101	206	84.2%	1,142	165	87.4%	1,221	86	93.4%	1,449	-142	110.9%
Woodbridge MS	1,081	5	1,032	49	95.5%	993	88	91.9%	1,041	40	96.3%	1,098	-17	101.6%
Total MS	22,282 ¹ 22,639 ²	46	20,625	1,658	92.6%	20,438	2,201	90.3%	20,741	1,898	91.6%	22,477	162	99.3%
<i>Gainesville Middle School Addition (11-room, 2022)</i>														
<i>Reagan Middle School Addition (six-room, 2022)</i>														
<i>Sum of Additional Seats</i>									0			0		
Total	22,282 ¹ 22,639 ²	46	20,625	1,658	92.6%	20,438	2,201	90.3%	20,741	1,898	91.6%	22,477	162	99.3%

Notes: 1. Gainesville and Ronald Wilson Reagan Middle Schools additional seats have been added in the totals, which is why they are not counted in the additional seats section on this page.

Notes: ¹ Capacity on which available space is calculated for the 2021-22 school year.

² Capacity on which available space is calculated for the 2022-23 through 2031-32 school year. It reflects the 11-classroom addition opening at Gainesville MS and the six-classroom addition opening at Reagan MS in the 2022-23 school year.

Student Enrollment Data: Current and Projected Enrollment
High Schools
SY 2021-22 to SY 2031-32

High School	Available Space		2021-22			2022-23			2026-27			2031-32				
	Capacity	Portable Classrooms	Students	+/-	Pct. Utilized	Students	+/-	Pct. Utilized	Students	+/-	Pct. Utilized	Students	+/-	Pct. Utilized		
Battlefield	2,053	21	2,530	-477	123.2%	2,388	-335	116.3%	2,176	-123	106.0%	1,880	173	91.6%		
Brentsville District	1,110	.	935	175	84.2%	922	188	83.1%	1,070	40	96.4%	1,194	-84	107.6%		
Colgan, Charles J., Sr.	2,053	7	2,827	-774	137.7%	2,731	-678	133.0%	2,551	-498	124.3%	2,248	-195	109.5%		
Forest Park	2,053	.	2,272	-219	110.7%	2,211	-158	107.7%	2,437	-384	118.7%	2,663	-610	129.7%		
Freedom	2,053	8	2,150	-97	104.7%	2,245	-192	109.4%	2,388	-335	116.3%	2,790	-737	135.9%		
Gainesville HS	2,557	.	1,374	1,183	53.7%	2,027	530	79.3%	2,082	475	81.4%	2,129	428	83.3%		
Gar-Field	2,839	.	2,430	409	85.6%	2,365	474	83.3%	2,400	439	84.5%	2,612	227	92.0%		
Hylton, C.D.	2,053	.	2,055	-2	100.1%	1,933	120	94.2%	1,893	160	92.2%	1,797	256	87.5%		
Osborn Park	2,430	4	2,776	-346	114.2%	2,785	-355	114.6%	2,869	-439	118.1%	3,225	-795	132.7%		
Patriot	2,053	20	2,312	-259	112.6%	2,174	-121	105.9%	2,137	-84	104.1%	1,905	148	92.8%		
Potomac HS	2,357	.	1,955	402	82.9%	1,955	402	82.9%	2,198	159	93.3%	2,476	-119	105.0%		
Unity Reed	2,409	7	2,368	41	98.3%	2,385	24	99.0%	2,725	-316	113.1%	3,170	-761	131.6%		
Woodbridge HS	2,734	.	2,790	-56	102.0%	2,766	-32	101.2%	2,991	-257	109.4%	3,090	-356	113.0%		
Total HS	28,754	67	28,772	-18	100.1%	28,887	-133	100.5%	29,918	-1,164	104.0%	31,177	-2,423	108.4%		
<i>14th High School - (Mid-County 2026)</i>																
<i>Sum of Additional Seats</i>													2,557			2,557
Total	28,754	67	28,772	-18	100.1%	28,887	-133	100.5%	29,918	1,393	95.6%	31,177	134	99.6%		

Notes:
I. Non-public middle and high school students may enroll in PWCS for one or two classes. These students are counted as 0.25 and 0.5 of a student, respectively, per Virginia State Guidelines. Such fractions of a student may affect totals because of rounding.

Student Enrollment Data: Current Enrollment
Special Education and Alternative Schools
SY 2021-22

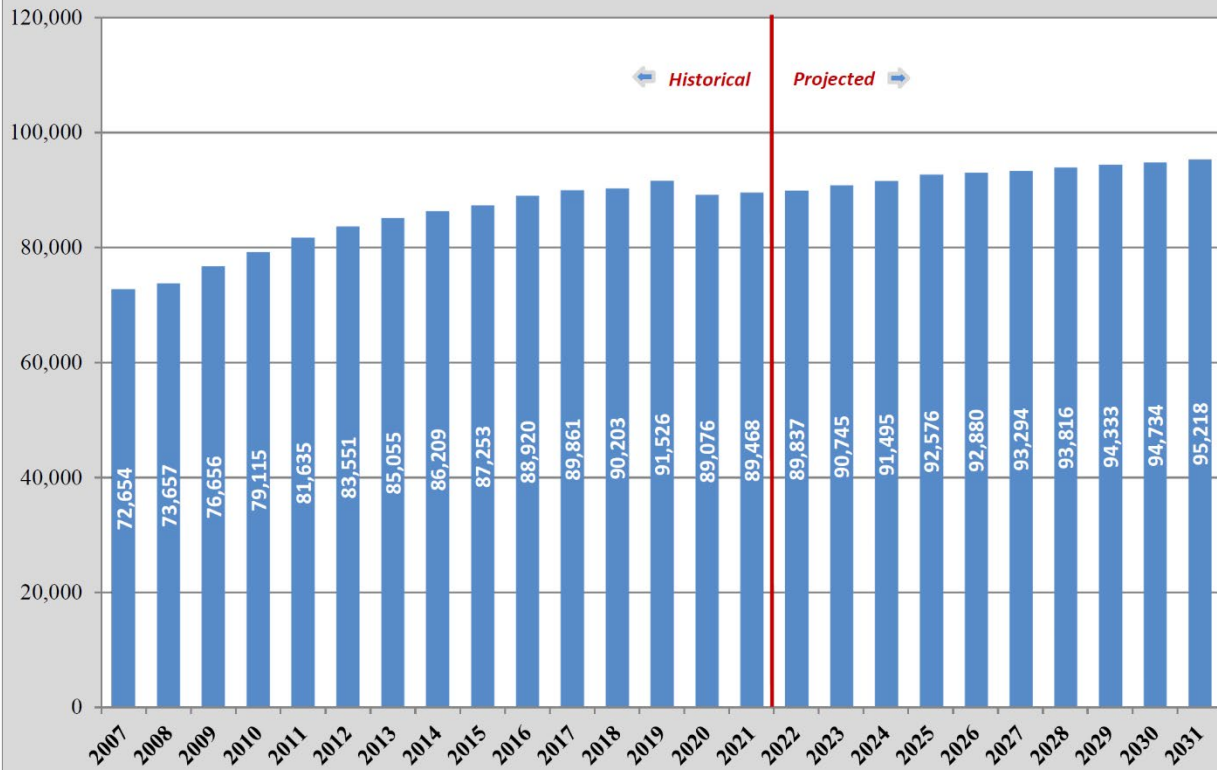
Pre School & Special Schools	2021-22	
	Portable Classrooms	Students
Pre-School Child Find		59
School Based Preschool		481
Washington-Reid Preschool		60
PACE (West)	1	66
Special Ed. Private Facility		182
Independence Nontraditional School - ED Center		58
Independence Nontraditional School - Middle		14
Independence Nontraditional School - High		286
TJHS Regional		131
Total	1	1,337

I. Non-public middle and high school students may enroll in PWCS for one or two classes. These students are counted as 0.25 and 0.5 of a student, respectively, per Virginia State Guidelines. Such fractions of a student may affect totals because of rounding.

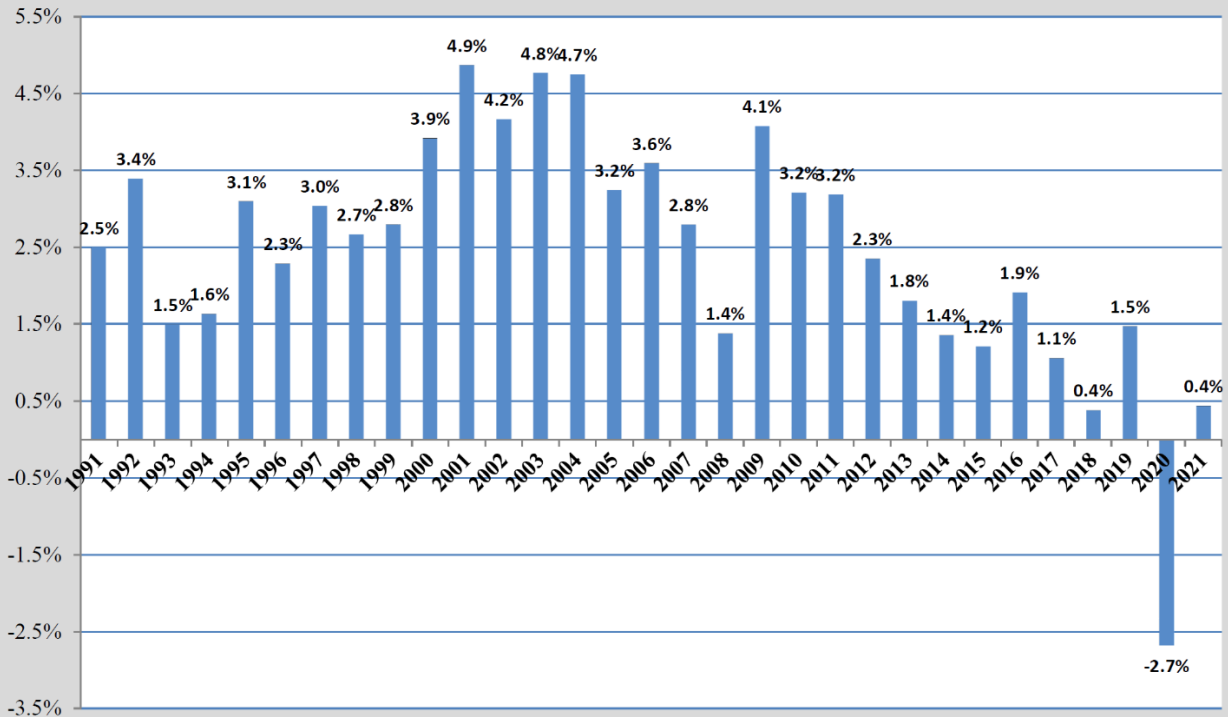
Student Enrollment Data: Historical and Projected
1990-2031

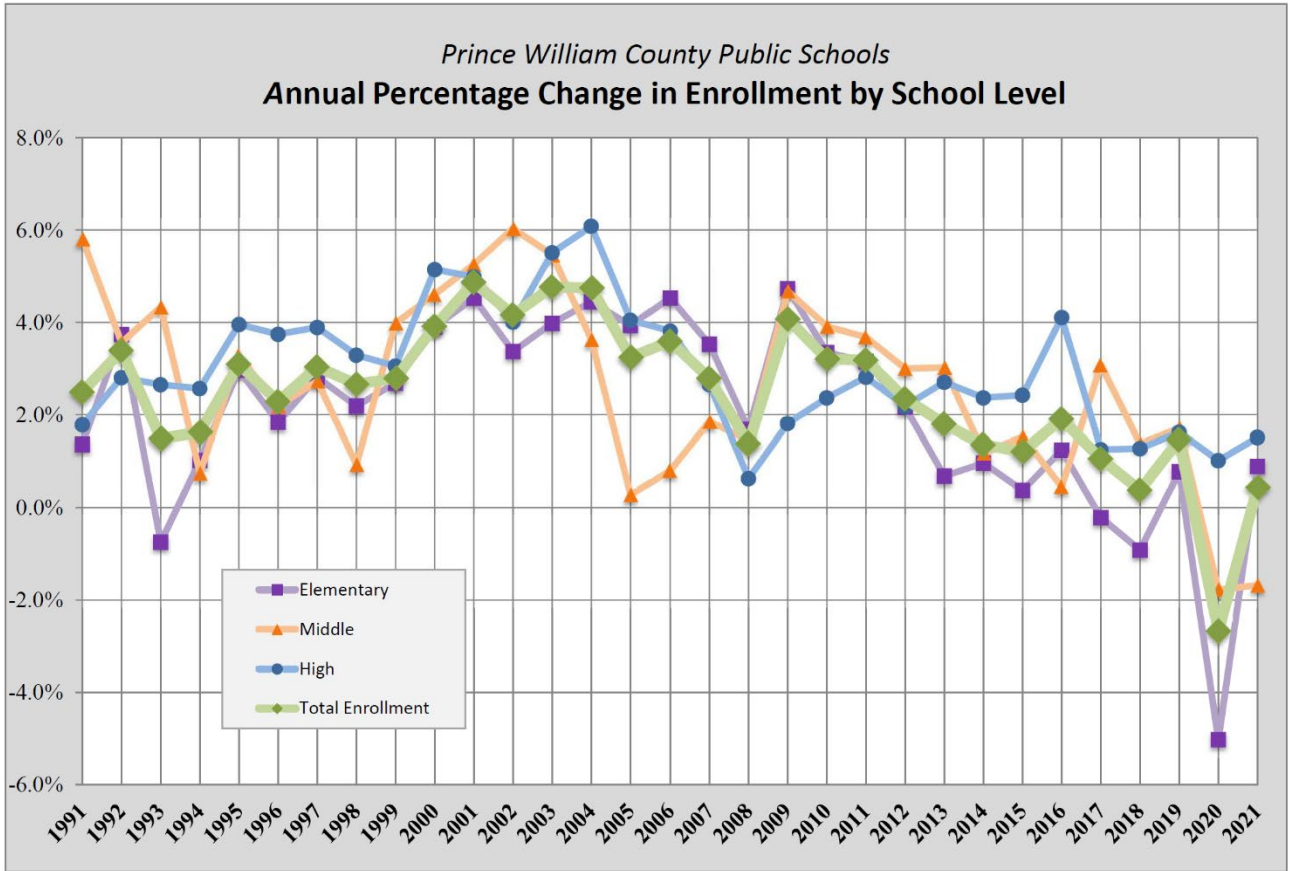
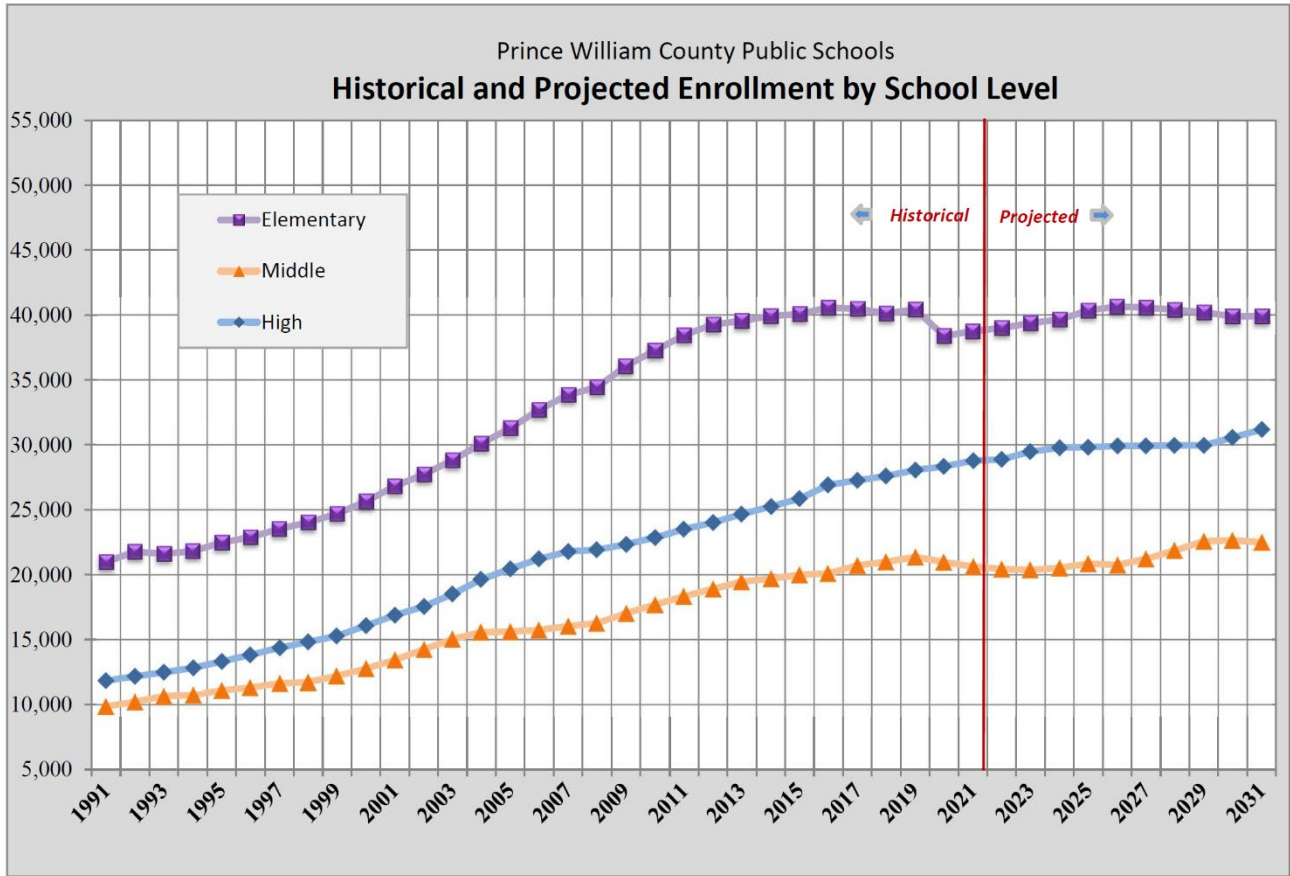
Year	School Type				Total	Annual Change	
	Elementary	Middle	High	Special Education		Number	Percentage
1990	20,702	9,320	11,638	686	42,346	812	2.0%
1991	20,984	9,861	11,846	709	43,400	1,054	2.5%
1992	21,768	10,212	12,178	712	44,870	1,470	3.4%
1993	21,605	10,654	12,501	779	45,539	669	1.5%
1994	21,826	10,733	12,822	900	46,281	742	1.6%
1995	22,473	11,085	13,329	825	47,712	1,431	3.1%
1996	22,886	11,327	13,828	760	48,801	1,089	2.3%
1997	23,529	11,636	14,366	751	50,282	1,481	3.0%
1998	24,044	11,744	14,839	994	51,621	1,339	2.7%
1999	24,690	12,212	15,292	868	53,062	1,441	2.8%
2000	25,653	12,774	16,079	633	55,139	2,077	3.9%
2001	26,814	13,445	16,881	683	57,823	2,684	4.9%
2002	27,717	14,256	17,558	698	60,229	2,406	4.2%
2003	28,820	15,035	18,525	719	63,099	2,870	4.8%
2004	30,101	15,580	19,652	760	66,093	2,994	4.7%
2005	31,286	15,623	20,448	877	68,234	2,141	3.2%
2006	32,704	15,748	21,228	1,003	70,683	2,449	3.6%
2007	33,858	16,040	21,792	964	72,654	1,971	2.8%
2008	34,428	16,273	21,930	1,027	73,657	1,003	1.4%
2009	36,055	17,034	22,328	1,239	76,656	2,999	4.1%
2010	37,261	17,700	22,857	1,298	79,115	2,459	3.2%
2011	38,436	18,351	23,500	1,348	81,635	2,520	3.2%
2012	39,269	18,902	24,015	1,365	83,551	1,916	2.3%
2013	39,538	19,473	24,665	1,379	85,055	1,504	1.8%
2014	39,920	19,703	25,249	1,337	86,208	1,153	1.4%
2015	40,070	20,004	25,861	1,319	87,253	1,045	1.2%
2016	40,569	20,095	26,923	1,333	88,920	1,667	1.9%
2017	40,482	20,713	27,261	1,405	89,861	941	1.1%
2018	40,110	20,997	27,610	1,486	90,203	342	0.4%
2019	40,422	21,357	28,058	1,689	91,526	1,323	1.5%
2020	38,390	20,978	28,343	1,365	89,076	-2,450	-2.7%
2021	38,734	20,625	28,772	1,337	89,468	392	0.4%
2022	38,994	20,438	28,888	1,518	89,837	370	0.4%
2023	39,366	20,375	29,489	1,514	90,745	907	1.0%
2024	39,657	20,522	29,778	1,539	91,495	750	0.8%
2025	40,342	20,864	29,820	1,550	92,576	1,081	1.2%
2026	40,645	20,754	29,918	1,563	92,880	304	0.3%
2027	40,573	21,231	29,913	1,577	93,294	414	0.4%
2028	40,396	21,882	29,947	1,590	93,816	521	0.6%
2029	40,201	22,572	29,956	1,604	94,333	517	0.6%
2030	39,898	22,654	30,564	1,618	94,734	401	0.4%
2031	39,901	22,508	31,178	1,631	95,218	484	0.5%

Prince William County Public Schools
Historical and Projected Enrollment



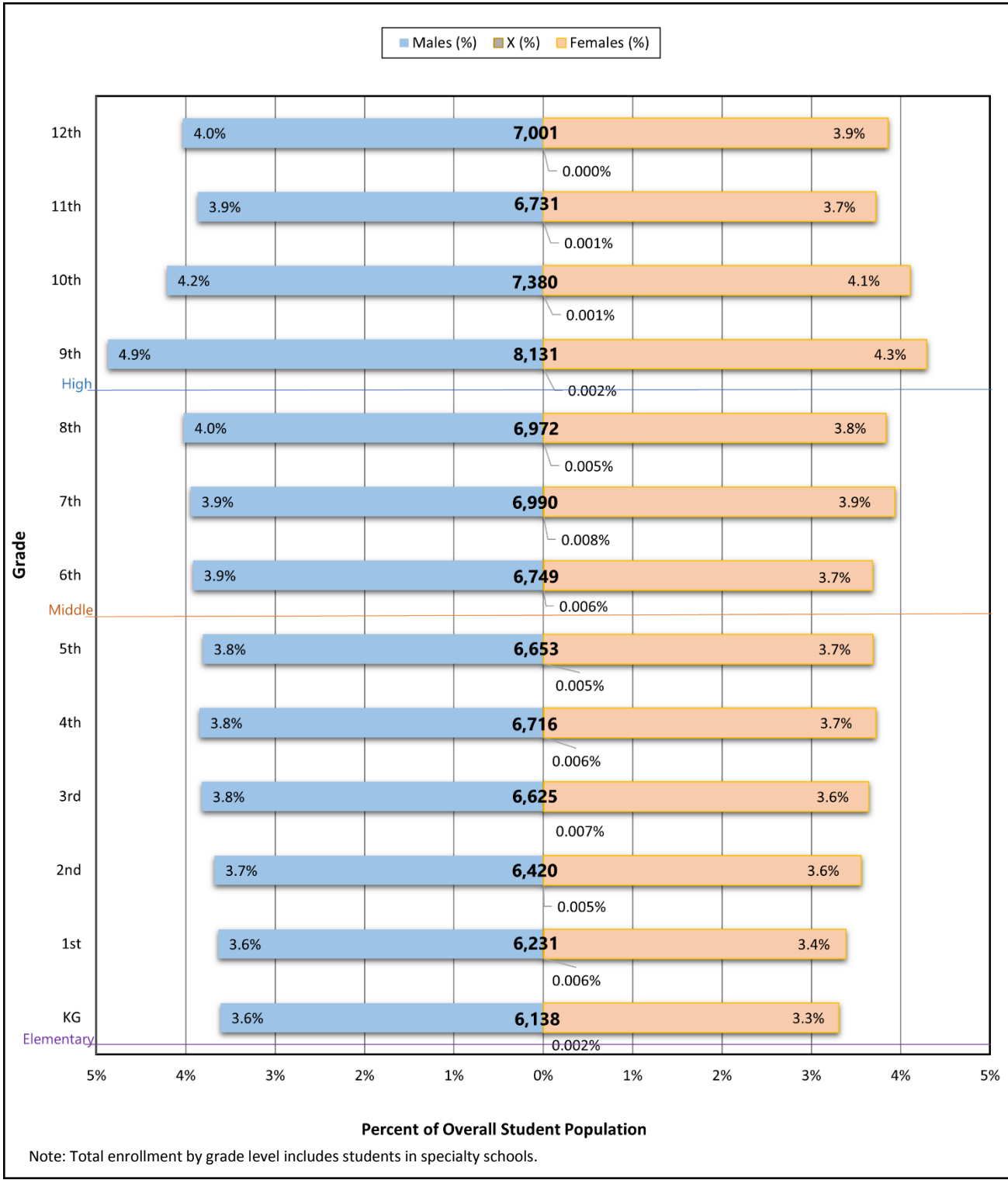
Prince William County Public Schools
Annual Percentage Change in Enrollment





Student Enrollment by Grade and Gender

By Grade and Gender 2021-22

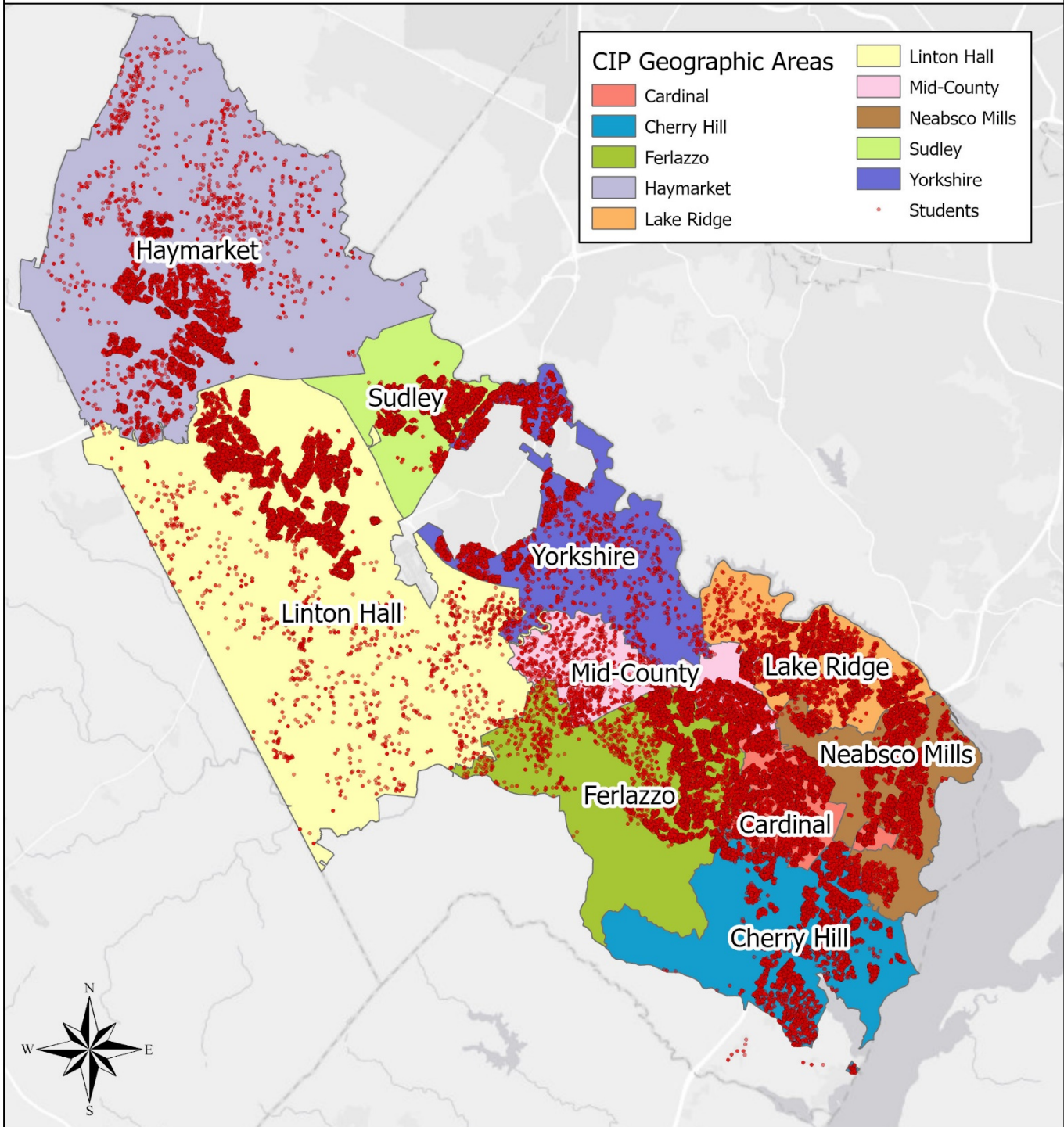


Student Distribution

Prince William County



Prince William County
PUBLIC SCHOOLS
Providing A World-Class Education



Data:
 Road_Shield
 CIP_Areas



Prepared by Planning, Facilities Department
 Prince William County Public Schools
 Map Projection: WGS 1984
 December 2021

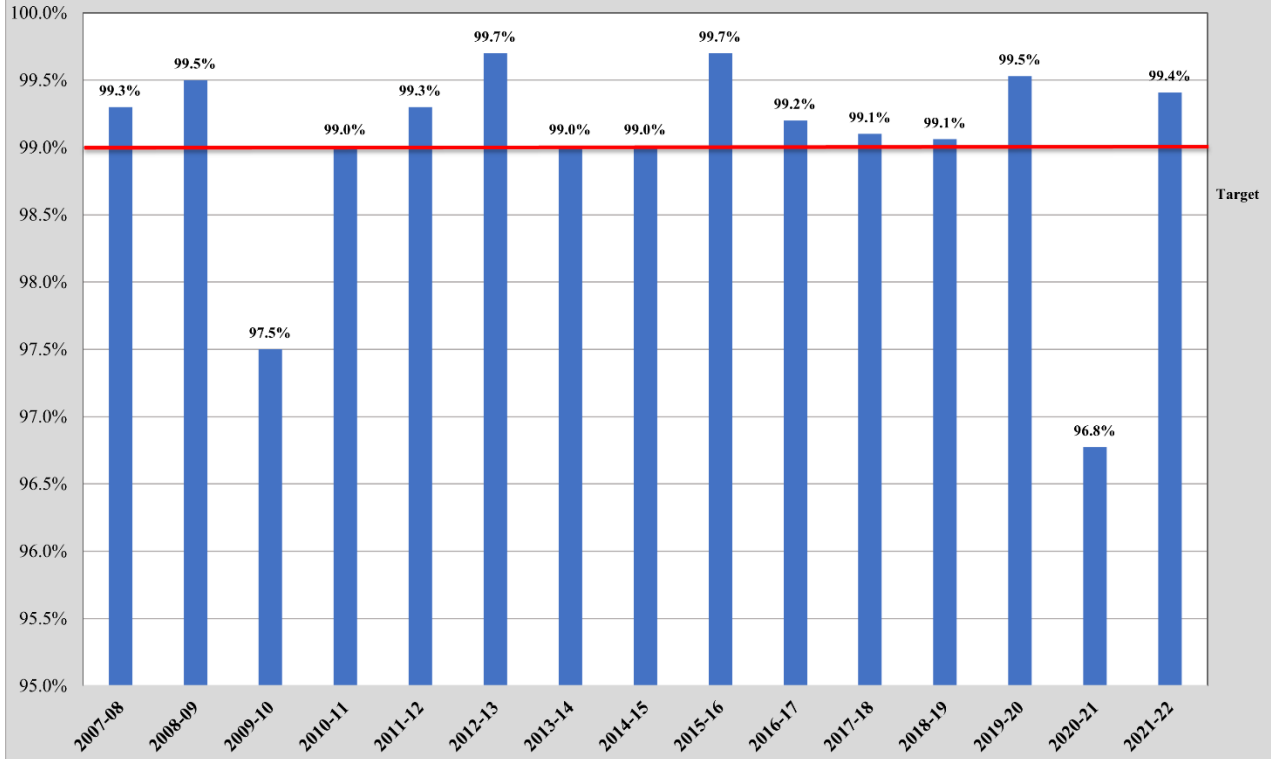
Student Enrollment Projections Error Rate Analysis

School Year	Actual Student Enrollment	Student Enrollment Projections									
		One Year Before			Two Years Before		Four Years Before		Five Years Before		
		Projection	Difference	% Error *	Projection	% Error *	Projection	% Error *	Projection	% Error *	
1984-85	35,864	36,046	182	-0.50%	35,215	1.84%	35,002	2.46%	34,672	3.44%	
1985-86	36,836	36,250	(586)	1.62%	35,228	4.56%	35,570	3.56%	35,408	4.03%	
1986-87	37,825	37,568	(257)	0.68%	36,713	3.03%	35,484	6.60%	35,977	5.14%	
1987-88	39,106	38,830	(276)	0.71%	37,418	4.51%	37,056	5.53%	35,844	9.10%	
1988-89	40,463	40,236	(227)	0.56%	39,586	2.22%	37,995	6.50%	37,669	7.42%	
1989-90	41,673	42,059	386	-0.92%	41,511	0.39%	40,369	3.23%	38,836	7.31%	
1990-91	42,176	42,268	92	-0.22%	42,984	-1.88%	42,565	-0.91%	41,163	2.46%	
1991-92	43,400	42,769	(631)	1.48%	45,230	-4.05%	44,223	-1.86%	43,656	-0.59%	
1992-93	44,868	44,697	(171)	0.38%	45,156	-0.64%	47,149	-4.84%	45,497	-1.38%	
1993-94	45,539	45,762	223	-0.49%	45,618	-0.17%	46,839	-2.78%	47,980	-5.09%	
1994-95	46,281	46,436	155	-0.33%	48,523	-4.62%	47,551	-2.67%	48,645	-4.86%	
1995-96	47,712	47,162	(550)	1.17%	47,255	0.97%	50,589	-5.69%	49,543	-3.70%	
1996-97	48,041	47,991	(50)	0.10%	46,928	2.37%	49,765	-3.46%	50,738	-5.32%	
1997-98	49,531	48,939	(592)	1.21%	49,033	1.02%	54,650	-9.37%	52,475	-5.61%	
1998-99	50,627	50,785	158	-0.31%	49,865	1.53%	48,731	3.89%	50,746	-0.23%	
1999-00	53,062	52,546	(516)	0.98%	53,102	-0.08%	52,567	0.94%	51,330	3.37%	
2000-01	55,139	54,269	(870)	1.60%	53,352	3.35%	53,038	3.96%	53,831	2.43%	
2001-02	57,823	57,026	(797)	1.40%	55,763	3.69%	54,788	5.54%	54,930	5.27%	
2002-03	60,229	59,916	(313)	0.52%	58,829	2.38%	55,688	8.15%	57,231	5.24%	
2003-04	63,109	62,391	(718)	1.15%	61,962	1.85%	58,059	8.70%	57,541	9.68%	
2004-05	66,093	65,721	(372)	0.57%	64,321	2.75%	62,185	6.28%	59,639	10.82%	
2005-06	68,234	68,988	754	-1.09%	68,181	0.08%	64,709	5.45%	63,717	7.09%	
2006-07	70,683	70,211	(472)	0.67%	71,511	-1.16%	67,804	4.25%	66,393	6.46%	
2007-08	72,654	72,187	(467)	0.65%	71,866	1.10%	71,555	1.54%	69,488	4.56%	
2008-09	73,657	73,321	(336)	0.46%	73,592	0.09%	75,914	-2.97%	74,270	-0.83%	
2009-10	76,656	74,736	(1,920)	2.57%	75,393	1.68%	74,840	2.43%	77,888	-1.58%	
2010-11	79,115	78,308	(807)	1.03%	75,996	4.10%	75,226	5.17%	75,433	4.88%	
2011-12	81,635	81,070	(565)	0.70%	79,866	2.21%	77,238	5.69%	76,766	6.34%	
2012-13	83,551	83,837	286	-0.34%	82,941	0.74%	79,079	5.66%	80,203	4.17%	
2013-14	85,055	85,926	871	-1.01%	86,191	-1.32%	83,659	1.67%	80,801	5.26%	
2014-15	86,209	87,108	899	-1.03%	88,420	-2.50%	86,614	-0.47%	85,436	0.90%	
2015-16	87,253	87,500	247	-0.28%	89,458	-2.46%	90,898	-4.01%	88,440	-1.34%	
2016-17	88,920	88,216	(704)	0.80%	88,777	0.16%	92,957	-4.34%	93,026	-4.41%	
2017-18	89,861	90,636	775	-0.86%	89,381	0.54%	93,460	-3.85%	94,793	-5.20%	
2018-19	90,203	91,054	851	-0.93%	92,282	-2.25%	91,496	-1.41%	95,615	-5.66%	
2019-20	91,524	91,095	(429)	0.47%	91,834	-0.34%	92,687	-1.25%	93,056	-1.65%	
2020-21	89,076	92,048	2,972	-3.23%	91,891	-3.06%	95,320	-6.55%	94,641	-5.88%	
2021-22	89,468	89,991	523	-0.58%	92,989	-3.79%	94,630	-5.45%	97,416	-8.16%	

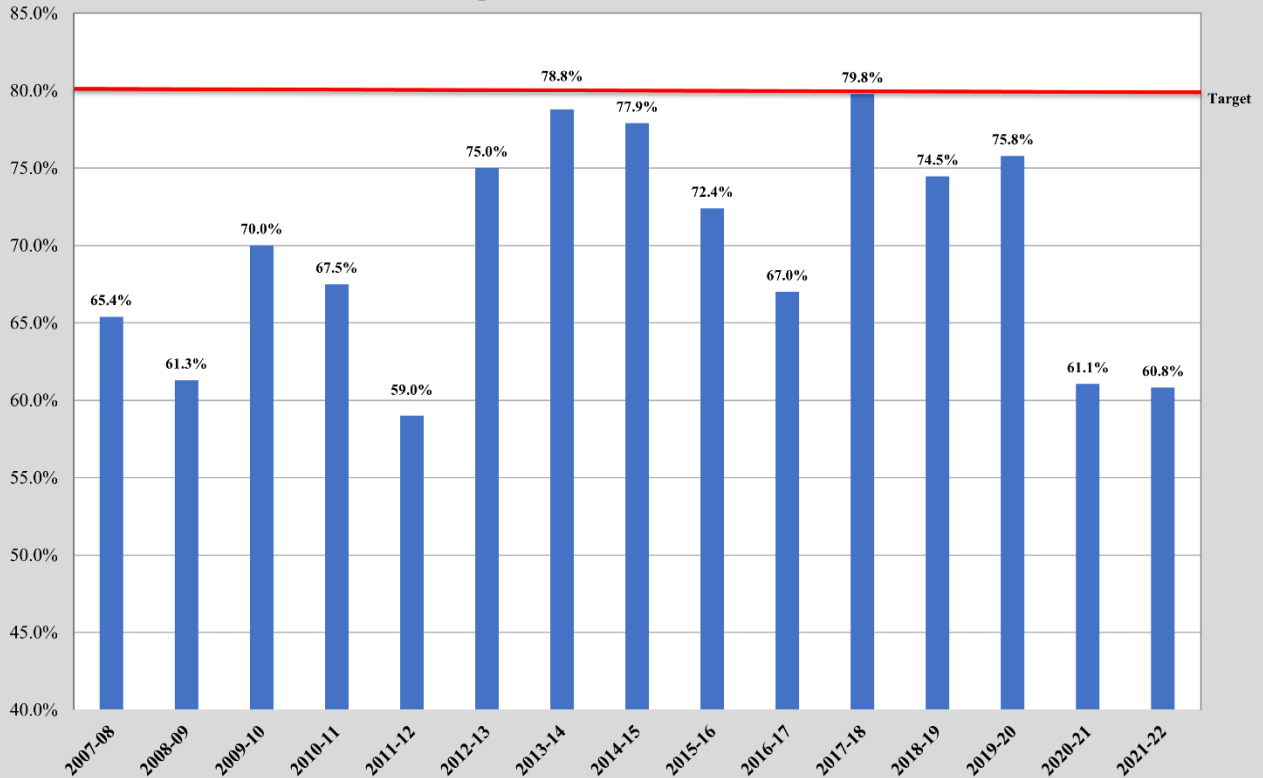
(MPE) Mean Percentage Error	0.25%		0.50%		0.93%		1.42%
(MAPE) Mean Absolute Percentage Error	0.88%		1.99%		4.19%		4.59%
10-Year (MPE) Mean Percentage Error	-0.70%		-1.43%		-2.00%		-2.20%
10-Year (MAPE) Mean Absolute Percentage Error	0.95%		1.72%		3.47%		3.66%

*A negative forecast error indicates that the projection was greater than the actual value.

Prince William County Public Schools Division-wide Projection Accuracy



Prince William County Public Schools Percentage of Schools Within 5% Error



Housing Units in Residential Development
By Elementary School Attendance Area and Stage of Development
September 2021

Elementary School	Active				Planned				Rezoning Submitted				Total
	SF	TH	MF	Total	SF	TH	MF	Total	SF	TH	MF	Total	
Alvey, J.W.						19		19					19
Ashland					4			4					4
Belmont			310	310	40	188	342	570	20	404	3,076	3,500	4,380
Bennett	195			195	135	55		190					385
Bristow Run	4			4	4			4	34	39		73	81
Buckland Mills	56	11		67	25			25	102	130		232	324
Cedar Point					57			57					57
Coles	32			32	48			48	178	60		238	318
Covington-Harper	120	652		772	155	68	1,172	1,395			170	170	2,337
Dumfries	9			9	833	11	317	1,161	12			12	1,182
Ellis, Suella G.					21	391	812	1,224	270		750	1,020	2,244
Featherstone					13			13					13
Fitzgerald, Fannie W.		131	180	311	29	275	64	368	18			18	697
Glenkirk					1			1					1
Gravelly, Samuel L., Jr.	318			318	208			208	299			299	825
Haymarket	78			78	36	79		115	39	27		66	259
Henderson, A.					46			46					46
Jenkins, John D.					17		216	233	55	610	936	1,601	1,834
Kilby, R. Dean					13	175	298	486					486
King, Martin Luther, Jr.					1			1	5			5	6
Leesylvania			118	118	41			41					159
Loch Lomond					6			6					6
Marshall, Thurgood	27			27	43			43	65			65	135
Marumscio Hills					133			133					133
Montclair	32			32	16			16	7			7	55
Mountain View	8			8					237			237	245
Mullen, George P.		18		18	3			3					21
Nokesville School, The (ES)	147			147	1,236			1,236	429			429	1,812
Occoquan		6		6	159		52	211	4			4	221
Old Bridge					7			7					7
Parks, Rosa					1		199	200	21			21	221
Pattie, John F., Sr.	11			11	7			7	6			6	24
Penn, Sonnie		22		22	15			15	12			12	49
Piney Branch					1			1			80	80	81
Potomac View					128			128	18			18	146
River Oaks										112		112	112
Signal Hill	16	23	6	45	234			234	115	160	206	481	760
Sinclair, C.A.						11		11					11
Springwoods					11			11					11
Swans Creek			73	73	147			147	15			15	235
Triangle	26	105	289	420	316	24		340			25	25	785
Tyler, George G.	6	94		100	18			18	16		18	34	152
Vaughan, Elizabeth										25		25	25
Victory					7			7					7
West Gate										81	76	157	157
Westridge					8			8					8
Williams, Mary			74	74							86	86	160
Wilson, Kyle R.	33			33	18	30	163	211					244
Wood, T. Clay	6			6	35			35		75		75	116
Yorkshire					261		454	715	12			12	727
Yung, Chris	106			106	520	1		521		1,650	1,500	3,150	3,777
Total	1,230	1,062	1,050	3,342	5,057	1,327	4,089	10,473	1,989	3,373	6,923	12,285	26,100

Note:
Active = Rezoning approved by Board of County Supervisors and site development permit issued
Planned = Rezoning approved by Board of County Supervisors
Rezoning Submitted = rezoning application submitted, CPA request submitted or initiated (if applicable), or no recent progress has occurred
Schools without additional residential development within their respective attendance areas are omitted.

Housing Units in Residential Development
By Middle School Attendance Area and Stage of Development
September 2021

Middle School	Active				Planned				Rezoning Submitted				Total
	SF	TH	MF	Total	SF	TH	MF	Total	SF	TH	MF	Total	
Benton, Louise A.	59	12		71	130			130	255	60		315	516
Beville, Stuart M.		10		10	19			19	43	610	581	1,234	1,263
Bull Run	119	94		213	82	1		83	253	450	718	1,421	1,717
Gainesville MS	52			52	526			526		1,200	880	2,080	2,658
Graham Park	35	105	289	429	1,151	35	317	1,503	12		25	37	1,969
Hampton, George M.					16	30	163	209	7			7	216
Lynn, Fred M.		6	310	316	212	363	544	1,119	24	404	3,076	3,504	4,939
Marsteller, E.H.	6	18		24	103	370	812	1,285	34	114	750	898	2,207
Nokesville School, The (MS)	147			147	1,236			1,236	429			429	1,812
Parkside	211	23	6	240	635	76	454	1,165	397	160	206	763	2,168
Potomac MS		131	74	205	105	275	64	444	18		86	104	753
Potomac Shores	131	652	73	856	307	68	1,172	1,547	21	112	170	303	2,706
Reagan, Ronald Wilson	405	11		416	205	98		303	440	157		597	1,316
Rippon			298	298	270		148	418	18	25		43	759
Saunders, Herbert J.	65			65	5		199	204	21			21	290
Unity Braxton					20	11		31		81	76	157	188
Woodbridge MS					35		216	251	17		355	372	623
Total	1,230	1,062	1,050	3,342	5,057	1,327	4,089	10,473	1,989	3,373	6,923	12,285	26,100

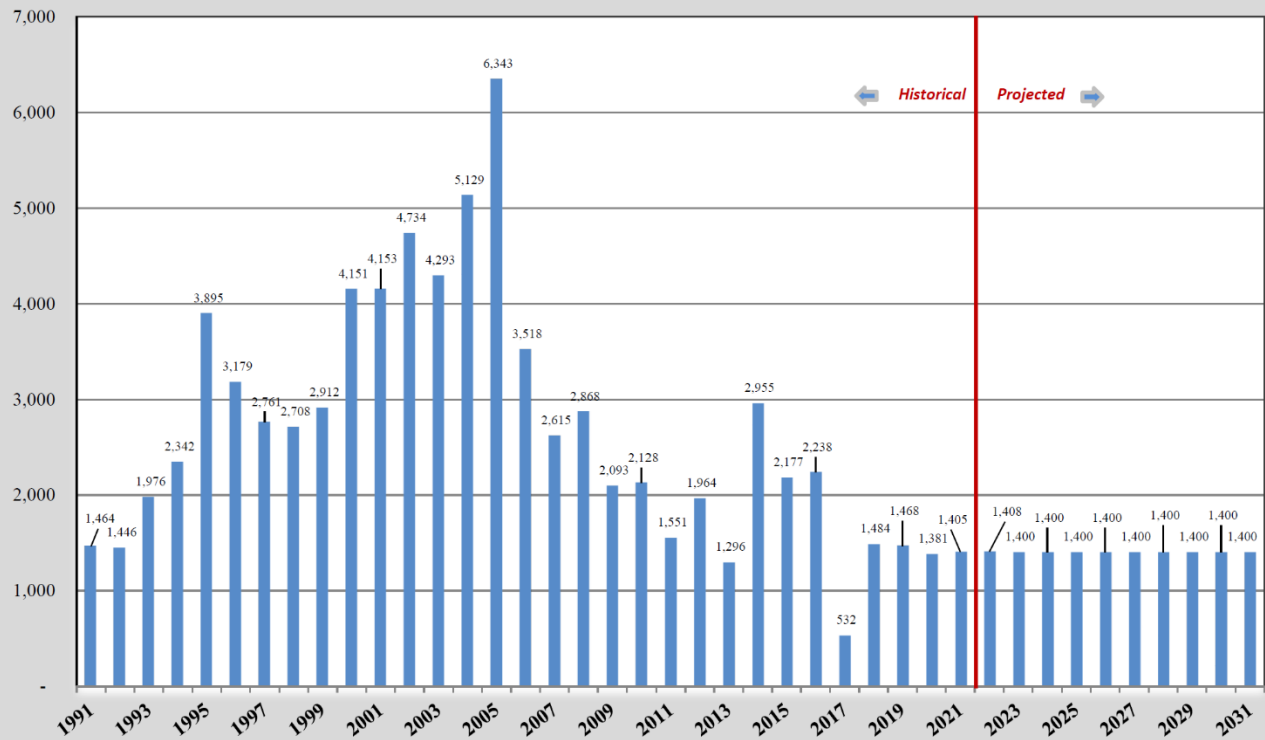
Note:
Active = Rezoning approved by Board of County Supervisors and site development permit issued
Planned = Rezoning approved by Board of County Supervisors
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Schools without additional residential development within their respective attendance areas are omitted

Housing Units in Residential Development
By High School Attendance Area and Stage of Development
September 2021

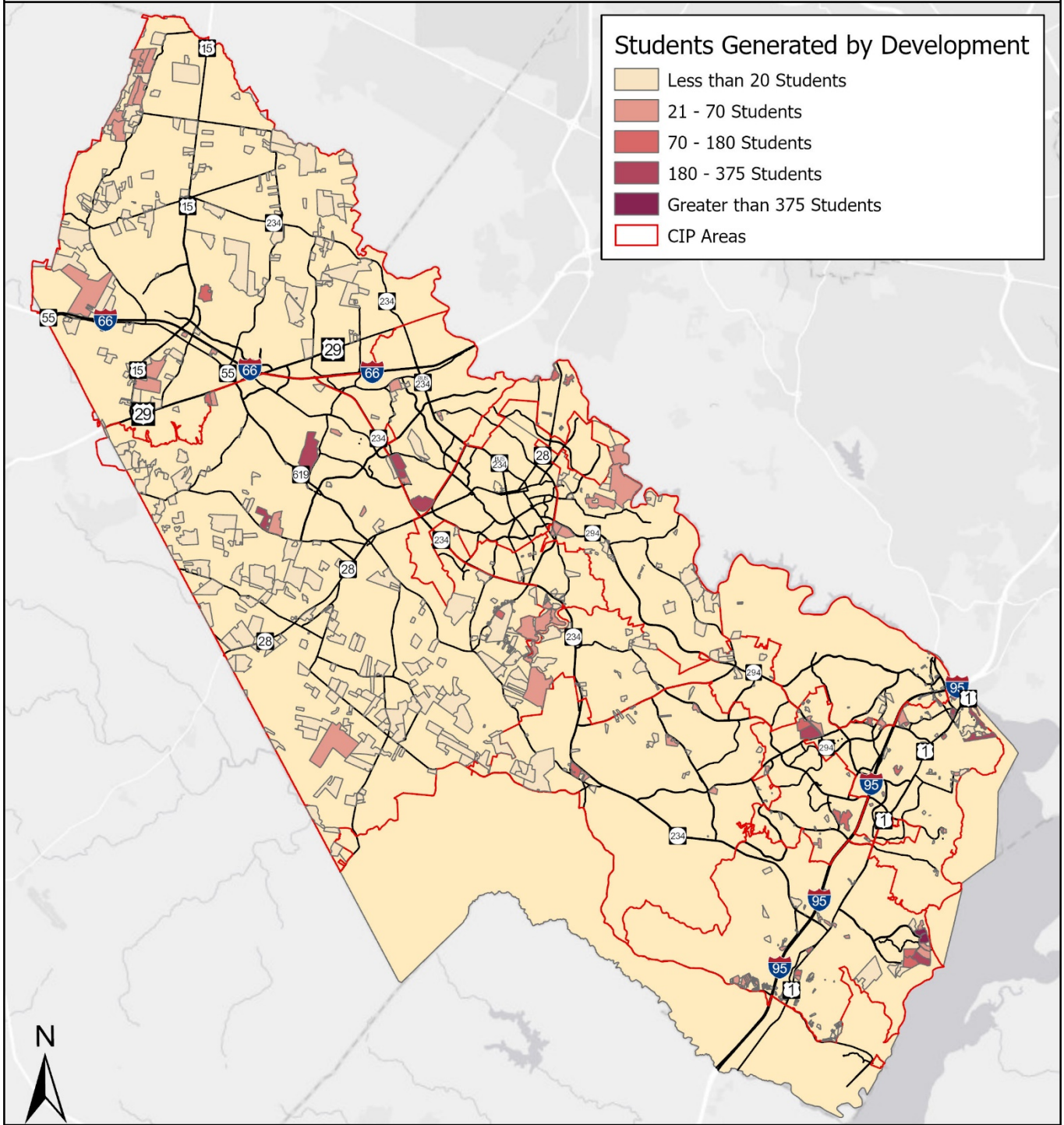
High School	Active				Planned				Rezoning Submitted				Total
	SF	TH	MF	Total	SF	TH	MF	Total	SF	TH	MF	Total	
Battlefield	332			332	226	19		245	552			552	1,129
Brentsville District	157			157	1,319			1,319	429			429	1,905
Colgan, Charles J., Sr.	59	22		81	123			123	248	60		308	512
Forest Park	20	105	289	414	899	30	317	1,246	18		25	43	1,703
Freedom		131	608	739	314	463	554	1,331	56	429	3,076	3,561	5,631
Gainesville HS	182	105		287	579	79		658	141	607	798	1,546	2,491
Gar-Field				-	33	30	163	226	62	610	936	1,608	1,834
Hylton, C.D.	65			65	8		199	207	21			21	293
Osborn Park	201	23	6	230	624	55	454	1,133	139	160	206	505	1,868
Patriot	10			10	40			40	34	114		148	198
Potomac HS	146	652	147	945	643	73	1,172	1,888	15	112	256	383	3,216
Unity Reed	58	18		76	34	403	812	1,249	270	1,281	1,626	3,177	4,502
Woodbridge HS		6		6	215	175	418	808	4			4	818
Total	1,230	1,062	1,050	3,342	5,057	1,327	4,089	10,473	1,989	3,373	6,923	12,285	26,100

Note:
Active = Rezoning approved by Board of County Supervisors and site development permit issued
Planned = Rezoning approved by Board of County Supervisors
Rezoning Submitted = rezoning application submitted, CPA request submitted or initiated (if applicable), or no recent progress has occurred
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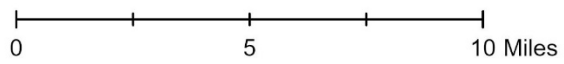
Prince William County Historical and Projected Annual Housing Unit Change



Students Generated per Built-Out Development

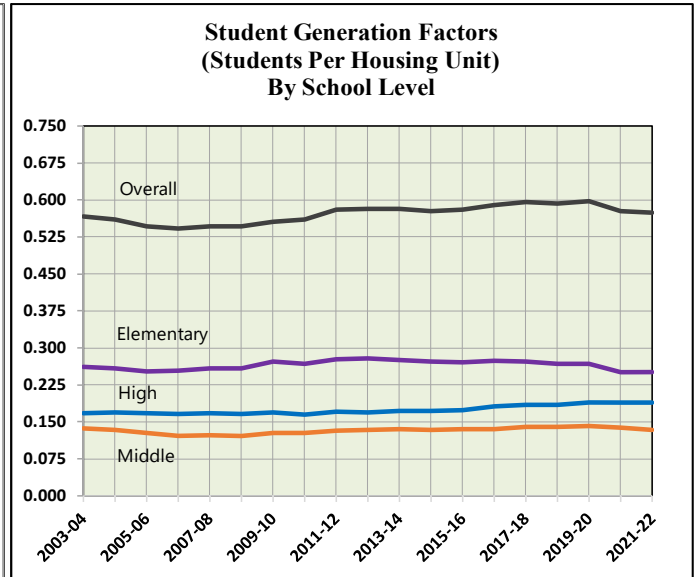
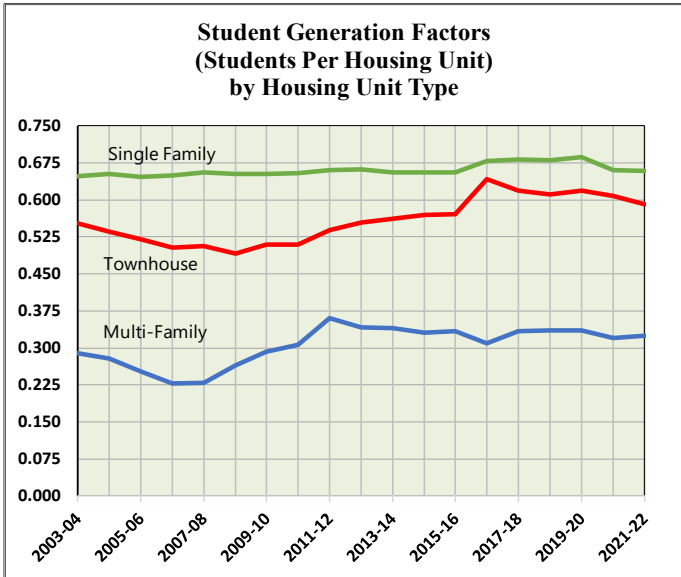


Data:
Road_Shield
CIP_Areas
Developments



Prepared by Planning, Facilities Department
Prince William County Public Schools
Map Projection: WGS 1984
December 2021

Student Generation Factors By School Level and Housing Unit Type



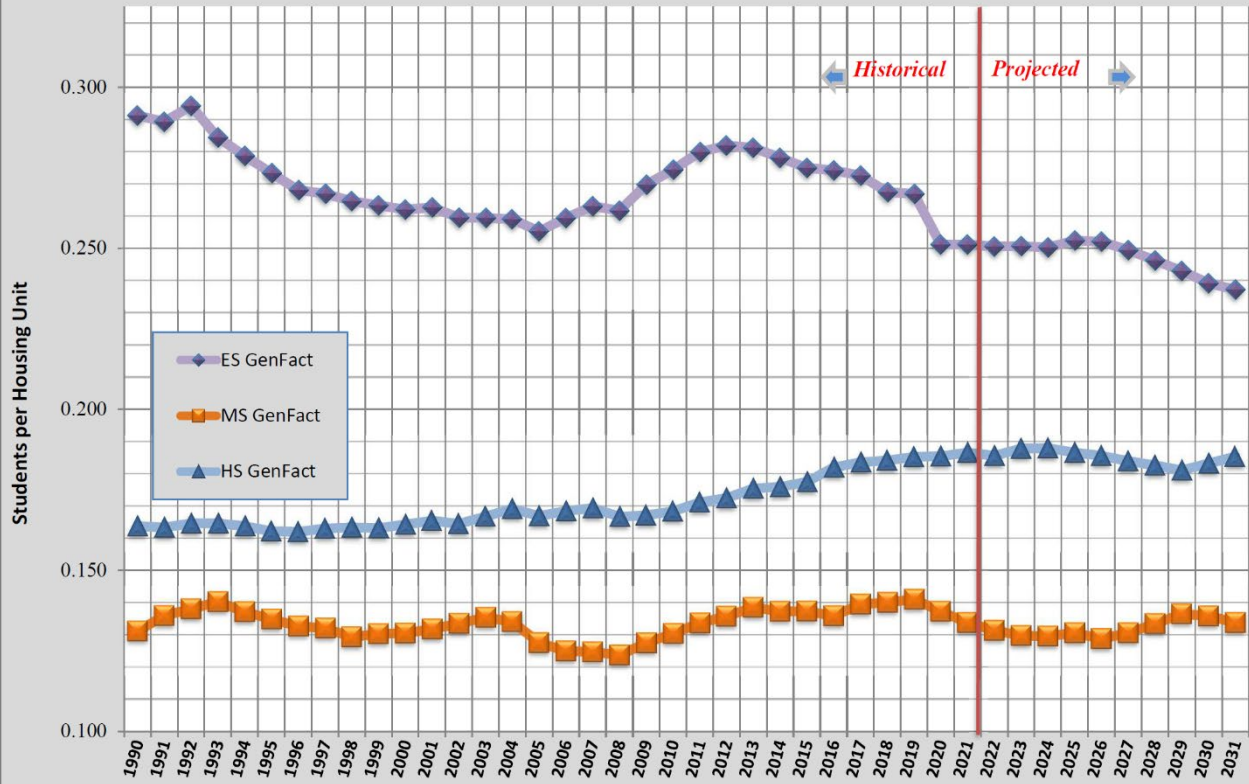
Historical Data					
2021-22	School Type	Unit Type			Total
		Single Family	Townhouse	Multi-Family	
	Elementary	0.275	0.271	0.161	0.251
	Middle	0.156	0.135	0.075	0.134
	High	0.228	0.186	0.089	0.189
Total	0.659	0.591	0.325	0.574	
2015-16	School Type	Unit Type			Total
		Single Family	Townhouse	Multi-Family	
	Elementary	0.290	0.283	0.181	0.270
	Middle	0.157	0.129	0.068	0.135
	High	0.208	0.159	0.085	0.174
Total	0.655	0.572	0.334	0.580	
2020-21	School Type	Unit Type			Total
		Single Family	Townhouse	Multi-Family	
	Elementary	0.273	0.278	0.160	0.251
	Middle	0.159	0.143	0.073	0.138
	High	0.228	0.187	0.087	0.189
Total	0.660	0.608	0.320	0.578	
2013-14	School Type	Unit Type			Total
		Single Family	Townhouse	Multi-Family	
	Elementary	0.294	0.284	0.185	0.275
	Middle	0.156	0.127	0.074	0.135
	High	0.206	0.151	0.082	0.172
Total	0.656	0.562	0.340	0.582	
2019-20	School Type	Unit Type			Total
		Single Family	Townhouse	Multi-Family	
	Elementary	0.292	0.289	0.172	0.267
	Middle	0.164	0.145	0.076	0.142
	High	0.230	0.185	0.088	0.189
Total	0.686	0.619	0.336	0.598	
2011-12	School Type	Unit Type			Total
		Single Family	Townhouse	Multi-Family	
	Elementary	0.300	0.275	0.195	0.277
	Middle	0.154	0.119	0.075	0.132
	High	0.206	0.145	0.092	0.171
Total	0.660	0.539	0.361	0.580	
2017-18	School Type	Unit Type			Total
		Single Family	Townhouse	Multi-Family	
	Elementary	0.297	0.299	0.174	0.273
	Middle	0.163	0.144	0.071	0.140
	High	0.222	0.177	0.090	0.184
Total	0.682	0.619	0.335	0.596	
2009-10	School Type	Unit Type			Total
		Single Family	Townhouse	Multi-Family	
	Elementary	0.300	0.257	0.157	0.272
	Middle	0.150	0.110	0.061	0.128
	High	0.202	0.144	0.074	0.170
Total	0.652	0.510	0.292	0.556	

Note: 1) The 'Student Generation Factor' is a mathematical representation of the relationship between housing units in Prince William County and the number of students enrolled in Prince William County Public Schools on September 30 of each year. In other words, it is the number of enrolled students per total number of housing units by type.

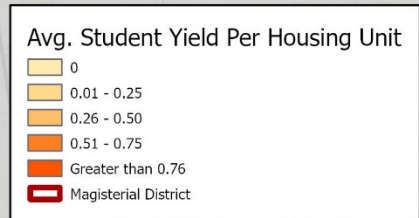
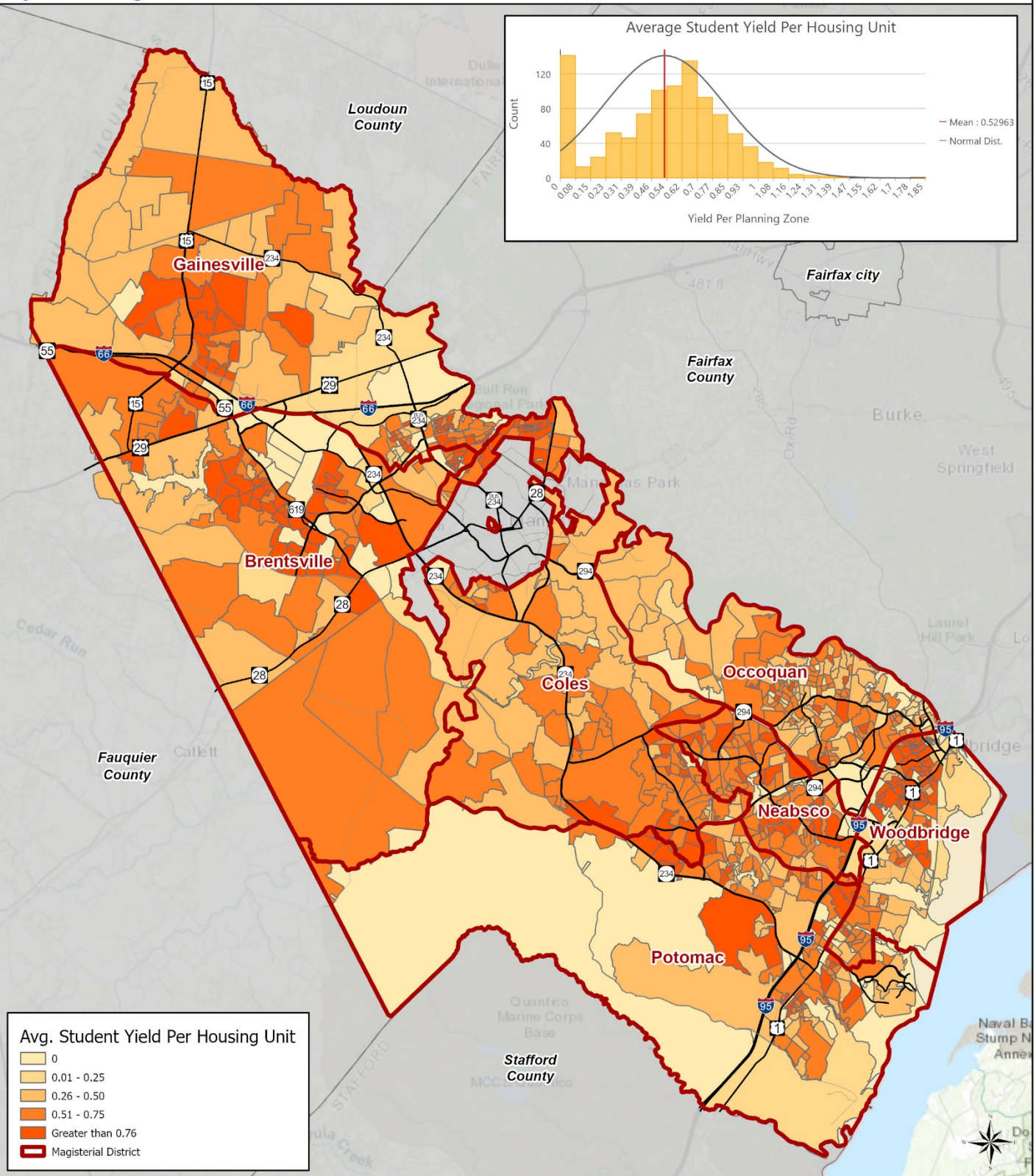
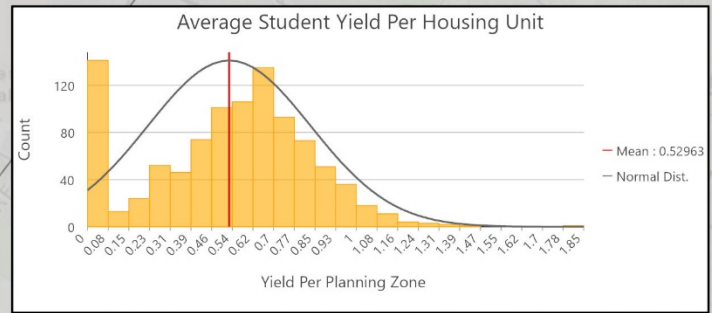
2) Numbers are rounded up to the nearest thousandth; thus totals, may be affected because of rounding.

3) In 2016-17, approximately 7,000 condo-style townhouses and 2-over-2 units were reclassified from townhouse to multi-family, thus contributing to a notable increase in student yields of townhouse units and a decrease in student yields of multi-family units.

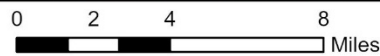
Prince William County Public Schools
Student Generation Factors by School Level



2021-22 Student Generation Factors by Planning Zone



Data:
PZ21
PZ_SGF_ST0_TotGT_PK



Prepared by Planning, Facilities Department
Prince William County Public Schools
Map Prj. WGS 1984 Web Mercator Auxiliary Sphere
November 2021

Elementary Schools
By CIP Geographic Areas

Geographic Area	Schools
Cardinal Area	Bel Air ES
	Dale City ES
	Fitzgerald, Fannie W. ES
	Henderson, A. ES
	Minnieville ES
	Neabsco ES
Cherry Hill Area	Covington-Harper ES
	Dumfries ES
	Pattie, John F., Sr. ES
	River Oaks ES
	Swans Creek ES
	Triangle ES
	Williams, Mary ES
Ferlazzo Area	Ashland ES
	Coles ES
	Enterprise ES
	King, Martin Luther, Jr. ES
	McAuliffe, Sharon C. ES
	Montclair ES
	Parks, Rosa ES
	Wilson, Kyle R. ES
Haymarket Area	Alvey, J.W. ES
	Buckland Mills ES
	Gravely, Samuel L., Jr. ES
	Haymarket ES
	Mountain View ES
	Tyler, George G. ES
Lake Ridge Area	Antietam ES
	Jenkins, John D. ES
	Lake Ridge ES
	Occoquan ES
	Old Bridge ES
	Rockledge ES
	Springwoods ES
	Westridge ES

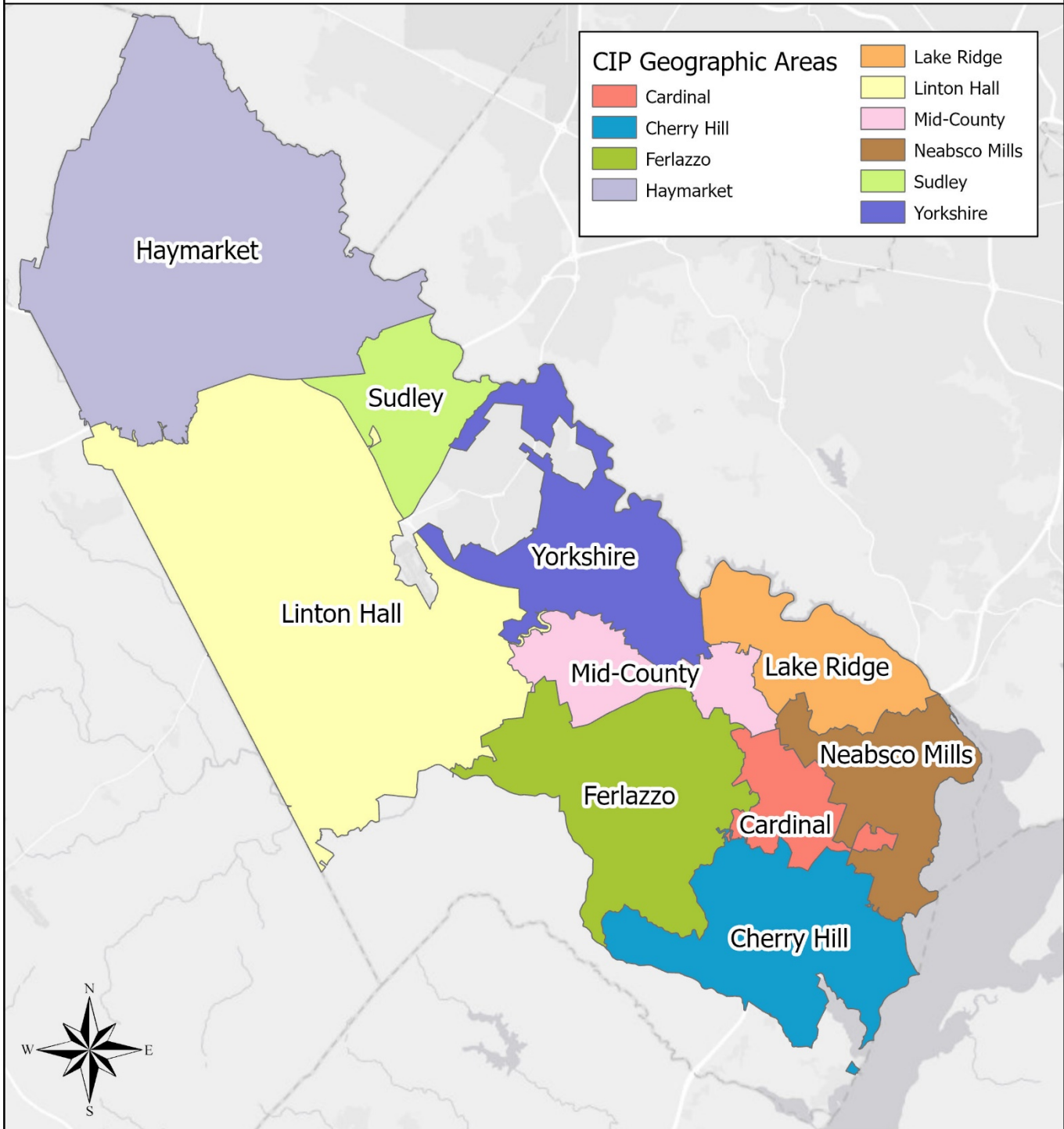
Geographic Area	Schools
Linton Hall Area	Bennett ES
	Bristow Run ES
	Cedar Point ES
	Glenkirk ES
	Nokesville School, The
	Piney Branch ES
	Victory ES
	Wood, T. Clay ES
Yung, Chris	
Mid-County Area	Kerrydale ES
	Marshall, Thurgood ES
	Penn. Sonnie ES
Neabsco Mills / Northern Route 1	Belmont ES
	Featherstone ES
	Kilby, R. Dean ES
	Leesylvania ES
	Marumscos Hills ES
	Potomac View ES
	Vaughan, Elizabeth ES
Sudley Area	Ellis, Suella G. ES
	Mullen, George P. ES
	Sinclair, C.A. ES
	Sudley ES
Yorkshire Area	West Gate ES
	Loch Lomond ES
	Signal Hill ES
Yorkshire ES	

CIP Geographic Areas

Prince William County



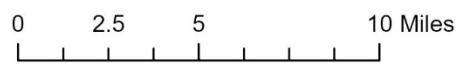
Prince William County
PUBLIC SCHOOLS
Providing A World-Class Education



CIP Geographic Areas	
■ Cardinal	■ Lake Ridge
■ Cherry Hill	■ Linton Hall
■ Ferlazzo	■ Mid-County
■ Haymarket	■ Neabsco Mills
	■ Sudley
	■ Yorkshire



Data:
 Road_Shield
 CIP_Areas



Prepared by Planning, Facilities Department
 Prince William County Public Schools
 Map Projection: WGS 1984
 December 2021

Fall Membership By Virginia School Division

Division Name	Division Membership, PK Grade 12						Change 2016 to 2021			
	2021-22	2020-21	2019-20	2018-19 ¹	2017-18	2016-17	Number	Rank in Virginia	Percent	Rank in Virginia
Alexandria City Public Schools	15,712	15,845	16,307	15,968	15,802	15,418	294	11	1.9%	19
Arlington County Public Schools	27,045	26,833	28,151	27,434	26,975	26,176	869	6	3.3%	12
Charlottesville City Public Schools	4,290	4,259	4,544	4,561	4,529	4,478	-188	73	-4.2%	57
Chesapeake City Public Schools	40,478	39,673	41,597	40,898	40,656	40,192	286	12	0.7%	28
Chesterfield County Public Schools	62,500	60,904	62,669	61,608	60,976	60,103	2,397	2	4.0%	9
Culpeper County Public Schools	8,366	8,256	8,521	8,235	8,210	8,204	162	15	2.0%	18
Fairfax County Public Schools	178,635	180,076	188,930	187,830	188,591	187,510	-8,875	132	-4.7%	63
Falls Church City Public Schools	2,483	2,500	2,649	2,621	2,680	2,672	-189	71	-7.1%	76
Fauquier County Public Schools	10,874	10,292	11,181	11,189	11,144	11,078	-204	76	-1.8%	42
Fredericksburg City Public Schools	3,624	3,545	3,755	3,710	3,617	3,581	43	20	1.2%	23
Harrisonburg City Public Schools	6,660	6,508	6,613	6,440	6,301	6,188	472	9	7.6%	3
Henrico County Public Schools	49,991	50,191	51,786	51,523	51,625	51,425	-1,434	127	-2.8%	48
Loudoun County Public Schools	81,511	81,319	83,933	82,238	80,965	78,713	2,798	1	3.6%	11
Manassas City Public Schools	7,592	7,607	7,789	7,723	7,820	7,713	-121	56	-1.6%	39
Manassas Park City Public Schools	3,508	3,500	3,641	3,724	3,723	3,588	-80	46	-2.2%	46
Prince William County Public Schools	90,135	89,577	92,270	90,876	90,595	89,378	757	7	0.8%	26
Spotsylvania County Public Schools	23,794	23,036	23,901	23,683	23,808	23,617	177	13	0.7%	27
Stafford County Public Schools	30,473	29,395	30,120	29,485	29,113	28,679	1,794	3	6.3%	4
Virginia Beach City Public Schools	65,498	65,612	68,706	68,624	68,986	69,085	-3,587	129	-5.2%	66
State Totals	1,251,970	1,252,756	1,298,083	1,290,513	1,293,049	1,288,481	-36,511		-2.8%	

Source: Virginia Department of Education, Fall Membership Report.

Note: Excluded from the September 30 Fall Membership count are special education preschool pupils, pupils in hospitals, clinics or detention homes, and local programs, such as vocational and alternative education centers (i.e., centers or schools that receive, but do not officially enroll students).

¹ Starting in the 2018-19 School Year the Virginia Department of Education changed their Fall Membership Report. The report no longer includes Post-Graduate students from their enrollment data in order to standardize reporting. Our data from 2013 through 2017 still include Post-Graduate students.

APPENDIX C

Capital Improvement Sites

Identified Capital Improvement Sites

- Overall Map of Sites Identified in the Capital Improvements Program
 - Gainesville Middle School Addition – 11-Room (2022)
 - Reagan Middle School Addition – Six-Room (2022)
 - “Rosemount Lewis” Elementary School (2023)
 - Woodbridge Area Elementary School (2024)
 - 14th High School (2026)

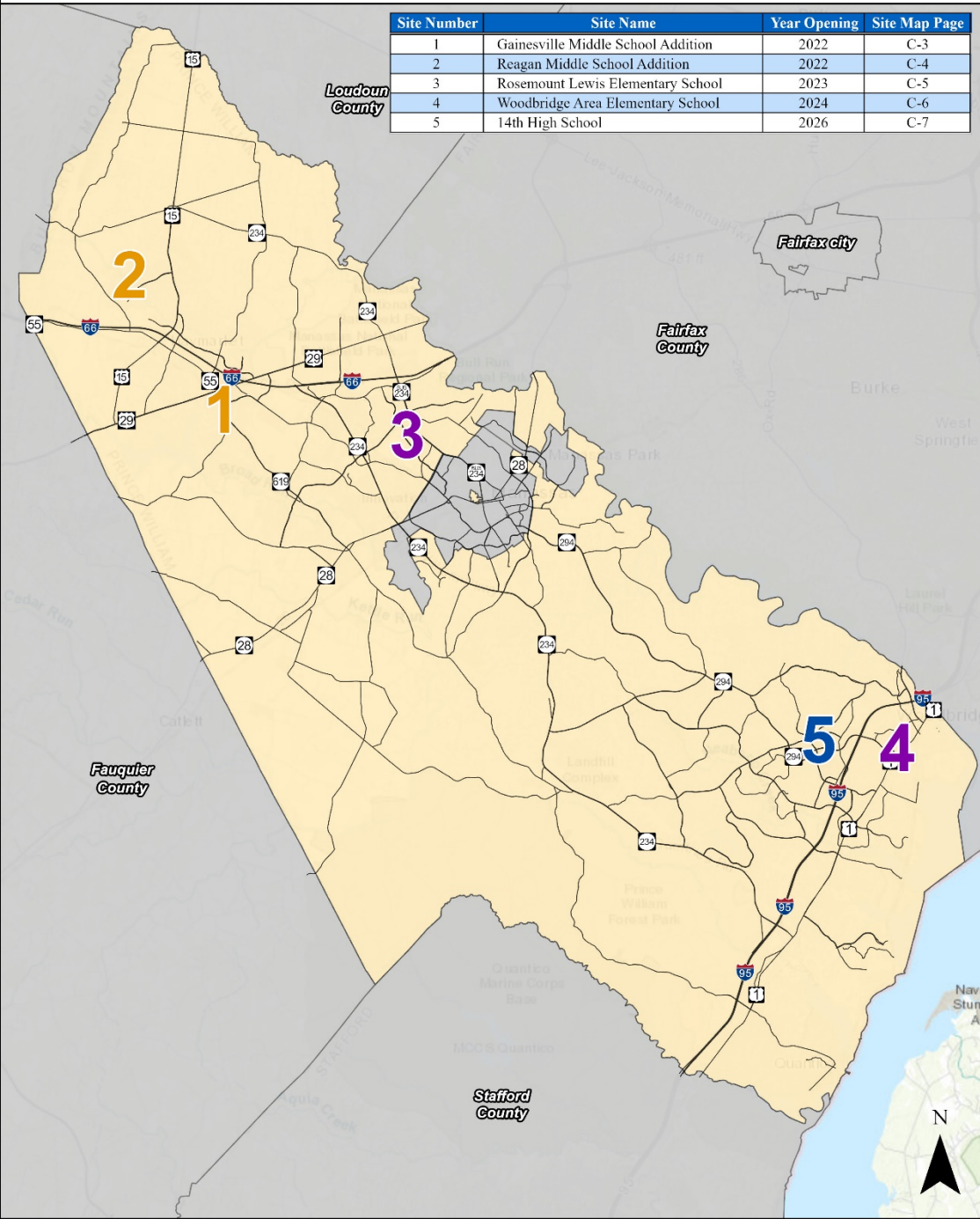
[Capital Improvement Site Maps](#)

Appendix C details the Capital Improvement sites that have been acquired by the School Division. The year the facilities are scheduled to open at the identified site is shown on the site map and the overall map (2).



New School Facilities Identified in the Capital Improvements Program (CIP)

Site Number	Site Name	Year Opening	Site Map Page
1	Gainesville Middle School Addition	2022	C-3
2	Reagan Middle School Addition	2022	C-4
3	Rosemount Lewis Elementary School	2023	C-5
4	Woodbridge Area Elementary School	2024	C-6
5	14th High School	2026	C-7



Data:
Roads
Road_Shields
County_Background



Prepared by Planning, Facilities Department
Prince William County Public Schools
Map Prj. WGS 1984
February 2022

Gainesville Middle School Addition

Project Description

Address: 8001 Limestone Drive,
Gainesville VA 20155

Magisterial District: Brentsville

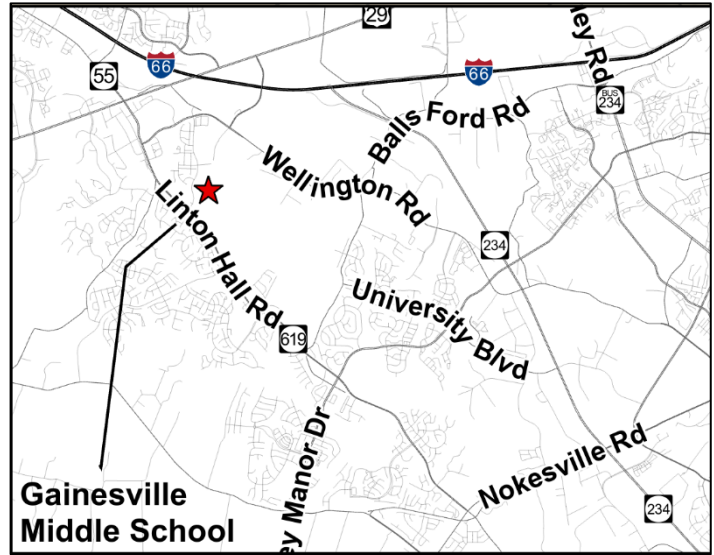
Acreage: 39.41

Project Budget: \$10,337,000

Funding Source: Virginia Public School
Authority Bond (VPSA) V20A,
V21A, and V22A

Architect: Brian Ulbrich - Architecture
Incorporated

Contractor: Carlson Brothers, Inc.



School Details

Addition Size: 11 Classroom

Additional Square
Footage: 12,636 Sqft

Project Schedule

Contract Awarded: June 2, 2021

Construction Start: June 2, 2021

Scheduled Completion: July 2022



Reagan Middle School Addition

Project Description

Address: 15801 Tanning House Place,
Haymarket VA 20169

Magisterial District: Gainesville

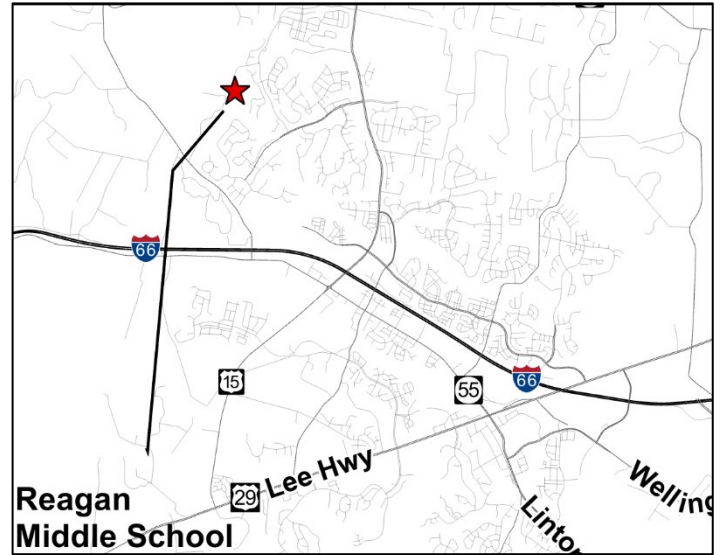
Acreage: 41.88

Project Budget: \$7,057,000

Funding Source: Virginia Public School
Authority Bond (VPSA) V20A,
V21A, and V22A

Architect: Brian Ulbrich - Architecture
Incorporated

Contractor: Henley Construction Co., Inc.



School Details

Addition Size: Six Classrooms

Additional Square Footage: 6,388 Sqft

Project Schedule

Contract Awarded: June 8, 2021

Construction Start: June 2021

Scheduled Completion: June 2022



“Rosemount Lewis” Elementary School (2023)

Project Description

Address: 11000 Crestwood Drive and 8200 Ashton Avenue Manassas

Magisterial District: Brentsville

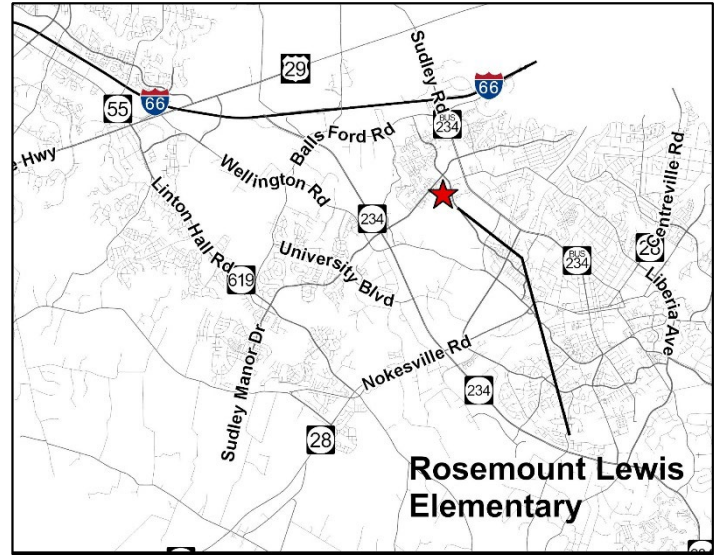
Acreage: 19.58

Project Budget: \$40,855,000

Funding Source: Virginia Public School Authority Bond (VPSA) FY20, FY21, FY22

Architect: Mosely Architects

Contractor: V.P. Pavone



School Details

Square Feet: 100,000 multi-story

Grade K-5, classrooms, resource rooms, fine arts rooms, science lab, media center, gym/cafeteria, activity room, administration area, and clinic.

Educational Programs:

Project Schedule

Public Facility Review Approval: June 2019

Contract Awarded: March 2021

Construction Start: April 2021

Scheduled Completion: July 2023



Woodbridge Area Elementary (2024)

Project Description

Address: 1550 Prince William Parkway and 13956 Jefferson Davis Highway

Magisterial District: Woodbridge

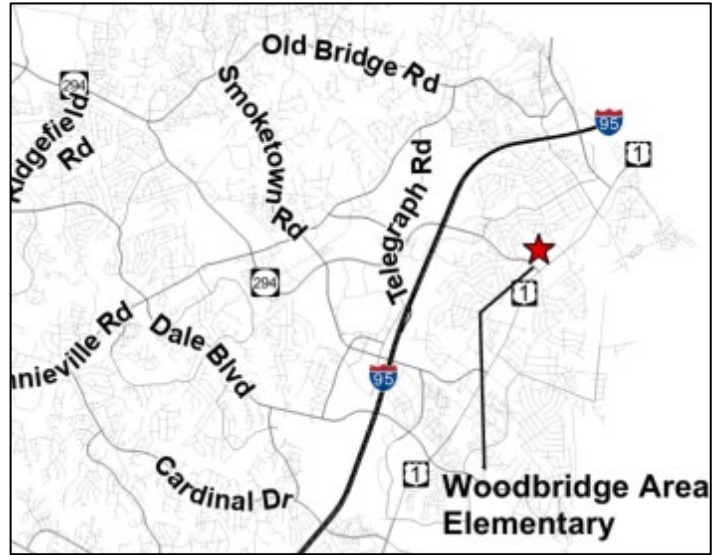
Acreage: 9.68

Project Budget: \$41,561,000

Funding Source: Virginia Public School Authority Bond (VPSA) V22A, V23A, and V24A

Architect: Mosely Architects

Contractor: TBD



School Details

Square Feet: TBD

Grade K-5, classrooms, resource rooms, fine arts rooms, science lab, media center, gym/cafeteria, activity room, administration area, and clinic

Educational Programs:

Project Schedule

Contract Awarded: TBD

Construction Start: TBD

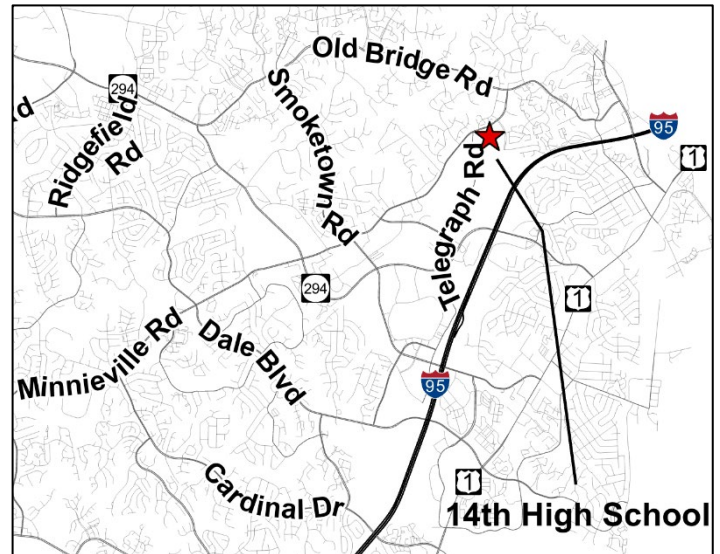
Scheduled Completion: August 2024



14th High School (2026)

Project Description

Address:	Summit School Road
Magisterial District:	Occoquan
Acreage:	97.8
Project Budget:	\$157,000,000
Funding Source:	Virginia Public School Authority Bond V22A, V23A, V24A, V25A, V26A
Architect:	Moseley Architects
Contractor:	TBD

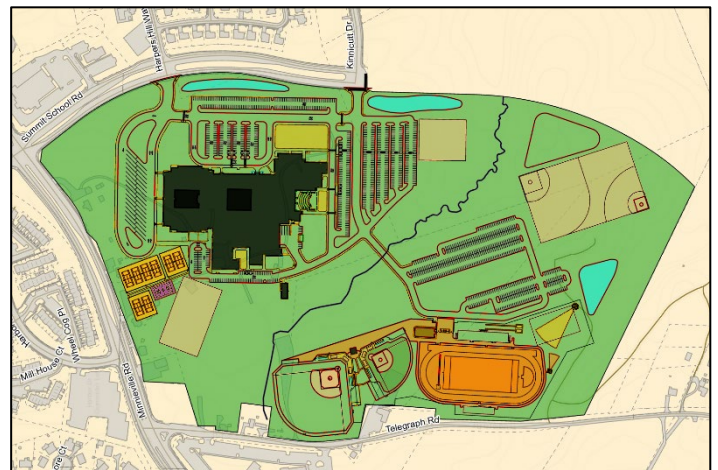


School Details

Square Feet:	334,885
Educational Programs:	Grades 9-12, academic classrooms, fine arts rooms, science lab, media center, vocational shops, stadium with artificial turf, competition and auxiliary sports fields, tennis courts, administrative area, clinic.

Project Schedule

Contract Awarded:	TBD
Construction Start:	TBD
Scheduled Completion:	August 2026



APPENDIX D

School Construction Financial Data

- School Construction Projects by Types of Expenditures
- Report of Bond Expenditures
- Commonwealth of Virginia Comparative School Construction Cost Data
 - New Elementary Schools
 - New Middle Schools
 - New High Schools
- Elementary School Construction Cost Comparatives

School Construction Projects by Types of Expenditures

School Construction Projects Types of Expenditures FY 2012 to FY 2022

PWCS Project Name	Opening Date	CIP Construction Project Budget	Construction Expenditures							Total Construction Expenditures	Operating Fund / Start Up Costs ⁷	Site Acquisition Costs ⁸	Total Project Costs	
			Construction Contract Bid ¹	Project Costs Outside of Construction Contract					Total Project Costs Outside of Construction Contract					
				Construction Contract Change Order Costs ²	Temporary Employees ³	Engineering Services ⁴	Furnishings & Equipment ⁵	Other Non-Construction Contract Costs ⁶						
14th High School	Sep-26	\$ 157,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,685,469	\$ 12,685,469
Elementary School (Woodbridge Area)	Sep-24	\$ 41,561,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,361,710	\$ 1,361,710
Rosemount Lewis Elementary	Sep-22	\$ 40,855,000	\$ 35,000,000	\$ -	\$ 48,188	\$ 2,392,774	\$ -	\$ 537,679	\$ 2,978,641	\$ 37,978,641	\$ -	\$ -	\$ -	\$ 37,978,641
13th High School	Sep-21	\$ 127,400,000	\$ 108,500,000	\$ 609,464	\$ 314,619	\$ 6,667,415	\$ 4,221,553	\$ 3,340,132	\$ 15,153,183	\$ 123,653,183	\$ -	\$ -	\$ 16,565,582	\$ 140,218,765
Potomac Shores Middle	Sep-21	\$ 64,119,000	\$ 52,474,000	\$ 67,298	\$ 272,553	\$ 3,187,843	\$ 2,801,569	\$ 1,324,193	\$ 7,653,456	\$ 60,127,456	\$ -	\$ -	\$ -	\$ 60,127,456
Western Transportation Center	Sep-19	\$ 12,500,000	\$ 11,677,000	\$ 820,865	\$ 156,917	\$ 920,252	\$ 587,870	389,402	\$ 2,875,306	\$ 14,552,306	\$ -	\$ -	\$ 3,757,833	\$ 18,310,139
Jenkins Elementary	Sep-19	\$ 32,686,000	\$ 27,209,000	\$ 817,515	\$ 123,003	\$ 1,637,732	\$ 1,561,780	\$ 1,610,634	\$ 5,750,664	\$ 32,959,664	\$ -	\$ -	\$ 8,026,917	\$ 40,986,582
Independence Non-Traditional	Sep-18	\$ 35,850,000	\$ 27,180,000	\$ 1,458,528	\$ 180,077	\$ 2,112,436	\$ 1,906,731	\$ 3,570,028	\$ 9,227,801	\$ 36,407,801	\$ -	\$ -	\$ -	\$ 36,407,801
Covington-Harper Elementary	Sep-17	\$ 29,374,000	\$ 20,831,000	\$ (15,314)	\$ 21,731	\$ 1,155,231	\$ 1,785,236	\$ 536,680	\$ 3,483,563	\$ 24,314,563	\$ 434,000	\$ -	\$ -	\$ 24,748,563
Kilby Elementary Replacement	Sep-17	\$ 31,476,000	\$ 21,888,000	\$ 86,297	\$ 222,608	\$ 1,371,454	\$ 1,580,106	\$ 1,197,695	\$ 4,458,160	\$ 26,346,160	\$ -	\$ -	\$ 135,398	\$ 26,481,558
Kyle Wilson Elementary	Sep-16	\$ 28,534,000	\$ 20,753,000	\$ (16,905)	\$ 63,670	\$ 1,205,054	\$ 1,579,018	\$ 886,041	\$ 3,716,878	\$ 24,469,878	\$ 425,000	\$ -	\$ -	\$ 24,894,878
Maintenance Facility	Sep-16	\$ 11,444,000	\$ 8,074,000	\$ 56,355	\$ 130,361	\$ 1,341,912	\$ 322,155	\$ 836,349	\$ 2,687,132	\$ 10,761,132	\$ -	\$ -	\$ -	\$ 10,761,132
Colgan High School	Sep-16	\$ 110,943,000	\$ 97,907,000	\$ 145,919	\$ 521,568	\$ 5,126,308	\$ 4,776,207	\$ (6,670,372)	\$ 3,899,630	\$ 101,806,630	\$ 1,988,547	\$ 8,785,796	\$ 8,785,796	\$ 112,580,973
Chris Yung Elementary	Sep-15	\$ 25,987,000	\$ 20,286,000	\$ 54,809	\$ 197,660	\$ 1,004,729	\$ 1,412,402	\$ 770,928	\$ 3,440,527	\$ 23,726,527	\$ 419,000	\$ 3,345,844	\$ 3,345,844	\$ 27,491,371
Haymarket Elementary	Sep-14	\$ 27,663,000	\$ 18,788,000	\$ (262,583)	\$ 135,764	\$ 1,133,312	\$ 1,120,361	\$ 994,640	\$ 3,121,494	\$ 21,909,494	\$ 339,295	\$ 16,679	\$ 16,679	\$ 22,265,468
Nokesville School, The	Sep-14	\$ 31,000,000	\$ 28,402,000	\$ 174,854	\$ 124,920	\$ 2,252,698	\$ 1,363,551	\$ 2,213,724	\$ 6,129,747	\$ 34,531,747	\$ 230,000	\$ 236,665	\$ 236,665	\$ 34,998,412
PACE West Special	Sep-12	\$ 11,526,000	\$ 7,698,000	\$ 265,453	\$ 156,019	\$ 753,631	\$ 644,474	\$ 882,705	\$ 2,702,282	\$ 10,400,282	\$ -	\$ 93,537	\$ 93,537	\$ 10,493,819
Reagan Middle	Sep-12	\$ 26,382,000	\$ 18,914,000	\$ 196,592	\$ 188,871	\$ 1,017,882	\$ 2,178,833	\$ 1,442,048	\$ 5,024,226	\$ 23,938,226	\$ 719,000	\$ 4,261	\$ 4,261	\$ 24,661,487

¹ Construction contract to build the facility; may include site preparation work, road improvements, and other construction items as specified in the bid documents

² Change orders include errors and omissions, charges initiated by the owner, inspection outcomes, school-based staff generated changes, and unanticipated site conditions

³ On-site construction project managers, custodial services

⁴ Architectural and Engineering Services, traffic analyses, environmental analyses, archeological studies

⁵ Outfitting costs for desks, smart-boards, office furniture, computers, servers, athletic and PE equipment, lab equipment, and other equipment that is not part of the physical structure of the building

⁶ Utility Fees, easements, traffic signalization, inspection services, stormwater fees, wetlands mitigation and monitoring, erosion controls, and other unclassified expenses

⁷ Expendable Equipment and Materials to include: instructional supplies, office supplies, instruction kits, textbooks, library books, glassware, P.E. equipment, uniforms for athletics / music programs, etc., as well as the salaries of the principal and bookkeeper during the initial startup period

⁸ Purchase of properties, easements, rights of way, and associated settlement and title fees

Bond Issuance:
Virginia Public School Authority 2021 (V21A)

Bond Issuance	Project Name	Func	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
			Original Bond Disbursement			
V21A	Rosemount Lewis ES	317A	\$ 34,155,000	\$ (2,342,197)	\$ -	\$ 31,812,803
V21A	Neabsco ES - Roof Repl	370E	\$ 800,000	\$ -	\$ -	\$ 800,000
V21A	Reagan MS Addition (6 Rooms)	405B	\$ 3,500,000	\$ -	\$ -	\$ 3,500,000
V21A	Potomac Shores MS Site - Building, New	414A	\$ 1,000,000	\$ (1,000,000)	\$ -	\$ -
V21A	Graham Park MS - Fenestration	451M	\$ 302,000	\$ -	\$ -	\$ 302,000
V21A	Gainesville MS Addition	496D	\$ 3,800,000	\$ -	\$ -	\$ 3,800,000
V21A	Osborn Park HS - Fenestration Improvements	508S	\$ 4,258,000	\$ -	\$ -	\$ 4,258,000
V21A	13th HS Site Building, New	513A	\$ 2,400,000	\$ -	\$ -	\$ 2,400,000
V21A	Battlefield HS - Roof Replacement	529G	\$ 1,750,000	\$ -	\$ -	\$ 1,750,000
V21A	Freedom HS Roof Replacement	530F	\$ 2,000,000	\$ -	\$ -	\$ 2,000,000
V21A	Brentsville HS - Artificial Turf	553P	\$ 4,116,000	\$ -	\$ -	\$ 4,116,000
V21A	Stonewall Jackson HS - Fenestration Improvements	568V	\$ 4,658,000	\$ -	\$ -	\$ 4,658,000
V21A	Hylton HS Renewal	571M	\$ -	\$ 3,342,197	\$ -	\$ 3,342,197
V21A	Hylton HS - Artificial Turf	571Q	\$ 1,646,000	\$ -	\$ -	\$ 1,646,000
Total			\$ 64,385,000	\$ -	\$ -	\$ 64,385,000

Bond Issuance:
Virginia Public School Authority 2020 (V20A)

Bond Issuance	Project Name	Func	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
			Original Bond Disbursement			
V20A	Construction	0370			\$ 32,896	\$ 32,896
V20A	Rosemount Lewis ES	317A	\$ 3,200,000	\$ -	\$ -	\$ 3,200,000
V20A	Bennett ES - Renovation	365F		\$ 1,457	\$ -	\$ 1,457
V20A	Penn ES - Renovation	385F	\$ 9,229,500	\$ (1,457)		\$ 9,228,043
V20A	Reagan MS Addition (6 Rooms)	405B	\$ 657,000	\$ -		\$ 657,000
V20A	Potomac Shores MS Site - Building, New	414A	\$ 20,559,500	\$ -		\$ 20,559,500
V20A	Gainesville MS Addition	496D	\$ 700,000	\$ -		\$ 700,000
V20A	Osborn Park HS Renovation of Office / Admin Areas	508R	\$ 1,000,000	\$ -	\$ (1,000,000)	\$ -
V20A	Osborn Park HS - Fenestration Improvements	508S	\$ 1,600,000	\$ -	\$ 1,000,000	\$ 2,600,000
V20A	13th HS Site Building, New	513A	\$ 52,000,000	\$ 5,000,000		\$ 57,000,000
V20A	Unity Reed HS Renovation of Office / Admin	568U	\$ 1,000,000	\$ -	\$ (1,000,000)	\$ -
V20A	Unity Reed HS - Fenestration Improvements	568V	\$ 1,600,000	\$ -	\$ 1,000,000	\$ 2,600,000
V20A	Hylton HS Renewal	571M	\$ 24,429,000	\$ (5,000,000)	\$ (32,896)	\$ 19,396,104
Total			\$ 115,975,000	\$ -	\$ -	\$ 115,975,000

Bond Issuance:
Virginia Public School Authority 2019 (V19A)

Bond Issuance	Project Name	Func	Anticipated / Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Final Adjustments	Resulting Project Amount
			Original Bond Disbursement				
V19A	Division-wide - REVENUE	0370		\$ 851,319	\$ (35,892)	\$ (815,427)	\$ -
V19A	Division-wide - SITE ACQUISITION	0370		\$ 21,568	\$ (21,568)	\$ -	\$ -
V19A	Special Needs Facility	043K		\$ 1,553,858	\$ 619,373	\$ (298,920)	\$ 1,874,311
V19A	Western Bus Facility	043M	\$ 1,000,000	\$ 1,328,296	\$ (574,316)	\$ (42,772)	\$ 1,711,208
V19A	Ann Ludwig Special School Renovation	209B			\$ 57,378	\$ (999)	\$ 56,379
V19A	Woodbine Renovation	219B			\$ 1,570,903	\$ (47,599)	\$ 1,523,304
V19A	Minnieville Elementary School Addition (10 rooms)	303M	\$ 1,000,000	\$ 159,786	\$ (11,450)	\$ (740)	\$ 1,147,596
V19A	Pattie ES Addition	313D			\$ 7,259		\$ 7,259
V19A	Rosemount Lewis Elementary	317A		\$ 1,900,000	\$ 60,595	\$ 2,049,331	\$ 4,009,926
V19A	Lake Ridge Elementary School Addition (13 rooms)	318C	\$ 1,000,000	\$ (687,195)	\$ 17,175	\$ (142)	\$ 329,838
V19A	Jenkins Elementary School East - PW Parkway	319A	\$ 3,000,000	\$ 162,613	\$ (328,688)	\$ (155,343)	\$ 2,678,582
V19A	Springwoods Elementary School Addition (13 rooms)	332D	\$ 1,100,000	\$ (243,872)	\$ (108,347)	\$ (2)	\$ 747,779
V19A	Bennett ES Renovation	365F			\$ 185,405	\$ (445)	\$ 184,960
V19A	Antietam Elementary School Addition (13 rooms)	376C	\$ 1,000,000	\$ (753,621)	\$ (67,538)	\$ (4,456)	\$ 174,385
V19A	Marshall Elementary School - Renewal (Funding Phase 1a)	379F	\$ 1,866,000	\$ (1,300,396)	\$ (331,874)	\$ (10,679)	\$ 223,051
V19A	Montclair Elementary School - Renewal (Funding Phase 1a)	380D	\$ 1,866,000	\$ (1,650,623)	\$ (59,646)		\$ 155,731
V19A	Mountain View Elementary School - Renovation	381F	\$ 6,451,000	\$ (333,769)	\$ 98,195	\$ (28,348)	\$ 6,187,078
V19A	Old Bridge Elementary School - Renewal	382D	\$ 1,866,000	\$ (1,773,951)	\$ 2,630		\$ 94,679
V19A	Leesylvania Elementary School - Renewal (Funding Phase 1)	383E	\$ 600,000	\$ (119,899)	\$ (97,487)	\$ (1,526)	\$ 381,088
V19A	Potomac Shores Middle School	414A	\$ 20,559,500	\$ (1,367,113)	\$ (13,974)	\$ 791,447	\$ 19,969,860
V19A	Potomac Middle School - Aquaponics Lab	417D		\$ 489,804	\$ 72,139	\$ (30,378)	\$ 531,565
V19A	Stonewall Middle School Addition (17 rooms)	448K	\$ 1,500,000	\$ (248,993)	\$ 72,498	\$ (349,895)	\$ 973,610
V19A	Parkside MS - Roof Replacement Partial	450M			\$ 20,128		\$ 20,128
V19A	Fred Lynn Middle School - Roof Replacement	452K		\$ 3,000	\$ -		\$ 3,000
V19A	Fred Lynn Middle School - Site Improvements	452N		\$ 380,959	\$ (343,609)		\$ 37,350
V19A	Beville Middle School - Renewal	478C	\$ 9,901,500	\$ (419,742)	\$ 467,403	\$ (53,708)	\$ 9,895,453
V19A	Woodbridge High School - Turf Fields	506Q		\$ 429,384	\$ 22,727	\$ (38,624)	\$ 413,487
V19A	Woodbridge High School - Stadium Upgrades	506R	\$ 2,150,000	\$ 310,650	\$ 395,000	\$ (189,408)	\$ 2,666,242
V19A	Woodbridge High School - Aux Gym Addition	506S	\$ 8,000,000	\$ (1,932,242)	\$ 82,560	\$ (38,414)	\$ 6,111,904
V19A	13th High School (West)	513A	\$ 52,000,000	\$ (2,975,616)	\$ (1,867,952)	\$ (9,202)	\$ 47,147,230
V19A	Freedom High School - Turf Fields	530E		\$ 90,489	\$ (18,277)		\$ 72,212
V19A	Stonewall Jackson High School - Turf Fields	568S		\$ 346,342	\$ -	\$ (6,383)	\$ 339,959
V19A	Stonewall Jackson High School - Stadium Upgrades	568T	\$ 1,650,000	\$ 319,042	\$ 294,518	\$ (251,817)	\$ 2,011,743
V19A	Gar-Field High School - Aux Gym Addition	569U	\$ 8,000,000	\$ (1,698,084)	\$ -	\$ (32,807)	\$ 6,269,109
V19A	Hylton High School - Renewal	571M		\$ 1,475,673	\$ 64,862	\$ 3,108	\$ 1,543,643
V19A	Independent Hill Complex - Site Improvements	603F		\$ 4,472,909	\$ (3,820,417)	\$ (304,267)	\$ 348,225
V19A	Independent Hill New Maintenance Facility	603H		\$ 89,373	\$ -	\$ (33,206)	\$ 56,167
V19A	Independent Hill Complex - Barracks 1 & 2 Renovation	603J			\$ 3,505,952		\$ 3,505,952
V19A	Independent Hill Complex - Water & Sewer Improvements	603L			\$ 15,834		\$ 15,834
V19A	Kelly Leadership Center - Internal Modifications	604B		\$ 178,116	\$ -	\$ (98,291)	\$ 79,825
V19A	HVAC Equipment & Controls	HVAC		\$ 941,936	\$ 68,500	\$ (88)	\$ 1,010,348
Total			\$ 124,510,000	\$ 1	\$ (1)	\$ -	\$ 124,510,000

**Bond Issuance:
Virginia Public School Authority 2018 (V18A)**

Bond Issuance	Project Name	Func	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
			Original Bond Disbursement			
V18A	Division-wide - REVENUE	0370	\$ -	\$ 2,082,800	\$ (2,082,800)	\$ 0
V18A	Division-wide - SITE ACQUISITION	0370	\$ -	\$ 1,825,409	\$ (1,821,568)	\$ 3,841
V18A	Special Needs Facility	043K	\$ -	\$ 2,390,798	\$ (1,561,740)	\$ 829,058
V18A	Western Bus Facility	043M	\$ 10,000,000	\$ -	\$ (1,428,296)	\$ 8,571,704
V18A	New Alternative Education School	201Z	\$ 3,000,000	\$ (3,000,000)	\$ 520	\$ 520
V18A	Ann Ludwig - ELL Relocation from Ann Ludwig	209B	\$ -	\$ 80,000	\$ (42,120)	\$ 37,880
V18A	Minnieville Elementary School Addition (10 rooms)	303M	\$ 11,043,000	\$ (1,980,000)	\$ (158,600)	\$ 8,904,400
V18A	Pattie Elementary School Addition (10 rooms) - Consolidation / Building Renovation @ Washington-Reid	313D	\$ 3,000,000	\$ (2,200,000)	\$ (30,268)	\$ 769,732
V18A	Lake Ridge Elementary School Addition (13 rooms)	318C	\$ 9,284,000	\$ (3,000,000)	\$ 73,365	\$ 6,357,365
V18A	Jenkins Elementary School East - PW Parkway	319A	\$ 27,685,000	\$ (7,500,000)	\$ 228,573	\$ 20,413,573
V18A	Springwoods Elementary School Addition (13 rooms)	332D	\$ 10,184,000	\$ (1,300,000)	\$ (421,847)	\$ 8,462,153
V18A	River Oaks Elementary School ***	375C	\$ -	\$ -	\$ 2,894	\$ 2,894
V18A	Antietam Elementary School Addition (13 rooms)	376C	\$ 8,784,000	\$ (2,893,000)	\$ 337,957	\$ 6,228,957
V18A	Marshall Elementary School - Renewal (Funding Phase 1a)	379F	\$ 3,945,000	\$ 675,222	\$ 2,827,511	\$ 7,447,733
V18A	Montclair Elementary School - Renewal (Funding Phase 1a)	380D	\$ 2,000,000	\$ 465,000	\$ 22,645	\$ 2,487,645
V18A	Mountain View Elementary School - Renovation	381F	\$ -	\$ 425,000	\$ 408,048	\$ 833,048
V18A	Old Bridge Elementary School - Renewal	382D	\$ -	\$ 19,841	\$ 690,258	\$ 710,099
V18A	Leesylvania Elementary School - Renewal (Funding Phase 1)	383E	\$ 13,485,000	\$ (2,033,838)	\$ (168,086)	\$ 11,283,076
V18A	Signal Hill Elementary School ***	397C	\$ -	\$ -	\$ 431,739	\$ 431,739
V18A	Potomac Shores Middle School	414A		\$ 181,893	\$ 10,743,980	\$ 10,925,873
V18A	Potomac Middle School ***	417D	\$ -	\$ -	\$ 210,196	\$ 210,196
V18A	Stonewall Middle School Addition (17 rooms)	448K	\$ 14,630,000	\$ (2,225,000)	\$ (328,109)	\$ 12,076,891
V18A	Parkside Middle School - Roof Repl Partial	450M	\$ -	\$ 337,000	\$ (17,365)	\$ 319,635
V18A	Fred Lynn Middle School - Roof Replacement	452K	\$ -	\$ 400,000	\$ (383,959)	\$ 16,041
V18A	Rippon Middle School - Fenestration Improvements	459M	\$ -	\$ 1,041,317	\$ 3,641	\$ 1,044,958
V18A	Lake Ridge Middle School Addition (13 rooms)	472E	\$ 1,500,000	\$ (1,454,949)	\$ (43,176)	\$ 1,876
V18A	Beville Middle School - Renewal	478C	\$ -	\$ 85,500	\$ 1,038,533	\$ 1,124,033
V18A	Benton Middle School - Music Room Addition	488F	\$ -	\$ 1,485	\$ (1,485)	\$ (0)
V18A	Woodbridge High School - Turf Fields	506Q	\$ -	\$ 1,825,500	\$ (407,137)	\$ 1,418,363
V18A	Woodbridge High School ***	506R	\$ -	\$ -	\$ 940	\$ 940
V18A	Woodbridge High School - Aux Gym Addition	506S	\$ -	\$ 98,475	\$ (67,758)	\$ 30,717
V18A	13th High School (West)	513A	\$ 8,000,000	\$ (600,000)	\$ 3,475,616	\$ 10,875,616
V18A	Freedom High School - Turf Fields	530E	\$ -	\$ 203,266	\$ (90,489)	\$ 112,777
V18A	Stonewall High School - Turf Fields	568S	\$ -	\$ 1,731,798	\$ (333,097)	\$ 1,398,701
V18A	Gar-Field High School - Aux Gym Addition	569U	\$ -	\$ 351,561	\$ (301,916)	\$ 49,645
V18A	Hylton High School - Renewal	571M	\$ -	\$ 1,289,816	\$ (834,734)	\$ 455,082
V18A	Independent Hill Complex - Site Improvements	603F	\$ -	\$ 10,723,034	\$ (9,944,790)	\$ 778,244
V18A	Independent Hill New Maintenance Facility	603H	\$ -	\$ 601,633	\$ (89,372)	\$ 512,261
V18A	Kelly Leadership Center ***	604B	\$ -	\$ -	\$ 71,884	\$ 71,884
V18A	HVAC Equipment & Controls	HVAC	\$ -	\$ 1,350,437	\$ (9,588)	\$ 1,340,849
Total			\$ 126,540,000	\$ -	\$ -	\$ 126,540,000

Bond Issuance:
Virginia Public School Authority 2017 (V17A)

Bond Issuance	Project Name	Func	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
			Original Bond Disbursement			
V17A	Division-wide - Site Acquisition	0370	\$ -	\$ 15,611,270	\$(15,043,494)	\$ 567,776
V17A	Special Needs Transportation Center @ New Dominion	043K	\$ 1,700,000	\$ 270,257	\$ (1,299,999)	\$ 670,258
V17A	Western Bus Facility - New Construction A&E	043M	\$ 1,500,000	\$ 1,850,000	\$ 825,224	\$ 4,175,224
V17A	Alternative Education School - New Construction	201Z	\$ 25,850,000	\$(11,138,578)	\$ 986,723	\$ 15,698,145
V17A	Ann Ludwig - ELL Relocation from Ann Ludwig	209B	\$ -	\$ -	\$ 1,096,824	\$ 1,096,824
V17A	Woodbine PreSchool - Roof Replacement	219A	\$ -	\$ -	\$ 141,032	\$ 141,032
V17A	Minnieville Elementary School - Addition	303M	\$ -	\$ -	\$ 1,231,580	\$ 1,231,580
V17A	Potomac Shores ES site - Building, New	309A	\$ -	\$ -	\$ 30,000	\$ 30,000
V17A	Pattie Elementary School - Addition (10 rooms)	313D	\$ 8,300,000	\$ (3,570,000)	\$ (102,955)	\$ 4,627,045
V17A	Lake Ridge Elementary School - Addition (13 rooms)	318C	\$ 600,000	\$ 75,000	\$ 1,800,027	\$ 2,475,027
V17A	Elementary School East (PW Parkway) - New Construction	319A	\$ 2,000,000	\$ 7,250,000	\$ 828,342	\$ 10,078,342
V17A	Springwoods Elementary School - Addition (13 rooms)	332D	\$ 600,000	\$ 45,000	\$ 112,114	\$ 757,114
V17A	Westridge Elementary School - Renewal (Funding Phase	374C	\$ 98,000	\$ -	\$ (95,363)	\$ 2,637
V17A	River Oaks Elementary School - Renewal (Funding Phase 1)	375C	\$ 6,000,000	\$ -	\$ (175,000)	\$ 5,825,000
V17A	Antietam Elementary School - Renewal	376B	\$ -	\$ -	\$ 232,786	\$ 232,786
V17A	Antietam Elementary School - Addition (13 rooms) A&E	376C	\$ 600,000	\$ 85,000	\$ -	\$ 685,000
V17A	Montclair Elementary School - Renewal	380D	\$ -	\$ -	\$ 3,000,000	\$ 3,000,000
V17A	Mountain View Elementary School - Renovation	381F	\$ -	\$ -	\$ 431,445	\$ 431,445
V17A	Old Bridge Elementary School - Renewal	382D	\$ -	\$ -	\$ 4,616,512	\$ 4,616,512
V17A	Leesylvania Elementary School - Addition (4 rooms) A&E	383E	\$ 500,000	\$ 615,000	\$ 63,824	\$ 1,178,824
V17A	Middle School at Potomac Shores - New Construction	414A	\$ 2,000,000	\$ 1,195,924	\$ (1,000,000)	\$ 2,195,924
V17A	Saunders Middle School - Renewal (Funding Phase 2)	438F	\$ 2,600,000	\$ -	\$ (839,957)	\$ 1,760,043
V17A	Stonewall Middle School - Addition (17 rooms) A&E	448K	\$ 1,000,000	\$ -	\$ 54,409	\$ 1,054,409
V17A	Fred Lynn Middle School - Roof Replacement	452K	\$ -	\$ -	\$ 564,896	\$ 564,896
V17A	Rippon Middle School - Fenestration Improvement	459M	\$ -	\$ -	\$ 2,521,326	\$ 2,521,326
V17A	Lake Ridge Middle School - Renewal/Addition (13 rooms)	472E	\$ 13,037,000	\$ (4,350,000)	\$ (812,547)	\$ 7,874,453
V17A	Benton MS - Music Room Addition	488F	\$ -	\$ 3,200,000	\$ (100,000)	\$ 3,100,000
V17A	Woodbridge High School - Aux Gym Addition	506S	\$ -	\$ -	\$ 224,097	\$ 224,097
V17A	13th High School (West) - New Construction A&E	513A	\$ 3,000,000	\$ 239,635	\$ 600,000	\$ 3,839,635
V17A	Site Acquisition Funding	517A	\$ 14,000,000	\$(14,000,000)	\$ -	\$ -
V17A	Freedom HS - TurfFields	530E	\$ -	\$ 1,849,177	\$ (300,000)	\$ 1,549,177
V17A	Gar-Field High School - Aux Gym Addition	569U	\$ -	\$ -	\$ 355,354	\$ 355,354
V17A	Independent Hill Complex - New Maintenance Facility	603H	\$ -	\$ 572,315	\$ 252,800	\$ 825,115
Total			\$ 83,385,000	\$ (200,000)	\$ 200,000	\$ 83,385,000

Bond Issuance:
Virginia Public School Authority 2016 (V16A)

Bond Issuance	Project Name	Func	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
			Original Bond Disbursement			
V16A	Division-wide - Site Acquisition	0370	\$ -	\$ 2,000,000	\$ 11,888,730	\$ 13,888,730
V16A	Special Needs Transportation Center @ New Dominion - A&E	043K	\$ 300,000		\$ (270,257)	\$ 29,743
V16A	PACE East Replacement/Multi-Space - A&E and initial construction	201Z	\$ 5,000,000		\$ 7,905,330	\$ 12,905,330
V16A	Minnieville ES - Activity Room	303J	\$ -		\$ 1,598,080	\$ 1,598,080
V16A	Minnieville ES - Addition	303M	\$ -		\$ 101,196	\$ 101,196
V16A	Elementary School (Potomac Shores)	309A	\$ 27,374,000	\$ (8,800,000)	\$ (3,630,240)	\$ 14,943,760
V16A	Pattie Elementary School Addition (10 rooms) - Consolidation / Building Renovation @ Washington-Reid - A&E	313D	\$ 900,000		\$ -	\$ 900,000
V16A	Elementary School - Site Acquisition Funds	319A	\$ 2,000,000	\$ (2,000,000)	\$ -	\$ -
V16A	Henderson Elementary School Addition (10 rooms)	333E	\$ 8,918,000		\$ (2,008,170)	\$ 6,909,830
V16A	Kilby Elementary School Replacement	344B	\$ 24,476,000	\$ (5,000,000)	\$ (4,040,588)	\$ 15,435,412
V16A	Belmont Elementary Addition (10 rooms)	360G	\$ 8,267,000		\$ (584,686)	\$ 7,682,314
V16A	Dale City ES - Activity Room	361H	\$ -		\$ 1,451,995	\$ 1,451,995
V16A	Neabsco Elementary School Addition (8 rooms)	370D	\$ 7,504,000		\$ (2,134,171)	\$ 5,369,829
V16A	McAuliffe Elementary School - Renewal	373C	\$ 5,000,000	\$ 2,120,000	\$ 746,118	\$ 7,866,118
V16A	Westridge Elementary School - Renewal	374C	\$ 5,000,000	\$ 1,000,000	\$ 124,039	\$ 6,124,039
V16A	Antietam Elementary School - Renewal	376B	\$ 5,000,000	\$ 2,800,000	\$ 310,970	\$ 8,110,970
V16A	Mullen Elementary School - Renewal	377D	\$ 5,000,000	\$ 880,000	\$ (247,629)	\$ 5,632,371
V16A	Marshall ES - Renewal	379F	\$ -		\$ 362,770	\$ 362,770
V16A	Montclair ES - Renewal	380D	\$ -		\$ 316,426	\$ 316,426
V16A	Old Bridge ES - Renewal/Addition	382D	\$ -		\$ 484,567	\$ 484,567
V16A	Middle School (Potomac Shores) - A&E	414A	\$ 3,000,000		\$ (1,195,924)	\$ 1,804,076
V16A	Saunders Middle School - Renewal	438F	\$ 6,175,000	\$ 5,800,000	\$ (3,584)	\$ 11,971,416
V16A	Lake Ridge Middle School - Renewal	472E	\$ 5,000,000		\$ (5,000,000)	\$ -
V16A	Lake Ridge Middle School Addition (13 rooms) - A&E	472E	\$ 1,000,000	\$ 1,200,000	\$ 6,859,162	\$ 9,059,162
V16A	13th High School -- Site Acquisition Funds	513A	\$ 13,500,000		\$(13,500,000)	\$ -
V16A	13th High School (West) - A&E	513A	\$ 2,000,000	\$ 1,000	\$ (239,635)	\$ 1,761,365
V16A	Freedom HS - TurfFields	530E	\$ -		\$ 700,823	\$ 700,823
V16A	Independent Hill Complex - New Maintenance Facility	603H	\$ -		\$ 4,678	\$ 4,678
Total			\$ 135,414,000	\$ 1,000	\$ -	\$ 135,415,000

Bond Issuance:
Virginia Public School Authority 2015 (V15A)

Bond Issuance	Project Name	Func	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
			Original Bond Disbursement			
V15A	Site Acquisition	0370	\$ -	\$ 1,000,000		\$ 1,000,000
V15A	PACE East Replacement	201Z	\$ 2,000,000		\$ 5,200,000	\$ 7,200,000
V15A	Elementary School - Ferlazzo	306A	\$ 27,534,000	\$ (1,000,000)	\$(10,500,000)	\$ 16,034,000
V15A	Elementary School - Potomac Shores - A/E	309A	\$ 2,000,000			\$ 2,000,000
V15A	King ES - Renewal	316D			\$ 1,919,055	\$ 1,919,055
V15A	Lake Ridge ES - Renewal	318B			\$ 1,500,000	\$ 1,500,000
V15A	Occoquan ES - HVAC	326G			\$ 290,187	\$ 290,187
V15A	Springwoods ES - Renewal	332C			\$ 1,500,000	\$ 1,500,000
V15A	Henderson ES Addition - A/E	333D			\$ 1,332,206	\$ 1,332,206
V15A	Henderson ES - Addition A/E	333E	\$ 400,000			\$ 400,000
V15A	Kilby ES Replacement	344B	\$ 6,000,000			\$ 6,000,000
V15A	Featherstone ES - Roof Repl	345F			\$ 258,278	\$ 258,278
V15A	Belmont ES Addition - A/E	360G	\$ 400,000			\$ 400,000
V15A	Tyler ES - Activity Room	363F			\$ 1,000,000	\$ 1,000,000
V15A	Neabsco ES Addition - A/E	370D	\$ 400,000			\$ 400,000
V15A	McAuliffe ES - Renewal	373C			\$ 391,117	\$ 391,117
V15A	Antietam ES - Renewal	376B			\$ 389,318	\$ 389,318
V15A	Mullen ES - Renewal	377D			\$ 321,453	\$ 321,453
V15A	Marshall ES - HVAC	379E			\$ 260,063	\$ 260,063
V15A	Saunders MS - Renewal	438F			\$ 438,992	\$ 438,992
V15A	Rippon Middle Addition	459K	\$ 7,110,000			\$ 7,110,000
V15A	12th High School	501A	\$ 49,971,500		\$ (5,822,119)	\$ 44,149,381
V15A	Hylton HS - Roof	571H			\$ 1,521,449	\$ 1,521,449
V15A	Independent Hill Maintenance Facility	603H	\$ 10,000,000			\$ 10,000,000
Total			\$ 105,815,500	\$ -	\$ (0)	\$ 105,815,500

Bond Issuance:
Virginia Public School Authority 2014 (V14A)

Bond Issuance	Project Name	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
		<i>Original Bond Disbursement</i>			
V14A	Elementary School - Devlin Road	\$ 25,937,000		\$ (300,000)	\$ 25,637,000
V14A	Featherstone Elementary Addition (6 rooms)	\$ 8,531,000			\$ 8,531,000
V14A	12th High School/IHS (Mid-County)	\$ 49,971,500	\$ (3,000,000)		\$ 46,971,500
V14A	Elementary School/IHS (East - Ferlazzo)	\$ 2,000,000	\$ (850,000)		\$ 1,150,000
V14A	Rippon Middle Addition/IHS East (9 rooms)	\$ 350,000			\$ 350,000
V14A	Maintenance Facility	\$ 1,444,000			\$ 1,444,000
V14A	Kilby Elementary School Replacement	\$ 1,000,000			\$ 1,000,000
V14A	Kerrydale ES - Activity Room	\$ -	\$ 1,500,000	\$ -	\$ 1,500,000
V14A	Enterprise ES - Activity Room	\$ -	\$ 1,500,000	\$ -	\$ 1,500,000
V14A	Potomac Shores MS - site	\$ -	\$ 850,000	\$ -	\$ 850,000
V14A	Dale City ES - Activity Room	\$ -		\$ 150,000	\$ 150,000
V14A	Minnieville ES - Activity Room	\$ -		\$ 150,000	\$ 150,000
Total		\$ 89,233,500	\$ -	\$ -	\$ 89,233,500

Bond Issuance:
Virginia Public School Authority 2013 (V13A)

Bond Issuance	Project Name	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
		<i>Original Bond Disbursement</i>			
V13A	Nokesville School, The - Building, New	\$ 11,000,000			\$ 11,000,000
V13A	Haymarket ES - Building, New	\$ 27,663,000	\$ (1,320,000)	\$ (3,454,000)	\$ 22,889,000
V13A	Dumfries ES - Renewal	\$ 3,825,000		\$ 684,000	\$ 4,509,000
V13A	River Oaks ES - Addition	\$ 5,913,000	\$ 700,000	\$ (470,000)	\$ 6,143,000
V13A	Parkside MS - Addition	\$ 10,559,000			\$ 10,559,000
V13A	12th HS Site - Building, New	\$ 8,000,000	\$ 570,000	\$ 3,000,000	\$ 11,570,000
V13A	Featherstone ES - A/E, Addition	\$ 300,000	\$ 50,000		\$ 350,000
V13A	Kerrydale ES - Activity Room	\$ -	\$ -	\$ 80,000	\$ 80,000
V13A	Enterprise ES - Activity Room	\$ -	\$ -	\$ 80,000	\$ 80,000
V13A	Tyler ES - Activity Room	\$ -	\$ -	\$ 80,000	\$ 80,000
Total		\$ 67,260,000	\$ -	\$ -	\$ 67,260,000

**Bond Issuance:
Virginia Public School Authority 2012 (V12A)**

Bond Issuance	Project Name	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
		Original Bond Disbursement			
V12A	Potomac HS - Renewal/Addition	\$ 7,655,000	\$ 500,000		\$ 8,155,000
V12A	Pattie ES - Renewal	\$ 3,806,000	\$ (36,000)	\$ (100,000)	\$ 3,670,000
V12A	Loch Lomond ES - Addition	\$ 5,950,000	\$ 871,000	\$ (350,000)	\$ 6,471,000
V12A	Mullen ES - Addition	\$ 5,700,000	\$ 302,000	\$ (600,000)	\$ 5,402,000
V12A	Nokesville K-8 - Building, New	\$ 14,000,000	\$ 3,630,000		\$ 17,630,000
V12A	Penn ES - Addition	\$ 5,817,000	\$ (971,000)	\$ (550,000)	\$ 4,296,000
V12A	River Oaks ES - A/E, Addition	\$ 300,000	\$ 36,000	\$ (26,000)	\$ 310,000
V12A	Sinclair ES - Addition	\$ 6,260,000	\$ (33,000)		\$ 6,227,000
V12A	Sudley ES - Addition	\$ 6,100,000	\$ (118,000)	\$ (174,000)	\$ 5,808,000
V12A	West Gate ES - Addition	\$ 3,140,000	\$ 1,002,000		\$ 4,142,000
V12A	Benton MS - Addition	\$ 7,247,000	\$ (2,635,000)		\$ 4,612,000
V12A	Parkside MS - A/E, Addition	\$ 500,000			\$ 500,000
V12A	Potomac MS - Addition	\$ 7,770,000	\$ (2,548,000)		\$ 5,222,000
V12A	12th site - A/E	\$ 3,000,000			\$ 3,000,000
V12A	Loch Lomond ES - Renewal, A/E			\$ 350,000	\$ 350,000
V12A	Henderson ES - Renewal, A/E			\$ 350,000	\$ 350,000
V12A	King ES - Renewal, A/E			\$ 350,000	\$ 350,000
V12A	Lake Ridge ES - Renewal, A/E			\$ 350,000	\$ 350,000
V12A	Springwoods ES - Renewal, A/E			\$ 350,000	\$ 350,000
V12A	Devlin Road ES - Building, New, A/E			\$ 50,000	\$ 50,000
	Total	\$ 77,245,000	\$ -	\$ -	\$ 77,245,000

**Bond Issuance:
Virginia Public School Authority 2011 (V11A)**

Bond Issuance	Project Name	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
		Original Bond Disbursement			
V11A	A&E Mullen, Sinclair, Sudley, West Gate, Loch Lomond	\$ 1,500,000	\$ 100,000		\$ 1,600,000
V11A	Bus Parking (Gar-Field HS)	\$ 1,009,000			\$ 1,009,000
V11A	PACE West SE	\$ 8,026,000		\$ (20,000)	\$ 8,006,000
V11A	Piney Branch Elementary	\$ 5,000,000	\$ (1,750,000)	\$ (730,000)	\$ 2,520,000
V11A	Potomac HS Addition	\$ 7,655,000			\$ 7,655,000
V11A	Reagan Middle	\$ 12,150,000		\$ (1,900,000)	\$ 10,250,000
V11A	Swans Creek	\$ 4,765,000	\$ (450,000)	\$ (1,365,925)	\$ 2,949,075
V11A	T. Clay Wood Elementary	\$ 4,000,000	\$ (450,000)	\$ (850,000)	\$ 2,700,000
V11A	Westridge ES Addition	\$ 4,130,000	\$ 450,000		\$ 4,580,000
V11A	Nokesville K-8 School (A&E)		\$ 500,000	\$ (203,053)	\$ 296,947
V11A	Penn Elementary School Addition (A&E)		\$ 350,000		\$ 350,000
V11A	Benton Middle School Addition (A&E)		\$ 450,000		\$ 450,000
V11A	Potomac Middle School Addition (A&E)		\$ 350,000		\$ 350,000
V11A	Parkside Middle School Addition (A&E)		\$ 450,000	\$ (65,075)	\$ 384,925
V11A	Devlin Road Elementary Site (A&E)			\$ 750,000	\$ 750,000
V11A	Haymarket Drive ES Site (A&E)			\$ 100,000	\$ 100,000
V11A	Occoquan ES Activity Room (A&E)			\$ 100,000	\$ 100,000
V11A	Dumfries ES Renewal (A&E)			\$ 300,000	\$ 300,000
V11A	Potomac HS Renewal / Addition			\$ 2,931,000	\$ 2,931,000
V11A	Occoquan ES Activity Room			\$ 953,053	\$ 953,053
	Total	\$ 48,235,000	\$ -	\$ -	\$ 48,235,000

**Bond Issuance:
Virginia Public School Authority 2010 (V10A)**

Bond Issuance	Project Name	Anticipated /Estimated Cost in CIP	Adjustments - Year 1	Adjustments - Year 2	Resulting Project Amount
		Original Bond Disbursement			
V10A	Linton Hall Road Elementary	\$ 16,224,000	\$ (200,000)	\$ (100,000)	\$ 15,924,000
V10A	Patriot High School	\$ 37,285,000		\$ (500,000)	\$ 36,785,000
V10A	Reagan Middle	\$ 14,232,000	\$ (500,000)	\$ 46,960	\$ 13,778,960
V10A	T. Clay Wood Elementary	\$ 14,494,000	\$ (200,000)	\$ (350,000)	\$ 13,944,000
V10A	Haymarket Drive Elementary (A&E)		\$ 900,000	\$ (141,275)	\$ 758,725
V10A	Patriot High School (A&E)			\$ 44,315	\$ 44,315
V10A	Potomac High School - Renewal/Addition			\$ 1,000,000	\$ 1,000,000
	Total	\$ 82,235,000	\$ -	\$ -	\$ 82,235,000

New Elementary Schools – Commonwealth of Virginia
2016-17 through 2021-22

Year	Name	Grades	Division	Contract Award Date	Max ¹ Operating Capacity	Building Cost	Site Cost	Total ² Cost	Total Sq Ft	Total Cost/ Sq Ft	Building Only Cost/Sq Ft	Total Cost/ Pupil
2021-22	Ridgeview Elementary School	K-5	Dickenson County (026)	Feb-21	720	\$18,251,032	1,078,069	19,329,101	65,551	\$294.87	\$278.42	\$27,066
	Hardy Elementary Replacement	PK-4	Isle of Wight County (046)	Oct-23	917	\$36,868,640	4,512,136	41,380,776	108,162	\$382.58	\$340.86	\$37,565
	New Elementary on Middle Road	PK-5	Prince George County (074)	May-21	968	\$24,873,676	5,515,000	30,388,676	98,231	\$309.36	\$253.22	\$41,322
2020-21	E. W. Chittum Elementary School Replacement	K-5	Chesapeake City (136)	Jun-21	928	\$21,696,780	3,420,156	25,116,936	125,113	\$200.75	\$173.42	\$27,066
	New Kent New Elementary	PK-5	New Kent County (063)	Jan-21	792	\$25,507,568	4,243,968	29,751,536	95,531	\$311.43	\$267.01	\$37,565
	Rosemount Lewis Elementary School	K-5	Prince William County (075)	Mar-21	847	\$25,100,000	9,900,000	35,000,000	116,500	\$300.43	\$215.45	\$41,322
	E.S.H. Greene Elementary Replacement	K-5	Richmond City (123)	Feb-21	1,069	\$31,690,966	5,340,111	37,031,077	118,901	\$311.44	\$266.53	\$34,641
	George Mason ES Replacement	K-5	Richmond City (123)	Feb-21	754	\$29,815,742	4,891,686	34,707,428	99,967	\$347.19	\$298.26	\$46,031
2019-20	New Elementary School-Reed Site	PK-5	Arlington County (007)	Sep-19	754	\$36,185,302	\$6,431,990	42,617,292	111,516	\$279.16	\$324.49	\$56,522
2018-19	Alice West Fleet Elementary	PK-5	Arlington County (007)	May-18	784	\$41,550,000	\$17,700,000	59,250,000	212,245	\$279.16	\$195.76	\$75,574
	New Harrowgate Elementary	K-5	Chesterfield County (021)	Feb-19	794	\$20,062,340	\$2,620,916	22,683,256	95,944	\$236.42	\$209.10	\$28,568
	Northwest County ES - McNair Site	4-6	Fairfax County (029)	Jan-19	750	\$22,080,000	\$5,000,000	27,080,000	105,652	\$256.31	\$208.99	\$36,107
	Twelfth Elementary School	K-5	Frederick County (034)	Sep-18	648	\$20,993,928	\$2,543,885	23,537,813	84,375	\$278.97	\$248.82	\$36,324
2017-18	Great Bridge Primary Repl	PK-2	Chesapeake City	Oct-17	636	\$14,841,235	\$3,509,765	\$18,351,000	90,936	\$201.80	\$163.21	\$28,854
	New Enon Elementary	K-5	Chesterfield County	May-17	794	\$17,963,384	\$3,157,635	\$21,121,019	91,276	\$231.40	\$196.80	\$26,601
	New Beulah Elementary	K-5	Chesterfield County	Apr-17	940	\$18,897,528	\$5,402,472	\$24,300,000	99,921	\$243.19	\$189.12	\$25,851
	Camp Allen Elementary Repl	PK-5	Norfolk City	Mar-16	645	\$21,639,187	\$2,998,327	\$24,637,514	97,492	\$252.71	\$221.96	\$38,198
	Jenkins Elementary	K-5	Prince William County	Feb-18	860	\$19,624,164	\$7,584,836	\$27,209,000	100,264	\$271.37	\$195.72	\$31,638
	Fallon Park Elementary	PK-5	Roanoke City	Jan-18	930	\$18,810,000	\$2,830,000	\$21,640,000	112,616	\$192.16	\$167.03	\$23,269
	New Moncure Elementary	PK-5	Stafford County	Jul-16	984	\$24,097,476	\$4,150,000	\$28,247,476	108,794	\$259.64	\$221.50	\$28,707
2016-17	Colonial Beach	PK-7	Colonial Beach	Jul-16	442	\$7,160,934	\$766,066	\$7,927,000	50,079	\$158.29	\$142.99	\$17,934
	Fort Belvoir Elementary School II	PK-6	Fairfax County	Apr-15	576	\$17,330,700	\$4,840,320	\$22,171,020	95,341	\$232.54	\$181.78	\$38,491
	New Harrisonburg Elementary	K-5	Harrisonburg City	Mar-16	916	\$21,414,376	\$4,496,390	\$25,910,766	103,703	\$249.86	\$206.50	\$28,287
	Meadow View Elementary	PK-5	Henry County	Jul-16	776	\$19,691,800	\$963,900	\$20,655,700	96,000	\$215.16	\$205.12	\$26,618
	Loudoun Elementary-ES 28	K-5	Loudoun County	Feb-17	988	\$24,310,000	\$4,000,000	\$28,310,000	136,200	\$207.86	\$178.49	\$28,654
	Covington-Harper ES	K-5	Prince William County	Mar-16	889	\$16,646,000	\$4,185,000	\$20,831,000	101,246	\$205.75	\$164.41	\$23,432
	Northern Suffolk Elementary (Bowser Repl)	PK-5	Suffolk City	Jun-16	984	\$18,190,000	\$2,630,000	\$20,820,000	114,881	\$181.23	\$158.34	\$21,159

* The final report for 2020-21 will be generated after June 30, 2021.

- 1 - Division operating capacity may differ from SOL maximum capacity. Pre-kindergarten classrooms counted at 16 students, grades K-3 classrooms counted at 24:1, grades 4-5 classrooms counted at 25:1.
- 2 - Usually includes construction, site development, water system, sewage disposal, built-in equipment and demolition. A&E fees, value engineering, construction management fees, cost of site, loose equipment, and furniture are excluded.
- 3 - Site cost include \$270,000 for egress road and \$924,000 for off site utilities.
- 4 - Excludes cost of community center, and includes cost for the demolition of the existing building.
- 5 - Includes cost of demolition of old school building.
- 6 - Site cost includes \$135,000 for demolition of existing school and abatement work.
- 7 - Includes on-site sewage treatment plant and on-site water system.
- 8 - Site cost was split proportionally with new middle school being built on same site.
- 9 - Includes \$321,690 for off-site sewer, force main and pump station.
- 10 - Includes off-site developer cost for \$1,931,290 which is in the general contract.

New Middle Schools – Commonwealth of Virginia 2011-12 through 2021-22

Year	Name	Grades	Division	Contract Award Date	Maximum ¹ Operating Capacity	Building Cost	Site Cost	Total ² Cost	Total Sq Ft	Total Cost/ Sq Ft	Building Only Cost/Sq Ft	Total Cost/ Pupil
2021-22	No Projects Reported											
2020-21	River City Middle School	8-Jun	Richmond City (123)	Feb-21	1,583	\$49,386,632	\$8,106,914	\$57,493,546	183,759	\$313	\$268.76	\$36,319
2019-20	New Aylor Middle School	6-8	Frederick County (034)	Apr-19	1050	\$34,219,932	\$7,141,827	\$41,361,759	151,154	\$274	\$226.39	\$39,392
2018-19	Manchester Middle School	6-8	Chesterfield County (021)	Oct-18	1,108	\$35,293,004	\$4,683,944	\$39,976,948	139,011	\$288	\$253.89	\$36,080
	Potomac Shores Middle School	6-8	Prince William County (075)	Nov-18	1,491	\$45,474,000	\$7,000,000	\$52,474,000	197,954	\$265	\$229.72	\$35,194
	Pulaski County Middle School	6-8	Pulaski County (077)	Oct-18	1,091	\$33,868,896	\$6,887,094	\$40,755,990	164,900	\$247	\$205.39	\$37,357
	Princess Anne Middle School Replacement	6-8	Virginia Beach City (128)	Jun-18	1,516	\$57,680,024	\$7,147,194	\$64,827,218	257,784	\$251	\$223.75	\$42,762
2017-18	No Projects Reported											
2016-17	New Bedford Middle	6-8	Bedford County	Nov-16	754	\$23,098,130	\$5,701,235	\$28,799,365	123,822	\$233	\$186.54	\$38,195
	MS-7	6-8	Loudoun County	Feb-17	1,354	\$44,126,500	\$6,938,500	\$51,065,000	185,251	\$276	\$238.20	\$37,714
	Northern Suffolk Middle	6-8	Suffolk City	Jun-16	779	\$22,460,000	\$2,715,000	\$25,175,000	125,220	\$201	\$179.36	\$32,317
	James Blair Middle	6-8	Williamsburg James City	Sep-16	605	\$20,137,000	\$1,877,735	\$22,014,735	110,871	\$199	\$181.63	\$36,388
	Academies of Loudoun	9-12	Loudoun County	Oct-15	1,250	\$77,000,000	\$9,500,000	\$86,500,000	319,000	\$271	\$241.38	\$69,200
	Independence Nontraditional	1-12	Prince William County	Jun-16	480	\$23,383,520	\$3,796,418	\$27,179,938	122,659	\$222	\$190.64	\$56,625
Dayton Learning Center	6-12	Rockingham County	Feb-17	180	\$4,095,912	\$727,388	\$4,823,300	19,544	\$247	\$209.57	\$26,796	
2015-16	MS-9	6-8	Loudoun County	Aug-15	1,354	\$40,081,400	\$9,262,600	\$49,344,000	184,593	\$267	\$217.13	\$36,443
	Happy Creek Middle	6-8	Warren County	Jul-15	915	\$27,878,940	\$5,041,310	\$32,920,250	158,457	\$208	\$175.94	\$35,978
	Camostella STEM School	K-8	Norfolk City	Dec-14	1,151	\$27,017,178	\$2,815,912	\$29,833,090	181,489	\$164	\$148.86	\$25,919
2014-15	Frederick County Middle	6-8	Frederick County	Nov-15	921	\$35,592,328	\$5,907,672	\$41,500,000	186,163	\$223	\$191.19	\$45,060
	New Page Middle	6-8	Gloucester County	Sep-15	738	\$18,931,000	\$3,922,763	\$22,853,763	118,237	\$193	\$160.11	\$30,967
	Old Donation Center & Kemps Landing Magnet	2-8	Virginia Beach City	May-14	1,375	\$45,448,808	\$5,124,278	\$50,573,086	225,785	\$224	\$201.29	\$36,780
2013-14	Jefferson-Houston	PK-8	Alexandria City	Jun-13	805	\$31,961,348	\$4,695,397	\$36,656,745	124,500	\$294	\$256.72	\$45,536
2012-13	Trailside	6-8	Loudoun Co	Jun-12	1,154	\$26,874,012	\$3,221,898	\$30,095,910	175,064	\$172	\$153.51	\$26,080
	Martin Luther King ³	6-8	Richmond City	Apr-12	847	\$27,306,636	\$2,835,518	\$30,142,154	149,600	\$201	\$182.53	\$35,587
2011-12	Nokesville K-8 School	K-8	Prince William County	Jun-12	924	\$22,602,000	\$5,800,000	\$28,402,000	141,832	\$200	\$159.36	\$30,738

* The final report for 2020-21 will be generated after June 30, 2021.

1 - Division operating capacity may differ from SOL maximum capacity. State SOL capacity based on a pupil teacher ratio of 25:1 in core classrooms.

2 - Usually includes construction, site development, water system, sewage disposal, built-in equipment and demolition. A&E fees, value engineering, construction management fees, cost of site, loose

3 - Cost include \$400,000 for site and building demolition, and a 2,835 square foot auxiliary gym.

4 - Building cost includes technology system and storage shed. Site cost includes \$185,000 traffic signal.

5 - Site cost split proportionally with new elementary school being built on the same site.

6 - Site cost includes \$611,420 for demolition of existing middle school building and asbestos abatement.

7 - Site cost includes \$2,060,000 for water, sewer, watertank, and road widening.

New High Schools – Commonwealth of Virginia 2008-09 through 2021-22

Year	Name	Grades	Division	Contract Award Date	Maximum ¹ Operating Capacity	Building Cost	Site Cost	Total ² Cost	Total Sq Ft	Total Cost/ Sq Ft	Building Only Cost/Sq Ft	Total Cost/ Pupil
2021-22	New George Mason High School	9-12	Falls Church City (109)	Jul-18	1,448	\$72,856,800	\$12,926,798	\$85,783,598	294,700	\$291.09	\$247.22	\$59,243
2020-21	Highland Springs High School	9-12	Henrico County (043)	Aug-21	2,028	\$77,400,000	\$20,900,000	\$98,300,000	265,101	\$370.80	\$291.96	\$48,471
	J. R. Tucker High School	9-12	Henrico County (043)	Aug-21	1,990	\$72,047,832	\$20,654,374	\$92,702,206	265,101	\$349.69	\$271.78	\$46,584
2019-20	Washington and Lee High School	9-12	Westmoreland County	Oct-19	837	\$41,722,000	\$4,801,000	\$46,523,000	141,089	\$329.74	\$295.71	\$55,583
2018-19	Lightridge High School (HS-9)	9-12	Loudoun County	Jul-18	1,903	\$87,875,296	\$22,330,000	\$110,205,296	305,133	\$361.17	\$287.99	\$57,911
	Gainesville High School	9-12	Prince William County	Nov-18	2,601	\$85,500,000	\$23,000,000	\$108,500,000	334,885	\$323.99	\$255.31	\$41,715
2017-18	<i>No Projects Reported</i>											
2016-17	<i>No Projects Reported</i>											
2015-16	<i>No Projects Reported</i>											
2014-15	New Heritage High	9-12	Lynchburg City	Apr-14	1,452	\$42,544,428	\$20,879,572	\$63,424,000	266,151	\$238.30	\$159.85	\$43,680
	Union High School	9-12	Wise County	Nov-11	863	\$23,562,210	\$943,772	\$24,505,982	126,508	\$193.71	\$186.25	\$28,396
	Central High School	9-12	Wise County	Nov-11	863	\$25,082,622	\$411,396	\$25,494,018	126,508	\$201.52	\$198.27	\$29,541
2013-14	Louisa County High School	9-12	Louisa County	Jul-13	2,011	\$46,473,432	\$2,059,570	\$48,533,002	272,834	\$177.88	\$170.34	\$24,134
	Colgan High School	9-12	Prince William County	Dec-13	2,053	\$70,481,000	\$19,000,000	\$89,481,000	425,176	\$210.46	\$165.77	\$43,585
	New Huguenot High School	9-12	Richmond City	Jun-12	1,574	\$51,991,220	\$10,283,262	\$62,274,482	253,821	\$245.35	\$204.83	\$39,564
	Stafford High School Repl	9-12	Stafford County	Jun-13	2,102	\$50,715,200	\$9,106,800	\$59,822,000	281,653	\$212.40	\$180.06	\$28,460
2012-13	HS-6 at Loudoun Valley Estates II	9-12	Loudoun County	Feb-13	1,949	\$56,548,276	\$6,971,776	\$63,520,052	283,422	\$224.12	\$199.52	\$32,591
	Blacksburg High School	9-12	Montgomery County	Jul-11	1,650	\$47,258,625	\$7,621,578	\$54,880,203	293,286	\$187.12	\$161.13	\$33,261
	New Auburn High School	9-12	Montgomery County	Jul-11	853	\$27,985,261	\$4,261,737	\$32,246,998	180,940	\$178.22	\$154.67	\$37,804
2011-12	Kellum Replacement ³	9-12	Va Beach City	Aug-11	2,000	\$58,909,096	\$15,013,694	\$73,922,790	350,952	\$210.64	\$167.86	\$36,961
2010-11	Wakefield	9-12	Arlington County	May-11	2,173	\$77,389,376	\$11,000,623	\$88,389,999	382,102	\$231.33	\$202.54	\$40,676
	NEW Clarke County	9-12	Clarke County	Jul-10	884	\$19,550,000	\$3,750,000	\$23,300,000	162,050	\$143.78	\$120.64	\$26,357
	John Champe ⁴	9-12	Loudoun County	Jan-11	1,955	\$40,996,000	\$19,766,000	\$60,762,000	275,574	\$220.49	\$148.77	\$31,080
2009-10	<i>No Projects Reported</i>											
2008-09	Henrico #1 ⁵	9-12	Henrico County	Oct-08	1,868	\$50,700,000	\$7,133,623	\$57,833,623	255,000	\$226.80	\$198.82	\$30,960
	Tuscarora ⁶	9-12	Loudoun County	Dec-08	1,895	\$45,071,040	\$11,000,000	\$56,071,040	279,426	\$200.67	\$161.30	\$29,589
	Woodgrove ⁷	9-12	Loudoun County	Jan-09	1,651	\$44,375,000	\$9,500,000	\$53,875,000	251,915	\$213.86	\$176.15	\$32,632
	Fluvanna ⁸	9-12	Fluvanna County	Mar-09	1,633	\$44,379,363	\$12,486,637	\$56,866,000	314,389	\$180.88	\$141.16	\$34,823
	Patriot High School	9-12	Prince William County	Jan-09	2,053	\$58,655,600	\$12,043,400	\$70,699,000	312,067	\$226.55	\$187.96	\$34,437

* The final report for 2020-21 will be generated after June 30, 2021.

1 - Division operating capacity may differ from SOL maximum capacity. State operating capacity is generally based on a pupil teacher ratio of 25:1 in all program areas, at 90 percent.

2 - Usually includes construction, site development, water system, sewage disposal, built-in equipment and demolition. A&E fees, value engineering, construction management fees, cost of site, loose equipment, and furniture are excluded.

3 - Project cost includes required road widening, new turning lanes, football stadium, track, play fields, and other outside practice facilities.

4 - \$3,250,000 for required off-site road improvements.

5 - Total cost includes fieldhouse at \$1,480,000 and terrazzo flooring at \$300,500.

6 - Heavy grading, rock removal, as well as environmental issues increased site cost.

7 - On-site water and sewer systems were additional site costs.

8 - The base high school capacity is 1,633 students. The building includes spaces for career, technical and vocational programs for 100 additional students and core support facilities were sized for an additional 250 students.

Elementary School Construction Cost Data

Elementary School Construction Cost Data Prince William County Schools 2003-04 through 2020-21

Elementary School	Building Square Footage	School Construction Contract			Building Cost		Site Cost	
		Bid Date	Bid Contract Total	Contract Cost Per Sq Ft	Bldg Cost Total	Bldg Cost Per Sq Ft	Site Cost Total	Site Cost Per Sq Ft
Rosemount Lewis ES	116,500	Jan-21	\$35,000,000	\$300.43	\$25,100,000	\$215.45	\$9,900,000	\$84.98
John D. Jenkins ES	100,264	Feb-18	\$27,209,000	\$271.37	\$19,624,164	\$195.72	\$7,584,836	\$75.65
Covington-Harper ES	101,528	Feb-16	\$20,831,000	\$205.17	\$15,981,000	\$157.40	\$4,850,000	\$47.77
Kilby ES Repl.	98,976	Mar-15	\$21,888,000	\$221.14	\$15,788,000	\$159.51	\$6,100,000	\$61.63
Kyle Wilson ES	106,854	Feb-15	\$20,753,000	\$194.22	\$16,753,000	\$156.78	\$4,000,000	\$37.43
Chris Yung ES	107,273	Dec-13	\$20,286,000	\$189.11	\$16,186,000	\$150.89	\$4,100,000	\$38.22
Haymarket ES ⁵	99,135	Jan-13	\$18,788,000	\$189.52	\$14,396,000	\$145.22	\$4,392,000	\$44.30
T. Clay Wood ES ⁴	104,958	Feb-10	\$13,859,000	\$132.04	\$12,437,000	\$118.50	\$1,422,000	\$13.55
Piney Branch ES	104,958	Feb-10	\$15,799,000	\$150.53	\$12,999,000	\$123.85	\$2,800,000	\$26.68
Triangle ES Repl	103,679	Feb-08	\$19,769,000	\$190.68	\$16,169,000	\$155.95	\$3,600,000	\$34.72
Yorkshire ES Repl	106,614	Jun-07	\$18,863,000	\$176.93	\$16,292,000	\$152.81	\$2,571,000	\$24.12
Samuel L. Gravely ES	95,074	Feb-07	\$17,250,000	\$181.44	\$15,449,000	\$162.49	\$1,801,000	\$18.94
Fannie Fitzgerald ES ³	106,170	Feb-07	\$17,580,000	\$165.58	\$15,880,000	\$149.57	\$1,700,000	\$16.01
Buckland Mills ES	89,911	Feb-05	\$12,765,000	\$141.97	\$10,245,000	\$113.95	\$2,520,000	\$28.03
Rosa Parks ES	83,084	Feb-05	\$12,277,000	\$147.77	\$9,622,000	\$115.81	\$2,655,000	\$31.96
Glenkirk ES	83,084	Feb-04	\$11,711,000	\$140.95	\$8,364,000	\$100.67	\$3,347,000	\$40.28
Victory ES ²	89,911	Feb-04	\$11,380,000	\$126.57	\$9,505,000	\$105.72	\$1,875,000	\$20.85
Mary Williams ES ¹	83,084	Feb-03	\$10,570,000	\$127.22	\$8,061,000	\$97.02	\$2,509,000	\$30.20
Suella Ellis ES	76,724	Feb-03	\$8,869,000	\$115.60	\$7,638,000	\$99.55	\$1,231,000	\$16.04
Mary Porter TS	71,245	Feb-03	\$8,945,000	\$125.55	\$7,338,000	\$103.00	\$1,607,000	\$22.56

1 Actual bid was \$ 12.57 million. Approximately \$ 2.0 million is for site work associated with adjacent middle school. For project comparison purposes bid amount and site sq. ft. amounts have been adjusted accordingly.

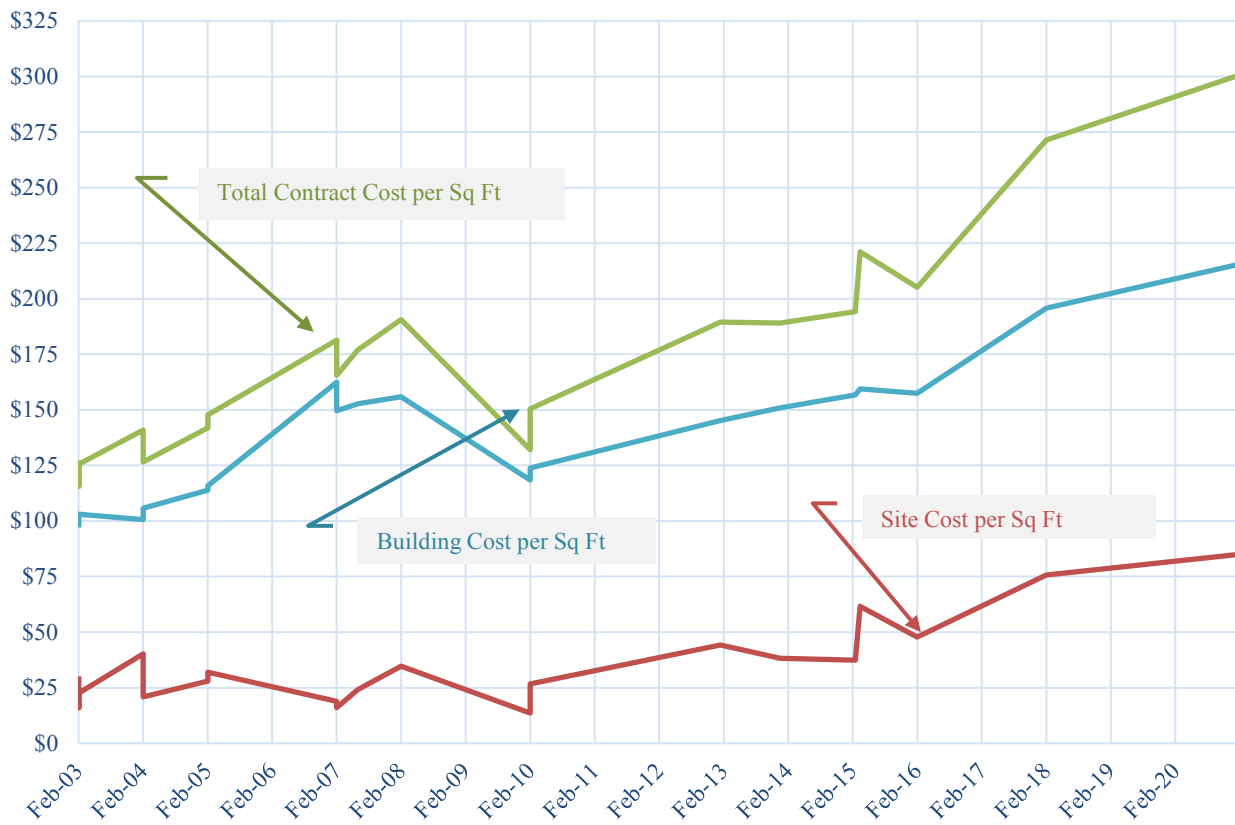
2 This site was pre-graded by the developer, value approximately \$ 1.2 million. For project comparison purposes add 13.35 to project sq. ft. cost and to site sq. ft. cost.

3 This site was pre-graded by the developer, value approximately \$ 700K. For project comparison purposes add \$ 6.59 to project sq. ft. cost and to site sq. ft. cost.

4 This site was pre-graded which included partial utilities infrastructure and bus loop as part of the adjacent high school project, value approximately \$ 650K. For project comparison purposes add \$ 6.19 to project sq. ft. cost and to site sq. ft. cost.

5 This site was heavily wooded and contained \$845k in offsite utility / roadwork cost.

Elementary School Construction Cost Per Square Foot Prince William County Schools 2003-04 through 2020-21



APPENDIX E

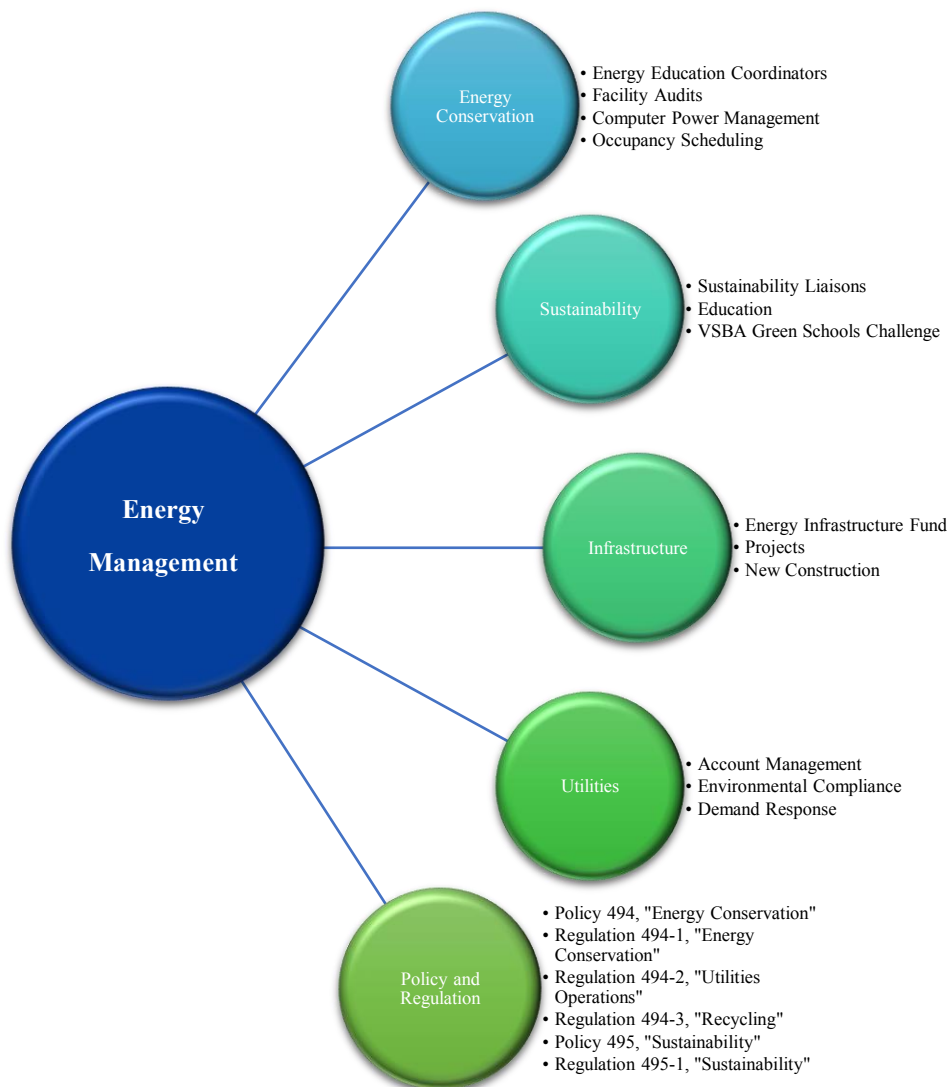
Energy Management and Sustainability

Energy Management and Sustainability

Energy Management in Prince William County Public Schools (PWCS) utilizes a multifaceted approach to energy stewardship and conservation. Policy 494 states that the School Board embraces energy conservation and believes it to be their responsibility to conserve energy and natural resources. Policy 495 recognizes the importance of a robust sustainability program to reduce the School Division's overall carbon footprint, protect the environment, and contribute to overall user experience and wellness. Support and program oversight are the responsibility of the Office of Facilities Services. However, each school or facility designates a site administrator who is accountable for energy conservation and sustainability practices.

Implementation of the energy conservation and sustainability program shall be through a team led by the Office of Facilities Services' Supervisor of Energy Management and Sustainability, and Energy Education Coordinator(s), in accordance with Regulations 494-1 and 495-1. All decisions related to the implementation of these policies shall be firmly grounded in common sense.

Accurate records of energy consumption and cost will be maintained by the Office of Facilities Services for each site to provide verifiable performance results on the goals and progress of the energy conservation program.



Energy Education Coordinators

Energy Education Coordinators work to establish accountability for energy consumption at every level in the organization. These individuals are responsible for developing and monitoring the organization's energy management program, under School Board approved policies and regulations that are intended to reduce utility consumption.

Basic areas of responsibility include administration and recordkeeping, accountability, reporting, program implementation, promoting organizational staff and student involvement, and validating energy management system compliance to the energy policy and guidelines. Energy Education Coordinators use EnergyCAP software to monitor energy usage trends.

The role of the Energy Education Coordinators is instrumental in the success of the energy conservation program and helping retain funds where they are most important – in the classroom.

Facility Audits

Sites within PWCS will be visited by an Energy Education Coordinator regularly. Audits conducted during the normal school week will assess the ability of staff to interpret and apply Policy 494 and Regulation 494-1. Audits will primarily be conducted after hours and during periods of low occupancy. Each site will also be reviewed during holiday periods, Code Red, Code Orange, and Code Green closings as well as extended shutdown periods such as the winter break, spring break, and summer vacation.

Computer Power Management

Computer Power Management refers to the mechanism for controlling the power use of personal computer hardware. In Prince William County Public Schools, this is done through globally deployed policy using software to implement and monitor computer energy consumption and cost. An established schedule of machine and monitor sleep settings as well as automated remote shutdown is enforced.

Facility Occupancy Scheduling

Facility use and scheduling is a critical component of energy management in PWCS. Each facility is assessed for its occupancy and use patterns to identify periods of inactivity and low usage. Mechanical systems are then programmed through automated building control systems to reduce mechanical operation and therefore energy consumption during periods of low usage. Schedules are reviewed regularly with site-based administrators and adjusted for seasonal patterns and system performance. School locations conducting events scheduled before or after normal school hours are required to enter these activities into “FacilityDirect” software.

Per Regulation 494-1, “Energy Conservation,” HVAC settings will revert to those designated for an unoccupied state after hours, during weekends, and on holidays. If heating or air conditioning is needed for a scheduled activity, staff is required to check the HVAC box to indicate as such in the request. Failure to do so will result in no available HVAC service. Events are entered no later than a week in advance, so that the service can be scheduled in a timely manner.

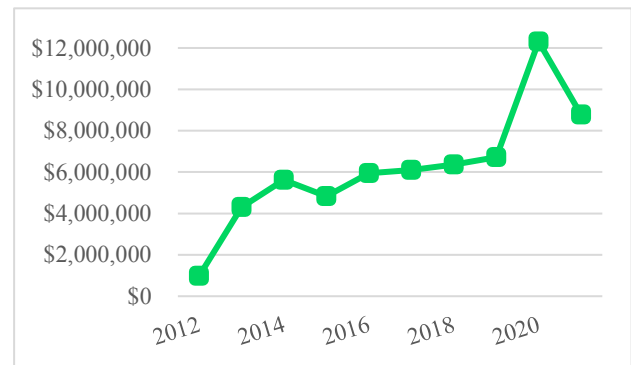
Energy Conservation Savings

July 2012 – December 2021

Period	Month	Savings		Period Totals
		\$	%	
Fast Track 2012	July - December	\$973,706	9.10%	\$973,706
Performance 2013	January - December	\$4,300,398	18.96%	\$4,300,398
Performance 2014	January - December	\$5,628,065	23.08%	\$5,628,065
Performance 2015	January - December	\$4,827,693	19.31%	\$4,827,693
Performance 2016	January - December	\$5,941,593	24.00%	\$5,941,593
Performance 2017	January - December	\$6,104,072	23.87%	\$6,104,072
Performance 2018	January - December	\$6,364,782	23.99%	\$6,364,782
Performance 2019	January-December	\$6,718,885	24.36%	\$6,718,885
Performance 2020	January-December	\$12,309,474	44.43%	\$12,309,474
3rd Performance Quarter FY2021	January	\$865,141	38.1%	\$2,577,459
	February	\$892,562	37.8%	
	March	\$819,756	37.7%	
4th Performance Quarter FY2021	April	\$825,923	39.9%	\$2,518,272
	May	\$897,840	39.6%	
	June	\$794,509	35.2%	
1st Performance Quarter FY2022	July	\$695,193	31.2%	\$1,757,245
	August	\$498,595	21.6%	
	September	\$563,457	23.9%	
2nd Performance Quarter FY2022	October	\$543,143	25.3%	\$1,925,736
	November	\$641,390	29.3%	
	December	\$741,203	32.6%	
Total Program Savings		\$53,168,668	28.74%	

Annual Energy Cost Avoidance

July 2012 – December 2021



Sustainability

Sustainability Liaisons

Sustainability is the dedicated effort of an organization, working together, to reduce the use of finite resources. By evaluating everything from the materials used in the construction of our new schools and renovations, to enhanced storm water management, sustainable purchasing, energy efficiency, and environmental literacy in the classroom, we as a group can decrease the negative impact our activities have on our world, starting today.

The role of a Sustainability Liaison is not an intense one, but it is very important. Sustainability Liaisons function as ambassadors on behalf of Energy Management, conveying our collective message of environmental leadership to each individual site. Each liaison is encouraged to create opportunities for discussions about sustainability and energy conservation. The Office of Facilities Services provides tools for the development of a sustainable culture within each school. Volunteers requiring recertification points could potentially earn up to five hours for participation as a site-based Sustainability Liaison.

Education

The Office of Facilities Services incorporates education for students and staff into the overall Strategic Plan for the School Division. Energy Management and Sustainability staff support the development and implementation of Project Learning Tree (PLT) GreenSchools! modules that focus on Energy, Water, Waste and Recycling, and Environmental Quality. In 2018, Energy Management staff began offering a new certificate program, Green Classroom Professional (GCP). This certificate program is intended for educators, staff, custodians, and facilities personnel. Both courses are registered in the PWCS online Professional Learning Catalog.

PLT GreenSchools! investigations bolster science, technology, engineering, and math (STEM) education while promoting sustainable schools. They provide students with opportunities to actively engage in scientific inquiry as they solve real-world environmental issues at their school. PLT GreenSchools! is a program of the American Forest Foundation, in partnership with the 50-state PLT network, the U.S. Forest Service, the Corporation for National and Community Service, and many other national, state, and local partners. This program is the foundation for the annual Energy Challenge where participating schools can earn up to \$2,000 annually for their efforts - \$1,800 for the site and \$200 for the supervising staff member.

Green Classroom Professional (GCP) certificate program provides participants with the skills to create sustainable learning spaces, identify features that support or impede environmentally healthy classrooms and energy savings, and help foster a culture that appreciates and models green practices. The GCP certificate program was created by the Center for Green Schools at the U.S. Green Building Council.

VSBA Green Schools Challenge

The VSBA Green Schools Challenge is sponsored by the Virginia School Board Association. The competition requires annual documentation and planning for issues relating to environmental stewardship, energy management, indoor air quality, and education of students in the classroom regarding sustainable strategies. PWCS has participated since 2009, earning both the Certified Green School Division award, Silver Green School certification, and Platinum Green School certification. In 2020, PWCS was recognized as the VSBA Green Schools Challenge Winner in the category for student population of 10,001 and up.

Energy Infrastructure Improvements

Energy Infrastructure Fund

The PWCS Capital Improvements Program (CIP) calls for a portion of the anticipated energy conservation savings to be directed towards continued investment in infrastructure improvements capable of generating additional savings and greater efficiency. Utilizing energy infrastructure improvement funding allocated in the CIP creates sustainable facility improvements that serve a wide range of priorities within the Office of Facilities Services, while creating measurable Return on Investment (ROI).

Energy Management has endeavored to work with a variety of stakeholders throughout the School Division to identify priorities.

Applicable infrastructure improvements include:

- Conversion of heating systems from fuel oil to natural gas to reduce point of use cost.
- Building management control system installation, upgrades, and modernization.
- Lighting control systems.
- Lifecycle modernization/replacement of inefficient and poorly performing mechanical systems.
- Building envelope improvements for better insulated entry points, windows, and exterior cladding.
- Sustainability focused enhancements designed to maximize educational opportunities derived directly from school facility sites (e.g., activity trails, ecological studies, civil engineering/land survey training, renewable energy).

Anticipated Energy Infrastructure Funding Priorities

Fiscal Years 2023-2027

Energy Infrastructure Improvement Project	<i>FY2023</i>	<i>FY2024</i>	<i>FY2025</i>	<i>FY2026</i>	<i>FY2027</i>
Building Automation Improvements	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
LED Lighting Retrofits	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000
Mechanical Infrastructure (Supplemental Heating, Cooling, Dehumidification)	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Building Envelope/Thermal Insulation	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Third-Party Energy Audits	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
TOTAL	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000

Energy Infrastructure Improvement Projects

Fiscal Year 2022

Location	Project Scope
Division-wide	LED Replacement Program
Buckland Mills ES, Coles ES, Dale City ES, Loch Lomond ES, Minnieville ES, Piney Branch ES, Victory ES, Yung ES, Benton MS, Unity Braxton MS	Predictive Maintenance Analytics
Division-wide	Switchgear Monitoring
Benton MS, Bull Run MS, Gainesville HS, Gainesville MS, Hampton MS, Lake Ridge MS, Lynn MS, Marsteller MS, Parkside MS, Potomac Shores MS, Reagan MS, Saunders MS	SMART Irrigation
Dale City ES, Minnieville ES, Piney Branch ES, Potomac Shores MS	Building Automation Upgrade
Woodbridge MS	Central Plant Sequence Commissioning

Fiscal Year 2023

Location	Project Scope
Division-wide	LED Replacement Program
Division-wide	Predictive Maintenance Analytics
Division-wide	Performance Contracting
Division-wide	SMART Irrigation
Division-wide	Building Automation Upgrade
Division-wide	Central Plant Sequence Commissioning

New Construction

The Office of Facilities Services is committed to the construction of energy efficient, highly performing facilities. Energy Management team members regularly review all energy consuming systems during the design and development of any building construction, renovation, or alteration.

The Supervisor of Energy Management and Sustainability provides final coordination with the Supervisor of Construction for energy management-related specifications and construction details.

Energy Management is committed to year-round advocacy for conservation efforts in PWCS.

Utilities

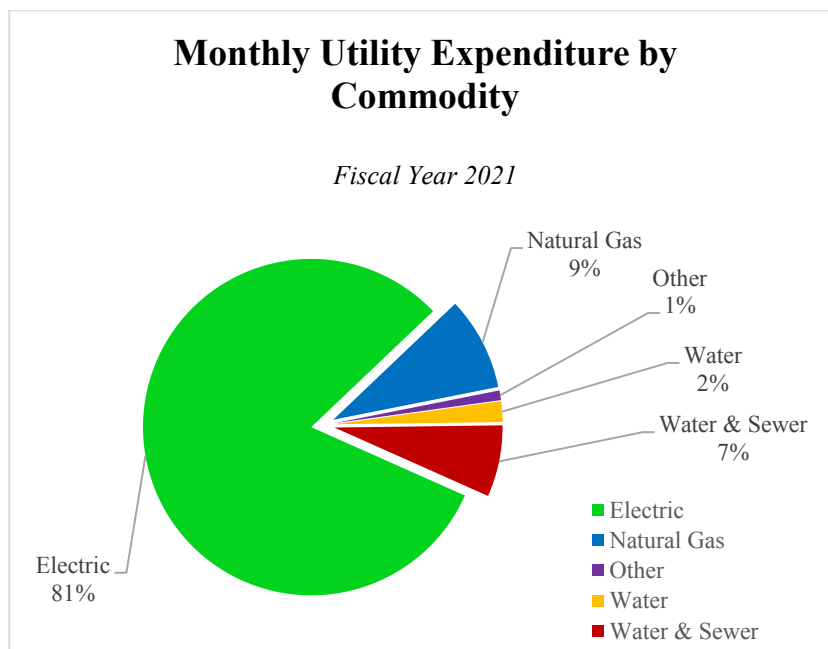
Account Management

Regulation 494-2 establishes responsibilities and operating procedures for the management of utilities by the Office of Facilities Services. It is the responsibility of staff to provide operating utilities and technical services supporting the proper maintenance and operation of school facilities. All utility invoices are processed using customized software called “EnergyCap”. The Supervisor of Energy Management and Sustainability functions as the liaison for third-party contracts and utilities provided by private corporations and companies.

Utilities covered by this provision include:

- Heating Fuels
- Electrical Services
- Water and Sewer Services
- Motorized Fuels

Utility bill data for all PWCS sites is now available for access by the public through the PWCS Energy Management website.



Environmental Compliance

Prior to procurement, delivery, or payment of any heating and/or motorized fuels, the Supervisor of Energy Management and Sustainability ensures coordination with the Administrative Coordinator, Environmental Services, to verify proper delivery techniques, inspect spill control methods, and verify quantity delivered.

Required annual reporting of stored gallonage to the Department of Environmental Quality is the responsibility of the Supervisor of Energy Management and Sustainability.

Demand Response

Due to the constraints of available electrical utility capacity and required demand, it has become essential for utility providers at times to control the distribution of electricity. Demand response engages customers to reduce their personal or corporate consumption when possible, during critical times, so as not to overload the electrical grid. Utilities sub-contract the administration of demand response programs. Enrollment in such programs means utility customers may be notified of a critical period and subsequently, voluntarily, curtail usage where possible. A rebate is provided based on the extent of curtailment pursued. These peak periods are generally during the summer.

Over summer break, demand response presents a great opportunity for Prince William County Schools to pursue the benefits of demand response as a potential revenue source. Our facilities currently operate on a reduced schedule during these times.

