

# CAPITAL IMPROVEMENT PROGRAM

Fiscal Years 2025-29



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### CAPITAL IMPROVEMENT PROGRAM

### Executive Summary

The Prince William County Public Schools (PWCS) Capital Improvement Program (CIP) outlines the strategic plan for addressing the division's capital needs over the next five years. PWCS is the second largest school division in Virginia and the 34th largest in the United States. For the 2023-24 academic year, PWCS serves 91,191 PK-12 students across its 98 schools that have a combined capacity to accommodate approximately 94,753 students.

#### CIP's Alignment with PWCS Vision 2025, Launching Thriving Futures Strategic Plan

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 CIP specifically aligns with the following commitments:

#### Commitment 2: Positive Climate and Culture

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

- Alignment Examples
  - o High-quality learning experiences that promote environmental literacy
  - o Project-based learning, utilizing the school building as a teaching tool

### Commitment 4: Organizational Coherence

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

- Alignment Examples
  - o Prioritize facility renovations on facility condition assessments
  - o High-performing maintenance strategies and construction standards
  - o Divisionwide maintenance and facility plan

#### Capacity Enhancement and Facility Repurposing Projects

The division's capital needs are addressed through the annually updated CIP. Its five-year outlook seeks to address identified educational space deficiencies and facility renovation requirements. Over the next five years, permanent capacity serving students will increase by approximately 4,004 seats. The division is anticipated to soon become less reliant on portable classrooms temporarily housing students and staff, as a result of the completion of school construction projects listed below.

- Construct school for Woodbridge Area Elementary School (schedule opening: SY2025-26)
- Increase the size of the future Potomac Shores Area Elementary School from 721 seats to 1,050 seats (scheduled opening: SY2027-28)
- Construct Replacement School for Occoquan Elementary (scheduled opening: mid-SY2025-26)
- Construct 30-classroom addition at The Nokesville School (scheduled opening: SY2027-28)
- Construct 8-classroom addition at Pennington Traditional School (scheduled opening: SY2026-27)
- Early Childhood Education New Facilities and Additions:
  - o Washington–Reid Preschool (scheduled opening: SY2027-28)
  - o Occoquan Elementary School Site (scheduled opening: SY2027-28)
  - o Ann Ludwig Site Renovation/Repurpose (scheduled opening: SY2028-29)
- Construct Global Welcome Center- Manassas Campus at Sinclair Elementary School scheduled opening: SY2026-27)

- 14<sup>th</sup> High School
  - o Delay opening from SY2027-28 to SY2029-30
  - o Size reduced from design of 2,557 seats to 1,400 seats
- Brentsville District High School
  - o Renovation delayed to SY2029-30
  - o New Turf Management Facility (scheduled opening: SY2026-27)

#### **Funding**

Beyond addressing new construction and facility repurposing projects, the CIP also includes site acquisition, facility renovations, infrastructure upgrades, Title IX improvements, energy efficiencies, and sustainability initiatives, all of which have associated costs. PWCS adopts a long-term strategy to balance expenditures with anticipated revenues to meet capital needs. The CIP funding allocation for the next five years includes \$412,005,320 for new construction, \$358,635,642 for renovations, \$13,525,000 for facility/site enhancements, and \$175,659,544 for maintenance and repairs. The funds associated with the FY2025-29 CIP total \$962,675,506.

#### Land Acquisition

Land acquisition is included in the CIP budget and is funded through developer proffer contributions, bond funds, and the operating budget. In May 2024, PWCS purchased six acres for \$3,600,000 to serve as the future site of the Potomac Shores Area Elementary School. Current analyses indicate no need for additional school sites in the next five years. Therefore, no funding is allocated for site acquisition in the FY2025-29 CIP.

#### **Energy Management and Sustainability**

The CIP serves as a strategic framework for the school division to enhance energy management and sustainability. The Facilities Department is dedicated to constructing energy-efficient, high-performance facilities. Notable achievements include:

- **Green Ribbon Awards:** In 2021, PWCS received the Green Ribbon District Sustainability Award. Freedom High School earned the U.S. Department of Education Green Ribbon School (ED-GRS) designation in 2023, followed by Dale City and Mullen Elementary Schools in 2024.
- **Virginia Naturally School Recognition:** In 2023, twelve schools were honored as Virginia Naturally Schools.

These accomplishments underscore our commitment to sustainability and excellence in educational facilities.

#### Capital Projects Recently Completed

Over the years, our CIPs have significantly enhanced our facilities and educational services. These initiatives have been instrumental in driving progress and meeting the evolving needs of our scholars. As a result of these efforts, we have successfully completed several key projects, including:

<b>New Facility Construction</b>	<b>Renovation Projects</b>	Facility/Site Enhancements
Innovation Elementary School	Bristow Run Elementary School	Brentsville District High School – Turf Practice Field
	C.D. Hylton High School	Forest Park High School – Roof Replacement
	Parkside Middle School	Osbourn Park High School – Roof Replacement
	Signal Hill Elementary School	-

PWCS remains dedicated to providing high-quality educational facilities that support every student graduating on time with the knowledge, skills, and habits of mind necessary to create a thriving future for themselves and their community.

### **PWCS CIP Process and Timeline**

Below is a timeline that outlines the CIP process for reference and planning purposes:

September	<ul> <li>September 30<sup>th</sup> Enrollment</li> <li>Analyze student enrollment data and projection</li> <li>Prioritize schools for renovations based on Facility Condition Assessments and Programmatic Evaluations</li> </ul>
October	<ul> <li>Calculate student enrollment projections</li> <li>Assess facility capacities</li> <li>Review available funding</li> </ul>
November- December	<ul> <li>Identify strategies to address existing and future capacity shortages and compile a list of specific capital improvements planned for implementation over the next five years</li> <li>Engage with Executive Cabinet</li> <li>Superintendent approves content of CIP</li> </ul>
January	Work session to present proposed CIP to School Board
February	<ul> <li>Superintendent present proposed budget and CIP to the School Board</li> <li>Public Meeting and Hearing on the proposed budget and CIP</li> <li>Budget holders submit proposed budget</li> <li>Proposed CIP Executive Summary publicly available</li> </ul>
March	<ul> <li>Work session and mark-up on the budget</li> <li>School Board approves budget and submits to the Board of County Supervisors</li> </ul>
April	Board of County Supervisors to approve School Board budget

### **Funding**

#### **Overview**

Each year, the Superintendent prepares a proposed budget for the upcoming school year that includes a dedicated section for funding the division's CIP. The proposal undergoes a meticulous revision process, incorporating feedback from work sessions, the School Board, and public discussions. Following these collaborations, the School Board approves a comprehensive budget for the next school year that encompasses the funds earmarked for the division's CIP projects.

The Prince William Board of County Supervisors (BOCS) subsequently reviews the school division's proposed budget, focusing on the CIP allocations within the school division's financial plan. The full funding of the school division's proposed budget is assured, if the BOCS sets a tax rate that generates adequate revenue to fully fund PWCS's proposed budget through the revenue sharing agreement. If the proposed budget is not fully funded, then a revision process of the school division's proposed budget begins that could result in reducing scope of, or delaying, projects in the proposed CIP.

#### Strategic Fiscal Planning

A multi-year outlook is essential for aligning spending with expected revenues. Analytics, like student enrollment projections, and best practices for public finances guide the planning. For instance, projects are prioritized based on necessity, while optimizing capital funds use. These practices have helped Prince William County maintain its Triple-A bond rating.

#### Residential Development Community Contributions - Proffers

Lastly, monetary and in-kind contributions from residential rezoning aid in offsetting capital costs linked to residential development, supporting the school division's growth.

#### Navigating Evolving Construction Markets

In the wake of recent global events, the construction industry has seen dynamic shifts, with rising material costs, supply chain adjustments, and labor market evolution. These variables exhibit early signs of stabilizing. PWCS has proactively navigated these changes, encountering elevated pricing, extended lead times for select materials, and a more competitive bidding environment. Despite these factors, PWCS remains steadfast in its commitment to providing facilities that support student learning.

PWCS staff is actively engaged in analyzing market trends, both locally and nationally, to adeptly prepare for and adapt to the evolving landscape of current and future projects. We are dedicated to minimizing disruptions and optimizing project outcomes. The resilience of our planning is not only reflected in the inclusion of more informed contingencies for cost variations within our proposed construction budgets but also with evaluating project costs each year and revising, as needed, in the CIP. The following table illustrates the revised project amounts and the funding allocated in the FY2025-29 CIP.

Scheduled Completion	Upcoming Facility Projects	Total Project Amount	Budget in FY 2025-29 CIP
2025	"Woodbridge Area" Elementary School	\$ 69,914,455	\$ 10,617,000
2025	Occoquan Elementary - Replacement	\$ 80,214,796	\$ 67,160,000
	Penningtion Traditional School - Addition (8-classroom)	\$ 6,700,000	\$ 6,700,000
2026	Brentsville District High School - Turf Management Program Facility	\$ 4,500,000	\$ -
	Global Welcome Center - Manassas Area	\$ 15,100,000	\$ 15,100,000
	The Nokesville School - Addition (30-classroom)	\$ 24,000,000	\$ 24,000,000
2027	Occoquan Elementary Site - New Preschool Facility	\$ 14,300,000	\$ 14,300,000
2027	"Potomac Shores Area" Elementary School	\$ 79,725,000	\$ 73,338,320
	Washington-Reid Preschool Center - Addition (15-classroom)	\$ 15,500,000	\$ 15,500,000
2029	14th High School	\$ 218,609,919	\$ 185,290,000
New Constru	ction Totals	\$ 528,564,170	\$ 412,005,320

<sup>1)</sup> A dash (-) indicates no FY2025-29 CIP funds are allocated to a project.

#### New Construction Projects Recently Completed

Over the last five years, the construction of four new schools and capacity enhancements at eight existing schools have collectively increased capacity by approximately 7,400 students. The new schools comprise two elementary schools (John D. Jenkins and Innovation), one middle school (Potomac Shores), and one high school (Gainesville). Additionally, classroom additions were made to five elementary schools (Antietam, Lake Ridge Elementary, Leesylvania, Minnieville, and Springwoods) and three middle schools (Gainesville, Ronald Reagan, and Unity Braxton).

Regular maintenance of buildings and large, physical assets, like chillers and HVAC systems, is essential. Scheduled renovations ensure that all schools remain safe, functional, and equipped to support current educational programs, regardless of the building's age. 57 of the school division's 98 schools and facilities are 25 years or older.

#### Recently Completed Renovations

Over the past five years, major renovations and Title IX projects were completed at 12 facilities totaling over \$150M. Additionally, 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.

#### **Budgeting for 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 the current replacement value of facilities be budgeted annually for repairs and renovations. The projected FY 2025 replacement value of schools is approximately \$5,377,245,000.

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 averages 2.4%. The target to be budgeted in FY 2025 for repairs, renovations, and maintenance is \$129,624,000 (2.4% of value), with the estimated budget for maintenance, renovations, and energy improvements in FY 2025 at \$99,752,901 (1.9% of value); of which \$26,654,680 will be bond funded.

#### Past Practices for Renovations

PWCS has maintained facilities by administering minor rehabilitations regularly. The program has commonly been referred to as the '7/14-Year-Maintenance Program'. It has consisted of refreshing building finishes every seven years. Once a building reaches approximately 25 years old, or once 25 years have lapsed since its last significant renovation, the Facilities Department evaluates the building's physical needs and undertakes necessary repairs or replacements of its major systems. Some examples among them are mechanical, plumbing, electrical, technology, hardware, and windows.

#### Moving Forward, Facility Condition Assessments Prioritize Renovation Schedule

PWCS is currently transitioning away from a regular schedule of renovations to prioritizing renovations through an objective and data-driven approach based primarily upon a Facility Condition Assessment (FCA). The FCA relates the cost to address deferred maintenance in the facility to the replacement cost of the facility. The relationship is represented in the Facility Condition Index (FCI). Rank ordering these scores alone can help distribute available funds to the facilities in greatest need for renovation. However, an additional Programmatic Evaluation baselines existing schools against the specifications to which new schools are being constructed in the division. For example, if a new school offers larger classrooms or specialized instructional spaces not offered to the same degree in existing schools, then such is reflected in the Programmatic Evaluations. Moving forward, the prioritization of school renovations will be based on the FCI and the Programmatic Evaluation of each school in relation to each other so that those in the worst condition are brought up to standard first.

#### School Facility Renovation Prioritization

At the time of preparing this CIP, approximately 26 of the school division's 98 schools had undergone a FCA. Their resulting FCIs supported the reprioritization of renovations previously scheduled. In the School Facility

Renovation Prioritization List table below, schools marked with an asterisk had undergone a FCA, at the time of preparing this CIP. FCAs for all facilities are scheduled to be completed by the FY2026-30 CIP.

### School Facility Renovation Prioritization List

School Facility Name	Year Op ened	Effective Facility Age <sup>1</sup>	Most Recent Reno- vation	Next Scheduled Reno- vation <sup>2</sup>	School Facility Name	Year Op ened	Effective Facility Age <sup>1</sup>	Most Recent Reno- vation	Next Scheduled Reno- vation <sup>2</sup>
Benton Middle School*	2000	23			Hampton Middle School	1970	13	2010	
Brentsville District High School	1965	23	2000	2029	Rippon Middle School*	1967	13	2010	
Forest Park High School*						2010	13	2010	
Cedar Point Elementary School							12		
Featherstone Elementary School*	1961	22	2001	2023	Pinev Branch Elementary School	2011	12		
Fred M. Lynn Middle School*	1963	22	2001	2027	T. Clay Wood Elementary School	2011	12		137
Graham Park Middle School*	1963	22	2001	2026	PACE West	2012	11		
Swans Creek Elementary School	2001	22	2001	2025	Pennington Traditional School	1969	11	2012	
Ashland Elementary School*	2002	21		2023	Potomac High School	1981	11	2012	
Bull Run Middle School	2002	21			Ronald Wilson Reagan Middle School	2012	11	LOIL	
Marsteller Middle School	2002	21			Pattie Elementary School	1978	10	2013	
Occoquan Elementary School	1927	21	2002	+	Washington-Reid Preschool Center	1951	10	2013	
Unity Braxton Middle School*	1964	21	2002		Dumfries Elementary School*	1939	9	2013	
Alvey Elementary School*	2003	20	2002		Haymarket Elementary School	2014	9	2014	
Gar-Field High School*	1972	20	2003		The Nokesville School	2014	9	2	4
Woodbridge Middle School*	1964	20	2003	2028	Chris Yung Elementary School	2014	8		
Battlefield High School*	2004	19	2003	2020	Charles J. Colgan Sr. High School	2015	7		
Ellis Elementary School	2004	19			Henderson Elementary School	1985	7	2016	
Freedom High School*	2004	19			King Elementary School	1981	7	2016	
Mary Williams Elementary School*	2004	19			Kyle Wilson Elementary School	2016	7	2010	0 -
	2004	19					7	2016	1 1 1 1
Porter Traditional School* Sudlev Elementary School*	1972	19	2004		Lake Ridge Elementary School  Loch Lomond Elementary School	1983 1962	7	2016 2016	
		19					7		1 1 1 1
Woodbridge High School*	1974		2004		Springwoods Elementary School	1985		2016	
Glenkirk Elementary School	2005	18	2005		Covington-Harper Elementary School	2017	6		
Minnieville Elementary School	1972	18	2005		Kilby Elementary School	2017	6	2242	1
Potomac View Elementary School	1964	18	2005		Antietam Elementary School	1990	5	2018	
Unity Reed High School	1973	18	2005		Independence Nontraditional School	2018	5		
Vaughan Elementary School*	1964	18	2005	2028	Lake Ridge Middle School	1989	. 5	2018	
Victory Elementary School	2005	18	2000		McAuliffe Elementary School	1989	5	2018	
Belmont Elementary School*	1967	17	2006		Mullen Elementary School	1990	5	2018	
Buckland Mills Elementary School	2006	17			River Oaks Elementary School	1990	5	2018	
Dale City Elementary School	1967	17	2006		Saunders Middle School	1988	5	2018	
Marumsco Hills Elementary School*	1966	17	2006		Westridge Elementary School	1989	5	2018	
Osbourn Park High School*	1975	17	2006		John D. Jenkins Elementary School	2019	. 4		
Potomac Middle School	2006	17			Leesylvania Elementary School	1996	4	2019	
Rosa Parks Elementary School	2006	17			Marshall Elementary School	1994	4	2019	
Gainesville Middle School	2007	16			Montclair Elementary School	1991	4	2019	
Kerrydale Elementary School	1973	16	2007		Old Bridge Elementary School	1995	4	2019	
Rockledge Elementary School	1972	16	2007		Mountain View Elementary School*	1995	3	2020	
Tyler Elementary School*				1991	2	2021			
Bel Air Elementary School	1968	15	2008		Gainesville High School	2021	2		
Fitzgerald Elementary School	2008	15			Penn Elementary School	1998	2	2021	
Gravely Elementary School*	2008	15			Potomac Shores Middle School	2021	2		
Coles Elementary School	1968	14	2009		Bennett Elementary School	1996	1	2022	
Enterprise Elementary School	1978	14	2009		Bristow Run Elementary School	1998	0	2023	
Neabsco Elementary School	1969	14	2009		C.D. Hylton High School	1991	0	2023	
Sinclair Elementary School*	1968	14	2009		Innovation Elementary School	2023	0		
West Gate Elementary School	1964	14	2009		Parkside Middle School	1963	. 0	2023	
Yorkshire Elementary School	2009	14			Signal Hill Elementary School	2000	0	2023	

Not including effect of scheduled renewals
Renovation per the Approved CIP
Indicate schools that have underwent a Facility Conditions Assessment (FCA), all schools are expected to be completed by the next CIP cycle.

The renovations outlined in the following table represent major infrastructure improvements designed to meet the evolving student needs and those of the staff who support student learning.

Scheduled Completion	Facility Renovations	1	otal Project Amount	Budget in FY 2025-29 CIP
-	Cedar Point Elementary School	\$	19,540,000	\$ 350,000
2025	Swans Creek Elementary School	\$	17,555,000	\$ -
2025	Brentsville Transportation Center	\$	5,950,000	\$ -
	Potomac Transportation Center	\$	3,284,000	\$ 2,986,000
2026	Graham Park Middle School	\$	18,668,500	\$ 17,977,642
2027	Fred Lynn Middle School	\$	70,000,000	\$ 67,500,000
	Ann Ludwig Preschool Center	\$	18,500,000	\$ 18,000,000
2028	Vaughan Elementary School	\$	49,200,000	\$ 49,200,000
	Woodbridge Middle School	\$	40,624,000	\$ 40,624,000
2029	Brentsville District High School	\$	62,356,924	\$ 59,720,000
-	Divisionwide - Unspecified School Renovation	\$	102,278,000	\$ 102,278,000
Renovation T	otals	\$	407,956,424	\$ 358,635,642

<sup>1)</sup> A dash (-) indicates no FY2025-29 CIP funds are allocated to a project.

### **Facility/ Site Enhancements**

Scheduled Completion	Facility Enhancements	T	otal Project Amount	Budget in FY 2025-29 CIP
	Brentsville District High School - Artificial Turf & Track, Restroom Building	\$	6,871,465	\$ 1-7
	C.D. Hylton High School - Artificial Turf & Track	\$	2,566,964	\$ -
	Gar-Field High School - Fenestration Improvements	\$	6,043,660	\$ 1,029,000
2024	Osbourn Park High School - Artificial Turf & Track, Concession Building	\$	8,967,290	\$ 
	Patriot High School - Stadium & Practice (T. Clay Wood) Turf & Track Replacement	\$	2,900,000	\$ -
	Woodbridge High School - Fenestration Improvements	\$	7,737,215	\$ 1,029,000
	Woodbridge High School - Interior Modification / Reconfigurations	\$	2,500,000	
	Forest Park High School - Interior Modification / Reconfigurations	\$	2,000,000	\$ 2,000,000
2025	Freedom High School - Interior Modification / Reconfigurations	\$	2,525,000	\$ 2,525,000
2025	Gar-Field High School -Artificial Turf & Track, Concession Building	\$	6,414,645	\$ -
	Osbourn Park High School - Interior Modification / Reconfigurations	\$	2,525,000	\$ 2,525,000
2026	Woodbridge High School - New Clinic Construction	\$	325,000	\$ 325,000
2027	Parkside Middle School - Fenestration Improvements	\$	4,092,000	\$ 4,092,000
Facility Enha	ncements Totals	\$	55,468,239	\$ 13,525,000

<sup>1)</sup> A dash (-) indicates no FY2025-29 CIP funds are allocated to a project.

### **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 needed' basis until other funding sources become available.

Project Type	Budget in FY 2025-29 CIP
Asphalt	\$ 21,429,000
Electrical	\$ 450,000
Energy Infrastructure	\$ 5,000,000
Environmental	\$ 3,862,000
Exterior Upgrades	\$ 2,544,000
Fenestration	\$ 8,296,286
HVAC	\$ 66,092,258
Interior Upgrades	\$ 5,920,000
Kitchen	\$ 2,500,000
Maintenance	\$ 1,340,000
MS4	\$ 3,854,000
Plumbing	\$ 8,000,000
Portable classroom	\$ 5,000,000
Roof Replacements and Repairs	\$ 28,681,000
Security	\$ 5,161,000
Site Improvements	\$ 230,000
Sustainability	\$ 3,500,000
Title IX	\$ 3,800,000
School Maintenance and Repair Total	\$ 175,659,544

### **Sustainability Initiative**

In June 2020, the School Board issued the "Sustainability Initiative" outlining a strategy for PWCS to improve its carbon footprint, reduce its dependency on fossil fuels, and support sustainability education through project-based learning opportunities for students. This important and broad-ranging set of goals addresses divisionwide sustainability, including design and construction of high-performance facilities, environmental literacy in course curriculum, and improvements in mechanical equipment and building efficiencies. Prince William Board of County Supervisors passed a similar resolution on energy and environmental sustainability. A Joint Environmental Taskforce was created for both Boards to work collaboratively on these efforts.

#### Goals

- Create healthy learning environments for students and staff
- Develop means of utilizing emerging energy technologies, including renewables (e.g., geothermal and photovoltaic solar arrays)
- Incorporate sustainable, and maintainable high-performance design standards, while balancing CIP needs and available funding
- Integrate environmental literacy into the PWCS curriculum

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

### Advisory Council Recommendations

#### Achievements/Initiatives In Progress

- Site-specific design for new construction
- Feasibility studies
  - o Renovating HVAC with geothermal where possible
  - o Replacing fleet vehicles with electric models

#### FY25 Budget Considerations

- Budget requests for expanding the food scrap to composting program, as well as school participation in divisionwide energy conservation efforts
- Plans to replace gas-powered small engine equipment with electric models, as well interior and exterior LED lighting at all schools by 2026



### Capital Improvement Program – 5-Year Summary

	Scheduled					5-Ye	ear CIP Totals I	by Re	venue Source	•		Future	Total Proje
Category	Completion	Facility/Site	Project		Bonds	Gei	neral Revenue*		Grants		Total	Funding	Amount
	2025	Occoquan Elementary School	School Replacement	\$	67,160,000					\$	67,160,000		\$ 80,214,
	2025	Woodbridge Area Elementary School	Elementary School Construction	\$	10,617,000					\$	10,617,000		\$ 69,914,
	2026	Brentsville District High School	Turf Management Program Facility Construction										\$ 4,500,
	2026	Global Welcome Center	Facility Construction	\$	15,100,000					\$	15,100,000		\$ 15,100,
	2026	Pennington Traditional School	School Addition (8-classrooms)	S	6,700,000					S	6,700,000		\$ 6,700,
New	2027	Occoquan Elementary School	Preschool Center Construction (15-classrooms)	\$	14,300,000					\$	14,300,000		\$ 14,300,
Construction	2027	Potomac Shores Area Elementary School	Elementary School Construction	\$	73,338,320					\$	73,338,320		\$ 79,725,
	2027	The Nokesville School	School Addition (30-classrooms)	\$	24,000,000					\$	24,000,000		\$ 24,000,
	2027	Washington-Reid Preschool Center	School Addition / Minor Renovation (15-classrooms)	\$	15,500,000					\$	15,500,000		\$ 15,500,
	2029	14th High School	High School Construction	\$	185,290,000					s	185,290,000	\$ 12,000,000	\$ 218,609,
			Total - New Construction	\$	412,005,320					\$	412,005,320	\$ 12,000.000	\$ 528,564,
	2025	Cedar Point Elementary School	School Renovation			s	350,000			\$	350,000		\$ 19,540,
	2025	Swans Creek Elementary School	School Renovation										\$ 17,555,
	2026	Transportation - Brentsville	Facility Renovation										\$ 5,950,
	2025	Transportation - Potomac Center	Facility Renovation	S	2,986,000					S	2,986,000		\$ 3,284,
	2026	Graham Park Middle School	School Renovation	\$	15,908,680	\$	2,068,962			\$	17,977,642		\$ 18,668,
Major	2027	Fred M. Lynn Middle School	School Renovation	\$	67,500,000					\$	67,500,000		\$ 70,000,
Renovations	2028	Ann Ludwig Administrative	Preschool Center Renovation	\$	18,000,000					\$	18,000,000		\$ 18,500,
	2028	Vaughan Elementary School	School Renovation	\$	49,200,000					\$	49,200,000		\$ 49,200,
	2028	Woodbridge Middle School	School Renovation	\$	40,624,000					\$	40,624,000		\$ 40,624,
	2029	Brentsville District High School	School Renovation	\$	59,200,000	S	520.000			S	59,720,000		\$ 62,356,
	2020	Divisionwide	Unspecified School Renovations	\$	97,826,000	_	4,452,000			S	102,278,000		\$ 102,278,
		Divisionwide	Total - Major Renovations	\$	351,244,680		7,390,962			S	358,635,642		\$ 407,956,
	2024	Gar-Field High School	Fenestration Improvements	S	1,029,000	Ψ	1,580,802	-		S	1,029,000		\$ 6.043.
	2024	Woodbridge High School	Interior Modifications / Reconfigurations	3	1,029,000					3	1,029,000		\$ 2,500,
	2024	Woodbridge High School	Fenestration Improvements	S	1,029,000					S	1.029.000		\$ 7,737
Facility Modifications	2025	Forest Park High School	Interior Modifications / Reconfigurations	, v	1,020,000	\$	2,000,000			5	2,000,000		\$ 2,000,
	2025	Freedom High School	Interior Modifications / Reconfigurations			\$	2,525,000			\$	2,525,000		\$ 2,525,
Modifications	2025	Osbourn Park High School	Interior Modifications / Reconfigurations			\$	2,525,000			\$	2,525,000		\$ 2,525,
	2026	Woodbridge High School	New Clinic Construction		1 762 313	S	325,000			\$	325,000		\$ 325,
	2027	Parkside Middle School	Fenestration Improvements	\$	1,187,000	_	2,905,000			S	4,092,000		\$ 4,092,
	2023		Total - Facility Modifications	S	3,245,000	\$	10,280,000	-		\$	13,525,000		\$ 27,747,
	2024	Brentsville District High School	Artificial Turf & Track, Restroom Bldg										\$ 6,871,
Artificial Turf &	2024	C.D. Hylton High School	Artificial Turf & Track										\$ 2,566,
Track	2024	Osbourn Park High School	Artificial Turf & Track, Concession Bldg										\$ 8,967,
Replacements	2024	Patriot High School	Stadium, Playfield Turf & Track Replacement										\$ 2,900,
	2025	Gar-Field High School	Artificial Turf & Track, Concession Bldg										\$ 6,414,
			Total - Artificial Turf & Track Replacements										\$ 27,720,
			Asphalt	\$	7,700,000		13,729,000			\$	21,429,000		
			Electrical	\$	- 4	-	450,000	\$		\$	450,000		
			Energy Infrastructure	\$	-	\$	5,000,000	\$		5	5,000,000		
			Environmental	\$	-		3,862,000	S	- 4	\$	3,862,000		
			Exterior Upgrades	\$			2,544,000	S		\$	2,544,000		
			Fenestration	S	4,450,000		3,846,286	S	14	\$	8,296,286		
			HVAC	\$	38,400,000	\$	26,259,129	S	1,433,129	\$	66,092,258		
			Interior Upgrades	\$	-	\$	5,920,000	S	G.	S	5,920,000		
School		Various Facilities	Kitchen	\$	-	\$	2,500,000	S		S	2,500,000		
Maintenance and		(TBD based on existing conditions)	Maintenance	\$	-	\$	1,340,000	S	14	S	1,340,000		
Repair			MS4	\$	-		3,854,000	S	-	S	3,854,000		
			Plumbing	S	7,200,000	\$	800,000	s	3	S	8,000,000	1	
			Portable classroom	\$		\$	5,000,000	S		S	5,000,000		
			Roof Replacements and Repairs	s	3,390,000	\$	25,291,000	S		\$	28,681,000		
			Security	\$	465,000	\$	4,696,000	S	-	S	5,161,000		
			Site Improvements	\$		\$	230,000	\$		\$	230,000		
			Sustainability	\$	3,500,000	\$		5		\$	3,500,000		
			Title IX	\$	-	\$	3,800,000	\$		\$	3,800,000		
			Total - School Maintenance and Repair	\$	65,105,000	\$	109,121,415		1,433,129	\$	175,659,544		
Other			Transfers to Reserves			\$	2,850,000			S	2,850,000		
Ollici			Total - Other			\$	2,850,000			\$	2,850,000		
		al Improvement Program Total			\$831,600,000		\$129,642,377		\$1,433,129		\$962,675,506	\$12,000,000	

<sup>\*</sup> Note: \$15,000,000 additional General Revenue support provided by Prince William County in FY25 for Major Maintenance, Renovation, and Infrastructure for Aging Schools.

### APPENDIX A

# **Projected Expenditures - Identified Capital Improvements**

### **Projected Expenditures - Identified Capital Improvements**

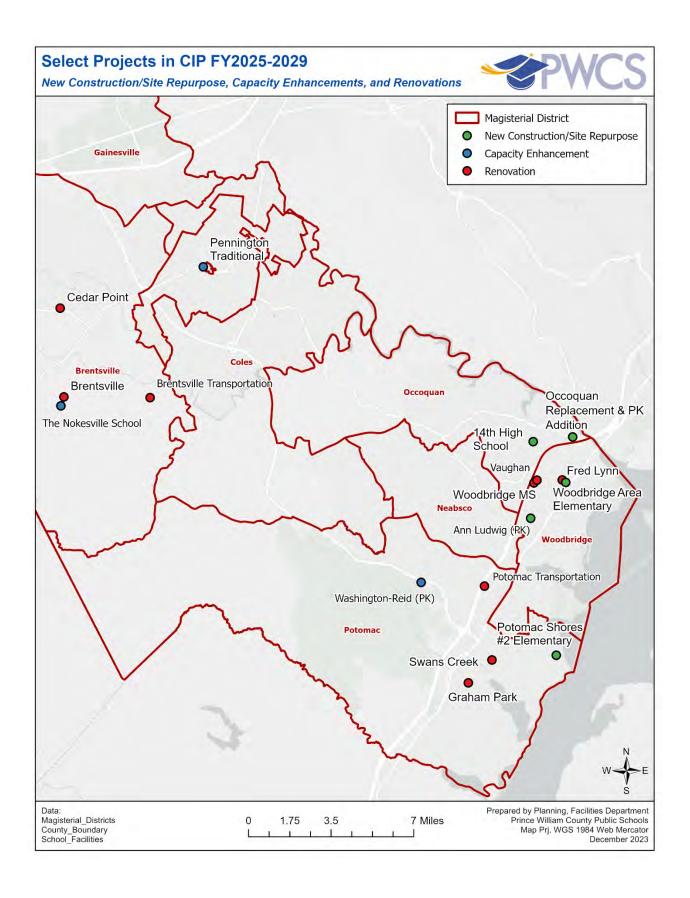
- New Construction and Site Repurpose Projects
  - Woodbridge Area Elementary (2025)
  - Occoquan Elementary School (Replacement) (2025-December)
  - Potomac Shores Area Elementary (2027)
  - Occoquan Elementary Site Repurpose to Preschool Facility (2027)
  - o 14th High School (2029)
- Capacity Enhancements/Additions
  - o Pennington Traditional School Addition (2026)
  - The Nokesville School Addition (2027)
  - Washington-Reid Preschool Center Addition (2027)

#### Renovations

- O Cedar Point Elementary School (2025-26 completion date)
- Swans Creek Elementary School (2025-26 completion date)
- Brentsville Transportation Center (2025-26 completion date)
- Potomac Transportation Center (2025-26 completion date)
- Graham Park Middle School (2026-27 completion date)
- o Fred Lynn Middle School (2027-28 completion date)
- Ann Ludwig Preschool Renovation/Repurpose (2028)
- Vaughan Elementary School (2028-29 completion date)
- Woodbridge Middle School (2028-29 completion date)
- o Brentsville High School (2029-30 completion date)

#### **Capital Improvement Site Maps**

Appendix C provides information on the Capital Improvement sites acquired by the Division, focusing on new construction, capacity enhancement, and renovations projects. The map on page A-2 displays the locations within Prince William County where these projects are taking place.



Woodbridge Area Elementary School - Estimated Completion: 2025-26 School Year

**Address:** 1550 Prince William Parkway Woodbridge, VA 22191

The Woodbridge Area Elementary School has been identified to alleviate overcrowding in the Northern Route 1/Neabsco Mills and Cardinal CIP Regions. It is expected to have a program capacity of 632 seats and will be situated within the Woodbridge Magisterial District.



#### **Funding Source**

Woodbridge Area	To	otal Project	FY 2024			Proj	ect	ed Expendi	tur	es			Tot	al Projected
Elementary		Expenses thru FY 2024)	Carryover	FY 2025		FY 2026	FY 2026 FY 2027 FY 2028 FY 202		FY 2028 FY 2029		FY 2029		Expenditures	
				Pro	ject	Phase								
Site Acquisition	\$	7,487,505	\$ 2,510,118										\$	-
Planning/Design	\$	2,643,815	\$ 975,880	\$ 500,000	\$	500,000	\$	-	\$	-	\$	-	\$	1,000,000
Construction	\$	23,996,879	\$ 32,300,257	\$ 28,184,506	\$	5,601,750	\$	1,000,000	\$	-	\$	-	\$	34,786,256
Total by Phase	\$	34,128,199	\$ 35,786,256	\$ 28,684,506	\$	6,101,750	\$	1,000,000	\$	-	\$	-	\$	35,786,256
				Fund	ling	Source								
Bond	\$	26,413,281	\$ 22,427,159	\$ 21,927,159	\$	500,000	\$	-	\$	-	\$	-	\$	22,427,159
Cash	\$	43,613	\$ 13,307,555	\$ 6,757,347	\$	5,601,750	\$	1,000,000	\$	-	\$	-	\$	13,359,097
Proffer	\$	7,671,306	\$ 51,542										\$	-
Total by Funding Source	\$	34,128,199	\$ 35,786,256	\$ 28,684,506	\$	6,101,750	\$	1,000,000	\$	-	\$	-	\$	35,786,256

### Occoquan Elementary School (Replacement) – Estimated Completion: December 2025

Address: 12915 Occoquan Road Woodbridge, VA 22192

The Occoquan Replacement School has been identified to alleviate overcrowding and provide an updated learning environment at Occoquan Elementary. The school is pursuing minimum LEED Silver and net zero design elements. It is expected to provide an additional 226 seats and will be situated within the Occoquan Magisterial District.



Occoguan Elementary	То	tal Project	FY 2024			Proj	ect	ed Expendi	tur	es		То	Total Projected Expenditures  \$ 1,400,000   \$ 75 196 559
Replacement		Expenses hru FY 2024)	Carryover	FY 2025		FY 2026		FY 2027		FY 2028	FY 2029		
				Pro	ject	t Phase							
Planning/Design	\$	3,618,237	\$ 1,252,360	\$ 800,000	\$	400,000	\$	200,000	\$	-	\$ -	\$	1,400,000
Construction	\$	-	\$ 75,344,201	\$ 45,000,000	\$	16,000,000	\$	14,196,559	\$	-	\$ -	\$	75,196,559
Total by Phase	\$	3,618,237	\$ 76,596,561	\$ 45,800,000	\$	16,400,000	\$	14,396,559	\$	-	\$ -	\$	76,596,559
				Fund	ling	Source							
Bond	\$	3,501,622	\$ 76,498,379	\$ 45,800,000	\$	16,400,000	\$	14,298,379	\$	-	\$ -	\$	76,498,379
Cash	\$	116,615	\$ 98,182	\$ -	\$	-	\$	98,181	\$	-	\$ -	\$	98,181
Total by Funding Source	\$	3,618,237	\$ 76,596,561	\$ 45,800,000	\$	16,400,000	\$	14,396,559	\$	-	\$ -	\$	76,596,559

Potomac Shores Area Elementary School – Estimated Completion: 2027-28 School Year

Address: To Be Determined

The Potomac Shores Area Elementary School has been identified to alleviate overcrowding in the Cherry Hill CIP Region. It is expected to have a program capacity of 1,050 seats and will be situated within the Potomac Magisterial District.



#### **Funding Source**

Potomac Shores Area	То	tal Project	FY 2024				Proj	ect	ed Expendi	tur	es			To	tal Projected
Elementary	Eyner		Carryover	r FY 2025 FY 2					FY 2027	FY 2028		FY 2029		Expenditures	
					Pro	jec	t Phase								
Site Acquisition	\$	3,571,739	\$ 28,261											\$	-
Planning/Design	\$	1,444,043	\$ 8,227,637	\$	2,000,000	\$	1,500,000	\$	1,000,000	\$	-	\$	-	\$	4,500,000
Construction			\$ 66,453,320	\$	10,000,000	\$	48,000,000	\$	10,209,218	\$	2,000,000	\$	-	\$	70,209,218
Total by Phase	\$	5,015,782	\$ 74,709,218	\$	12,000,000	\$	49,500,000	\$	11,209,218	\$	2,000,000	\$	-	\$	74,709,218
					Func	ding	Source								
Bond	\$	1,804,043	\$ 74,680,957	\$	12,000,000	\$	49,500,000	\$	11,209,218	\$	2,000,000	\$	-	\$	74,709,218
Cash	\$	-	\$ -											\$	-
Proffer	\$	3,211,739	\$ 28,261											\$	-
Total by Funding Source	\$	5,015,782	\$ 74,709,218	\$	12,000,000	\$	49,500,000	\$	11,209,218	\$	2,000,000	\$		\$	74,709,218

Occoquan Elementary Site - Preschool Facility Estimated Completion: 2027-28 School Year

Address: 12915 Occoquan Road Woodbridge, VA 22192

The Occoquan Preschool Facility has been identified to provide an additional 15 classrooms for the growing Preschool and Early Childhood Special Education students. It will be situated within the Occoquan Magisterial District.



Occoquan Elementary	Total F	Project	ı	FY 2024				Proj	ect	ed Expendi	ture	es			_	otal Projected	
Site - Preschool Facility		enses Y 2024)		Carryover		FY 2025		FY 2026	FY 2027		Y 2026 FY 2027 FY 2028 FY		FY 2029			Expenditures	
	Project Phase																
Planning/Design	\$	-	\$	1,146,456	\$	1,000,000	\$	100,000	\$	100,000	\$	50,000	\$	-	\$	1,250,000	
Construction	\$	-	\$	1,253,544	\$		\$	1,550,000	\$	10,050,000	\$	1,450,000	\$	-	\$	13,050,000	
Total by Phase	\$		\$	2,400,000	\$	1,000,000	\$	1,650,000	\$	10,150,000	\$	1,500,000	\$	-	\$	14,300,000	
						Fund	ling	Source									
Bond	\$		\$	2,400,000	\$	1,000,000	\$	1,650,000	\$	10,150,000	\$	1,500,000	\$	-	\$	14,300,000	
Cash	\$														\$	-	
Total by Funding Source	\$	•	\$	2,400,000	\$	1,000,000	\$	1,650,000	\$	10,150,000	\$	1,500,000	\$	-	\$	14,300,000	

### 14<sup>th</sup> High School – Estimated Completion: 2029-30 School Year

Address: Summit School Road

The 14<sup>th</sup> High School has been identified to alleviate overcrowding on the east side of Prince William County. It is expected to have a program capacity of 1,400 seats and will be situated within the Occoquan Magisterial District.



	To	otal Project		FY 2024				Proj	ect	ed Expendi	tur	es		Td	tal Projected
14th High School		Expenses hru FY 2024)		Carryover		FY 2025		FY 2026		FY 2027		FY 2028	FY 2029		expenditures
Project Phase															
Site Acquisition	\$	16,640,254	\$	3,760,241										\$	-
Planning/Design	\$	209,934	\$	9,003,371	\$	3,384,000	\$	2,787,000	\$	1,885,000	\$	1,264,000	\$ 1,368,000	\$	10,688,000
Construction	\$	339,562	\$	51,424,558	\$	-	\$	-	\$	17,806,000	\$	99,234,000	\$ 61,692,170	\$	178,732,170
Total by Phase	\$	17,189,749	\$	64,188,170	\$	3,384,000	\$	2,787,000	\$	19,691,000	\$	100,498,000	\$ 63,060,170	\$	189,420,170
						Fund	ling	Source							
Bond	\$	16,210	\$	60,058,000	\$	3,384,000	\$	2,787,000	\$	19,691,000	\$	100,498,000	\$ 63,060,170	\$	189,420,170
Cash	\$	1,352,915	\$	4,105,559										\$	-
Proffer	\$	15,820,624	\$	24,611										\$	-
Total by Funding Source	\$	17,189,749	\$	64,188,170	\$	3,384,000	\$	2,787,000	\$	19,691,000	\$	100,498,000	\$ 63,060,170	\$	189,420,170

### **Capacity Enhancements - Addition**

### Pennington Traditional School – Estimated Completion: 2026-27 School Year

Pennington Traditional School has been identified to receive an 8-classroom addition. This addition with help support the Elementary and Middle School portions of the school to provide adequate space for students.

### Historical Enrollment and Capacity Utilization (Elementary and Middle Combined)

School Year	Enrollment	Program Capacity Utilization
2018-19	651	107.1%
2019-20	651	107.2%
2020-21	Unavailable	Unavailable
2021-22	656	98.8%
2022-23	653	99.4%
2023-24	651	97.7%

### **School Capacity**

School Level	2023 24 Program Capacity	Anticipated New Program Capacity	Portable Classrooms
Elementary	414	510	2
Middle	252	336	2



Address: 9305 Stonewall Road Manassas, VA 20110

Magisterial District: None

**Grades:** 1-8 **Opened:** 1969

Capacity Enhancements: None

Renovations: 2012

Current Building Area: 58,452 SF

Additional Building Area: Approx. 33,000 SF

Acreage: 15.0

Title I: No

**Programs:** Traditional School

Penningtion Traditional	Tot	al Project	FY 2024	Projected Expenditures									Tot	Total Projected	
Addition		xpenses ru FY 2024)	Carryover	FY 2025		FY 2026		FY 2027		FY 2028	FY 202		Expenditures		
				Pro	ject	Phase									
Planning/Design	\$	104,825	\$ 992,775	\$ 850,000	\$	100,000	\$	-	\$	-	\$	-	\$	950,000	
Construction	\$	-	\$ 5,602,400	\$ 4,500,000	\$	1,145,175	\$	-	\$	-	\$	-	\$	5,645,175	
Total by Phase	\$	104,825	\$ 6,595,175	\$ 5,350,000	\$	1,245,175	\$	-	\$	-	\$	-	\$	6,595,175	
				Fund	ling	Source									
Bond	\$	104,825	\$ 6,595,175	\$ 5,350,000	\$	1,245,175	\$	-	\$	-	\$	-	\$	6,595,175	
Cash	\$	-	\$ -										\$	-	
Total by Funding Source	\$	104,825	\$ 6,595,175	\$ 5,350,000	\$	1,245,175	\$	-	\$	-	\$	-	\$	6,595,175	

### **Capacity Enhancements - Addition**

### The Nokesville School – Estimated Completion: 2027-28 School Year

The Nokesville School is set to undergo a 30-classroom expansion, with 20 classrooms designated for elementary students and 10 classrooms for middle school students. The project is currently in the planning and design stages, aiming to eliminate the requirement for portable classrooms.

### Historical Enrollment and Capacity Utilization (Elementary and Middle Combined)

School Year	Enrollment	Program Capacity Utilization
2018-19	1,004	91.4%
2019-20	1,049	97.1%
2020-21	Unavailable	Unavailable
2021-22	1,136	102.7%
2022-23	1,198	113.4%
2023-24	1,181	111.8%

#### **School Capacity**

School Level	SY 2023- 24 Program Capacity	Anticipated New Program Capacity	Portable Classrooms
Elementary	633	1,119	6
Middle	423	633	2



Address: 12375 Aden Road Nokesville, VA 20181

Magisterial District: Brentsville

Grades: K – 8 Opened: 2014

Capacity Enhancements: None

Renovations: None

Current Building Area: 141,832 SF

Additional Building Area: Approx. 59,000 SF

**Acreage**: 48.16

Title I: No K-3 Cap: 24

The Nokesville School	To	tal Project		FY 2024	Projected Expenditures										Т	otal Projected
Addition		xpenses ru FY 2024)		Carryover		FY 2025		FY 2026		FY 2027		FY 2028	FY 2029			Expenditures
	Project Phase															
Planning/Design	\$	-	\$	3,996,630	\$	1,500,000	\$	400,000	\$	300,000	\$	300,000	\$	-	\$	2,500,000
Construction	\$	-	\$	3,370	\$	-	\$	6,100,000	\$	14,200,000	\$	1,200,000	\$	-	\$	21,500,000
Total by Phase	\$	-	\$	4,000,000	\$	1,500,000	\$	6,500,000	\$	14,500,000	\$	1,500,000	\$	-	\$	24,000,000
						Fund	ling	Source								
Bond	\$	-	\$	4,000,000	\$	1,500,000	\$	6,500,000	\$	14,500,000	\$	1,500,000	\$	-	\$	24,000,000
Cash	\$	-	\$	-											\$	-
Total by Funding Source	\$	-	\$	4,000,000	\$	1,500,000	\$	6,500,000	\$	14,500,000	\$	1,500,000	\$	-	\$	24,000,000

### **Capacity Enhancements - Addition**

### Washington Reid Preschool Center – Estimated Completion: 2027-28 School Year

Washington Reid Preschool Center is set to undergo a 15-classroom expansion. The project is currently in the planning and design stages, aiming to add additional preschool space on the eastern side of the county.

#### **Historical Enrollment and Capacity Utilization**

School Year	Enrollment	Capacity Utilization
2018-19	Unavailable	Do not
2019-20	67	calculate
2020-21	Unavailable	capacity
2021-22	60	utilization at
2022-23	82	our
2023-24	67	preschools

### **School Capacity**

Not Available



Address: 16108 Dumfries Road Dumfries, VA 22025

Magisterial District: Potomac

**Grades:** Preschool **Opened:** 1951

Capacity Enhancements: None

Renovations: 2013

Current Building Area: 24,711 SF

Additional Building Area: Approx. 30,000 SF

Acreage: 9.19 Title I: N/A

**Programs:** Early Childhood Special Education and VPI

Washington Reid	To	tal Project		FY 2024			Projected Expenditures									Total Projected	
Preschool Center Addition		xpenses ru FY 2024)		Carryover		FY 2025	FY 2026			FY 2027 FY 2028		FY 2028	FY 2029		Expenditure		
	Project Phase																
Planning/Design	\$	23,396	\$	876,109	\$	1,000,000	\$	150,000	\$	300,000	\$	100,000	\$	-	\$	1,550,000	
Construction	\$	-	\$	1,300,496	\$	-	\$	1,600,000	\$	11,600,000	\$	726,604	\$	-	\$	13,926,604	
Total by Phase	\$	23,396	\$	2,176,604	\$	1,000,000	\$	1,750,000	\$	11,900,000	\$	826,604	\$	-	\$	15,476,604	
	-					Fund	ling	Source									
Bond	\$	23,396	\$	2,176,604	\$	1,000,000	\$	1,750,000	\$	11,900,000	\$	826,604	\$	-	\$	15,476,604	
Cash	\$	-	\$	-											\$	-	
Total by Funding Source	\$	23,396	\$	2,176,604	\$	1,000,000	\$	1,750,000	\$	11,900,000	\$	826,604	\$	-	\$	15,476,604	

### Cedar Point Elementary School – Estimated Completion: 2025-26 School Year

The project is in the construction phase. The completed project will provide modern amenities and adds approximately 4,500 square feet to the building.

### **Historical Enrollment and Capacity Utilization**

School Year	Enrollment	Program Capacity Utilization
2018-19	541	61.9%
2019-20	575	68.6%
2020-21	Unavailable	Unavailable
2021-22	502	58.9%
2022-23	503	62.3%
2023-24	508	62.9%

### **School Capacity**

SY 2023-24 Program Capacity	Anticipated New Program Capacity	Portable Classrooms
807	No Change	0



Address: 12601 Braemar Parkway Bristow, VA 20136

Magisterial District: Brentsville

**Grades:** K – 5 **Opened:** 2001

Capacity Enhancements: None

Renovations: None

**Current Building Area**: 83,084 SF **Future Building Area**: 87,472 SF

**Acreage**: 15.48

Title I: No K-3 Cap: 24

Cedar Point Elementary	To	otal Project		FY 2024				Projected Expenditures							Total Projected	
Renovation		Expenses (thru FY 2024)		Carryover		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029		penditures
						Pro	ject	Phase								
Planning/Design	\$	875,985	\$	213,579	\$	200,000	\$	50,000	\$	-	\$	-	\$	-	\$	250,000
Construction	\$	11,013,113	\$	7,101,455	\$	5,775,382	\$	1,625,520	\$	-	\$	-	\$	-	\$	7,400,902
Reserves			\$	335,868												
Total by Phase	\$	11,889,098	\$	7,650,902	\$	5,975,382	\$	1,675,520	\$	-	\$	-	\$	-	\$	7,650,902
						Fund	ling	Source								
Bond	\$	10,518,169	\$	1,542,174	\$	1,542,174	\$	-	\$	-	\$	-	\$	-	\$	1,542,174
Cash	\$	1,370,929	\$	6,108,727	\$	4,433,208	\$	1,675,520	\$	-	\$	-	\$	-	\$	6,108,728
Total by Funding Source	\$	11,889,098	\$	7,650,902	\$	5,975,382	\$	1,675,520	\$	-	\$	-	\$	-	\$	7,650,902

### Swans Creek Elementary School – Estimated Completion: 2025-26 School Year

The project is in the construction phase. The completed project will provide modern amenities and does not plan to add any additional square footage to the building.

### **Historical Enrollment and Capacity Utilization**

School Year	Enrollment	Program Capacity Utilization
2018-19	672	102.9%
2019-20	629	99.5%
2020-21	Unavailable	Unavailable
2021-22	592	90.7%
2022-23	595	89.7%
2023-24	633	95.3%

### **School Capacity**

SY 2023-24 Program Capacity	Anticipated New Program Capacity	Portable Classrooms
664	No Change	0



Address: 17700 Wayside Drive Dumfries, VA 22026

Magisterial District: Potomac

**Grades:** K – 5 **Opened:** 2001

**Capacity Enhancements: 2012** 

Renovations: None

**Current Building Area**: 86,936 SF **Future Building Area**: 86,936 SF

Acreage: 18.5 Title I: Yes K-3 Cap: 20

Swans Creek	То	tal Project	FY 2024				Proj	ect	ed Expendi	ture	es	Total Projected			
Elementary Renovation		xpenses ru FY 2024)	Carryover		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029	Expenditures	
					Pro	ject	Phase								
Planning/Design	\$	775,573	\$ 156,786	\$	200,000	\$	40,000	\$	-	\$	-	\$	-	\$	240,000
Construction	\$	9,107,141	\$ 7,515,500	\$	7,400,000	\$	32,286	\$	-	\$	-	\$	-	\$	7,432,286
Total by Phase	\$	9,882,714	\$ 7,672,286	\$	7,600,000	\$	72,286	\$	-	\$	-	\$	-	\$	7,672,286
					Fund	ling	Source								
Bond	\$	3,764,000	\$ -											\$	-
Cash	\$	6,118,714	\$ 7,672,286	\$	7,600,000	\$	72,286	\$	-	\$	-	\$	-	\$	7,672,286
Total by Funding Source	\$	9,882,714	\$ 7,672,286	\$	7,600,000	\$	72,286	\$	-	\$	-	\$	-	\$	7,672,286

### **Brentsville Transportation Center – Estimated Completion: 2025-26 School Year**

The project is in the construction phase. The completed project will provide a core renovation of the transportation facility.





Address: 12153 Hooe Rd, Bristow, VA 20136

Magisterial District: Brentsville

**Grades:** None **Opened:** 1979

Capacity Enhancements: N/A

Renovations: None

Current Building Area: 86,936 SF

Acreage: 20.0 Title I: N/A

Brentsville	10tal 110jobt FV 2024							Projected Expenditures									
Transportation Center Renovation		xpenses ru FY 2024)		Carryover		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029	Total Projected Expenditures		
						Pro	ject	Phase									
Planning/Design	\$	59,054	\$	359,281	\$	150,000	\$	50,000	\$	-	\$	-	\$	-	\$	200,000	
Construction	\$	-	\$	5,531,665	\$	3,000,000	\$	2,690,946	\$	-	\$	-	\$	-	\$	5,690,946	
Total by Phase	\$	59,054	\$	5,890,946	\$	3,150,000	\$	2,740,946	\$	-	\$	-	\$	-	\$	5,890,946	
	-					Fund	ling	Source									
Bond	\$	59,054	\$	5,890,946	\$	3,150,000	\$	2,740,946	\$	-	\$	-	\$	-	\$	5,890,946	
Cash															\$	-	
Total by Funding Source	\$	59,054	\$	5,890,946	\$	3,150,000	\$	2,740,946	\$		\$	-	\$	-	\$	5,890,946	

### Potomac Transportation Center – Estimated Completion: 2025-26 School Year

The project is in the construction phase. The completed project will provide a core renovation of the transportation facility.





Address: 3435 Panther Pride Dr. Dumfries, VA 22026

Magisterial District: Potomac

**Grades:** None **Opened:** 2002

Capacity Enhancements: N/A

Renovations: None

Current Building Area: 86,936 SF

Acreage: 16.8 Title I: N/A

Potomac Transportation	Tot	al Project	FY 2024			Projected Expenditures								Total Projected	
Center Renovation		xpenses ru FY 2024)	Carryover		FY 2025	FY 2026		FY 2027		FY 2028		FY 2029		Expenditures	
					Pro	ject	Phase								
Planning/Design	\$	15,625	\$ 262,815	\$	100,000	\$	200,000	\$	-	\$	-	\$	-	\$	300,000
Construction			\$ 3,005,560	\$	1,000,000	\$	1,968,375	\$	-	\$	-	\$	-	\$	2,968,375
Total by Phase	\$	15,625	\$ 3,268,375	\$	1,100,000	\$	2,168,375	\$	-	\$	-	\$	-	\$	3,268,375
					Fund	ling	Source								
Bond	\$	15,625	\$ 2,970,375	\$	1,100,000	\$	1,870,375	\$	-	\$	-	\$	-	\$	2,970,375
Cash	\$	-	\$ 298,000	\$	-	\$	298,000	\$	-	\$	-	\$	-	\$	298,000
Total by Funding Source	\$	15,625	\$ 3,268,375	\$	1,100,000	\$	2,168,375	\$	-	\$	-	\$	-	\$	3,268,375

### Graham Park Middle School – Estimated Completion: 2026-27 School Year

The project is in the design phase. The completed project will provide modern amenities and does not plan to add any additional square footage to the building.

### **Historical Enrollment and Capacity Utilization**

School Year	Enrollment	Program Capacity Utilization
2018-19	1,019	117.5%
2019-20	986	113.7%
2020-21	Unavailable	Unavailable
2021-22	718	83.2%
2022-23	673	74.0%
2023-24	682	74.9%

### **School Capacity**

SY 2023-24 Program Capacity	Anticipated New Program Capacity	Portable Classrooms
910	No Change	0



Address: 3613 Graham Park Road Triangle, VA 22172

Magisterial District: Potomac

**Grades:** 6-8 **Opened:** 1963

Capacity Enhancements: 2001

Renovations: 2001

Current Building Area: 110,514 SF

Future Building Area: N/A

Acreage: 21.9
Title I: Yes

Graham Park Middle	Tot	tal Project		FY 2024				Proj	ecte	ed Expendi	ture	es		т.	Total Projected	
Renovation	Expenses (thru FY 2024)		Carryover		FY 2025			FY 2026	FY 2027			FY 2028	FY 2029		Expenditures	
	-					Pro	ject	Phase								
Planning/Design	\$	117,349	\$	2,157,396	\$	2,000,000	\$	500,000	\$	-	\$	-	\$ -	\$	2,500,000	
Construction	\$	-	\$	16,393,755	\$	6,000,000	\$	10,051,151	\$	-	\$	-	\$ -	\$	16,051,151	
Total by Phase	\$	117,349	\$	18,551,151	\$	8,000,000	\$	10,551,151	\$	-	\$	-	\$ -	\$	18,551,151	
						Fund	ling	Source								
Bond	\$	117,349	\$	15,791,331	\$	8,000,000	\$	7,791,331	\$	-	\$	-	\$ -	\$	15,791,331	
Cash	\$	-	\$	2,759,820	\$	-	\$	2,759,820	\$	-	\$	-	\$ -	\$	2,759,820	
Total by Funding Source	\$	117,349	\$	18,551,151	\$	8,000,000	\$	10,551,151	\$	-	\$	-	\$ -	\$	18,551,151	

### Fred Lynn Middle School – Estimated Completion: 2027-28 School Year

The project is in the design phase. The completed project will provide modern amenities, with the future additional square footage yet to be determined.

### **Historical Enrollment and Capacity Utilization**

School Year	Enrollment	Program Capacity Utilization
2018-19	1,195	102.1%
2019-20	1,339	114.4%
2020-21	Unavailable	Unavailable
2021-22	1,138	99.9%
2022-23	1,013	89.6%
2023-24	968	85.6%

### **School Capacity**

SY 2023-24 Program Capacity	Anticipated New Program Capacity	Portable Classrooms
1,131	No Change	2



Address: 1650 Prince William County Parkway

Woodbridge, VA 22191

Magisterial District: Woodbridge

**Grades:** 6 – 8 **Opened:** 1964

Capacity Enhancements: None

Renovations: 2001

Current Building Area: 131,974 SF

Future Building Area: TBD

Acreage: 28.6 Title I: Yes

Fred Lynn Middle	Total Project	FY 2024		Pr	ojected Expend	itures		Total Projected
Renovation	Expenses (thru FY 2024)	Carryover	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Expenditures
			Pro	ject Phase	·		•	
Planning/Design		\$ 2,495,785	\$ 2,000,000	\$ 1,500,00	\$ 600,000	\$ 500,000	\$ -	\$ 4,600,000
Construction		\$ 67,504,215	\$ -	\$ 5,000,00	50,000,000	\$ 10,400,000	\$ -	\$ 65,400,000
Total by Phase	\$ -	\$ 70,000,000	\$ 2,000,000	\$ 6,500,00	50,600,000	\$ 10,900,000	\$ -	\$ 70,000,000
			Fun	ding Source				
Bond	\$ -	\$ 70,000,000	\$ 2,000,000	\$ 6,500,00	50,600,000	\$ 10,900,000	\$ -	\$ 70,000,000
Cash								\$ -
Total by Funding Source	\$ -	\$ 70,000,000	\$ 2,000,000	\$ 6,500,00	50,600,000	\$ 10,900,000	\$ -	\$ 70,000,000

Ann Ludwig Preschool Facility – Estimated Completion: 2028-29 School Year

**Address:** 14575 Potomac Branch Drive Woodbridge VA 22191

The Ann Ludwig Preschool Facility has been identified to be repurposed to provide an additional 15 classrooms for the growing Preschool and Early Childhood Special Education students. It will be situated within the Woodbridge Magisterial District.



Address: 14575 Potomac Branch Drive Woodbridge

VA 22191

Magisterial District: Woodbridge

**Grades:** None **Opened:** 1975

Capacity Enhancements: N/A

Renovations: None

Current Building Area: 14,220 SF

Acreage: 4.8
Title I: N/A

Ann Ludwig	Total Project	FY 2024				т.	Total Projected									
Preschool Facility	Evnoncos		Carryover		FY 2025	FY 2026		FY 2027		FY 2028		FY 2029			Expenditures	
Project Phase																
Planning/Design	\$ -	\$	2,000,000	\$	-	\$	150,000	\$	700,000	\$	200,000	\$	-	\$	1,050,000	
Construction				\$	-	\$	-	\$	4,950,000	\$	12,000,000	\$	500,000	\$	17,450,000	
Total by Phase	\$ -	\$	2,000,000	\$		\$	150,000	\$	5,650,000	\$	12,200,000	\$	500,000	\$	18,500,000	
					Fund	ding	Source									
Bond	\$ -	\$	1,500,000	\$	-	\$	150,000	\$	5,650,000	\$	12,200,000	\$	-	\$	18,000,000	
Cash	\$ -	\$	500,000									\$	500,000	\$	500,000	
Total by Funding Source	\$ -	\$	2,000,000	\$	-	\$	150,000	\$	5,650,000	\$	12,200,000	\$	500,000	\$	18,500,000	

### Vaughan Elementary School – Estimated Completion: 2028-29 School Year

The project is in the design phase. The completed project will provide modern amenities, with the future additional square footage yet to be determined.

### **Historical Enrollment and Capacity Utilization**

School Year	Enrollment	Program Capacity Utilization
2018-19	606	99.8%
2019-20	594	101.5%
2020-21	Unavailable	Unavailable
2021-22	529	93.5%
2022-23	550	92.6%
2023-24	577	97.0%

### **School Capacity**

SY 2023-24 Program Capacity	Anticipated New Program Capacity	Portable Classrooms
595	No Change	3



Address: 2200 York Drive Woodbridge, VA 22191

Magisterial District: Woodbridge

**Grades:** K – 5 **Opened:** 1964

Capacity Enhancements: 2001, 2009

Renovations: 2005

Current Building Area: 60,463 SF

Future Building Area: TBD

Acreage: 13.6 Title I: Yes K-3 Cap: 19

Vaughan Elementary	Tot	tal Project		FY 2024				Proj	ect	ed Expendi	ture	es			_	otal Projected
Renovation	Y Eynenses .		FY 2027	FY 2028			FY 2029		Expenditures							
Project Phase																
Planning/Design	\$	60,363	\$	2,038,356	\$	500,000	\$	1,400,000	\$	500,000	\$	100,000	\$	-	\$	2,500,000
Construction	\$	-	\$	401,281	\$	-	\$	-	\$	24,700,000	\$	21,939,637	\$	-	\$	46,639,637
Total by Phase	\$	60,363	\$	2,439,637	\$	500,000	\$	1,400,000	\$	25,200,000	\$	22,039,637	\$	-	\$	49,139,637
						Fund	ling	Source								
Bond	\$	60,363	\$	2,439,637	\$	500,000	\$	1,400,000	\$	25,200,000	\$	22,039,637	\$	-	\$	49,139,637
Cash															\$	-
Total by Funding Source	\$	60,363	\$	2,439,637	\$	500,000	\$	1,400,000	\$	25,200,000	\$	22,039,637	\$	-	\$	49,139,637

### Woodbridge Middle School – Estimated Completion: 2028-29 School Year

The project is in the design phase. The completed project will provide modern amenities, with the future additional square footage yet to be determined.

### **Historical Enrollment and Capacity Utilization**

School Year	Enrollment	Program Capacity Utilization
2018-19	1,335	125.2%
2019-20	1,263	118.5%
2020-21	Unavailable	Unavailable
2021-22	1,032	95.5%
2022-23	929	84.3%
2023-24	894	81.1%

### **School Capacity**

SY 2023-24 Program Capacity	Anticipated New Program Capacity	Portable Classrooms
1,102	No Change	1



Address: 2201 York Drive Woodbridge, VA 22191

Magisterial District: Woodbridge

**Grades:** 6 - 8 **Opened:** 1963

Capacity Enhancements: None

Renovations: 2003

Current Building Area: 125,849 SF

Future Building Area: TBD

Acreage: 37.4
Title I: Yes

Woodbridge Middle	To	tal Project		FY 2024				Proj	ect	ed Expendi	ture	es			т	otal Projected
Renovation		Expenses nru FY 2024)		Carryover		FY 2025 FY 2026 FY 2027			FY 2028	FY 2029		Expenditures				
Project Phase																
Planning/Design	\$	-	\$	-	\$	-	\$	1,500,000	\$	500,000	\$	300,000	\$	-	\$	2,300,000
Construction	\$	-	\$	2,844,000	\$	-	\$	-	\$	18,890,000	\$	18,900,000	\$	534,000	\$	38,324,000
Total by Phase	\$	-	\$	2,844,000	\$	-	\$	1,500,000	\$	19,390,000	\$	19,200,000	\$	534,000	\$	40,624,000
				· ·		Fund	ling	Source								
Bond	\$	-	\$	2,844,000	\$	-	\$	1,500,000	\$	19,390,000	\$	19,200,000	\$	534,000	\$	40,624,000
Cash															\$	-
Total by Funding Source	\$	-	\$	2,844,000	\$	-	\$	1,500,000	\$	19,390,000	\$	19,200,000	\$	534,000	\$	40,624,000

### Brentsville High School – Estimated Completion: 2029-30 School Year

The project is in the design phase. The completed project will provide modern amenities, with the future additional square footage yet to be determined.

### **Historical Enrollment and Capacity Utilization**

School Year	Enrollment	Planning Capacity Utilization
2018-19	1,001	90.2%
2019-20	979	88.2%
2020-21	Unavailable	Unavailable
2021-22	935	84.2%
2022-23	867	78.1%
2023-24	846	76.2%

### **School Capacity**

SY 2023-24 Program Capacity	Anticipated New Program Capacity	Portable Classrooms
1,110	No Change	0



Address: 12109 Aden Road Nokesville, VA 20181

Magisterial District: Brentsville

**Grades:** 9 – 12 **Opened:** 1965

Capacity Enhancements: 1980, 2000

Renovations: 2000

**Current Building Area**: 134,140 SF

Future Building Area: TBD

Acreage: 29.0 Title I: No

Brentsville District High	Tot	al Project		FY 2024				Proj	ect	ed Expendi	ture	es			_	otal Projected
Fynenses			Carryover		FY 2025		FY 2026		FY 2027		FY 2028		FY 2029		Expenditures	
Project Phase																
Planning/Design	\$	45,877	\$	12,047	\$	1,000,000	\$	2,700,000	\$	1,100,000	\$	1,000,000	\$	200,000	\$	6,000,000
Construction	\$	-	\$	4,399,000	\$	-	\$	-	\$	20,900,000	\$	32,917,000	\$	2,494,047	\$	56,311,047
Total by Phase	\$	45,877	\$	4,411,047	\$	1,000,000	\$	2,700,000	\$	22,000,000	\$	33,917,000	\$	2,694,047	\$	62,311,047
						Fund	ling	Source								
Bond	\$	-	\$	3,417,000	\$	1,000,000	\$	2,700,000	\$	22,000,000	\$	33,417,000	\$	2,200,000	\$	61,317,000
Cash	\$	45,877	\$	994,047	\$	-	\$	-	\$	-	\$	500,000	\$	494,047	\$	994,047
Total by Funding Source	\$	45,877	\$	4,411,047	\$	1,000,000	\$	2,700,000	\$	22,000,000	\$	33,917,000	\$	2,694,047	\$	62,311,047

### APPENDIX B

### **Student Enrollment & Housing Data**

### **Student Enrollment Projections**

### Data-driven Support for Capital Improvement Strategic Planning

Capital improvement planning is a dynamic and continuous process, essential for addressing the evolving system-wide capacity needs, that are driven by both current and anticipated student enrollment trends. As the educational landscape shifts—marked by changes in individual facility conditions, programmatic adjustments, and fluctuations in student population figures—so too must our priorities adapt to ensure alignment with these variables.

As of September 30, 2023, Prince William County Public Schools (PWCS) reported a student enrollment count of **91,191**, reflecting a marginal decrease of **202 students** (or **-0.2%**) compared to the previous year. The distribution of this change across different school levels is as follows:

- Elementary School: A decrease of 329 students (or -0.8%)
- Middle School: A decrease of 251 students (or -1.2%)
- High School: An increase of 153 students (or +0.5%)
- Other School Types: An increase of 225 students (or +0.8%)

These enrollment figures are not mere statistics; they form the baseline of the student enrollment projections that support this CIP and are pivotal in guiding a multitude of planning and decision-making processes, particularly in operational and capital budgeting. Accurate predictions of future student enrollment are critical for long-range strategic planning, budget allocation, staffing requirements, and the anticipation of future infrastructure and capital needs to accommodate PWCS students.

While most enrollment projections share common characteristics—such as being extrapolations of historical data, leveraging the industry standard grade-progression ratio method, incorporating subject matter expertise, and acknowledging the inherent limitations of predicting the future—it is crucial to continuously scrutinize and refine our forecasting methodologies to enhance their precision.

### Recent Redesign of Projection Model

In fall of 2023, two consulting firms, both experienced in calculating K-12 student enrollment projections, contributed valuable insights to the redesigning of the model utilized by PWCS to project student enrollment. Notably, one of these firms previously audited PWCS's student enrollment projection methods in 2019. Recommendations from both firms led to several enhancements in PWCS's projection methods. Firstly, the prior model, which was built upon a modified, housing-unit method, has been replaced with one built upon the grade-progression-ratio method, the industry standard.

Secondly, the number of out years projected has been adjusted, reducing the forecast period from 10 years to five years for elementary and middle schools, and to seven years for high schools. This change is motivated by the acknowledgment that projecting beyond five years for elementary students introduces heightened variability and potential errors because of the absence of historical birth records needed to project kindergarten cohorts beyond six years in the future. Additionally, the literature supports projections built upon the grade-progression ratio method no more than five years in the future.

Efficiency improvements have been implemented through the adoption of cloud-based databases, GIS modeling, and coding in Python. These improvements ensure robust, repeatable, and efficient methods, particularly crucial when projecting numerous grade levels across numerous schools over a multi-year span. Additionally, historical birth data specific to each elementary school's attendance area are incorporated to refine kindergarten projections, addressing the non-uniform distribution of births across the county and improving the accuracy of projections at the school level.

The industry-standard cohort-survival method is now employed at the school level, departing from the previous top-down approach, resulting in more accurate projections. The revised bottom-up approach aligns with best practices and reduces variability inherent in smaller-scale calculations like neighborhood projections. The evaluation of projected housing units against historical construction rates also ensures that future residential development is appropriately factored into enrollment projections.

Additionally, the averaging of three years of data for student transfer rates and the control for new construction effects in grade-progression ratios contribute to smoother and more accurate projections.

The isolation of a school's net-student-transfer rate when calculating neighborhood-level projections mitigates biases introduced by previous school assignments, enhancing the accuracy of projections in response to changes in school boundaries. These enhancements reflect a commitment to continuous improvement in projection methodologies in response to evolving knowledge, technological advancements, and industry standards.

With the new enhancements in place, the 2024-25 enrollment is projected to be 92,105 PK-12 students, an increase of approximately 914 students overall. A decrease of 428 students is projected in the next five years, with a total projection of 90,768 students in 2028-29.

By committing to this rigorous approach of continuous improvement, we not only uphold our responsibility to current and future generations of students but also ensure the judicious use of resources in our pursuit of educational excellence and sustainability. The techniques employed to generate student enrollment projections for PWCS are elucidated in the subsequent pages, followed by detailed flow charts for clarity.

### Overview of K-12 Student Enrollment Projection Methods

Projecting K-12 student enrollment using the grade-progression ratio method involves a systematic approach that utilizes historical data to forecast future enrollments. This method calculates the ratio of students advancing from one grade to the next and applies these ratios to current enrollment figures to estimate the number of students that will progress in subsequent years. A key component of this method is the birth-to-kindergarten ratio, which takes into account local birth rates and the percentage of these births that will enroll in kindergarten five years later. This ratio is particularly important as it sets the foundation for projecting enrollments in the earliest grades.

To enhance the accuracy of the projections, the model aligns the number of years of historical data with the number of years being projected forward. For instance, if the goal is to project enrollment for the next five years, then five years of past enrollment data are analyzed. This ensures consistency and leverages a comprehensive dataset for more reliable forecasts.

Additionally, the model incorporates student yields from future residential construction using the housing-unit method. This method estimates the number of students likely to come from new housing developments based on the types and quantities of housing units being built. By considering the potential influx of students from these new constructions, the model can provide a more complete picture of future enrollment changes.

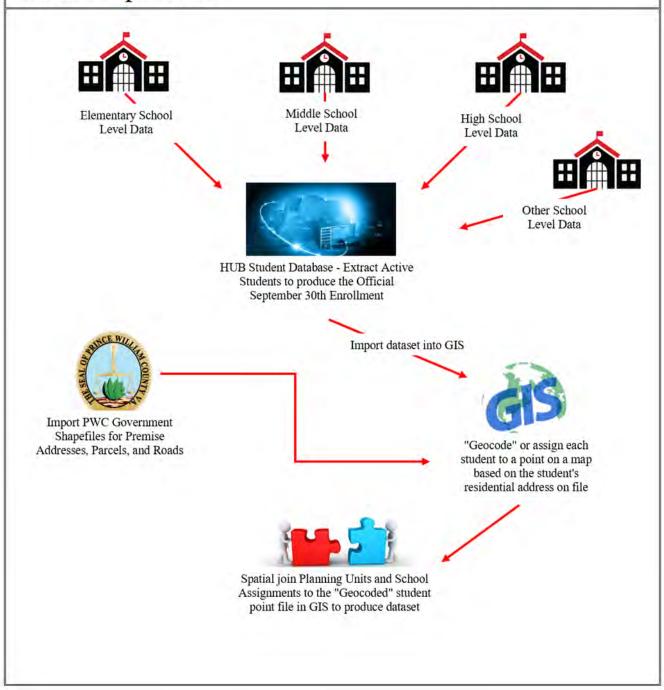
The process is executed using a bottom-up approach, meaning that individual school projections are compiled to form the overall division's projections. Each school's projected enrollment is calculated independently, taking into account its unique grade-progression ratios, birth-to-kindergarten ratios, and expected yields from new housing. The sum of all school projections then constitutes the division-wide enrollment forecast, ensuring that local factors are adequately reflected in the broader prediction.

This meticulous method allows for a nuanced and detailed projection of student enrollment, crucial for effective planning and resource allocation in K-12 education systems. By considering historical trends, birth rates, and housing developments, the grade-progression ratio method provides a comprehensive tool for anticipating future educational needs.

The flow of data, data manipulations, and calculations are represented graphically on the next few pages.

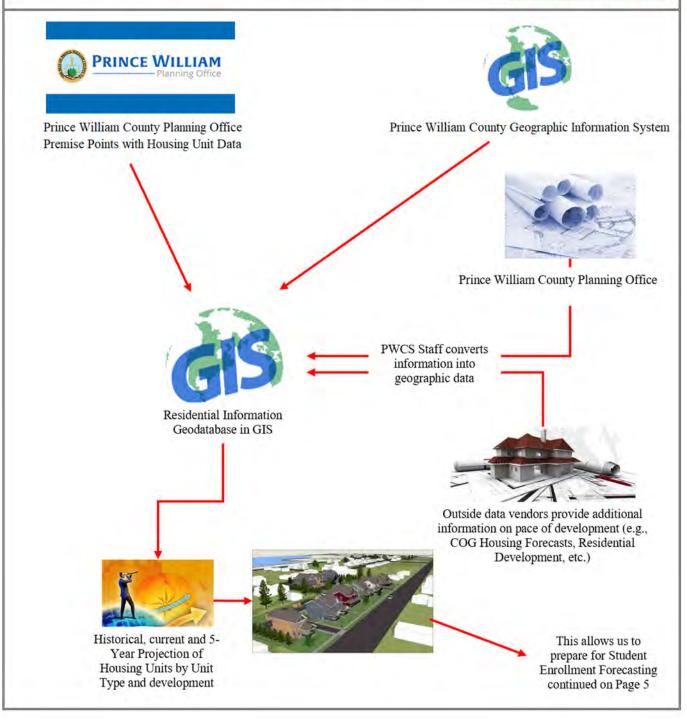
# Student Enrollment Data Preparation





# Analysis of Housing Unit Information





# Student Enrollment Forecasting Preparation







Enumerate students residing in school attendance area Using the grade-progression ratio method, which is a modified cohort-survival method, gradeprogress/cohort-survive resident students by grade using averaged grade-progression ratios

Using housing-unit method, distribute student yields from future residential construction, if present in school attendance area

Calculate historical gradeprogression ratios by school with control employed for students yielded from new construction

Average historical net-studenttransfer- rates by grade for each school Apply averaged, historical netstudent-transfer rates to each grade's student enrollment projection for each projected year

Average historical gradeprogression ratios by school Calculate historical, net-studenttransfer rates by grade for each school Sum of grade-level projections produces school-level projections, and sum of school-level projections produces Division-wide projections.





#### 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 average 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. It is a more accurate and representative means of calculating a school's capacity, based on the actual "program" in place at the school. The calculation of current programs housed at each 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 each middle school is made up of special education program placements, as well as EL, CTE, flex, foreign language, gifted, LD, math support, and reading support classrooms. The 2023 enrollment capacities and projections at the elementary and middle school levels utilize Program Capacity figures for CIP and boundary planning and will be updated routinely to recalculate program capacities. The capacity for high schools remains as Planning Capacity, but it is anticipated to adopt the Program Capacity metric by 2025.

# Student Enrollment Data: Current and Projected Enrollment

# Elementary Schools SY 2023-24 to SY 2028-29

		Current E	nrollmer	nt				Five '	Year Proje	cted Stu	dent Enro	llment			
Elementary School	2023	Portable	202	3 24	2024	202	4 25		25 26		6 27		7 28	202	8 29
·	Program Capacity <sup>1</sup>	Classrooms	Students <sup>3</sup>	Utilization	Program Capacity <sup>2</sup>	Students <sup>3</sup>	Utilization								
Alvey Elementary School	791	0	562	71.0%	791	553	69.9%	594	75.1%	594	75.1%	589	74.5%	611	77.2%
Antietam Elementary School	899	0	742	82.5%	877	801	91.3%	830	94.6%	858	97.8%	881	100.5%	905	103.2%
Ashland Elementary School	941	0	768	81.6%	908	765	84.3%	762	83.9%	770	84.8%	745	82.0%	713	78.5%
Bel Air Elementary School	419	2	417	99.5%	417	430	103.1%	413	99.0%	409	98.1%	365	87.5%	349	83.7%
Belmont Elementary School	562	0	493	87.7%	551	538	97.6%	585	106.2%	606	110.0%	642	116.5%	683	124.0%
Bennett Elementary School	781 797	0	752 599	96.3%	781	824	105.5%	881	112.8%	946	121.1%	1,015	130.0%	1,097	140.5%
Bristow Run Elementary School Buckland Mills Elementary School	884	0	757	75.2% 85.6%	795 884	603 799	75.8% 90.4%	597 822	75.1% 93.0%	570 821	71.7% 92.9%	538 839	67.7% 94.9%	528 846	66.4% 95.7%
Cedar Point Elementary School	807	0	508	62.9%	823	557	67.7%	533	64.8%	510	62.0%	513	62.3%	500	60.8%
Chris Yung Elementary School	828	0	787	95.0%	828	811	97.9%	827	99.9%	860	103.9%	877	105.9%	909	109.8%
Coles Elementary School	384	3	420	109.4%	384	411	107.0%	401	104.4%	422	109.9%	446	116.1%	459	119.5%
Covington-Harper Elementary School	796	5	948	119.1%	796	1,101	138.3%	1,275	160.2%	1,398	175.6%	1,573	197.6%	1,767	222.0%
Dale City Elementary School	369	3	435	117.9%	369	438	118.7%	457	123.8%	453	122.8%	471	127.6%	472	127.9%
Dumfries Elementary School	395	6	474	120.0%	395	495	125.3%	509	128.9%	486	123.0%	456	115.4%	426	107.8%
Ellis Elementary School	493	0	389	78.9%	505	426	84.4%	426	84.4%	415	82.2%	389	77.0%	359	71.1%
Enterprise Elementary School	387	9	392	101.3%	387	411	106.2%	435	112.4%	429	110.9%	426	110.1%	426	110.1%
Featherstone Elementary School	773	3	477 896	107.4%	430 773	473 919	110.0%	466	108.4%	443	103.0%	430 931	100.0%	433 925	100.7%
Fitzgerald Elementary School  Glenkirk Elementary School	805	0	568	115.9% 70.6%	805	537	118.9% 66.7%	944 501	122.1% 62.2%	935 457	121.0% 56.8%	429	120.4% 53.3%	925	119.7% 51.2%
Gravely Elementary School	900	0	799	88.8%	900	830	92.2%	854	94.9%	897	99.7%	923	102.6%	953	105.9%
Haymarket Elementary School	908	2	972	107.0%	908	963	106.1%	972	107.0%	1,012	111.5%	1,006	110.8%	1,006	110.8%
Henderson Elementary School	864	0	819	94.8%	864	883	102.2%	913	105.7%	905	104.7%	886	102.5%	882	102.1%
Innovation Elementary School	649	0	476	73.3%	767	507	66.1%	495	64.5%	483	63.0%	466	60.8%	449	58.5%
John D. Jenkins Elementary School	763	0	649	85.1%	737	621	84.3%	655	88.9%	647	87.8%	634	86.0%	616	83.6%
Kerrydale Elementary School	350	2	336	96.0%	350	311	88.9%	301	86.0%	288	82.3%	282	80.6%	272	77.7%
Kilby Elementary School	719	0	611	85.0%	706	608	86.1%	614	87.0%	611	86.5%	599	84.8%	600	85.0%
King Elementary School	438	0	426	97.3%	425	449	105.6%	460	108.2%	455	107.1%	447	105.2%	464	109.2%
Kyle Wilson Elementary School	884	0	885	100.1%	884	904	102.3%	890	100.7%	874	98.9%	835	94.5%	812	91.9%
Lake Ridge Elementary School	819	0	706	86.2%	802	725 770	90.4%	772	96.3%	755 724	94.1%	758	94.5%	756	94.3%
Leesylvania Elementary School  Loch Lomond Elementary School	769 477	3	757 501	98.4% 105.0%	771 477	506	99.9% 106.1%	723 497	93.8% 104.2%	483	93.9% 101.3%	710 496	92.1% 104.0%	705 513	91.4% 107.5%
Marshall Elementary School	692	1	657	94.9%	692	674	97.4%	666	96.2%	672	97.1%	676	97.7%	680	98.3%
Marumsco Hills Elementary School	560	7	561	100.2%	531	551	103.8%	518	97.6%	526	99.1%	518	97.6%	504	94.9%
Mary Williams Elementary School	690	1	690	100.0%	677	678	100.1%	655	96.8%	628	92.8%	629	92.9%	626	92.5%
McAuliffe Elementary School	432	3	396	91.7%	418	377	90.2%	366	87.6%	356	85.2%	325	77.8%	334	79.9%
Minnieville Elementary School	631	1	596	94.5%	619	597	96.4%	593	95.8%	577	93.2%	525	84.8%	491	79.3%
Montclair Elementary School	601	2	601	100.0%	601	621	103.3%	624	103.8%	607	101.0%	632	105.2%	657	109.3%
Mountain View Elementary School	694	0	445	64.1%	694	410	59.1%	404	58.2%	413	59.5%	395	56.9%	392	56.5%
Mullen Elementary School	743	1	670	90.2%	730	648	88.8%	627	85.9%	606	83.0%	583	79.9%	568	77.8%
Neabsco Elementary School Occoquan Elementary School	710 493	5	633 582	89.2% 118.1%	688 493	620 588	90.1%	610 566	88.7% 114.8%	590 564	85.8% 114.4%	568 554	82.6% 112.4%	568 537	82.6% 108.9%
Old Bridge Elementary School	585	0	505	86.3%	569	451	79.3%	435	76.4%	416	73.1%	403	70.8%	413	72.6%
Pattie Elementary School	749	4	762	101.7%	628	789	125.6%	794	126.4%	785	125.0%	795	126.6%	815	129.8%
Penn Elementary School	742	1	718	96.8%	720	703	97.6%	704	97.8%	687	95.4%	656	91.1%	621	86.3%
Pennington Traditional School	414	0	402	97.1%	414	415	100.2%	415	100.2%	415	100.2%	415	100.2%	415	100.2%
Piney Branch Elementary School	894	0	784	87.7%	880	740	84.1%	723	82.2%	720	81.8%	704	80.0%	702	79.8%
Porter Traditional School	405	0	416	102.7%	405	405	100.0%	405	100.0%	405	100.0%	405	100.0%	405	100.0%
Potomac View Elementary School	558	2	560	100.4%	549	547	99.6%	506	92.2%	474	86.3%	452	82.3%	429	78.1%
River Oaks Elementary School	612	1	671	109.6%	612	635	103.8%	626	102.3%	583	95.3%	555	90.7%	522	85.3%
Rockledge Elementary School	530 712	0	495 610	93.4% 85.7%	530 712	493 621	93.0%	460 607	86.8%	456 598	86.0% 84.0%	462 598	87.2% 84.0%	453 597	85.5% 83.8%
Rosa Parks Elementary School Signal Hill Elementary School	783	2	790	100.9%	783	844	87.2% 107.8%	874	85.3% 111.6%	598 891	113.8%	920	84.0% 117.5%	961	122.7%
Sinclair Elementary School	669	3	672	100.5%	669	645	96.4%	628	93.9%	625	93.4%	611	91.3%	604	90.3%
Springwoods Elementary School	849	1	900	106.0%	849	934	110.0%	980	115.4%	1,002	118.0%	1,006	118.5%	983	115.8%
Sudley Elementary School	658	1	609	92.6%	637	626	98.3%	645	101.3%	642	100.8%	609	95.6%	619	97.2%
Swans Creek Elementary School	664	0	633	95.3%	618	636	102.9%	646	104.5%	621	100.5%	595	96.3%	604	97.7%
T. Clay Wood Elementary School	912	0	777	85.2%	912	751	82.3%	719	78.8%	649	71.2%	614	67.3%	599	65.7%
The Nokesville School	633	6	734	116.0%	617	811	131.4%	855	138.6%	897	145.4%	968	156.9%	1,019	165.2%
Triangle Elementary School	731	0	827	113.1%	710	828	116.6%	831	117.0%	824	116.1%	804	113.2%	805	113.4%
Tyler Elementary School	552	0	467	84.6%	536	475	88.6%	442	82.5%	433	80.8%	424	79.1%	408	76.1%
Vaughan Elementary School	595	3	577	97.0%	566	578	102.1%	578	102.1%	580	102.5%	567	100.2%	571	100.9%
Victory Elementary School	838 535	0 4	663 527	79.1% 98.5%	535	683 554	81.3%	687 544	81.8%	661 527	78.7% 98.5%	655 507	78.0%	671 494	79.9% 92.3%
West Gate Elementary School Westridge Elementary School	682	0	657	98.5%	665	646	103.6% 97.1%	632	101.7% 95.0%	631	98.5%	641	94.8% 96.4%	672	101.1%
Yorkshire Elementary School	767	0	832	108.5%	756	880	116.4%	894	118.3%	883	116.8%	889	117.6%	907	120.0%
Total	43,410	98	40,740	93.8%	42,945	41,423	96.5%	41,663	97.0%	41,460	96.5%	41,257	96.1%	41,494	96.6%
Notes:	.,	, ,,,	.,. 10	. 2.570	,_,	.,.20		.,		.,		.,_,,		-,.,.	

Table displays rounded figures; thus their summation may not equal the displayed total.

Program capacity used to calculate a schools capacity utilization for the 2023-24 school year.

<sup>&</sup>lt;sup>2</sup> Program capacity used to calculate a schools capacity utilization for the 2024-25 through 2028-29 school years.

<sup>&</sup>lt;sup>3</sup> The column reflects all kindergarten through fifth grade students, as well as all PK students.

# Student Enrollment Data: Current and Projected Enrollment

Elementary Schools – Additional Space to be Constructed SY 2024-25 to SY 2028-29

	2024	I-25	2025	5-26	2026	5-27	2027	7-28	2028	3-29
Elementary School	Anticipated Additional Space	Capacity Utilization								
2025										
Elementary School (Woodbridge Area)			632		632		632		632	
Occoquan Replacement School			226		226		226		226	
2027										
Elementary School (Potomac Shores #2)							1,050		1,050	
The Nokesville School - Addition (20-classroom)							486		486	
Sum of Additional Seats			858		858		2,394		2,394	
Totals (when adding additional capacity)	1,522	96.5%	2,140	95.1%	2,343	94.7%	4,082	91.0%	3,845	91.5%

# Student Enrollment Data: Current and Projected Enrollment Middle Schools

SY 2023-24 to SY 2028-29

		<b>Current E</b>	nrollmer	nt				Five	Year Proj	ected Stu	dent Enrol	lment			
	2023 Program	Portable Classrooms	202	23-24	2024 Program	20:	24-25	20:	25-26	202	26-27	200	27-28	202	28-29
Middle School	Capacity <sup>1</sup>	Classioons	Students	Utilization	Capacity <sup>2</sup>	Students	Utilization	Students	Utilization	Students	Utilization	Students	Utilization	Students	Utilization
Benton Middle School	1,393	0	1,356	97.3%	1,367	1,378	100.8%	1,438	105.2%	1,440	105.3%	1,422	104.0%	1,409	103.1%
Beville Middle School	1,236	2	1,112	90.0%	1,232	1,129	91.6%	1,143	92.8%	1,139	92.5%	1,160	94.2%	1,235	100.2%
Bull Run Middle School	1,151	0	1,090	94.7%	1,207	1,077	89.2%	1,061	87.9%	1,023	84.8%	1,008	83.5%	1,021	84.6%
Fred M. Lynn Middle School	1,131	2	968	85.6%	1,170	988	84.4%	954	81.5%	888	75.9%	843	72.1%	803	68.6%
Gainesville Middle School	1,439	0	1,359	94.5%	1,422	1,388	97.6%	1,350	94.9%	1,336	94.0%	1,271	89.4%	1,209	85.0%
Graham Park Middle School	910	0	682	74.9%	868	668	77.0%	612	70.5%	603	69.5%	560	64.5%	516	59.4%
Hampton Middle School	1,027	4	841	81.9%	1,009	883	87.5%	896	88.8%	889	88.1%	886	87.8%	869	86.1%
Lake Ridge Middle School	1,484	0	1,397	94.2%	1,540	1,419	92.1%	1,399	90.8%	1,355	88.0%	1,312	85.2%	1,289	83.7%
Marsteller Middle School	1,205	5	1,173	97.3%	1,184	1,130	95.4%	1,135	95.9%	1,101	93.0%	1,097	92.7%	1,046	88.3%
Parkside Middle School	1,343	7	1,392	103.6%	1,373	1,366	99.5%	1,410	102.7%	1,400	102.0%	1,484	108.1%	1,499	109.2%
Pennington Traditional School	252	0	249	98.8%	252	252	100.0%	252	100.0%	252	100.0%	252	100.0%	252	100.0%
Porter Traditional School	261	0	258	98.9%	261	261	100.0%	261	100.0%	261	100.0%	261	100.0%	261	100.0%
Potomac Middle School	1,427	0	976	68.4%	1,418	879	62.0%	865	61.0%	833	58.7%	824	58.1%	807	56.9%
Potomac Shores Middle School	1,524	0	1,218	79.9%	1,519	1,202	79.1%	1,238	81.5%	1,292	85.1%	1,352	89.0%	1,418	93.4%
Rippon Middle School	1,380	0	1,172	84.9%	1,340	1,193	89.0%	1,165	86.9%	1,096	81.8%	1,061	79.2%	989	73.8%
Ronald Wilson Reagan Middle School	1,347	1	1,337	99.3%	1,311	1,441	109.9%	1,387	105.8%	1,426	108.8%	1,451	110.7%	1,535	117.1%
Saunders Middle School	1,243	2	1,191	95.8%	1,187	1,156	97.4%	1,150	96.9%	1,166	98.2%	1,175	99.0%	1,142	96.2%
The Nokesville School	423	2	447	105.6%	406	463	114.0%	507	124.9%	523	128.8%	547	134.7%	568	139.9%
Unity Braxton Middle School	1,311	0	1,021	77.9%	1,267	1,017	80.3%	1,050	82.9%	1,055	83.3%	1,095	86.4%	1,077	85.0%
Woodbridge Middle School	1,102	1	894	81.1%	1,123	846	75.3%	832	74.1%	794	70.7%	734	65.4%	697	62.1%
Total	22,589	26	20,132	89.1%	22,456	20,136	89.7%	20,105	89.5%	19.872	88.5%	19,795	88.2%	19,642	87.5%

Table displayed on this page employs rounded figures; thus their summation may not equal the displayed total.

<sup>&</sup>lt;sup>1</sup> Program capacity used to calculate a schools capacity utilization for the 2023-24 school year.

<sup>&</sup>lt;sup>2</sup> Program capacity used to calculate a schools capacity utilization for the 2024-25 through 2028-29 school years.

# Student Enrollment Data: Current and Projected Enrollment

Middle Schools - Additional Space to be Constructed SY 2023-24 to SY 2028-29

	2024	1-25	2025	5-26	2026	-27	2027	7-28	2028	-29
Middle School	Anticipated Additional Space	Capacity Utilization								
2027										
The Nokesville School - Addition (10-classroom)							210		210	
Sum of Additional Seats							210		210	
Totals (when adding additional capacity)	2,320	89.7%	2,351	89.5%	2,584	88.5%	2,871	87.3%	3,024	86.7%

## Student Enrollment Data: Current and Projected Enrollment **High Schools**

SY 2023-24 to SY 2030-31

		<b>Current E</b>	nrollmer	ıt						Seven	Year Proje	cted Stud	lent Enroll	ment					
	2023 Planning	Portable	20:	23-24	2024 Planning	20:	24-25	20:	25-26	20	26-27	200	27-28	20:	28-29	202	9-30	203	0-31
High School	Capacity <sup>1</sup>	Classrooms	Students <sup>2</sup>	Utilization	Capacity1	Students <sup>2</sup>	Utilization	Students	Utilization	Students	Utilization								
Battlefield High School	2,053	11	2,124	103.4%	2,053	1,952	95.1%	1,798	87.6%	1,702	82.9%	1,648	80.3%	1,526	74.3%	1,403	68.3%	1,383	67.4%
Brentsville District High School	1,110	0	846	76.2%	1,110	932	84.0%	923	83.2%	1,007	90.7%	1,025	92.3%	1,043	94.0%	1,073	96.7%	1,086	97.8%
C.D. Hylton High School	2,053	0	1,886	91.9%	2,053	1,997	97.3%	1,978	96.3%	1,956	95.3%	1,871	91.1%	1,829	89.1%	1,825	88.9%	1,867	90.9%
Charles J. Colgan Sr. High School	2,053	10	2,919	142.2%	2,053	2,887	140.6%	2,894	141.0%	2,959	144.1%	3,000	146.1%	3,033	147.7%	3,109	151.4%	3,081	150.1%
Forest Park High School	2,053	0	2,295	111.8%	2,053	2,327	113.3%	2,316	112.8%	2,314	112.7%	2,337	113.8%	2,341	114.0%	2,341	114.0%	2,376	115.7%
Freedom High School	2,053	11	2,306	112.3%	2,053	2,264	110.3%	2,374	115.6%	2,382	116.0%	2,367	115.3%	2,400	116.9%	2,370	115.4%	2,298	111.9%
Gainesville High School	2,557	0	2,418	94.5%	2,557	2,535	99.1%	2,531	99.0%	2,458	96.1%	2,497	97.7%	2,511	98.2%	2,488	97.3%	2,531	99.0%
Gar-Field High School	2,839	0	2,485	87.5%	2,839	2,449	86.3%	2,365	83.3%	2,321	81.8%	2,329	82.0%	2,319	81.7%	2,291	80.7%	2,362	83.2%
Osbourn Park High School	2,430	7	2,722	112.0%	2,430	2,823	116.2%	2,844	117.0%	3,057	125.8%	3,106	127.8%	3,296	135.6%	3,570	146.9%	3,791	156.0%
Patriot High School	2,053	0	2,047	99.7%	2,053	1,975	96.2%	1,832	89.2%	1,765	86.0%	1,616	78.7%	1,551	75.5%	1,499	73.0%	1,411	68.7%
Potomac High School	2,357	0	2,119	89.9%	2,357	2,148	91.1%	2,141	90.8%	2,159	91.6%	2,209	93.7%	2,162	91.7%	2,256	95.7%	2,283	96.9%
Unity Reed High School	2,409	9	2,098	87.1%	2,409	2,161	89.7%	2,015	83.6%	1,860	77.2%	1,726	71.6%	1,645	68.3%	1,564	64.9%	1,527	63.4%
Woodbridge High School	2,734	0	2,844	104.0%	2,734	2,829	103.5%	2,754	100.7%	2,670	97.7%	2,687	98.3%	2,674	97.8%	2,651	97.0%	2,604	95.2%
Total	28,754	48	29,106	101.2%	28,754	29,279	101.8%	28,765	100.0%	28,610	99.5%	28,418	98.8%	28,330	98.5%	28,440	98.9%	28,600	99.5%

Table displayed on this page employs rounded figures; thus, their summation may not equal the displayed total.

<sup>1</sup> Planning capacity used to calculate a schools capacity utilization for the 2023-24 through 2030-31 school years.

## Student Enrollment Data: Current and Projected Enrollment High Schools - Additional Space to be Constructed SY 2023-24 to SY 2030-31

	2024	-25	2025	-26	2026	-27	2027	<b>'-28</b>	2028	-29	2029	-30	2030	-31
High School	Anticipated Additional Space	( 'anacity	Anticipated Additional Space	Capacity Utilization										
2029														
14th High School (Mid-County)											1,400		1,400	
Sum of Additional Seats											1,400		1,400	
Totals (when adding additional capacity)	-525	101.8%	-11	100.0%	144	99.5%	336	98.8%	424	98.5%	1,714	94.3%	1,554	94.8%

<sup>&</sup>lt;sup>2</sup> The column reflects all 9th through 12th grade students, as well as all PK students.

# Student Enrollment Data: Current Enrollment

Preschools and Other Schools SY 2023-24

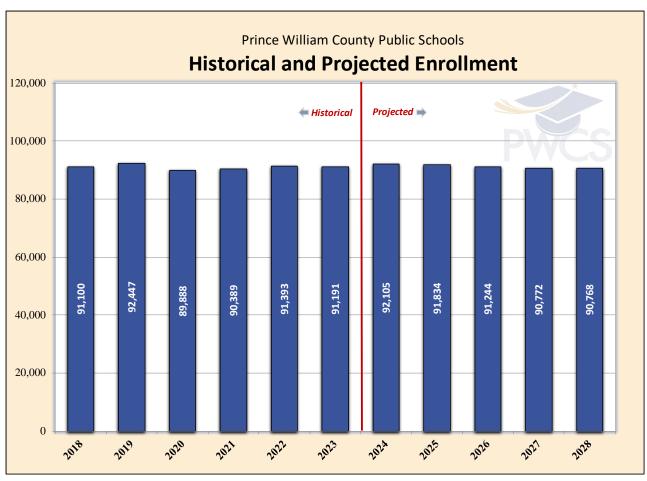
	202	3-24
Preschool & Other Schools	Portable Classrooms	Students
Preschool Child Find		4
School-based Preschool		669
Washington-Reid Preschool Center	1	67
PACE West	1	73
Special Ed. Private Facility		193
Independence Nontraditional School - ED Center		67
Independence Nontraditional School - Middle		15
Independence Nontraditional School - High		397
Virtual Learning Academy		105
TJHS Regional		195
Total	2	1,785

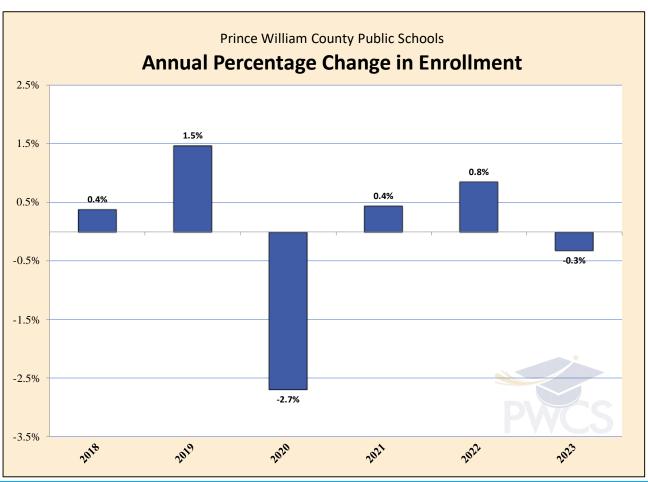
I. Non-public middle and high school students may enroll in PWCS for one or two classes. These students are counted as 0.25 and 0.5 of a student, respectively, per Virginia State Guidelines. Such fractions of a student may affect totals because of rounding.

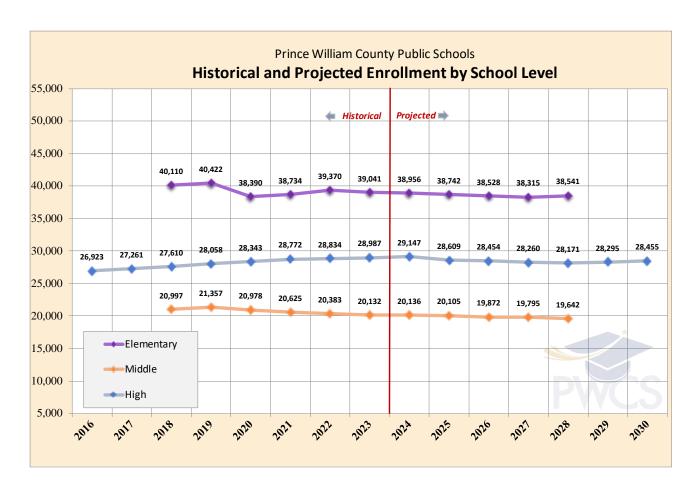
# Student Enrollment Data: Historical and Projected 2018-2030

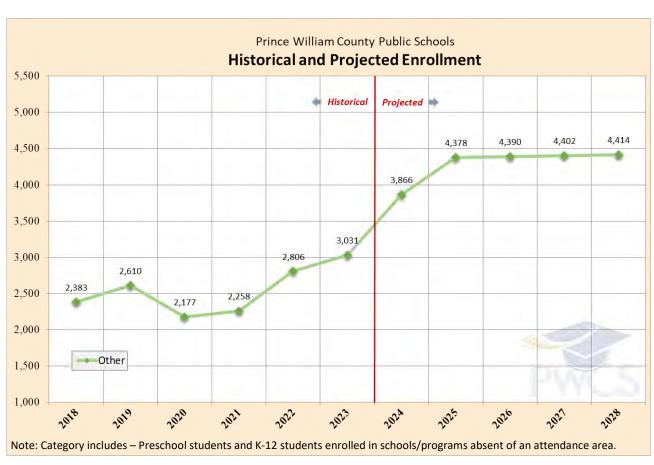
Year		Schoo	l Type		Total	Annual	Change
1 ear	Elementary	Middle	High	Other	Total	Number	Percentage
2018	40,110	20,997	27,610	2,383	91,100	305	0.3%
2019	40,422	21,357	28,058	2,610	92,447	1,347	1.5%
2020	38,390	20,978	28,343	2,177	89,888	-2,559	-2.8%
2021	38,734	20,625	28,772	2,258	90,389	501	0.6%
2022	39,370	20,383	28,834	2,806	91,393	1,004	1.1%
2023	39,041	20,132	28,987	3,031	91,191	-202	-0.2%
2024	38,956	20,136	29,147	3,866	92,105	713	0.8%
2025	38,742	20,105	28,609	4,378	91,834	-271	-0.3%
2026	38,528	19,872	28,454	4,390	91,244	-590	-0.6%
2027	38,315	19,795	28,260	4,402	90,772	-472	-0.5%
2028	38,541	19,642	28,171	4,414	90,768	-4	0.0%
2029	Intentionally left blank. 1		28,295		T 11 1 C	11 11	
2030	intentionally	ieit blank.	28,455		Intentionally left	biank.	

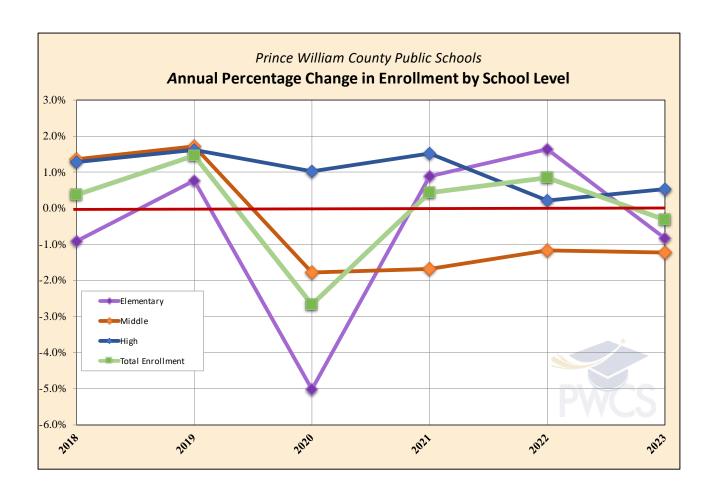
<sup>&</sup>lt;sup>1</sup> Projections for high-school grades are extended two additional years beyond those in elementary and middle schools to better support the Capital Improvement Program.





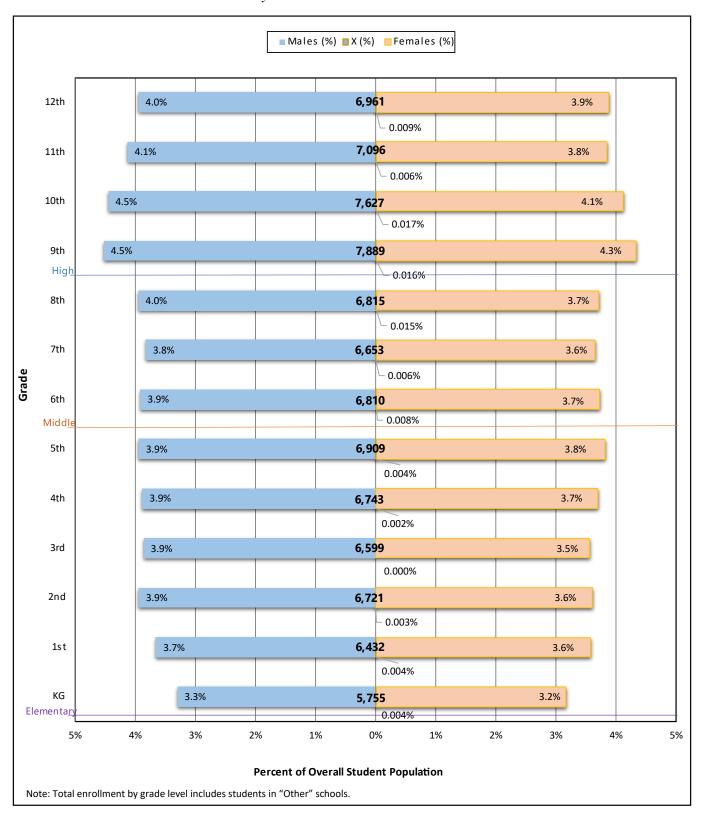


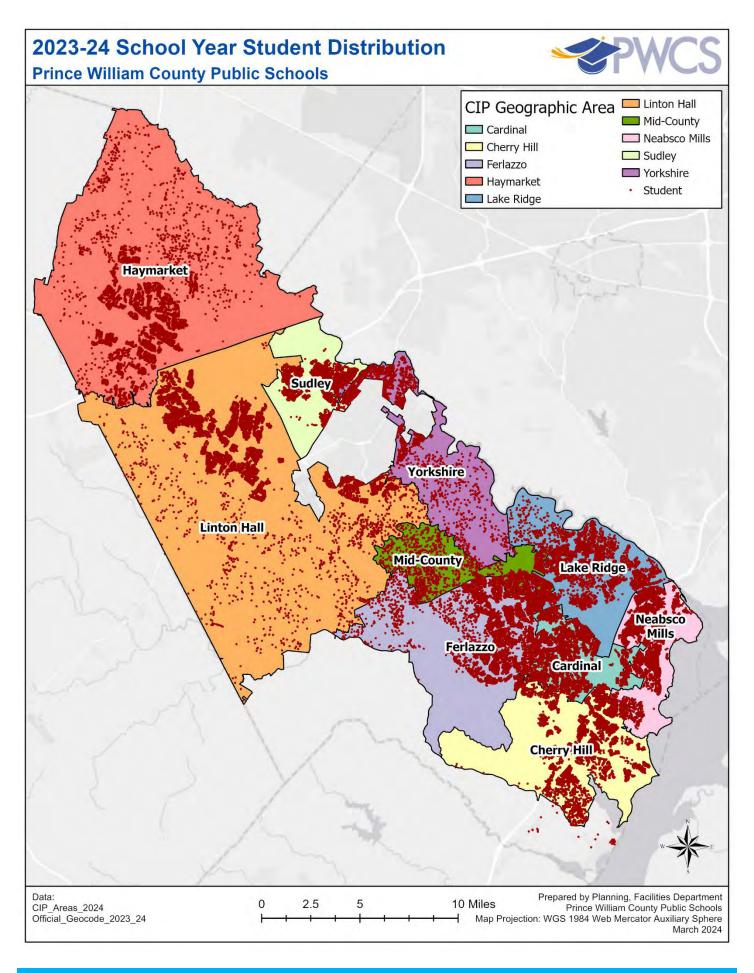




# Student Enrollment by Grade and Gender

By Grade and Gender 2023-24





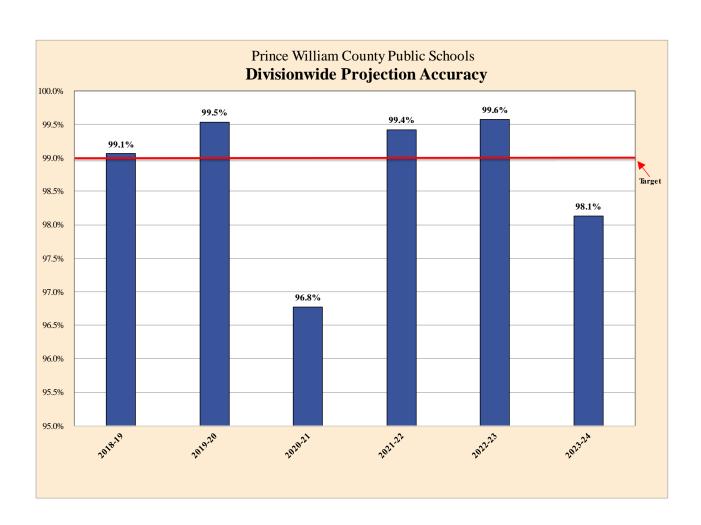
# Student Enrollment Projections

Error Rate Analysis

School	Student			\$	Student En	rollment I	Projections			
Year	Enrollment	Or	ne Year Before	e	Two Year	rs Before	Four Year	rs Before	Five Year	s Before
1 041	(K - 12)	Projection	Difference	% Error *	Projection	% Error *	Projection	% Error *	Projection	% Error *
2018-19	90,203	91,054	851	0.94%	92,282	2.30%	91,496	1.43%	95,615	6.00%
2019-20	91,524	91,095	(429)	-0.47%	91,834	0.34%	92,687	1.27%	93,056	1.67%
2020-21	89,076	92,048	2,972	3.34%	91,891	3.16%	95,320	7.01%	94,641	6.25%
2021-22	89,468	89,991	523	0.58%	92,989	3.94%	94,630	5.77%	97,416	8.88%
2022-23	90,226	89,837	(389)	-0.43%	93,274	3.38%	93,552	3.69%	96,066	6.47%
2023-24	89,945	91,631	1,686	1.87%	92,570	2.92%	94,537	5.11%	97,777	8.71%
	•									
5-Year (MPE)	Mean Percentage	e Error <sup>1</sup>		0.50%		2.58%		3.45%		6.35%
5-Year (MAPE	) Mean Absolute	Percentage E	Error <sup>1</sup>	0.86%		2.58%		3.45%		6.35%

#### Note:

<sup>&</sup>lt;sup>1</sup> Historical enrollment data from 2020 were not used in the projection calculations with the intent of smoothing the effects of pre-pandemic and post-pandemic student enrollment trends, thus 2020-21 is excluded from mean percentage error and mean absolute percentage error.



<sup>\*</sup> A negative forecast error indicates that the projection was less than the actual value.

# Housing Units in Residential Development By Elementary School Attendance Area and Stage of Development September 2023

	1	Under Co	nstruction		]	Rezoning .	Approved		Rezoni	ng Applic	ation Sub	mitted	T ( 1
Elementary School	SFD	SFA	MFA	Total	SFD	SFA	MFA	Total	SFD	SFA	MFA	Total	Total
Alvey Elementary School		19		19	2			2					21
Belmont Elementary School			342	342		60	1,258	1,318	20	404	966	1,390	3,050
Bennett Elementary School	184	24		208	26		,	26		95		95	329
Buckland Mills Elementary School	12			12	25			25	225	130		355	392
Cedar Point Elementary School	22			22									22
Chris Yung Elementary School	48			48	516			516					564
Coles Elementary School	22			22	163	60		223					245
Covington-Harper Elementary School	139	260	124	523			1,024	1,024					1,547
Dumfries Elementary School	28			28			,	,		60	340	400	428
Ellis Elementary School		451	888	1,339							120	120	1,459
Featherstone Elementary School					11			11					11
Fitzgerald Elementary School		43	174	217		275		275	18	76		94	586
Gravely Elementary School	601			601	13			13					614
Haymarket Elementary School	27			27		72		72	16	27	144	187	286
John D. Jenkins Elementary School			355	355	43	610	621	1,274		359	560	919	2,548
Kilby Elementary School						175	298	473					473
King Elementary School						23		23					23
Kyle Wilson Elementary School		24	163	187									187
Marshall Elementary School	32			32	41			41	22			22	95
Mary Williams Elementary School			74	74									74
Montclair Elementary School	21			21									21
Mountain View Elementary School	6			6	222			222					228
Mullen Elementary School		18		18									18
Occoquan Elementary School	4			4			52	52					56
Pattie Elementary School					6			6					6
Penn Elementary School		12		12	15			15	12		186	198	225
Piney Branch Elementary School											80	80	80
Potomac View Elementary School	4			4	14			14					18
Rosa Parks Elementary School			199	199	11			11					210
Signal Hill Elementary School	9		16	25	208			208	17	528		545	778
Sinclair Elementary School										225	138	363	363
Swans Creek Elementary School			73	73	15			15					88
T. Clay Wood Elementary School	6			6						75		75	81
The Nokesville School	256			256	129			129	594	413		1,007	1,392
Triangle Elementary School	26	105	230	361	8		25	33					394
Tyler Elementary School	21			21			20	20	192	193		385	426
Yorkshire Elementary School	7		434	441			20	20					461
Total	1,475	956	3,072	5,503	1,468	1,275	3,318	6,061	1,116	2,585	2,534	6,235	17,799

Under Construction = Rezoning approved by Board of County Supervisors and site development permit issued.

Under Construction = Rezoning approved by Board of County Supervisors and site development permit issued.

Rezoning Approved = Rezoning approved has been by Board of County Supervisors.

Rezoning Application Submitted = Rezoning application submitted, CPA request submitted or initiated (if applicable), or no recent progress has occurred.

Housing Types: SFD = Single-Family Detached, SFA = Single-Family Attached, MFA = Multi-Family Attached.

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 2023

		Under Co	nstruction			Rezoning	Approved		Rezoni	ing Applic	ation Sub	mitted	Total
Middle School	SFD	SFA	MFA	Total	SFD	SFA	MFA	Total	SFD	SFA	MFA	Total	Total
Benton Middle School	54	12		66	232	60		292	34			34	392
Beville Middle School					38	633	405	1,076			435	435	1,511
Bull Run Middle School	69			69	235		20	255	192	418	138	748	1,072
Fred M. Lynn Middle School	4		342	346		235	1,460	1,695	20	404	966	1,390	3,431
Gainesville Middle School	48			48	516			516			80	80	644
Graham Park Middle School	54	105	230	389	8		25	33		60	340	400	822
Hampton Middle School	7	24	163	194									194
Marsteller Middle School	28	388	812	1,228						75	120	195	1,423
Parkside Middle School	200	24	450	674	221		20	241	17	623		640	1,555
Potomac Middle School		43	138	181		275		275	18			18	474
Potomac Shores Middle School	139	260	197	596	21		1,024	1,045					1,641
Rippon Middle School	4		110	114	25		148	173		76		76	363
Ronald Wilson Reagan Middle School	598	19		617	27	72		99	241	157	144	542	1,258
Saunders Middle School	14		199	213	11			11					224
The Nokesville School	256			256	129			129	594	413		1,007	1,392
Unity Braxton Middle School		81	76	157									157
Woodbridge Middle School			355	355	5		216	221		359	311	670	1,246
Total	1,475	956	3,072	5,503	1,468	1,275	3,318	6,061	1,116	2,585	2,534	6,235	17,799

#### Notes:

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Rezoning Approved = Rezoning approved has been by Board of County Supervisors.

Rezoning Application Submitted = Rezoning application submitted, CPA request submitted or initiated (if applicable), or no recent progress has occurred.

Housing Types: SFD = Single-Family Detached, SFA = Single-Family Attached, MFA = Multi-Family Attached. 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 2023

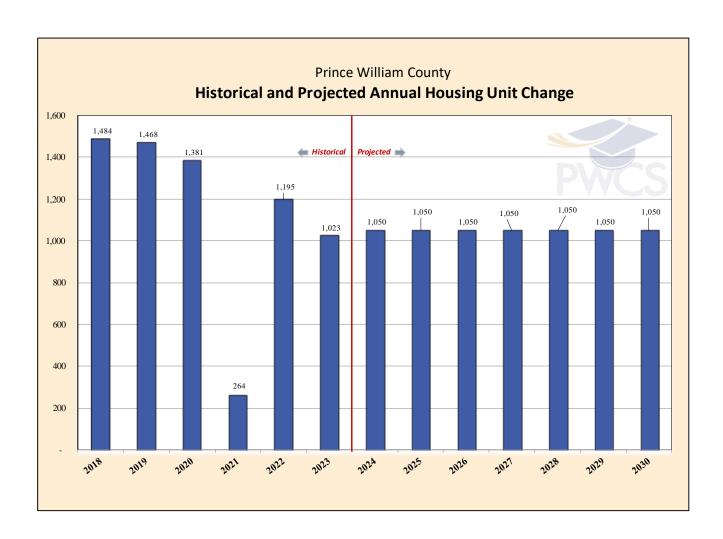
	ì	Under Co	nstruction			Rezoning	Approved		Rezoni	ng Applic	ation Sub	mitted	Total
High School	SFD	SFA	MFA	Total	SFD	SFA	MFA	Total	SFD	SFA	MFA	Total	1 Otal
Battlefield High School	628	19		647	237			237	196	193		389	1,273
Brentsville District High School	256			256	155			155	594	413		1,007	1,418
C.D. Hylton High School	14		199	213	11	23		34				-	247
Charles J. Colgan Sr. High School	54	12		66	217	60		277	22		186	208	551
Forest Park High School	28	105	230	363	6		25	31		60	340	400	794
Freedom High School	4	43	516	563	25	335	1,406	1,766	38	480	966	1,484	3,813
Gainesville High School	87			87	541	72	20	633	237	157	224	618	1,338
Gar-Field High School	7	24	518	549	43	610	405	1,058			560	560	2,167
Osbourn Park High School	200	24	450	674	210		20	230	29	623		652	1,556
Patriot High School	28			28						75		75	103
Potomac High School	165	260	271	696	23		1,024	1,047				-	1,743
Unity Reed High School		469	888	1,357				-		225	258	483	1,840
Woodbridge High School	4			4		175	418	593		359		359	956
Total	1,475	956	3,072	5,503	1,468	1,275	3,318	6,061	1,116	2,585	2,534	6,235	17,799

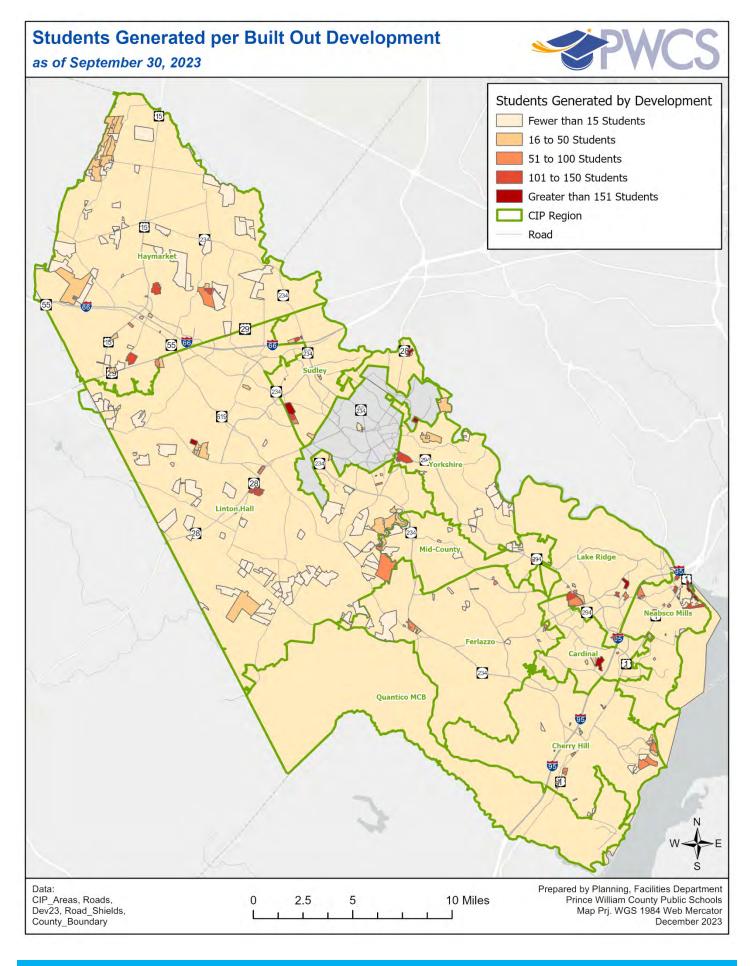
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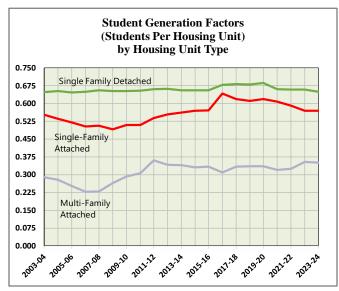
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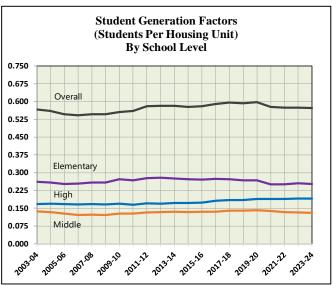




#### **Student Generation Factors**

By School Level and Housing Unit Type





					Histori	cal Data					
	School Type	SFD	Unit Type SFA	MFA	Total		School Type	SFD	Unit Type SFA	MFA	Total
0000 04	Elementary	0.272	0.265	0.173	0.252	0040 47	Elementary	0.300	0.313	0.163	0.273
2023-24	Middle	0.151	0.128	0.075	0.131	2016-17	Middle	0.159	0.145	0.064	0.135
	High	0.227	0.176	0.103	0.190		High	0.220	0.184	0.082	0.181
	Total	0.650	0.569	0.351	0.573		Total	0.679	0.642	0.309	0.590
	School		Unit Type		Total		School		Unit Type		Total
	Туре	SFD	SFA	MFA			Туре	SFD	SFA	MFA	
2022-23	Elementary	0.277	0.265	0.176	0.251	2014-15	Elementary	0.294	0.285	0.176	0.272
	Middle	0.153	0.129	0.077	0.134		Middle	0.156	0.128	0.070	0.134
	High	0.228	0.176	0.102	0.189		High	0.206	0.155	0.085	0.172
	Total	0.659	0.570	0.354	0.574		Total	0.656	0.569	0.331	0.578
	School		Unit Type				School		Unit Type		
	Туре	SFD	SFA	MFA	Total		Туре	SFD	SFA	MFA	Total
2020-21	Elementary	0.273	0.278	0.160	0.251	0040 40	Elementary	0.302	0.287	0.184	0.279
2020-21	Middle	0.159	0.143	0.073	0.138	2012-13	Middle	0.156	0.120	0.075	0.133
	High	0.228	0.187	0.087	0.189		High	0.205	0.147	0.083	0.169
	Total	0.660	0.608	0.320	0.578		Total	0.662	0.554	0.342	0.582
	School		Unit Type		Total		School		Unit Type		Total
	Туре	SFD	SFA	MFA			Type	SFD	SFA	MFA	
2018-19	Elementary	0.292	0.288	0.175	0.268	2010-11	Elementary	0.301	0.258	0.167	0.268
	Middle	0.163	0.144	0.075	0.140		Middle	0.152	0.111	0.067	0.127
	High	0.224	0.179	0.085	0.185		High	0.202	0.139	0.072	0.164
	Total	0.680	0.611	0.335	0.592		Total	0.655	0.509	0.306	0.560

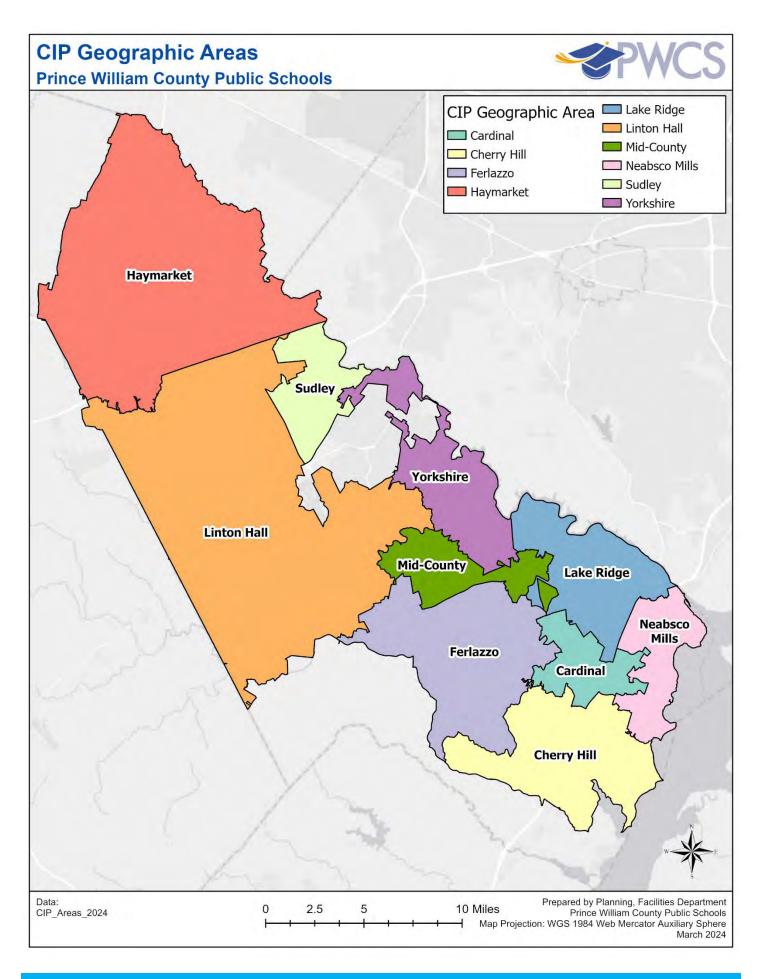
**Notes:** 1) The 'Student Generation Factor' is a mathematical representation of the relationship between housing units in Prince William County and the number of students enrolled in Prince William County Public Schools on September 30 of each year. In other words, it is the number of enrolled students 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) Housing Types: SFD = Single-Family Detached, SFA = Single-Family Attached, MFA = Multi-Family Attached
- 4) 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.
- 5) In 2022-23, approximately 3.500 2-over-2 multi-family attached units were reclassified from multi-family attached to single-family attached, thus contributing to a notable increase in student yields in multi-family units and a decrease in student yields of single-family attached units.

# Elementary Schools By CIP Geographic Areas

CIP Region	Schools
	Bel Air Elementary School
	Dale City Elementary School
Cardinal Area	Fitzgerald Elementary School
Carumai Arca	Henderson Elementary School
	Minnieville Elementary School
	Neabsco Elementary School
	Covington-Harper Elementary School
	Dumfries Elementary School
	Mary Williams Elementary School
Cherry Hill Area	Pattie Elementary School
	River Oaks Elementary School
	Swans Creek Elementary School
	Triangle Elementary School
	Ashland Elementary School
	Coles Elementary School
	Enterprise Elementary School
Ferlazzo Area	King Elementary School
r criazzo mica	Kyle Wilson Elementary School
	McAuliffe Elementary School
	Montclair Elementary School
	Rosa Parks Elementary School
	Alvey Elementary School
	Buckland Mills Elementary School
Haymarket Area	Gravely Elementary School
Huymurket meu	Haymarket Elementary School
	Mountain View Elementary School
	Tyler Elementary School
	Antietam Elementary School
	John D. Jenkins Elementary School
	Lake Ridge Elementary School
Lake Ridge Area	Occoquan Elementary School
Lanc Muge Area	Old Bridge Elementary School
	Rockledge Elementary School
	Springwoods Elementary School
	Westridge Elementary School

CIP Region	Schools
	Bennett Elementary School
	Bristow Run Elementary School
	Cedar Point Elementary School
	Chris Yung Elementary School
Linton Hall Area	Glenkirk Elementary School
	Piney Branch Elementary School
	T. Clay Wood Elementary School
	The Nokesville School
	Victory Elementary School
	Kerrydale Elementary School
Mid-County Area	Marshall Elementary School
	Penn Elementary School
	Belmont Elementary School
	Featherstone Elementary School
Neabsco Mills / Northern	Kilby Elementary School
Route 1	Leesylvania Elementary School
Route 1	Marumsco Hills Elementary School
	Potomac View Elementary School
	Vaughan Elementary School
	Ellis Elementary School
	Innovation Elementary School
Sudley Area	Mullen Elementary School
Sudicy Area	Sinclair Elementary School
	Sudley Elementary School
	West Gate Elementary School
	Loch Lomond Elementary School
Yorkshire Area	Signal Hill Elementary School
	Yorkshire Elementary School



# Fall Membership By Virginia School Division

		Divisio	n Members	hip, PK- G	rade 12			Change 20	18 to 2023	
Division Name	2023-24	2022-23	2021-22	2020-21	2019-20	2018-19	Number	Rank in Virginia	Percent	Rank in Virginia
Alexandria City Public Schools	16,439	16,089	15,712	15,845	16,307	15,968	471	8	2.9%	22
Arlington County Public Schools	27,536	27,582	27,045	26,833	28,151	27,434	102	23	0.4%	35
Charlottesville City Public Schools	4,444	4,491	4,290	4,259	4,544	4,561	-117	63	-2.6%	55
Chesapeake City Public Schools	40,640	40,821	40,478	39,673	41,597	40,898	-258	91	-0.6%	44
Chesterfield County Public Schools	64,183	63,962	62,500	60,904	62,669	61,608	2,575	1	4.2%	17
Culpeper County Public Schools	8,368	8,353	8,366	8,256	8,521	8,235	133	20	1.6%	28
Fairfax County Public Schools	180,970	180,127	178,635	180,076	188,930	187,830	-6,860	131	-3.7%	65
Falls Church City Public Schools	2,616	2,507	2,483	2,500	2,649	2,621	-5	39	-0.2%	39
Fauquier County Public Schools	10,845	10,839	10,874	10,292	11,181	11,189	-344	106	-3.1%	61
Fredericksburg City Public Schools	3,532	3,762	3,624	3,545	3,755	3,710	-178	80	-4.8%	72
Harrisonburg City Public Schools	6,792	6,684	6,660	6,508	6,613	6,440	352	11	5.5%	15
Henrico County Public Schools	50,464	50,389	49,991	50,191	51,786	51,523	-1,059	126	-2.1%	49
Loudoun County Public Schools	82,028	82,082	81,511	81,319	83,933	82,238	-210	83	-0.3%	41
Manassas City Public Schools	7,676	7,711	7,592	7,607	7,789	7,723	-47	47	-0.6%	43
Manassas Park City Public Schools	3,410	3,434	3,508	3,500	3,641	3,724	-314	100	-8.4%	99
Prince William County Public Schools	90,654	91,180	90,135	89,577	92,270	90,876	-222	88	-0.2%	40
Spotsylvania County Public Schools	24,064	24,260	23,794	23,036	23,901	23,683	381	9	1.6%	29
Stafford County Public Schools	31,700	31,160	30,473	29,395	30,120	29,485	2,215	2	7.5%	8
Virginia Beach City Public Schools	65,078	65,550	65,498	65,612	68,706	68,624	-3,546	130	-5.2%	75
State Totals	1,261,962	1,263,342	1,251,970	1,252,756	1,298,083	1,290,513	-28,551		-2.2%	

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).

# APPENDIX C

# **School Facility Information**

# **PWCS Facility Information**

- School Counts
- Facilities Summary Information
- Facilities Detail Information by Use Type
  - Elementary
  - Combined
  - Middle
  - High
  - Other
  - Administrative
  - Transportation
- Portable Classrooms

Facility Information C-1

# Facilities - School Count and Summary Information

# School Facilities 2018-19 to 2023-24

Sahaal Tyma		Co	ount of Sch	ool Facilit	ies	
School Type	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Elementary Schools	60	61	61	61	61	62
Combined Schools	3	3	3	3	3	3
Middle Schools	16	16	16	17	17	17
High Schools	12	12	12	13	13	13
Other Schools	4	3	3	3	3	3
Total	95	95	95	97	97	98

Facilities – Summary Information 2023-24

Use Type	Facility Type	Facility Count	Program / Planning Capacity	Portable Classrooms	Square Feet	Acres
	Elementary	62	41,958	92	4,893,270	1,030.8
	Combined	3	2,388	8	271,423	80.1
Educational	Middle	17	21,653	24	2,461,480	610.2
	High	13	28,754	48	3,940,005	926.3
	Other	3	-	2	187,559	32.6
Non Educational	Administrative	5	-	-	339,812	65.3
Non-Educational	Transportation	6	-	-	98,350	104.2
Total		109	94,753	174	12,191,899	2,849.5

C-2 Facility Information

# Facilities – Detail Information by Use Type

	Year	Reno	vation		Capacity Er	nhancemen	t	Building	Site A suca
Elementary School	Opened	Next	Last	Addition #1 Year	# Classrooms	Addition #2 Year	# Classrooms	Square Feet	Site Acres
Alvey Elementary School	2003			Tear		1 cui		83,084	20.2
Antietam Elementary School	1990		2018	2019	13			84,257	14.9
Ashland Elementary School	2002			2008	5			98,461	18.1
Bel Air Elementary School	1968		2008	2008	8			53,712	15.0
Belmont Elementary School	1967		2006	2006	4	2017	10	74,142	14.3
Bennett Elementary School	1996		2022	2000	8			88,054	15.3
Bristow Run Elementary School	1998		2023	2004	8			83,885	21.7
Buckland Mills Elementary School  Cedar Point Elementary School	2006 2001	2025						89,936 83,084	15.0 15.5
Chris Yung Elementary School	2015	2023						107,273	20.8
Coles Elementary School	1968		2009					52,745	17.0
Covington-Harper Elementary School	2017							101,288	21.4
Dale City Elementary School	1967		2006	2001	4			47,632	14.8
Dumfries Elementary School	1939		2014	1989	8			44,925	10.0
Ellis Elementary School	2004							76,724	10.5
Enterprise Elementary School	1978		2009					54,281	15.0
Featherstone Elementary School	1961	2025	2001	2015	6			56,246	12.0
Fitzgerald Elementary School	2008							106,170	11.2
Glenkirk Elementary School	2005							83,084	15.6
Gravely Elementary School	2008 2014							95,314	18.0
Haymarket Elementary School Henderson Elementary School	1985		2016	2017	10			98,736 75,495	24.3 14.9
Innovation Elementary School	2023		2010	2017	10			129,883	19.6
John D. Jenkins Elementary School	2019							100,264	17.2
Kerrydale Elementary School	1973		2007					51,900	15.4
Kilby Elementary School	2017							98,615	12.8
King Elementary School	1981		2016					57,677	15.2
Kyle Wilson Elementary School	2016							106,345	19.5
Lake Ridge Elementary School	1983		2016	2019	13			83,358	15.1
Leesylvania Elementary School	1996		2019	2019	4			91,374	16.3
Loch Lomond Elementary School	1962		2016	2013	4			58,278	10.7
Marshall Elementary School	1994		2019	1999	4	2000	4	62,700	24.2
Marumsco Hills Elementary School  Mary Williams Elementary School	1966 2004		2006	2006	2	2009	4	56,651 83,084	12.2 13.6
McAuliffe Elementary School	1989		2018					59,517	15.1
Minnieville Elementary School	1972		2005	2019	10			75,070	15.2
Montclair Elementary School	1991		2019	2008	4			70,928	15.9
Mountain View Elementary School	1995		2020	2002	4	2020	1	73,415	30.0
Mullen Elementary School	1990		2018	1999	4	2013	6	82,219	15.0
Neabsco Elementary School	1969		2009	2017	8			76,945	12.8
Occoquan Elementary School	1927		2002	2003	5			55,225	10.1
Old Bridge Elementary School	1995		2019	2019				77,804	17.9
Pattie Elementary School	1978		2013	2018	11	2011		69,375	15.0
Penn Elementary School	1998		2021	2013	7			87,542	16.9
Piney Branch Elementary School	2011		2005	2005	4	2000	4	104,448	21.0
Potomac View Elementary School River Oaks Elementary School	1964 1990		2005	2005	7	2009	4	60,756 80.618	12.4 15.2
Rockledge Elementary School	1990		2018	2014	7			64,769	16.2
Rosa Parks Elementary School	2006		2007	2007	,			83,084	15.2
Signal Hill Elementary School	2000		2023					83,084	24.5
Sinclair Elementary School	1968		2009	2001	6	2013	11	75,698	15.0
Springwoods Elementary School	1985		2016	2019	13			83,260	15.1
Sudley Elementary School	1972		2004	2013	10			73,457	14.0
Swans Creek Elementary School	2001	2025		2012	6			86,934	18.5
T. Clay Wood Elementary School	2011							104,448	33.8
Triangle Elementary School	2010		2007	2007				103,679	18.9
Tyler Elementary School	1968		2007	2007	4	2000		56,560	25.5
Vaughan Elementary School	1964		2005	2001	4	2009	9	58,967	13.6
Victory Elementary School West Gate Elementary School	2005		2000	2012	4			89,911 50,727	21.2
Westridge Elementary School  Westridge Elementary School	1964 1989		2009	2013	6			59,727 70,559	12.1 15.0
	1707	ı	2010	2012	0	1	1	10,339	13.0
Yorkshire Elementary School	2009							106,614	13.3

Facility Information C-3

# Facilities – Detail Information by Use Type

	Year Renovati		vation	cion Capacity Enhancement					G'4. A
Combined School	Opened	Next	Last	Addition #1 Year	# Classrooms	Addition #2 Year	# Classrooms	Building Square Feet	Site Acres
Pennington Traditional School	1969		2012					58,346	15.0
Porter Traditional School	2004							71,245	16.9
The Nokesville School	2014							141,832	48.2
Subtotal (Combined)								271,423	80.1

	Year	Renov	vation		Capacity E	nhancemen	t	Building	Site Acres
Middle School	Opened	Next	Last	Addition #1 Year	# Classrooms	Addition #2 Year	# Classrooms	Square Feet	Site Acres
Benton Middle School	2000			2013	11			155,732	48.2
Beville Middle School	1991		2021	2021	2			137,540	42.1
Bull Run Middle School	2002							135,309	39.4
Fred M. Lynn Middle School	1963	2027	2001					131,974	28.6
Gainesville Middle School	2007			2022	11			149,210	39.4
Graham Park Middle School	1963	2026	2001	2001	4			110,514	21.9
Hampton Middle School	1970		2010	2002	8			124,610	30.0
Lake Ridge Middle School	1989		2018	2018	13			158,900	34.1
Marsteller Middle School	2002							135,309	36.4
Parkside Middle School	1963		2023	2014	15			160,094	30.0
Potomac Middle School	2006			2013	11			151,130	36.4
Potomac Shores Middle School	2021							197,954	52.5
Rippon Middle School	1967		2010	2016	8			156,094	30.2
Ronald Wilson Reagan Middle School	2012			2022	6			142,962	41.9
Saunders Middle School	1988		2018					137,088	29.5
Unity Braxton Middle School	1964		2002	2019	17			152,549	32.2
Woodbridge Middle School	1964	2028	2003					124,511	37.4
Subtotal (Middle)					106			2,461,480	610.2

	Year	Reno	vation		Capacity E	nhancemen	t	Building	Site Acres
High School	Opened	Next	Last	Addition #1 Year	# Classrooms	Addition #2 Year	# Classrooms	Square Feet	Site Acres
Battlefield High School	2004							285,086	78.8
Brentsville District High School	1965	2029	2000	2000	9	1980		163,066	29.0
C.D. Hylton High School	1991		2023					282,346	74.8
Charles J. Colgan Sr. High School	2016							308,058	108.4
Forest Park High School	2000							283,268	79.1
Freedom High School	2004							285,886	80.7
Gainesville High School	2021							334,885	83.5
Gar-Field High School	1972		2003	2021				374,138	91.5
Osbourn Park High School	1975		2006					328,386	56.1
Patriot High School	2011							320,124	60.0
Potomac High School	1981		2012	2013	30			273,329	75.1
Unity Reed High School	1973		2005					328,540	56.6
Woodbridge High School	1974		2004	2021				372,893	52.7
Subtotal (High)					39			3,940,005	926.3

	Year	Renovation			Capacity E	Building	G. A		
Other School	Opened	Next	Last	Addition #1 Year	# Classrooms	Addition #2 Year	# Classrooms	Square Feet	Site Acres
Independence Nontraditional School	2018							122,850	9.9
PACE West	2012							39,998	13.5
Washington-Reid Preschool Center	1951		2013					24,711	9.2
Subtotal (Other)								187,559	32.6

C-4 Facility Information

# Facilities – Detail Information by Use Type

	Year	Reno	vation	C	apacity	Building			
Administrative	Opened	Next	Last	Addition #1 Year	Size	Addition #2 Year	Size	Square Feet	Site Acres
Ann Ludwig	1975	2028						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 Child Find Evaluation Center	1953		2021					8,320	1.9
Subtotal (Administrative)								339,812	65.3

- American American	Year	Reno	vation	C	apacity E	nhancement		Building	
Transportation	Opened	Next	Last	Addition #1 Year	Size	Addition #2 Year	Size	Square Feet	Site Acres
Brentsville Transportation Center	1979	2025						28,028	20.0
Central Transportation Center	2005							14,934	29.9
McCuin Transportation Center	2002							8,400	11.5
New Dominion Transportation Center	1975		2020	and the state of t				14,749	9.3
Potomac Transportation Center	2002	2025						14,565	16.8
Western Transportation Center	2019			Quinty.				17,674	16.7
Subtotal (Transportation)								98,350	104.2
Totals (All Facilities)					370		45	12,191,899	2,849.5

# Portable Classrooms

# Portable Classrooms 2018-19 to 2023-24

Voor		Total			
Year	Elementary	Middle	High	Other	Total
2018	107	47	51	1	206
2019	72	50	61	0	183
2020	66	58	67	0	191
2021	74	46	67	1	188
2022	90	24	56	1	171
2023	98	26	48	2	174

Facility Information C-5

# APPENDIX D

# **School Construction Financial Data**

# **School Construction Financial Data**

- School Construction Projects by Types of Expenditures
- Report of Bond Expenditures
- Elementary School Construction Cost Comparatives

# **School Construction Projects by Types of Expenditures**

# **School Construction Projects** Types of Expenditures FY 2012 to FY 2024

					Co	nstruction Expen	ditures						
PWCS Project Name		CIP			Project Cost	s Outside of Cons	truction Contract		Total Project	Total		Site Acquisition	Total Project
PWC3 Project Name	Opening Date	Construction Project Budget	Construction Contract Bid <sup>1</sup>	Construction Contract Change Order Costs <sup>2</sup>	Temporary Employees <sup>3</sup>	Engineering Services <sup>4</sup>	Furnishings & Equipment <sup>5</sup>	Other Non- Construction Contract Costs <sup>6</sup>	Costs Outside of Construction Contract	Construction Expenditures	Start Up Costs ?	Costs Costs	Costs
Potomac Shores #2 Elementary School	Aug-27	\$ -	\$ -	\$ -	\$ -	\$ 1,424,440	\$ -	\$ -	\$ 1,424,440	\$ 1,424,440	\$ -	\$ 3,591,342	\$ 5,015,78
14th High School	Aug-29	\$ 295,987,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 243,585	\$ 243,585	\$ 243,585	\$ -	\$ 16,946,164	\$ 17,189,74
Occoquan Elementary Replacement School	Dec-25	\$ 73,755,000	\$ 60,917,000	5 -	\$ -	\$ 3,523,306	\$ -	\$ 94,930	\$ 3,618,236	\$ 64,535,236	\$ -	\$ -	\$ 64,535,23
Woodbridge Area Elementary School	Aug-25	\$ 52,144,000	\$ 45,533,000	\$ 2,237,183	\$ 72,927	\$ 1,553,305	\$ -	\$ 1,276,376	\$ 5,139,790	\$ 50,672,790	\$ -	\$ 7,809,846	\$ 58,482,63
Innovation Elementary School (Rosemount Lewis)	Sep-22	\$ 40,855,000	\$ 35,000,000	\$ 133,388	\$ 159,977	\$ 2,822,401	\$ 285,877	\$ 1,354,638	\$ 4,756,282	\$ 39,756,282	\$ .	\$ 64,187	\$ 39,820,46
Gainesville High School (13th High School)	Sep-21	\$ 127,400,000	\$ 108,500,000	\$ 853,294	\$ 330,318	\$ 6,690,857	\$ 5,107,005	\$ 3,858,498	\$ 16,839,972	\$ 125,339,972	\$ -	\$ 16,655,233	\$ 141,995,20
Potomac Shores Middle School	Sep-21	\$ 64,119,000	\$ 52,474,000	\$ 67,298	\$ 272,553	\$ 3,191,858	\$ 3,041,754	\$ 1,410,290	\$ 7,983,754	\$ 60,457,754	\$ -	\$ -	\$ 60,457,75
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	\$ 18,310,13
John D. Jenkins Elementary School	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	\$ 40,986,58
Independence Nontraditional School	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	s -	\$ -	\$ 36,407,80
Covington-Harper Elementary School	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	\$ -	\$ 24,748,56
Kilby Elementary Replacement School	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	\$ 26,481,55
Kyle Wilson Elementary School	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	\$	\$ 24,894,87
Maintenance Facility	Sep-16	\$ 11,444,000	\$ 8,074,000	\$37,561	\$ 130,361	\$ 1,344,226	\$ 322,155	\$ 1,048,806	\$ 2,883,109	\$ 10,957,109	s -	\$	\$ 10,957,10
Charles J. Colgan Sr. 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	\$ 112,580,97
Chris Yung Elementary School	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	\$ 27,491,37
Haymarket Elementary School	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	\$ 22,265,46
The Nokesville School	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	\$ 34,998,41
PACE West	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	\$ 10,493,81
Ronald Wilson Reagan Middle School	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	\$ 24,661,48

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

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

On-site construction project managers, outsodals services

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

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

\*\*Utility Fees, easements, farific signalization, inspection services, stormwater fees, wellands mitigation and monitoring, erosion controls, and other unclassified expenses

\*\*Perendable Guipment and Materials to includes: instructional suppliers, office suppliers, instruction is little instructional suppliers, office suppliers, instruction is little fees

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

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

# **Bond Expenditures**

# Bond Issuance: Virginia Public School Authority 2023 (V23A)

Bond			/Es	Anticipated timated Cost in CIP Original Bond	Ad	ljustments -	Adj	ustments -	Resulting Project
Issuance	Project Name	Func		Disbursement		Year 1		Year 2	Amount
V23A	Construction	0370	\$	2,198,020	\$	*	\$		\$ 2,198,020
V23A	Elementary School (Woodbridge Area)	305A	\$	34,703,000	\$		\$	Je /	\$ 34,703,000
V23A	Elementary School (Potomac Shores Area)	314A	\$	3,146,680	\$	9.45	\$		\$ 3,146,680
V23A	Rosemount Lewis ES (Innovation ES)	317A	\$	250,000	\$		\$	191	\$ 250,000
V23A	Occoquan ES Replacement	326H	\$	9,840,000	\$	-,-	\$		\$ 9,840,000
V23A	Washington Reid HVAC Full Replacement	341C	\$	2,017,000	\$	7.	\$	7-1	\$ 2,017,000
V23A	Neabsco ES - Elevator Repl and Exterior ADA	370F	\$	3,325,000	\$	÷	\$	-	\$ 3,325,000
V23A	Swans Creek ES - Renovation	389D	\$	3,764,000	\$	-	\$	3.61	\$ 3,764,000
V23A	Cedar Point ES - Renovation	390D	\$	3,500,000	\$	3,092,885	\$		\$ 6,592,885
V23A	Marsteller MS Construct Secure Vestibule	421C	\$	1,250,000	\$	-	\$		\$ 1,250,000
V23A	Parkside Ms - Renewal	450N	\$	70,000	\$	1 <del>-</del>	\$	-	\$ 70,000
V23A	Graham Park MS - Fenestration	451M	\$	200,000	\$		\$	7 <u>4</u> 1	\$ 200,000
V23A	Fred Lynn MS - Renovation	452R	\$	2,500,000	\$	-	\$		\$ 2,500,000
V23A	Rippon MS - Roof Replacement	459N	\$	2,100,000	\$		\$		\$ 2,100,000
V23A	Rippon MS - HVAC Replacement	459Q	\$	515,100	\$	4	\$		\$ 515,100
V23A	Bull Run MS Construct Secure Vestibule	492D	\$	1,250,000	\$		\$	Sec.	\$ 1,250,000
V23A	Gainesville MS Construct Secure Vestibule	496E	S	1,250,000	\$		\$	-	\$ 1,250,000
V23A	Woodbridge HS Internal Modifications	5063	\$	2,500,000	\$		\$		\$ 2,500,000
V23A	Woodbridge HS - Fenestration	506T	\$	5,117,655	\$		\$	1	\$ 5,117,655
V23A	Woodbridge HS - Cosmetology Lab Reno	506U	\$	1,019,000	\$	_	\$	- 2	\$ 1,019,000
V23A	Osbourn Park HS - Artificial Turf	508V	\$	5,096,000	\$	383,790	\$		\$ 5,479,790
V23A	Gainesville HS - Site Improvements	513C	\$	1,275,000	\$	-	\$		\$ 1,275,000
V23A	14th HS Site Building, New	517A	\$	1,275,000	\$	16,210	\$	-	\$ 16,210
V23A	Patriot HS Stadium Turf & Track & Playfield Replacement	542D	\$	1,500,000	\$	10,210	\$		\$ 1,500,000
V23A	Brentsville HS - Artificial Turf	553P	\$	25,000	\$	- 2	\$		\$ 25,000
V23A V23A	Brentsville HS - Renovation	553R	\$	2,117,000	\$	-	\$		\$ 2,117,000
V23A V23A		553S	\$	5,500,000	\$		\$		\$ 5,500,000
V23A V23A	Brentsville HS - Chiller Replacement	553T	\$	4,500,000	\$	*	\$	-	\$ 
V23A V23A	Brentsville HS - Turf Management Program Facility		\$	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	S		\$	1.1 <del>4</del> .5	\$ 4,500,000
	GarField HS HVAC all RTUs	5692		6,174,000	\$	-	-	-	6,174,000
V23A	Gar-Field HS Fenestration	569Y	\$	4,424,660	-	-	\$		\$ 4,424,660
V23A	Gar-Field HS Artificial Turf/Concession Bldg	569Z	\$	4,160,000	\$	*	\$		\$ 4,160,000
V23A	Hylton HS Renewal	571M	\$	1,750,000	\$	- :+:	\$		\$ 1,750,000
	Forest Park HS - Roof Replacement	587F	\$	1,950,000	\$	-	\$	-	\$ 1,950,000
V23A	KLC - Revolving Door Replacement	604D	\$	930,000	\$		\$		\$ 930,000
V23A	KLC - Interior Modifications	604E	\$	2,800,000	\$	\#/-	\$		\$ 2,800,000
V23A	Security Operation Center - Bldg 19 Renovation	619B	\$	1,300,000	\$		\$	-	\$ 1,300,000
V23A	Transportation - Brentsville Renovation	702B	\$	5,550,000	\$		\$	-	\$ 5,550,000
V23A	Various Locations CTE Woodworking Lab Conversions	CTEW		1,100,000	\$		\$	-	\$ 1,100,000
V23A	Energy Conservation Measures	ENRG		6,000,000	\$	+	\$	-	\$ 6,000,000
V23A	Security Upgrades	SECU	\$	1,220,000	\$	( <del>*</del> )	\$	-	\$ 1,220,000
Total			\$	137,887,115	\$	3,492,885	\$	-	\$ 141,380,000

# **Bond Expenditures**

# Bond Issuance: Virginia Public School Authority 2022 (V22A)

				Anticipated						
			/128	in CIP					1	Resulting
Bond			-	Priginal Bond	Ad	justments -	Adj	justments -		Project
Issuance	Project Name	Func	i	Disbursement		Year 1		Year 2		Amount
V22A	Elementary School (Occoquan/Woodbridge Area)	305A	\$	3,520,440	\$	-	\$	-	\$	3,520,440
V22A	Occoquan ES Replacement	326H	\$	3,000,000	\$	-	\$	-	\$	3,000,000
V22A	Bennett ES - Renovation	365F	\$	4,000,000	\$	-	\$	-	\$	4,000,000
V22A	Bristow Run ES - Renewal	386E	\$	9,500,000	\$	-	\$	-	\$	9,500,000
V22A	Cedar Point ES - Renovation	390D	\$	4,872,000	\$	595,458	\$	-	\$	5,467,458
V22A	Parkside MS - Renewal	450N	\$	5,994,000	\$	-	\$	-	\$	5,994,000
V22A	Graham Park MS - Fenestration	451M	\$	2,350,000	\$	-	\$	(506,231)	\$	1,843,769
V22A	Benton MS - Renovation	488G	\$	1,136,000	\$	-	\$	-	\$	1,136,000
V22A	Gainesville MS Addition	496D	\$	337,000	\$	-	\$	354,245	\$	691,245
V22A	Woodbridge HS - Fenestration	506T	\$	590,560	\$	-	\$	-	\$	590,560
V22A	Woodbridge HS - Cometogogy Lab Renovation	506U	\$	90,000	\$	-	\$	-	\$	90,000
V22A	Osbourn Park HS - Roof Replacement	508T	\$	2,750,000	\$	-	\$	-	\$	2,750,000
V22A	Osbourn Park HS - Artificial Turf	508V	\$	480,000	\$	-	\$	-	\$	480,000
V22A	Battlefield HS - Roof Replacement	529G	\$	1,000,000	\$	(12,900)	\$	-	\$	987,100
V22A	Freedom HS Roof Replacement	530F	\$	2,000,000	\$	(582,558)	\$	-	\$	1,417,442
V22A	Unity Reed HS - Fenestration Improvements	568V	\$	151,986	\$	-	\$	-	\$	151,986
V22A	Gar-Field HS Artificial Turf/Concession Bldg	569Z	\$	440,000	\$	-	\$	-	\$	440,000
V22A	Hylton HS - Artificial Turf	571Q	\$	400,000	\$	-	\$	-	\$	400,000
V22A	Forest Park HS - Roof Replacement	587F	\$	1,500,000	\$	-	\$	-	\$	1,500,000
V22A	Transportation - Brentsville Renovation	702B	\$	400,000	\$	-	\$	-	\$	400,000
Total			\$	44,511,986	\$	-	\$	(151,986)	\$	44,360,000

# Elementary School Construction Cost Data

# Elementary School Construction Cost Data Prince William County Schools 2003-04 through 2023-24

		<b>School Construction</b>							
			Contract		Building	g Cost	Site (	Cost	
	Building		Bid	Contract		$\operatorname{Bldg}$		_	
Elementary School	Square	Did Data	Contract Total	Cost Per	Bldg Cost Total	Cost Per	Site Cost Total	Site Cost	
•	_	Bid Date		Sq Ft		Sq Ft		Per Sq Ft	
Occoquan ES Repl	119,710	Mar-24	\$60,917,000		\$52,237,963	\$436.37	\$8,679,037	\$72.50	
Woodbridge Area ES	129,903	Jan-23	\$45,533,000	\$350.52	\$39,291,000	\$302.46	\$6,262,000	\$48.21	
Innovation 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 <sup>5</sup>	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 <sup>3</sup>	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 <sup>2</sup>	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	

<sup>1</sup> 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

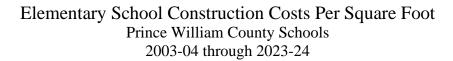
<sup>2</sup> This site was pre-graded by the developer, value approximately \$ 1.2 million. For project comparison purposes add 13.35 to project sq. ft. cost and to site sq. ft. cost.

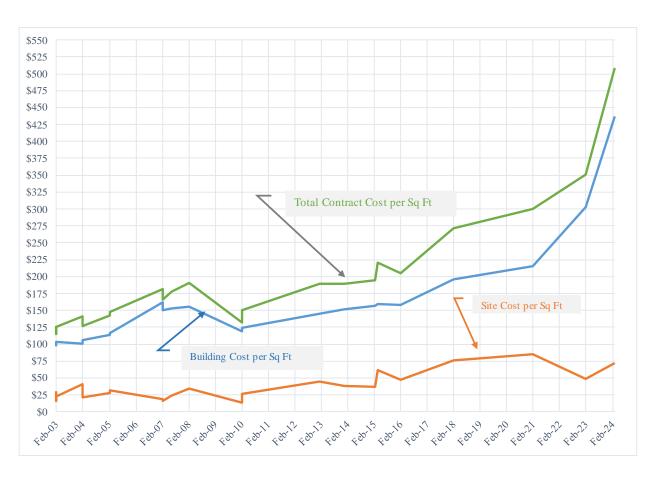
3 This site was pre-graded by the developer, value approximately \$ 700K. For project comparison purposes add \$ 6.59 to project sq. ft. cost and to site sq. ft. cost.

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.





# APPENDIX E

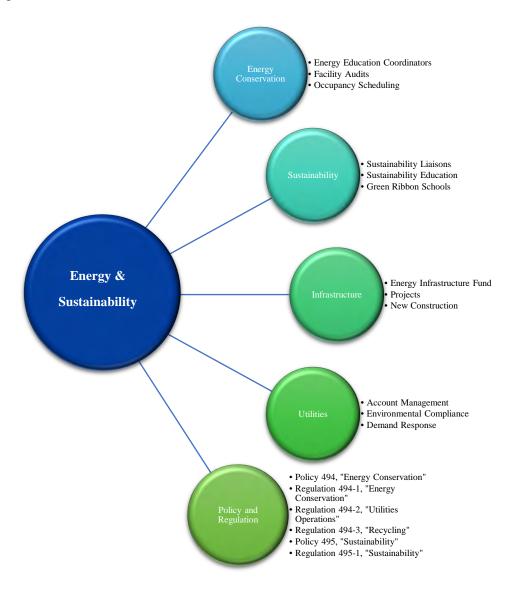
# **Energy Management and Sustainability**

# **Energy Management and Sustainability**

Energy management and sustainability in Prince William County Public Schools (PWCS) uses a multifaceted approach to conservation and stewardship. Policy 494 embraces energy conservation and acknowledges the division's 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. Support and program oversight are the responsibility of the Facilities Department. However, each school or facility designates a site administrator who is accountable for energy conservation and sustainability practices.

Implementation of the energy management and sustainability program shall be through a team led by the Facilities Department's Supervisor of Energy Management and Sustainability, Energy Education Coordinators and Sustainability Coordinators, 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, cost, and emissions will be maintained by the Facilities Department for each site to provide verifiable performance results on the goals and progress of the energy management and sustainability program.



## **Energy Conservation**

#### **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 and greenhouse gas emissions.

Basic areas of responsibility include administration and recordkeeping, accountability, program implementation, promoting divisionwide staff and student participation, reporting, and validating energy management system compliance to the energy policy and guidelines. Energy Education Coordinators use CarbonHub and EnergyCAP software to monitor greenhouse gas emissions and energy usage trends respectively.

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 Energy Audits**

Sites within PWCS will be audited 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, including closures, holidays, and extended shutdown periods.

#### **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 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 the division's facility scheduling 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 are required to check the HVAC box to indicate as such in the request. Failure to do so will result in no available HVAC service. Per Regulation 930-1, "Community Use of School Facilities," events shall be submitted a minimum of 30 business days in advance for commercial events and 15 business days in advance for all other activities. This ensures that the service can be scheduled in a timely manner.

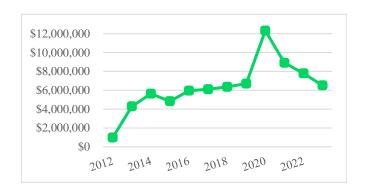
## **Energy Conservation Savings**

July 2012 - December 2023

Period	Month	Saving		Period	
Period	Month	S	%	Totals	
Fast Track 2012	July - December	\$980,439	9.17%	\$980,439	
Performance 2013	January - December	\$4,291,183	18.94%	\$4,291,183	
Performance 2014	January - December	\$5,626,925	23,08%	\$5,626,92	
Performance 2015	January - December	\$4,830,883	19.32%	\$4,830,883	
Performance 2016	January - December	\$5,943,723	24.00%	\$5,943,72	
Performance 2017	January - December	\$6,097,495	23.83%	\$6,097,49	
Performance 2018	January - December	\$6,364,786	23.99%	\$6,364,78	
Performance 2019	January-December	\$6,696,961	24.33%	\$6,696,96	
Performance 2020	January-December	\$12,318,127	44.39%	\$12,318,12	
Performance 2021	January-December	\$8,905,694	32.95%	\$8,905,69	
Performance 2022	January-December	\$7,776,319	25.98%	\$7,776,319	
3rd Performance	January	\$561,127	21.59%		
Quarter FY2023	February	\$532,219	21.53%	\$1,730,05	
	March	\$636,707	24.60%		
4th Performance	April	\$653,647	26.93%		
Quarter FY2023	May	\$683,045	26.50%	\$2,093,47	
	June	\$756,787	28.24%		
1st Performance	July	\$556,663	21.36%		
Quarter FY2024	August	\$320,127	11.35%	\$1,380,78	
	September	\$503,997	17.80%		
2nd Performance	October	\$633,975	24.12%		
Quarter FY2024	November	\$553,512 24.30%		\$1,302,61	
	December	\$115,128	16.86%		
Total Program	Savings	\$76,339,469	23.27%		

#### **Annual Energy Cost Avoidance**

July 2012 – December 2023



## 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 and Sustainability, conveying our collective message of environmental leadership at each individual site. Each liaison is encouraged to create opportunities for discussions about sustainability and energy conservation. The Facilities Department provides tools for developing 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.

#### **Sustainability Education**

The Facilities Department incorporates education for students and staff into the school division's *Vision 2025 Launching Thriving Futures Strategic Plan*. Energy Management and Sustainability staff support the development and implementation of place-based, project-based learning activities and resources that focus on energy, water, waste reduction and recycling, and high-performance facilities.

Energy and sustainability-related activities bolster science, technology, engineering, art, and math (STEAM) education while promoting sustainable schools. They provide students with opportunities to actively engage in civic action as they solve real-world environmental issues at their school and in their communities. The foundation of the energy and sustainability educational program is 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.

PWCS offers a sustainable professional development program that provides staff and teachers with the skills to create indoor and outdoor experiential learning spaces, incorporate environmental literacy into the curriculum, identify features that support or impede environmentally conscious classrooms, and help foster a culture that appreciates and models using the building as a teaching tool.

#### U.S. Department of Education Green Ribbon Schools

The federal Green Ribbon Schools program is sponsored by the U.S. Department of Education. The program recognizes environmentally friendly schools and districts that promote environmental awareness, energy efficiency, community engagement, and student wellness. PWCS earned this award in the school district category in 2021. Coles Elementary School was named a Green Ribbon School in 2015, Freedom High School in 2023, and Dale City and Mullen Elementary Schools in 2024.

# Energy Infrastructure Improvements

#### **Energy Infrastructure Fund**

The PWCS Capital Improvement 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 Facilities Department, while creating measurable Return on Investment (ROI).

Energy Management and Sustainability has worked with various 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 equipment and 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, outdoor learning environments, feasibility studies, civil engineering/land survey training, renewable energy).

# **Anticipated Energy Infrastructure Funding Priorities**

# Fiscal Years 2025-2029

Energy Infrastructure Improvement Project	FY2025	FY2026	FY2027	FY2028	FY2029
Building Automation Improvements	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Monitoring Based Analytics and Retrocomissioning	\$350,000	\$350,000	\$350,000	\$350,000	\$350,000
LED Lighting Retrofits	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Equipment and Mechanical Infrastructure	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
Building Envelope/Thermal Insulation	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Third-Party Energy Audits/Feasibility Studies	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Water Conservation	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Outdoor Learning Environments	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
TOTAL	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000

# **Energy Infrastructure Improvement Projects**

# Fiscal Year 2024

Location	Project Scope
Benton MS, Forest Park HS, Loch Lomond ES, Mountain View ES	Building Automation Upgrade
Bel Air ES, Belmont ES, Ellis ES, Freedom HS, Pattie ES	LED Replacement Program
Bel Air ES, Kelly Leadership Center	Performance Contracting
Divisionwide	Predictive Maintenance Analytics
Alvey ES, Battlefield HS, Belmont ES, Freedom HS	Retrocommissioning

# Fiscal Year 2025

Location	Project Scope
Divisionwide	Building Automation Upgrade
Divisionwide	LED Replacement Program
Divisionwide	Performance Contracting
Divisionwide	Predictive Maintenance Analytics
Divisionwide	Retrocommissioning

#### Construction

The Facilities Department is committed to the construction of energy efficient, highly performing facilities. Energy Management and Sustainability team members regularly review all energy consuming systems during the design and development of any building construction, renovation, or alteration in accordance with the *PWCS Sustainable Design Principles for High-Performance Buildings*.

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

High-performing maintenance strategies and construction standards are integral to achieving strategic priorities for sustainability as identified in Commitment 2, Objective 2.3 of the *PWCS Vision 2025 Launching Thriving Futures Strategic Plan*. One of the goals related to this strategic priority is to complete the first Net-Zero new construction school replacement in PWCS. Occoquan Elementary School has been identified for this project.

To achieve net-zero energy at Occoquan Elementary School, certain elements are taken into consideration when designing for a sustainable building. Incorporating the *PWCS Sustainable Design Principles for High-Performance Buildings*, all new construction and major renovation projects have guidance for third-party certifications, environmental impact, materials and resources, energy efficiency, water use efficiency, life-cycle analysis, user experience, and commissioning and sustainability review.

The Occoquan Elementary School replacement project is designed using PWCS-specific design principles and specifications. In addition, aspects of net-zero design in this project include: maximizing solar orientation on the site, focusing on daylighting and indoor environmental quality, using a ground source heat pump, targeting an Energy Use Intensity (EUI) of 24, generating energy via a photovoltaic (PV) solar array, and incorporating educational signage throughout the building and grounds.

Energy Management and Sustainability is committed to year-round advocacy for conservation strategies and sustainable design, maintenance, and operations practices in PWCS.

#### **Utilities**

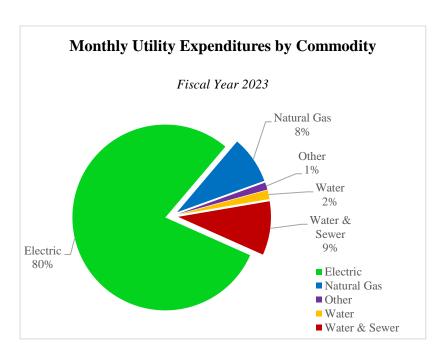
#### **Account Management**

Regulation 494-2 establishes responsibilities and operating procedures for the management of utilities by the Facilities Department. It is the responsibility of Energy Management and Sustainability 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

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



#### **Environmental Compliance**

Prior to procurement, delivery, or payment of any heating 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. – we are incentives from utility

