# Approved Capital Improvements Program

Fiscal Years 2013-22



# CAPITAL IMPROVEMENTS PROGRAM

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# PRINCE WILLIAM COUNTY PUBLIC SCHOOLS

# CAPITAL IMPROVEMENTS PROGRAM FISCAL YEARS 2013-2022

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# CAPITAL IMPROVEMENTS PROGRAM

# Fiscal Years 2013-2022

Prince William County Schools is the second largest of 134 School Divisions in the Commonwealth of Virginia and one of the 50<sup>th</sup> largest School Divisions in the country. The School Division provides services to over six percent of the state's student enrollment. 2011-12 enrollment is 81,635 students with permanent capacity for 79,230 students. This capacity is supplemented with 204 instructional portable classrooms. Additional permanent capacity is set to increase by 19,122 seats over the next ten years with completion of new construction identified within this Capital Improvement Program (CIP).

Prince William County Schools is organized to focus on meeting the needs of its students and employees while managing 90 schools, along with administrative and support facilities. The CIP is a management tool for planning the capital improvements projects needed to house these students and employees adequately. It is an ongoing plan designed to address the need for construction of new school facilities, classroom additions to existing schools, site acquisition, renewals of existing facilities, and upgrading and maintaining the School Division's infrastructure. The CIP is a blueprint of work to be performed over the next ten-year period as determined in assessments of building needs, capacity, and utilization. It is developed to provide facilities and future school sites to sustain world-class educational programs at a reasonable cost.

The CIP enables the School Division to address changing enrollment patterns and utilize facilities in ways that are consistent with sound educational practices. It is a "cumulative" process that builds upon the prior year's plan and is adjusted annually based on updated enrollment projections and fiscal limitations (debt service and budget constraints). Based on the 2011-12 enrollment projections, the CIP provides general guidance for the next ten years.

This ten-year plan is a guide for future planning and helps to better focus staff efforts. The CIP is not an inventory of all the work that must be performed on school facilities over the next ten years. It is a specific budget for the first year of the program (FY 2013) combined with a more general planning schedule for four additional years (FY 2014-17) and then an estimate of projects needed for FY 2018-22. The projects designated for the first two years of the plan are the highest priority needs.

# Prince William County Schools - Strategic Plan

The Capital Improvements Program must meet the following objective of the Strategic Plan:

Objective 2.3: Enhance the appearance, condition, and capacity of physical plants, facilities, and equipment.

- 2.3.1 All Division facilities will pass compliance audits and meet building code regulations.
- 2.3.2 Each year, the number of trailers will be reduced so that students are housed in permanent facilities.

This objective is addressed in two general program areas:

- New Construction projects under construction and planned construction projects to include additions
- Renovations/Renewals/Maintenance managing existing school building conditions

# **Recent Accomplishments**

In the past year, construction was completed on Patriot High School, T. Clay Wood Elementary School, and Piney Branch Elementary School with all three schools open in September 2011. A major renovation to Pennington Traditional School was also completed. Also, additions were completed at Westridge Elementary School (6 classrooms) and Swans Creek Elementary School (6 classrooms).

In the past five years a total of nine schools have been constructed; six elementary schools, one middle school, and one high school, as well as PACE West Replacement School. The Kelly Leadership Center was also constructed in the past five years.

In this same five-year time frame, additions were completed at Ashland Elementary School (5 classrooms); Bel Air Elementary School (8 classrooms); Montclair Elementary School (4 classrooms); Marumsco Hills Elementary School (4 classrooms); Potomac View Elementary School (4 classrooms); Rockledge Elementary School (7 classrooms); Vaughan Elementary School (9 classrooms).

These new schools and additions have provided 8,986 new student spaces at a cost of \$326,181,000.

# **Major Changes**

#### Major changes from the 2012-2021 CIP include:

- Devlin Road Elementary School delayed from 2014 to 2015
- Henderson ES 8-classroom addition delayed from 2014 to 2017
- Parkside MS Addition increased from 15 to 16 classrooms for Independent Hill School \ MS West
- New Dominion Addition delayed from 2014 to 2015
- Elementary School West delayed from 2015 to 2018
- Elementary School East/Independent Hill School Ferlazzo, added to 2016
- Rippon MS Addition increased from 8 to 9 classrooms for Independent Hill School \ MS East
- Elementary School East Neabsco Mills Area, moved from 2018 to 2017
- Kilby ES 13-classroom addition changed to replacement in 2017
- Springwoods ES 5-classroom addition added to 2017
- McAuliffe ES 10-classroom addition delayed past CIP (2021)
- Elementary School Addition Haymarket Area, delayed from 2017 to 2019
- PACE East Replacement/Multi Space added to 2018
- MS East added to 2020
- Elementary School TBD added to 2021
- 14th HS East added to 2021

# **Planning**

Planning for capital improvements is an ongoing process. Priorities shift as conditions change at individual facilities, as programs change, and as the student population totals change. The official student membership count for Prince William County Public Schools, as of September 30, 2011, is 81,635 students. From 2010 to 2011, total enrollment grew by 2,520 students, or 3.18 percent. This is compared to growth from 2009 to 2010 of 2,459 students, or 3.21 percent.

2012-13 enrollment is projected to be 83,837 students, an increase of 2,202 students overall. Examining student enrollment growth within school attendance areas, "Geographic Areas," and school program capacities, guides the identification of the need for additional space for students. Possible solutions to overcrowding conditions include portable classrooms, relocation of special programs, changes in attendance area boundaries, additions, and the construction of new facilities.

Student enrollment projections are utilized for a variety of planning and decision-making functions, among which operational and capital budgeting needs are most prominent. The functional objectives of the Student Housing program are to ensure the accurate preparation of information to enable decision-making with respect to the housing of Prince William County students. Individual school forecasts provide a snapshot of the anticipated changes that Prince William County's public schools will encounter in the course of the current planning period.

Annually, the status of student housing is assessed for the next ten (10) years. This assessment includes determining the current availability of space for students, assessing current student enrollment, projecting future student enrollment, and preparing recommendations for current and future housing of students. During the next five years, student enrollment is projected to increase by an average annual rate of about 2.6 percent. This will result in almost 11,390 additional students during this period.

Building new school facilities and additions to existing school facilities addresses the overwhelming need for additional classrooms; where possible, additions are utilized as cost-effective alternatives to the construction of new facilities. Reagan Middle School is scheduled to open in September 2012. PACE West Replacement School is also scheduled to open September 2012. Additions at Westridge Elementary School (6 classrooms), Swans Creek Elementary School (6 classrooms), and Potomac High School (30 classrooms) are scheduled to open September 2012.

The School Division is committed to re-evaluate the current facilities now housing the students at Independent Hill School and PACE East. A plan to disburse Independent Hill students to existing schools and replace PACE East School in 2018 is proposed with this CIP. This involves adding classrooms to new elementary construction, increasing classroom additions at east and west middle schools, and adding space to construction plans for the 12th high school. This will allow the students of Independent Hill School to be educated in the least restrictive environment.

2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
51	53	53	55	55	55	57
2	2	2	2	2	2	2
13	14	15	15	15	15	15
10	10	10	10	10	10	11
76	79	80	82	82	82	85
4	4	4	4	4	3	3
2	2	2	2	2	2	2
82	85	86	88	88	87	90
	51 2 13 10 76 4 2	51 53 2 2 13 14 10 10 76 79 4 4 2 2	51         53         53           2         2         2           13         14         15           10         10         10           76         79         80           4         4         4           2         2         2	51         53         53         55           2         2         2         2           13         14         15         15           10         10         10         10           76         79         80         82           4         4         4         4           2         2         2         2	51         53         53         55         55           2         2         2         2         2         2           13         14         15         15         15         15           10         10         10         10         10         10           76         79         80         82         82           4         4         4         4         4         4           2         2         2         2         2         2	51         53         53         55         55           2         2         2         2         2         2           13         14         15         15         15         15         15           10         10         10         10         10         10         10           76         79         80         82         82         82           4         4         4         4         4         3           2         2         2         2         2         2

# **Funding**

This CIP is prepared by the Superintendent as part of the budget and reviewed and adopted by the Prince William County School Board. The CIP is then presented to the Prince William Board of County Supervisors as part of the School Division's budget for funding appropriation.

Prioritizing the work within the available funding to address the most critical needs is an ever-present challenge. Funds are included in the approved budget to support the CIP. The funding formula developed by the Associate Superintendent for Finance and Support Services provides targets for construction and maintenance expenditures.

It is impossible to address all School Division needs in a single year; therefore, a long-term approach is needed to balance expenditures with anticipated revenues. Funding for long-range plans is adjusted for Prince William County's overall bonding capacity to maintain a Triple A bond rating, as directed by the Prince William Board of County Supervisors.

Proffer funds also provide revenue. Proffers are negotiated at the time of rezoning to help mitigate the capital costs associated with residential development.

Fiscal Year Received	Amount	Purpose
2011	\$3,223,771	Construction and renewal projects, Portable classroom relocation/maintenance
2010	\$7,363,382	Construction and renewal projects, Portable classroom relocation/maintenance
2009	\$8,018,018	Construction and site acquisition, Renewal projects
2008	\$7,054,482	Construction and site acquisition, Renewal projects
2007	\$10,686,615	PACE West / Yorkshire replacement / various construction, Renewal projects
2006	\$9,799,063	Tyler addition construction, Various construction projects
2005	\$9,600,000	East and West sites, Administration Building, Construction
2003	\$2,200,000	Acquisition of the Williams ES site, Additions to Sudley ES and Bristow Run ES
2002	\$4,265,554	New construction/renewals, Land acquisition for Transportation Center Central, Middle school site at Four Year Trail
2001	\$1,000,000	Acquisition of 10th high school site
2000	\$876,680	New Marsteller MS clearing and grading, Improvement of the Gar-Field HS athletic fields
1999	\$980,000	Improvement of the Brentsville HS parking lot, tennis court and the bus loop
1998	\$1,600,000	Acquisition of Ashland ES site
1996	\$450,000	Aquisition of additional land for the Kingsbrooke ES site
1995	\$671,955	Acquisition of land for the Kingsbrooke ES site
1994	\$793,055	Lightner Road and Old Bridge Schools, Site Acquisition
1992	\$231,845	Lightner Road School Site
Total	\$68,814,420	

# New Schools, Additions, and Other Bond-Funded Projects

Scheduled Completion	Project	Cost
	Loch Lomond Elementary Addition (4 rooms)	\$6,250,000
	Mullen Elementary Addition (6 rooms)	\$6,000,000
	Penn Elementary Addition (7 rooms)	\$5,817,000
	Sinclair Elementary Addition (11 rooms)	\$6,400,000
Cantarul an 2012	Sudley Elementary Addition (10 rooms)	\$6,560,000
September 2013	West Gate Elementary Addition (4 rooms)	\$3,440,000
	Benton Middle Addition (11 rooms)	\$7,247,000
	Potomac Middle Addition (11 rooms)	\$7,770,000
	Potomac High School Addition (30 rooms)	\$15,310,000
	Total - 2013	\$64,794,000
	Elementary School (West - Haymarket/UVA)	\$27,663,000
	Nokesville K-8 School	\$25,000,000
Contombor 2014	River Oaks Elementary Addition (7 rooms)	\$5,555,000
September 2014	Parkside Middle Addition/IHS West (16 rooms)	\$10,363,000
	Renewal-Dumfries Elem School (Partial Funding)	\$3,825,000
	Total - 2014	\$72,406,000
	Elementary School/IHS (West - Devlin Rd. Area)	\$27,757,000
Santambar 2015	Featherstone Elementary Addition (6 rooms)	\$6,058,000
September 2015	New Dominion Addition (10 rooms) <sup>1</sup>	\$4,364,000
	Total - 2015	\$38,179,000
	Elementary School/IHS (East - Ferlazzo)	\$27,198,000
	12th High School/IHS (Mid-County)	\$107,832,000
Contombon 2016	Rippon Middle Addition/IHS (9 rooms)	\$7,202,000
September 2016	Maintenance Facility (Independent Hill site)	\$11,125,000
	Bus Center (West I-66) <sup>2</sup>	\$4,467,000
	Total - 2016	\$157,824,000
	Elementary School (East - Harbor Station)	\$28,560,000
	Elementary School (East - Neabsco Mills Area) <sup>2</sup>	\$28,560,000
	Kilby Elementary School Replacement	\$30,560,000
September 2017	Belmont Elementary Addition (4 rooms)	\$4,503,000
	Henderson Elementary Addition (8 rooms)	\$7,693,000
	Springwoods Elementary Addition (5 rooms)	\$5,267,000
	Total - 2017	\$105,143,000

# New Schools, Additions, and Other Bond-Funded Projects

Scheduled Completion	Project	Cost
	Elementary School (West - Linton Hall Area)	\$29,990,000
C 4 1 2010	Middle School (West - Linton Hall Area)	\$43,986,000
September 2018	PACE East Replacement/Multi-Space	\$31,340,000
	Total - 2018	\$105,316,000
	13th High School (TBD)	\$121,675,000
September 2019	Elementary School Addition Haymarket Area (6 rooms)	\$6,710,000
_	Total - 2019	\$128,385,000
G . I 2020	Middle School (East) <sup>2</sup>	\$48,502,000
September 2020	Total - 2020	\$48,502,000
	Elementary School (TBD) <sup>2</sup>	\$34,728,000
September 2021	14th High School (East) <sup>2</sup>	\$135,610,000
	Total - 2021	\$170,338,000
TOTA	L(FY 2013-2022)	\$890,887,000

Note 1 Construction of the classroom addition, to replace the existing modular and other portable classrooms, is contingent upon the sale of that site's excess property to generate the necessary funding.

Note 2 Sites needed by proffer or purchase (Current CIP does not include acquisition funds)

# Site Acquisition

School staff reviews county residential development plans and maintains a database containing number of units and stage of development. This information is used in making enrollment projections. The projected enrollments by geographic area determine future school locations and attendance areas. School sites acquired must be located and sized in accordance with the adopted Prince William County Comprehensive Plan.

The County's previous rapid development has made school site land acquisitions challenging as prime undeveloped land has been purchased or optioned by developers for future residential, commercial, and industrial development. In the past 12 months the School Board purchased land for an elementary school site (Devlin Road) for future use. Even with purchased and proffered sites, there are still five school sites needed by 2021. If either of the proffered "Avendale" school sites are not used, an additional number of sites would need to be acquired.

Land acquisition will continue to figure prominently in this and future capital improvement budgets. Funding for school site acquisition comes from a combination of "proffered" funds or sites, bond funds, and the operating budget. "Proffered" funds are monetary and/or in-kind contributions to the School Division in order to offset the impact of new residential development on schools.

In making efforts to acquire proffered sites, staff works cooperatively with developers of land to secure the best possible land or monetary contribution. Actual monetary amounts received by Prince William County Schools vary depending on the year a development was first proposed and the number and type of residential units to be constructed. Funds are received as individual units are permitted/built within the development, and are not received in one lump sum.

The location, character and extent of all proposed public facilities must be consistent with Prince William County's Comprehensive Plan as determined by the Prince William County Planning Commission and the Prince William Board of County Supervisors.

# **Site Acquisition Status**

Year To Open	Year Acquired / To Acquire	New School	Property Status	Existing Funds	Funds Required
2014	N/A	Nokesville K-8	PWCS Owned	N/A	N/A
	2008		Proffered		N/A
2014	2011-12	ES @ Haymarket/UVA	Right-of-Way/Easements Needed	\$1,200,000	N/A
2015	2011	Devlin Road ES	Purchased/PWCS Owned	N/A	N/A
2016	2010	Ferlazzo ES	Proffered	N/A	N/A
2016	2006-09	12th High School	PWCS Owned - 102 acres	N/A	N/A
2016	N/A	Maintenance Facility	PWC Owned - Independent Hill Site	N/A	N/A
2016	2014-15	Bus Center (West I-66)	Site Needed-Rt. 15 Area	\$0	\$2,000,000 - \$3,000,000*
2017	2002	ES @ Harbor Station # 1	Proffered	N/A	N/A
2017	2013	ES East	Site Needed - Neabsco Mills Area	\$0	\$4,000,000*
2017	N/A	Kilhu FC Danla coment	PWCS Owned	N/A	N/A
2017	2013-14	Kilby ES Replacement	Additional Adjacent Land	\$0	TBD*
2018	2011	ES West (Linton Hall Area)	Proffered - Avendale	N/A	N/A
2018	2013	L3 West (Linton Hall Alea)	Otherwise Site Needed	\$0	\$4,000,000*
2018	2011	MS West (Linton Hall Area)	Proffered - Avendale	N/A	N/A
2016	2012-13	Wis West (Linton Hall Area)	Otherwise Site Needed	\$0	\$7,500,000*
2018	N/A	PACE East Replacement	PWCS Owned - Independent Hill	N/A	N/A
2019	2014	13th High School (West)	Site Needed	\$0	\$15,000,000*
2020	2015	MS East	Site Needed	\$0	\$9,000,000*
2021	2015-16	ES TBD	Site Needed	\$0	\$5,000,000*
2021	2015	14th High School (East)	Site Needed	\$0	\$17,500,000*

TBD 2002 ES @ Harbor Station #2	2 Proffered	N/A	N/A
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<sup>\*</sup>Sites needed by proffer or purchase. Funding not identified in current CIP

# **Renovations & Renewals**

New construction projects are only part of the CIP picture. Renovations/renewals are programmed to assure that all schools are safe, functional and provide the facilities necessary to support the current educational programs regardless of the age of the building. School renewals are infrastructure improvements that are important to improve capacity, provide adequate activity spaces, and to meet current instructional needs, such as technology and computer laboratories.

Forty-five of the Division's 90 school facilities are over 25 years old. The goal of the school renewal program is to renovate schools prior to 25 years of age since last renewal. The older buildings are well-maintained but are in constant need of repair. They must be renewed to provide quality space, continuity, and stability for a *World-Class Education*.

The Office of Facilities Services continues to meet these challenges head-on and to make dramatic improvements to the physical condition of schools. School building conditions are assessed annually and consideration of critical needs and prior facility upgrades are evaluated. Recent renewals allow for changing the emphasis from systems replacements to maintenance in areas such as roofing and paving repairs.

This CIP addresses the reduction of the backlog of renewal projects at older buildings, with age of each school building the first consideration. The order of renewals may be altered when major components are addressed with previous projects, accelerated deterioration conditions warrant, and with funding constraints. The schedule of Renovations/Renewals includes annual dollars for kitchen upgrades, roof replacement/repairs, upgrades for HVAC equipment and controls, Title IX improvements, and Technology Improvements.

The projects contained in this plan are based on the planning, design review and input from a team of in-house facility maintenance professionals, administration, school principals, and facility-condition evaluations conducted by architect and engineer consultants. The list of capital projects identified provides a clear statement of school facility requirements that have been categorized within the limitation of projected funding.

The FY 2013 budget includes funds for Nokesville K-8 School, partial funding for Potomac High School renewal, Graham Park Middle School HVAC repair, partial roof replacement at 6 schools and Hooe Road Transportation, and various roof repairs, Title IX improvements and technology improvements. Recognizing the current financial situation, renovation projects are often delayed rather than eliminated. In many cases, renewal projects are phased over two years.

School Renewals / Major Infra	structure Renovations may include:
HVAC Systems	Lockers
Lighting	Roof Replacement
Electrical System	Flooring
Plumbing	Painting
Fire Alarm System	Technology
Security System	Casework
Telephone and Intercom Systems	Doors / Hardware
American Disability Act (ADA)	Site Improvements
Bleachers	Title IX Improvements
Elementary School P.E. Space	Clinic Improvements
Secure Access Improvements	

# **Budget – Renovations / Renewals**

The School Division budgets for repairs and renewals using the National Building Research Board recommendations. This Board recommends that 2 to 4 % of current replacement value of facilities be budgeted annually for repairs and renewals. The current replacement value of schools is approximately \$1,743,890,000. Prince William County Schools has established an annual renewal and repair target of 3% of the current replacement value of facilities with 1.5% for preventive maintenance and 1.5% for repairs and renewals. The target to be budgeted in FY 2013 for repairs and renovations is \$56,414,000 (3% value), with the estimated budget in FY 2013 at \$44,792,000 (2.4% value).

Prince William County Schools has completed major renewals of 10 schools at a cost of \$63,066,000 over the past five years.

# **Major Maintenance**

To improve and maintain current facilities, each school is evaluated at seven (7) –year intervals and major maintenance repairs are scheduled. Major maintenance may include:

Typical Major Maintenance Activities			
7-Year Cycle	14-Year Cycle		
Carpeting (Partial)	Paint Exterior and Interior (Partial)		
Paint Hallways, Offices, Exterior Doors, Kitchens (Partial)	Re-key Interior and Exterior Doors		
Seal Coat Paved Areas and Repaint	Repave / Seal Coat Parking Lot, Paved Areas and Tennis Courts		
Minor HVAC Repairs	Repair / Replace Fencing and Backstops		
Repair Concrete Sidewalks and Curbs	Carpeting (Partial)		
Clean and Repair Storm Drains	Update Food Service Equipment (Partial)		
Repair Fencing	Minor Roof Repairs		
Electrical System Preventive Maintenance	Update Plumbing Fixtures		
Trim Trees / Landscaping	Update Electrical Service		
Relamp Interior and Exterior Light Fixtures	Update HVAC Controls		
	Minor Chiller Rebuilding		
	Stage Lighting / Curtain		

Fiscal	Year	Project	Proposed Funding
Year	Opened	<u> </u>	
		Nokesville K-8 School	\$4,000,000
	1981	Potomac High School - Renewal/Addition (Partial Funding)	\$11,556,000
		Graham Park Middle School - HVAC Repair	\$150,000
		Occoquan Elementary School - Roof Replacement (Partial)	\$600,000
		Sinclair Elementary School - Roof Replacement (Partial)	\$506,000
		Tyler Elementary School - Roof Replacement (Partial)	\$500,000
<i>2013</i>		Brentsville High School - Roof Replacement (Partial)	\$250,000
		Stonewall High School - Roof Replacement (Partial)	\$600,000
		Transportation Hooe Road - Roof Replacement	\$300,000
		Roof Repairs (TBD)	\$738,000
		Title IX Improvements	\$220,000
		Technology Improvement Program - Upgrades	\$4,500,000
		Total - Fiscal Year 2013	\$23,920,000
	1953	Dumfries Elementary School - Renewal (Partial Funding)	\$2,000,000
	1962	Loch Lomond Elementary School - Renewal Phase 1	\$3,000,000
		Fred Lynn Middle School - HVAC Repair	\$1,000,000
		Woodbridge MS - Window Wall Replacement (Funding Phase 1)	\$1,000,000
		Gar-Field High School - Roof Replacement (Partial)	\$1,400,000
		Gar-Field High School - Auditorium Upgrade	\$1,200,000
		Woodbridge High School - Roof Replacement	\$3,000,000
<i>2014</i>		Woodbridge High School - Auditorium Upgrade	\$1,200,000
		Interior/Exterior Bleachers - Phase 5	\$462,000
		Transportation Bus Parking (TBD)	\$1,000,000
		Kitchen - Upgrades	\$2,000,000
		HVAC Equipment and Controls - Upgrades	\$1,008,000
		Title IX Improvements	\$230,000
		Technology Improvement Program - Upgrades	\$4,500,000
		Total - Fiscal Year 2014	\$23,000,000
	1953	Dumfries Elementary School - Renewal (Partial Funding)	\$3,000,000
	1985	Henderson Elementary School - Renewal (Funding Phase 1)	\$6,365,000
	1981	King Elementary School - Renewal (Funding Phase 1)	\$6,365,000
	1983	Lake Ridge Elementary School - Renewal (Funding Phase 1)	\$6,365,000
	1962	<b>Loch Lomond Elementary School -</b> Renewal Phase 2 (Funding Phase 1)	\$3,365,000
	1985	Springwoods Elementary School - Renewal (Funding Phase 1)	\$6,365,000
		Woodbridge MS - Window Wall Replacement (Funding Phase 2)	\$800,000
		Osbourn Park High School - HVAC Repair	\$1,500,000
2015		Stonewall High School - HVAC Repair	\$1,700,000
<i>2015</i>		Kitchen HVAC Upgrades - Phase 1 of 2	\$1,200,000
		Graham Park Middle School - Roof Replacement	\$3,000,000
		Saunders Middle School - Roof Replacement	\$2,800,000
		Transportation Bus Parking (TBD)	\$1,002,000
		Kitchen - Upgrades	\$1,300,000
		HVAC Equipment and Controls - Upgrades	\$863,000
		Title IX Improvements	\$240,000
		Technology Improvement Program - Upgrades	\$4,500,000
		Total - Fiscal Year 2015	\$50,730,000
		1 OF THE LOCAL POLO	φ50,750,000

Fiscal	Year	Project	Proposed
Year	Opened	<u> </u>	Funding
		<b>Henderson Elementary School -</b> Renewal (Funding Phase 2)	\$2,241,000
		King Elementary School - Renewal (Funding Phase 2)	\$2,241,000
		Lake Ridge Elementary School - Renewal (Funding Phase 2)	\$2,241,000
		<b>Loch Lomond Elementary School -</b> Renewal Phase 2 (Funding Phase 2)	\$2,241,000
		Springwoods Elementary School - Renewal (Funding Phase 2)	\$2,241,000
		Kitchen HVAC Upgrades - Phase 2 of 2	\$1,450,000
2016		Beville Middle School - Roof Replacement	\$2,800,000
2010		Lake Ridge Middle School - Roof Replacement	\$2,800,000
		Kitchen - Upgrades	\$750,000
		HVAC Equipment and Controls - Upgrades	\$1,437,000
		Roof Replacements/Repairs (TBD)	\$800,000
		Title IX Improvements	\$250,000
		Technology Improvement Program - Upgrades	\$4,500,000
		Total - Fiscal Year 2016	\$25,992,000
	1990	Antietam Elementary School - Renewal (Funding Phase 1)	\$7,360,000
	1989	McAuliffe Elementary School - Renewal (Funding Phase 1)	\$7,360,000
	1990	Mullen Elementary School - Renewal (Funding Phase 1)	\$7,360,000
	1989	Westridge Elementary School - Renewal (Funding Phase 1)	\$7,360,000
	1989	Lake Ridge Middle School - Renewal (Funding Phase 1)	\$8,000,000
	1988	Saunders Middle School - Renewal (Funding Phase 1)	\$8,000,000
		Rippon Middle School - Fenestration Improvements - Phase 1	\$800,000
<i>2017</i>		Gar-Field High School - Roof Replacement (Partial)	\$1,500,000
		Hylton High School - Roof Replacement (Funding Phase 1)	\$3,000,000
		Kitchen - Upgrades	\$830,000
		HVAC Equipment and Controls - Upgrades	\$891,000
		Roof Replacements/Repairs (TBD)	\$800,000
		Title IX Improvements	\$260,000
		Technology Improvement Program - Upgrades	\$4,500,000
		Total - Fiscal Year 2017	\$58,021,000
		Antietam Elementary School - Renewal (Funding Phase 2)	\$2,128,000
		McAuliffe Elementary School - Renewal (Funding Phase 2)	\$2,128,000
		Mullen Elementary School - Renewal (Funding Phase 2)	\$2,128,000
		Westridge Elementary School - Renewal (Funding Phase 2)	\$2,128,000
		Lake Ridge Middle School - Renewal (Funding Phase 2)	\$2,603,000
		Saunders Middle School - Renewal (Funding Phase 2)	\$2,603,000
2010	1990	River Oaks Elementary School - Renewal (Funding Phase 1)	\$6,353,000
<b>2018</b>		Hylton High School - Roof Replacement (Funding Phase 2)	\$2,000,000
		Kitchen - Upgrades	\$391,000
		HVAC Equipment and Controls - Upgrades	\$1,000,000
		Roof Replacements/Repairs (TBD)	\$1,000,000
		Title IX Improvements	\$270,000
		Technology Improvement Program - Upgrades	\$4,500,000
		Total - Fiscal Year 2018	\$29,232,000

Fiscal	Year	Project	Proposed Funding
Year	Opened		
		River Oaks Elementary School - Renewal (Funding Phase 2)	\$3,609,000
	1996	Bennett Elementary School - Renewal (Funding Phase 1)	\$7,000,000
	1996	Leesylvania Elementary School - Renewal (Funding Phase 1)	\$7,000,000
	1994	Marshall Elementary School - Renewal (Funding Phase 1)	\$7,000,000
	1991	Montclair Elementary School - Renewal (Funding Phase 1)	\$7,000,000
	1995	Mountain View Elementary School - Renewal (Funding Phase 1)	\$7,000,000
	1995	Old Bridge Elementary School - Renewal (Funding Phase 1)	\$7,000,000
	1998	Penn Elementary School - Renewal (Funding Phase 1)	\$7,000,000
2019		Benton Middle School - Roof Replacement (Funding Phase 1)	\$2,200,000
		Forest Park High School - Roof Replacement (Funding Phase 1)	\$2,200,000
		Rippon Middle School - Fenestration Improvements - Phase 2	\$904,000
		Kitchen - Upgrades	\$1,000,000
		HVAC Equipment and Controls - Upgrades	\$1,358,000
		Roof Replacements/Repairs (TBD)	\$962,000
		Title IX Improvements	\$280,000
		Technology Improvement Program - Upgrades	\$4,500,000
		Total - Fiscal Year 2019	\$66,013,000
		Bennett Elementary School - Renewal (Funding Phase 2)	\$3,460,000
		Leesylvania Elementary School - Renewal (Funding Phase 2)	\$3,460,000
		Marshall Elementary School - Renewal (Funding Phase 2)	\$3,460,000
		Montclair Elementary School - Renewal (Funding Phase 2)	\$3,460,000
		Mountain View Elementary School - Renewal (Funding Phase 2)	\$3,460,000
		Old Bridge Elementary School - Renewal (Funding Phase 2)	\$3,460,000
2020		Penn Elementary School - Renewal (Funding Phase 2)	\$3,460,000
2020		Forest Park High School - Roof Replacement (Funding Phase 2)	\$1,000,000
		Benton Middle School - Roof Replacement (Funding Phase 2)	\$1,000,000
		HVAC Equipment and Controls - Upgrades	\$1,409,000
		Roof Replacements/Repairs (TBD)	\$500,000
		Title IX Improvements	\$290,000
		Technology Improvement Program - Upgrades	\$4,500,000
		Total - Fiscal Year 2020	\$32,919,000
	1998	Bristow Run Elementary School - Renewal (Funding Phase 1)	\$8,250,000
	2000	Signal Hill Elementary School - Renewal (Funding Phase 1)	\$8,250,000
	2000	Benton Middle School - Renewal (Funding Phase 1)	\$9,500,000
	1991	Beville Middle School - Renewal (Funding Phase 1)	\$9,500,000
	2000	Forest Park High School - Renewal (Funding Phase 1)	\$13,000,000
	1991	Hylton High School - Renewal (Funding Phase 1)	\$13,000,000
2021		Fenestration Improvements	\$1,486,000
		Kitchen - Upgrades	\$1,000,000
		HVAC Equipment and Controls - Upgrades	\$1,555,000
		Roof Replacements/Repairs (TBD)	\$5,000,000
		Title IX Improvements	\$300,000
		Technology Improvement Program - Upgrades	\$4,500,000
		Total - Fiscal Year 2021	\$75,341,000

Fiscal Year	Year Opened	Project	Proposed Funding
		Bristow Run Elementary School - Renewal (Funding Phase 2)	\$3,297,000
		Signal Hill Elementary School - Renewal (Funding Phase 2)	\$3,297,000
		Benton Middle School - Renewal (Funding Phase 2)	\$3,398,000
		Beville Middle School - Renewal (Funding Phase 2)	\$3,398,000
		Forest Park High School - Renewal (Funding Phase 2)	\$5,009,000
		Hylton High School - Renewal (Funding Phase 2)	\$5,009,000
<i>2022</i>		Fenestration Improvements	\$2,000,000
		Kitchen - Upgrades	\$1,000,000
		HVAC Equipment and Controls - Upgrades	\$1,641,000
		Roof Replacements/Repairs (TBD)	\$4,500,000
		Title IX Improvements	\$310,000
		Technology Improvement Program - Upgrades	\$4,500,000
	Total - Fiscal Year 2022		\$37,359,000
TOTAL (FY 2013-2022)		\$422,527,000	

# **Technology Improvements Program**

Technology	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
VoIP telephones HS	440,000	462,000	585,100	609,355	534,823
VoIP telephones MS	335,000	351,750	469,338	487,804	507,195
VoIP telephones ES	560,000	588,000	717,400	648,270	737,684
Interactive whiteboard HS	777,500	596,375	565,568	75,000	75,000
Interactive whiteboard MS	662,500	475,625	471,636	50,000	50,000
Interactive whiteboard ES	927,000	753,350	704,643	100,000	100,000
Enh wireless capability HS	100,000	100,000	100,000	806,221	480,000
Enh wireless capability MS	100,000	100,000	100,000	988,452	384,270
Enh wireless capability ES	400,000	400,000	400,000	215,000	
Digital messaging HS		15,000	15,750	16,538	
Digital messaging MS		18,900	19,845	20,837	21,879
Digital messaging ES		69,563	73,041	76,693	66,250
400 MHz (in building) Radios HS	75,000	75,000			75,000
400 MHz (in building) Radios					
MS		99,000	99,000		45,000
400 MHz (in building) Radios ES			112,000	112,000	65,000
Student response system HS					334,058
Student response system MS				182,417	386,978
Student response system ES		248,053			511,511
Wireless communications HS	7,200	7,560	7,938	8,335	8,752
Wireless communications MS	12,960	13,608	14,288	15,003	15,753
Wireless communications ES	23,640	59,016	44,453	46,675	49,009
Mobile Principal / SIS info HS	36,000			41,400	
Mobile Principal / SIS info MS	43,200				51,840
Mobile Principal / SIS info ES		67,200			
Total	\$4,500,000	\$4,500,000	\$4,500,000	\$4,500,000	\$4,500,000

# **Summary**

TOTAI	NEW CONSTRUCTION / RENEWALS	¢1	313 414 000
•	Renewals	\$	426,352,000
•	Additions	\$	122,509,000
•	Construction of New Facilities		764,553,000
•	Total Additional Capacity		19,122
	New Dominion Classroom Addition		10
	High School Classroom Additions (1 School)		30
	Middle School Classroom Additions (4 Schools)		47
	Elementary School Classroom Additions (15 Schools)		78
•	Additional Classrooms (21 Schools)		165
	Replacement Schools (PACE East, Kilby Elementary)		2
	New K-8 School (Nokesville)		1
	New High Schools		3
	New Middle Schools		2
	New Elementary Schools		7
•	Additional School Facilities		15
•	Projected Growth in Students, Fiscal Years 2013 - 2022		22,300

# Capital Projects Funded Fiscal Year 2013

- Open Reagan Middle School
- Open PACE West Replacement School
- Continue Title IX Improvements
- Construct Nokesville K-8
- Continue Renewal of Potomac High School and Pattie Elementary School
- Construct additions to Potomac High School; Benton and Potomac Middle Schools
- Construct additions to Loch Lomond, Mullen, Penn, Sinclair, Sudley, and West Gate Elementary Schools

# APPENDIX A SCHOOL FACILITY SUMMARY

Alpha Listing of Schools / Facilities - A listing of each school/facility, plus the minimum remaining work to be done at each school/facility, is on the following pages.

# Alvey Elementary School

# School & Site Information

Construction (Year): 2003 Regular Classrooms: 41
Renovation (Year): Square Feet: 83,084
Program Capacity: 780 Site Size (Acres): 20.17

# Ann Ludwig Special School

# School & Site Information

Construction (Year): 1975 Number of Rooms: N/A
Renovation (Year): Square Feet: 14,220
Program Capacity: 60 Site Size (Acres): 4.77

#### Maintenance & Repair

- Steel windows are old, do not close properly, are single-paned and are not energy efficient. Windows should be replaced.
- Building does not have an energy management system.
- Building has subsurface soil settlement issues. Extensive stabilization is required to continue to utilize this building longer than three to five years.

# Handicap Access

- Toilets not handicap accessible; must be upgraded to ADA standards.
- Water fountains are not at ADA standards.
- Building signage does not meet ADA standards.

# Antietam Elementary School (Scheduled for Renewal in FY 2017)

#### **School & Site Information**

Construction (Year): 1990 Regular Classrooms: 31
Renovation (Year): Square Feet: 62,334
Program Capacity: 616 Site Size (Acres): 14.85

# Maintenance and Repair

- HVAC system replacement classroom terminal units.
- Energy Management Control System (EMCS) upgrade.

#### Handicap Access

• Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

# Ashland Elementary School

#### School & Site Information

Construction (Year): 2002 Regular Classrooms: 46
Renovation (Year): 2008 Square Feet: 98,461
Addition

Program Capacity: 900 Site Size (Acres): 18.05

# Battlefield High School

# School & Site Information

Construction (Year): 2004 Regular Classrooms: 101 Renovation (Year): Square Feet: 285,086 Program Capacity: 2,053 Site Size (Acres): 78.82

# Bel Air Elementary School

# School & Site Information

Construction (Year):1969Regular Classrooms:28Renovation (Year):2008Square Feet:53,712Program Capacity:568Site Size (Acres):15

#### Additional Space

• School needs a security apartment.

# Belmont Elementary School

# School & Site Information

Construction (Year): 1967 Regular Classrooms: 25
Renovation (Year): 2006 Square Feet: 45,790
Program Capacity: 462 Site Size (Acres): 14.28

# Additional Space

- School needs a security apartment.
- A 4-classroom addition is scheduled for 2017.

# **Bennett Elementary School** (Scheduled for Renewal in FY 2019)

# School & Site Information

Construction (Year):1996Regular Classrooms:40Renovation (Year):Square Feet:85,728Program Capacity:780Site Size (Acres):15.29

# Benton Middle School (Scheduled for Renewal in FY 2021)

# School & Site Information

Construction (Year):2000Regular Classrooms:65Renovation (Year):Square Feet:135,309Program Capacity:1,233Site Size (Acres):48.15

# Additional Space

• An 11-classroom addition is scheduled for 2013.

#### Maintenance & Repair

• Roof replacement.

# **Beville Middle School** (Scheduled for Renewal in FY 2021)

School & Site Information

Construction (Year): 1991 Regular Classrooms: 65

Renovation (Year): Square Feet: 134,140 Program Capacity: 1,191 Site Size (Acres): 42.13

Maintenance & Repair

• Roof replacement.

• HVAC system replacement.

# Brentsville District High School

School & Site Information

Construction (Year): 1965 Regular Classrooms: 53 Renovation (Year): 1998-00 Square Feet: 163,066 Program Capacity: 1,110 Site Size (Acres): 77.22

Handicap Access

• In some areas, hardware, such as door handles, does not meet ADA standards and should be replaced.

Maintenance & Repair

• Roof replacement (partial).

# **Bristow Run Elementary School** (Scheduled for Renewal in FY 2021)

School & Site Information

Construction (Year): 1998 Regular Classrooms: 40
Renovation (Year): Square Feet: 85,724
Program Capacity: 780 Site Size (Acres): 21.69

# **Buckland Mills Elementary School**

School & Site Information

Construction (Year): 2006 Regular Classrooms: 43
Renovation (Year): Square Feet: 89,900
Program Capacity: 852 Site Size (Acres): 15

# Bull Run Middle School

School & Site Information

Construction (Year): 2002 Regular Classrooms: 65
Renovation (Year): Square Feet: 135,309
Program Capacity: 1,233 Site Size (Acres): 39.35

# Cedar Point Elementary School

School & Site Information

Construction (Year):2001Regular Classrooms:41Renovation (Year):Square Feet:83,204Program Capacity:780Site Size (Acres):15.48

# Central Transportation Center

# Site Information

Construction (Year): 2005 Regular Classrooms: N/A
Renovation (Year): N/A Square Feet: 15,615
Program Capacity: N/A Site Size (Acres): 29.92

# Coles Elementary School

#### School & Site Information

Construction (Year):1969Regular Classrooms:25Renovation (Year):2009Square Feet:55,787Program Capacity:472Site Size (Acres):17.04

# Additional Space

• School needs a security apartment.

# Dale City Elementary School

# School & Site Information

Construction (Year): 1967 Regular Classrooms: 25
Renovation (Year): 2006 Square Feet: 45,264
Program Capacity: 496 Site Size (Acres): 14.83

#### Additional Space

• School needs a security apartment (has a security trailer).

# **Dumfries Elementary School** (Scheduled for Renewal in FY 2014)

# School & Site Information

Construction (Year): 1953 Regular Classrooms: 27
Renovation (Year): 1989 Square Feet: 44,925
Program Capacity: 520 Site Size (Acres): 10

# Maintenance & Repair

- Some steel windows in older section of school do not close properly, are single-paned and are not energy efficient. They should be replaced.
- Install a generator to operate emergency lights and equipment, should a power failure occur.
- Drives, walks, and parking areas need to be repaired and resurfaced.
- Resilient floor tile and carpet need replacing. Policy is to replace carpeting with vinyl tile.
- Plumbing fixtures are outdated, expensive to maintain, and should be replaced.
- Acoustical ceilings need replacement.
- Fire doors are needed to separate auditorium from remainder of building.
- Boilers, heat transfer units need replacement.
- New casework is needed.
- Kitchen renovation, including enlarging freezer.
- HVAC system replacement.
- Roofing (except metal roof area) needs replacement.

# Handicap Access

- Toilets not handicap accessible; must be upgraded to ADA standards.
- Hardware, such as door handles, does not meet ADA standards and should be replaced.
- Building signage does not meet ADA standards.

# Additional Space

- School needs a security apartment.
- Parking lot needs expansion.

# Ellis Elementary School

# School & Site Information

Construction (Year):	2004	Regular Classrooms:	32
Renovation (Year):		Square Feet:	76,700
Program Capacity:	626	Site Size (Acres):	10.47

# **Enterprise Elementary School**

# School & Site Information

Construction (Year):1978Regular Classrooms:26Renovation (Year):2009Square Feet:51,260Program Capacity:520Site Size (Acres):14.97

# Additional Space

• School needs a security apartment (has a security trailer).

# Featherstone Elementary School

# School & Site Information

Construction (Year): 1961 Regular Classrooms: 23
Renovation (Year): 2001 Square Feet: 37,366
Program Capacity: 462 Site Size (Acres): 12

# Maintenance & Repair

• Kitchen renovation.

# Additional Space

- School needs a security apartment.
- A 6-classroom addition is scheduled for 2015.

# Fitzgerald Elementary School

# School & Site Information

Construction (Year): 2008 Regular Classrooms: 46
Renovation (Year): Square Feet: 106,170
Program Capacity: 852 Site Size (Acres): 11.18

# Forest Park High School (Scheduled for Renewal in FY 2021)

# School & Site Information

Construction (Year):2000Regular Classrooms:101Renovation (Year):Square Feet:283,268Program Capacity:2,053Site Size (Acres):79.06

# Maintenance & Repair

• Roof replacement.

# Freedom High School

# School & Site Information

Construction (Year):2004Regular Classrooms:101Renovation (Year):Square Feet:285,886Program Capacity:2,053Site Size (Acres):80.70

# Gainesville Middle School

#### **School & Site Information**

Construction (Year):2007Regular Classrooms:65Renovation (Year):Square Feet:135,309Program Capacity:1233Site Size (Acres):39.42

# Gar-Field High School (Auditorium Scheduled for Renewal in FY 2014)

# School & Site Information

Construction (Year):1972Regular Classrooms:125Renovation (Year):2005Square Feet:353,742Program Capacity:2,734Site Size (Acres):91.53

# Maintenance & Repair

- Replace operable auditorium partitions.
- Some fencing needs replacement.
- Areas of the building not renewed in 2005 (primarily auditorium, gymnasium and administrative areas)
- Roof replacement (partial).

# **Glenkirk Elementary School**

# School & Site Information

Construction (Year):2005Regular Classrooms:41Renovation (Year):Square Feet:83,084Program Capacity:780Site Size (Acres):15.57

# Godwin Middle School

#### School & Site Information

Construction (Year):1971Regular Classrooms:54Renovation (Year):2009, 2010Square Feet:125,232Program Capacity:982Site Size (Acres):29.98

# Maintenance & Repair

• Outside playing areas need renovation.

#### Additional Space

• School needs a security apartment (has a security trailer).

# Graham Park Middle School

# School & Site Information

Construction (Year): 1963 Regular Classrooms: 47
Renovation (Year): 2001 Square Feet: 110,514
Program Capacity: 867 Site Size (Acres): 21.88

# Maintenance & Repair

- Exterior lights need replacing.
- Drives, walks and parking areas need to be repaired and resurfaced (partial).
- Outside playing areas need renovation (partial).
- HVAC system replacement (partial).
- Roof replacement.

#### Additional Space

• School needs a security apartment (has a security trailer).

# **Gravely Elementary School**

# School & Site Information

Construction (Year):2008Regular Classrooms:43Renovation (Year):Square Feet:95,074Program Capacity:852Site Size (Acres):17.87

# **Henderson Elementary School** (Scheduled for Renewal in FY 2015)

#### School & Site Information

Construction (Year):1985Regular Classrooms:29Renovation (Year):Square Feet:55,962Program Capacity:592Site Size (Acres):14.92

#### Maintenance and Repair

- Drives, walks, and parking areas need to be repaired and resurfaced.
- HVAC system replacement (partial).
- Energy Management Control System (EMCS) upgrade.
- Roof replacement.

#### Handicap Access

- Toilets not handicap accessible; must be upgraded to ADA standards.
- Hardware, such as door handles, does not meet ADA standards and should be replaced.
- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

#### Additional Space

- School needs a security apartment.
- An 8-classroom addition is scheduled for 2017.

# Hooe Road Transportation Center (Main Transportation Center)

# Site Information

Construction (Year): 1979 Regular Classrooms: N/A

Parts Storage Building 2010

Renovation (Year): Square Feet: 32,783 Program Capacity: N/A Site Size (Acres): 20

# Maintenance and Repair

• Paint booth needs upgrade.

#### Handicap Access

• Building signage does not meet ADA standards.

#### Additional Space

• Replace trailers with modular unit

# Hylton High School (Scheduled for Renewal in FY 2021)

# School & Site Information

Construction (Year): 1991 Regular Classrooms: 101
Renovation (Year): Square Feet: 282,346
Program Capacity: 2,053 Site Size (Acres): 74.82

#### Maintenance and Repair

• Roof replacement.

#### Handicap Access

- Hardware, such as door handles, does not meet ADA standards and should be replaced.
- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

# Independent Hill Administrative Complex

# Site Information

Occupied (Year):1968Regular Classrooms:N/ARenovation (Year):Square Feet:127,447Program Capacity:N/ASite Size (Acres):44.24

# Maintenance and Repairs

- Renovate Barracks 3.
- Drives, walks and parking areas need to be repaired and resurfaced (partial).
- Water system needs to be upgraded for fire flow.
- Fencing needs to be replaced.
- Remove asbestos throughout complex.
- Renovate garage area.

# Independent Hill School

# Site Information

Construction (Year): Converted to School 1971/1972 Regular Classrooms: 11 Renovation (Year): Square Feet: 40,304

Program Capacity: Site Size (Acres): Included with complex

# Kelly Leadership Center

# Site Information

Construction (Year): 2008 Regular Classrooms: N/A
Renovation (Year): N/A Square Feet: 150,000
Program Capacity: N/A Site Size (Acres): 20

# Kerrydale Elementary School

# School & Site Information

Construction (Year): 1972 Regular Classrooms: 24
Renovation (Year): 2007 Square Feet: 46,300
Program Capacity: 496 Site Size (Acres): 15.41

#### Handicap Access

• ADA portable accessible ramp for stage.

# Additional Space

• School needs a security apartment (has a security trailer).

# Kilby Elementary School (Scheduled for Replacement in FY 2017)

#### School & Site Information

Construction (Year):1959Regular Classrooms:24Renovation (Year):2001Square Feet:39,412Program Capacity:414Site Size (Acres):12.78

# **King Elementary School** (Scheduled for Renewal in FY 2015)

# School & Site Information

Construction (Year):1981Regular Classrooms:26Renovation (Year):Square Feet:51,260Program Capacity:520Site Size (Acres):15.19

#### Maintenance & Repair

- Additional parking lot lighting is needed.
- Drives, walks, and parking areas need to be repaired and resurfaced.
- HVAC system and controls replacement.

#### Handicap Access

- Doors and gates need widening to meet ADA requirements.
- Exterior pathways and walks need ADA accessibility modifications.
- Toilets not handicap accessible; must be upgraded to ADA standards.
- Hardware, such as door handles, does not meet ADA standards and should be replaced.
- Building signage does not meet ADA standards.
- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

#### Additional Space

- Parking lot needs expansion.
- School needs a security apartment.

# Lake Ridge Elementary School (Scheduled for Renewal in FY 2015)

# School & Site Information

Construction (Year): 1983 Regular Classrooms: 27
Renovation (Year): Square Feet: 53,400
Program Capacity: 544 Site Size (Acres): 15.07

#### Maintenance & Repair

- Drives, walks, and parking areas need to be repaired and resurfaced.
- Resilient floor tile and carpet need replacing. Policy is to replace carpeting with vinyl tile.
- HVAC system replacement.

#### Handicap Access

- Stage is not handicap accessible.
- Hardware, such as door handles, does not meet ADA standards and should be replaced.
- Building signage does not meet ADA standards.
- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.
- Paths and walks need upgrading to ADA accessibility standards.

#### Additional Space

• School needs a security apartment.

# Lake Ridge Middle School (Scheduled for Renewal in FY 2017)

#### **School & Site Information**

Construction (Year):1989Regular Classrooms:65Renovation (Year):Square Feet:132,258Program Capacity:1,191Site Size (Acres):34.09

# Maintenance & Repair

- HVAC system and controls replacement (partial).
- Roof replacement.

#### Handicap Access

- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.
- Hardware, such as door handles, does not meet ADA standards and should be replaced.

#### Additional Space

• School needs a security apartment (has a security trailer).

# **Leesylvania Elementary School** (Scheduled for Renewal in FY 2019)

# School & Site Information

Construction (Year):1996Regular Classrooms:41Renovation (Year):Square Feet:83,084Program Capacity:804Site Size (Acres):16.29

# **Loch Lomond Elementary School** (Scheduled for a Two-Phase Renewal in FY 2014 and FY 2015)

# School & Site Information

Construction (Year): 1962 Regular Classrooms: 22
Renovation (Year): 1992 Square Feet: 34,822
Program Capacity: 414 Site Size (Acres): 10.70

#### Maintenance & Repair

- Electrical rooms need ventilation.
- Loading dock room structure/supports need replacement.
- Outside play areas (including paved areas) need renovation.
- HVAC system replacement (partial).
- Kitchen renovation.

#### Handicap Access

- Most door openings are inadequate for ADA.
- Need ramps to many entrances.
- Hardware, such as door handles, does not meet ADA standards and should be replaced.
- Building signage does not meet ADA standards.
- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

#### Additional Space

- School needs a security apartment.
- A 4-classroom addition is scheduled for 2013.

# Lynn Middle School

# School & Site Information

Construction (Year): 1964 Regular Classrooms: 64
Renovation (Year): 2001 Square Feet: 131,974
Program Capacity: 1,170 Site Size (Acres): 28.56

#### Maintenance & Repair

- Playing fields and areas need repair/replacement.
- HVAC system and controls replacement (partial).
- Boiler replacement.

#### Additional Space

• School needs a security apartment (has a security trailer).

# Marshall Elementary School (Scheduled for Renewal in FY 2019)

#### School & Site Information

Construction (Year):1994Regular Classrooms:35Renovation (Year):Square Feet:62,700Program Capacity:698Site Size (Acres):24.16

#### Handicap Access

• Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

# Marsteller Middle School

# School & Site Information

Construction (Year): 2002 Regular Classrooms: 65
Renovation (Year): Square Feet: 135,309
Program Capacity: 1,233 Site Size (Acres): 36.41

# Marumsco Hills Elementary School

# School & Site Information

Construction (Year): 1966 Regular Classrooms: 35
Renovation (Year): 2006 Square Feet: 56,661
Addition 2009
Program Capacity: 650 Site Size (Acres): 12.20

# **McAuliffe Elementary School** (Scheduled for Renewal in FY 2017)

#### School & Site Information

Construction (Year):1989Regular Classrooms:28Renovation (Year):Square Feet:59,517Program Capacity:568Site Size (Acres):15.05

# Handicap Access

- Install a generator to operate emergency lights and equipment.
- Hardware, such as door handles, does not meet ADA standards and should be replaced.
- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.
- Drives, walks, and parking areas need to be repaired and resurfaced.

#### Additional Space

• School needs a security apartment.

# McCuin Transportation Center

#### **School & Site Information**

Construction (Year):2002Regular Classrooms:N/ARenovation (Year):Square Feet:8,400Program Capacity:211 carsSite Size (Acres):11.5

170 buses

# Additional Space:

• Wash bay for vehicles.

# Minnieville Elementary School

# School & Site Information

Construction (Year):1972Regular Classrooms:28Renovation (Year):2005Square Feet:53,028Program Capacity:544Site Size (Acres):15.24

# Additional Space

• School needs a security apartment (has a security trailer).

# **Montclair Elementary School** (Scheduled for Renewal in FY 2019)

# School & Site Information

Construction (Year): 1991 Regular Classrooms: 35

Renovation (Year): Square Feet: 70,928

Addition 2008

Program Capacity: 698 Site Size (Acres): 15.85

# Mountain View Elementary School (Scheduled for Renewal in FY 2019)

# School & Site Information

Construction (Year):1995Regular Classrooms:35Renovation (Year):Square Feet:67,815Program Capacity:698Site Size (Acres):29.95

#### Maintenance & Repair

• Fire alarm system upgrade.

# **Mullen Elementary School** (Scheduled for Renewal in FY 2017)

# School & Site Information

Construction (Year): 1990 Regular Classrooms: 35
Renovation (Year): Square Feet: 63,118
Program Capacity: 698 Site Size (Acres): 15

#### Handicap Access

- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.
- A 6-classroom addition is scheduled for 2013.

# Neabsco Elementary School

# School & Site Information

Construction (Year): 1969 Regular Classrooms: 33
Renovation (Year): 2009 Square Feet: 58,354
Program Capacity: 626 Site Size (Acres): 12.79

# Additional Space

• School needs a security apartment.

# New Dominion School and Modular Additions

#### School & Site Information

Construction (Year): 1975 Regular Classrooms: 20 Renovation (Year): 1993 Square Feet: 14,749 Program Capacity: N/A Site Size (Acres): 9.3

# Handicap Access

- Building signage does not meet ADA standards.
- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

#### Additional Space

- School needs a security apartment.
- A 10-classroom addition is scheduled for 2015 (contingent upon sale of site's excess property).

# Nokesville Elementary School (K-8 Replacement School Scheduled for FY 2014)

# School & Site Information

Construction (Year):1928Regular Classrooms:19Renovation (Year):1993Square Feet:50,373Program Capacity:342Site Size (Acres):10.06

#### Maintenance & Repair

- Resilient floor tile and carpet need replacing. Policy is to replace carpeting with vinyl tile.
- Drives, walks and parking areas need to be repaired and resurfaced.
- Gym flooring needs replacing.
- Roofing, except metal roof area, needs replacement.
- Kindergarten modular needs replacement.

#### Handicap Access

- Toilets not handicap accessible; must be upgraded to ADA standards.
- Hardware, such as door handles, does not meet ADA standards and should be replaced.
- Building signage does not meet ADA standards.
- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.
- Building has 2<sup>nd</sup> floor; needs elevator to meet ADA standards.

#### Additional Space

- School needs a security apartment.
- Parking lot needs expansion.
- A K-8 Replacement School is scheduled for 2014.

# Occoquan Elementary School

# School & Site Information

Construction (Year): 1927 Regular Classrooms: 26
Renovation (Year): 2002 Square Feet: 55,225
Program Capacity: 520 Site Size (Acres): 10.10

#### Additional Space

• School needs a security apartment.

#### Maintenance & Repair

• Roof replacement (partial).

# Old Bridge Elementary School (Scheduled for Renewal in FY 2019)

# School & Site Information

Construction (Year):1995Regular Classrooms:32Renovation (Year):Square Feet:74,433Program Capacity:626Site Size (Acres):17.85

# Osbourn Park High School

#### School & Site Information

Construction (Year):1975Regular Classrooms:115Renovation (Year):2006Square Feet:328,386Program Capacity:2,430Site Size (Acres):56.06

#### Maintenance & Repair

- Resilient floor tile and carpet need replacing (partial).
- HVAC system replacement (partial).
- Kitchen renovation (partial).
- Areas of the building were not renewed in 2006 (primarily gymnasium and administrative areas).

# **PACE East** (Scheduled for Replacement in FY 2018)

School & Site Information

Construction (Year): 1950 Regular Classrooms: 9
Renovation (Year): Square Feet: 8,900
Program Capacity: N/A Site Size (Acres): 3.19

Maintenance and Repair

• Replace nine cottages.

# PACE West

**School & Site Information** 

Construction (Year): 2012 Regular Classrooms: N/A
Renovation (Year): Square Feet: 41,552
Program Capacity: N/A Site Size (Acres): 36.96

# Parks Elementary School

School & Site Information

Construction (Year):2006Regular Classrooms:41Renovation (Year):Square Feet:83,084Program Capacity:780Site Size (Acres):15.20

# Parkside Middle School

School & Site Information

Construction (Year): 1963 Regular Classrooms: 63 Renovation (Year): 1999-2000 Square Feet: 116,699 Program Capacity: 1,139 Site Size (Acres): 30

Additional Space

- School needs a security apartment (has a security trailer).
- A 16-classroom addition is scheduled for 2014.

# Patriot High School

School & Site Information

Construction (Year):2011Regular Classrooms:101Renovation (Year):Square Feet:312,067Program Capacity:2053Site Size (Acres):76.51

# Pattie Elementary School

# **School & Site Information**

Construction (Year):1978Regular Classrooms:36Renovation (Year):2013Square Feet:54,082Program Capacity:698Site Size (Acres):15

(Includes Washington Reid)

# Maintenance & Repair

- Additional parking lot lighting is required.
- Windows are old, do not close properly, and are not energy efficient. They should be replaced.
- Drives, walks, and parking areas need to be repaired and resurfaced.
- Resilient floor tile and carpet need replacing. Policy is to replace carpeting with vinyl tile.
- Kitchen renovation.
- Built-in casework in all rooms.

#### Handicap Access

- Sidewalk ramp is needed to grant access to Waterway Drive.
- Toilets not handicap accessible; must be upgraded to ADA standards.
- Hardware, such as door handles, does not meet ADA standards and should be replaced.
- Building signage does not meet ADA standards.

#### Additional Space

• School needs a security apartment.

# **Penn Elementary School** (Scheduled for Renewal in FY 2019)

#### **School & Site Information**

Construction (Year):1996Regular Classrooms:32Renovation (Year):Square Feet:71,245Program Capacity:626Site Size (Acres):16.93

# Additional Space

• A 7-classroom addition is scheduled for 2013.

# Pennington School

# School & Site Information

Construction (Year): 1968 Regular Classrooms: 31 Renovation (Year): 2011 Square Feet: 58,346 Program Capacity: 648 Site Size (Acres): 15

#### Additional Space

• School needs a security apartment.

# Piney Branch Elementary School

# School & Site Information

Construction (Year): 2011 Regular Classrooms: 44
Renovation (Year): Square Feet: 104,829
Program Capacity: 924 Site Size (Acres): 21.70

# Porter School

# School & Site Information

Construction (Year):2004Regular Classrooms:32Renovation (Year):Square Feet:71,245Program Capacity:672Site Size (Acres):16.93

# **Potomac High School** (Scheduled for Renewal in FY 2013)

#### School & Site Information

Construction (Year): 1980 Regular Classrooms: 82 Renovation (Year): Square Feet: 218,642 Program Capacity: 1,655 Site Size (Acres): 75.09

#### Maintenance & Repair

- Doors in several rooms need to be reversed to swing in direction of egress for fire safety.
- Additional exits are needed in 6 rooms for fire safety.
- HVAC system replacement (partial).
- Orchestra pit needs rail.
- Drives, walks, and parking areas need to be repaired and resurfaced (partial).
- Resilient floor tile and carpet need replacing. Policy is to replace carpeting with vinyl tile.
- Acoustical ceilings need to be replaced.
- Kitchen renovation.
- Main water service upgrade.
- Built-in casework needed in all classrooms.
- Humidification system is needed in band room.
- Wood flooring is needed in performing arts area.

#### Handicap Access

- Toilets not handicap accessible; must be upgraded to ADA standards.
- Hardware, such as door handles, does not meet ADA standards and should be replaced.
- Building signage does not meet ADA standards.
- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

#### Additional Space

• A 30-classroom addition is scheduled for 2013.

# Potomac Middle School

#### **School & Site Information**

Construction (Year):2006Regular Classrooms:65Renovation (Year):Square Feet:135,309Program Capacity:1,233Site Size (Acres):36.43

#### Additional Space

• An 11-classroom addition is scheduled for 2013.

# Potomac Transportation Center

# Site Information

Construction (Year): Building 1-1988 Regular Classrooms: N/A
Building 2-2000 Square Feet: 15,431
Renovation (Year): Site Size (Acres): 16.76

Program Capacity: N/A

# Maintenance and Repair

- Wash bay for vehicles.
- Complete unfinished storage area to provide additional restrooms and classroom space.

# Potomac View Elementary School

# School & Site Information

Construction (Year): 1964 Regular Classrooms: 37
Renovation (Year): 2005 Square Feet: 62,000
Program Capacity: 746 Site Size (Acres): 12.38

#### Additional Space

• School needs a security apartment.

# Rippon Middle School

# School & Site Information

Construction (Year):1967Regular Classrooms:63Renovation (Year):2009-2010Square Feet:132,607Program Capacity:1,139Site Size (Acres):30.23

# Maintenance & Repair

• Fenestration improvements.

#### Additional Space

• A 9-classroom addition is scheduled for 2016.

# **River Oaks Elementary** (Scheduled for Renewal in FY 2018)

# School & Site Information

Construction (Year):1990Regular Classrooms:31Renovation (Year):Square Feet:63,118Program Capacity:616Site Size (Acres):15.18

#### Maintenance & Repair

- Fire alarm system needs upgrade to provide both audio and visual notification in all occupied areas.
- Telephones should be installed in all classrooms.
- Playing fields/areas need renovation.
- Need steps from lower parking area to playing fields.
- HVAC system and controls replacement.

#### Additional Space

• A 7-classroom addition is scheduled for 2014.

# Handicap Access

- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.
- Hardware, such as door handles, does not meet ADA standards and should be replaced.

# Rockledge Elementary School

#### School & Site Information

Construction (Year):1972Regular Classrooms:31Renovation (Year):2007Square Feet:64,769Program Capacity:650Site Size (Acres):16.15

#### Handicap Access

• ADA portable accessible ramp is needed for stage.

#### Additional Space

• School needs a security apartment (has a security trailer).

# Saunders Middle School (Scheduled for Renewal in FY 2017)

# School & Site Information

Construction (Year): 1988 Regular Classrooms: 64
Renovation (Year): Square Feet: 137,088
Program Capacity: 1,212 Site Size (Acres): 29.54

#### Maintenance & Repair

- Track and tennis courts need repairs.
- Playing fields/area needs refurbishing.
- Roof replacement.

# Handicap Access

- Minor modifications are needed to paths, doorway entrances, and toilet rooms.
- Generator replacement.
- Telephones should be installed in all classrooms.

# Additional Space

• School needs a security apartment (has a security trailer).

# Signal Hill Elementary School (Scheduled for Renewal in FY 2021)

# School & Site Information

Construction (Year): 2000 Regular Classrooms: 41
Renovation (Year): Square Feet: 83,084
Program Capacity: 780 Site Size (Acres): 24.45

# Sinclair Elementary School

# School & Site Information

Construction (Year): 1968 Regular Classrooms: 29
Renovation (Year): 2009 Square Feet: 55,960
Program Capacity: 568 Site Size (Acres): 15

# Maintenance & Repair

• Roof replacement (partial).

#### Additional Space

- School needs a security apartment.
- An 11-classroom addition is scheduled for 2013.

# Springwoods Elementary School (Scheduled for Renewal in FY 2015)

# School & Site Information

Construction (Year):1986Regular Classrooms:28Renovation (Year):Square Feet:57,530Program Capacity:592Site Size (Acres):15.11

# Maintenance & Repair

- Walks repaired and resurfaced (partial).
- HVAC system replacement (partial).
- Playing field needs to be refurbished.

# Handicap Access

- Building signage does not meet ADA standards.
- Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

#### Additional Space

- School needs a security apartment.
- A 5-classroom addition is scheduled for 2017.

#### Stonewall Jackson High School

#### School & Site Information

Construction (Year):1973Regular Classrooms:117Renovation (Year):2005Square Feet:328,540Program Capacity:2,409Site Size (Acres):56.61

#### Maintenance & Repair

- Clay unit masonry needs extensive re-pointing.
- Resilient floor tile and carpet need replacing (partial).
- HVAC system replacement (partial).
- Roof replacement (partial).
- Kitchen renovation.
- Areas of the building not renewed in 2005 (primarily gymnasium and administrative areas).

#### Stonewall Middle School

#### School & Site Information

Construction (Year):1964Regular Classrooms:52Renovation (Year):2002Square Feet:127,673Program Capacity:1,003Site Size (Acres):32.22

#### Additional Space

• School needs a security apartment (has a security trailer).

#### Maintenance & Repair

• Fencing needs replacement (partial).

#### Sudley Elementary School

#### School & Site Information

Construction (Year):1972Regular Classrooms:22Renovation (Year):2004Square Feet:53,028Program Capacity:462Site Size (Acres):14

#### Additional Space

- School needs a security apartment (has a security trailer).
- A 10-classroom addition is scheduled for 2013.

#### Swans Creek Elementary School

#### School & Site Information

Construction (Year):	2001	Regular Classrooms:	38
Renovation (Year):		Square Feet:	86,685
Program Capacity:	626	Site Size (Acres):	18.49

#### Triangle Elementary School

#### School & Site Information

Construction (Year):	2009	Regular Classrooms:	44
Renovation (Year):		Square Feet:	103,679
Program Capacity:	924	Site Size (Acres):	18.87

#### Tyler Elementary School

#### School & Site Information

Construction (Year):1968Regular Classrooms:28Renovation (Year):2007Square Feet:56,014Program Capacity:568Site Size (Acres):42.18

#### Additional Space

• School needs a security apartment.

#### Vaughan Elementary School

#### School & Site Information

Construction (Year):1964Regular Classrooms:36Renovation (Year):2005Square Feet:61,204Program Capacity:698Site Size (Acres):13.55

#### Victory Elementary School

#### School & Site Information

Construction (Year): 2005 Regular Classrooms: 43
Renovation (Year): Square Feet: 89,911
Program Capacity: 852 Site Size (Acres): 21.23

#### Washington-Reid Annex

#### **School & Site Information**

Construction (Year): 1951,60,67 Regular Classrooms:

Renovation (Year): Square Feet: 24,953 Program Capacity: (see Pattie E.S.) Site Size (Acres): 9.21

#### Additional Space

• School needs a security apartment.

### West Gate Elementary School

#### School & Site Information

Construction (Year):1964Regular Classrooms:29Renovation (Year):1993 / 2009Square Feet:50,327Program Capacity:568Site Size (Acres):12.11

#### Additional Space:

- School needs a security apartment (has a security trailer).
- A 4-classroom addition is scheduled for 2013.

# Westridge Elementary School (Scheduled for Renewal in FY 2017)

#### School & Site Information

Construction (Year): 1989 Regular Classrooms: 34
Renovation (Year): Square Feet: 70,599
Program Capacity: 568 Site Size (Acres): 15

#### Handicap Access

• Fire alarm system must be upgraded to provide both audio and visual notification in all occupied areas.

#### Additional Space

• School needs a security apartment.

#### Williams Elementary School

#### School & Site Information

Construction (Year):2004Regular Classrooms:41Renovation (Year):Square Feet:83,084Program Capacity:780Site Size (Acres):13.56

#### Wood Elementary School

#### School & Site Information

Construction (Year): 2011 Regular Classrooms: 44
Renovation (Year): Square Feet: 104,448
Program Capacity: 924 Site Size (Acres): 17.24

#### Woodbine Pre-School Center

#### School & Site Information

Construction (Year): 1953 Regular Classrooms: 4
Renovation (Year): 1990 Square Feet: 8,320
Program Capacity: 120 Site Size (Acres): 1.91

#### Maintenance & Repair

- Roof ventilation and exhaust fans need replacing.
- Electrical outlets are needed.

#### Handicap Access

- Toilets not handicap accessible; must be upgraded to ADA standards.
- Building signage does not meet ADA standards.

#### Additional Space

• Additional parking needed.

## Woodbridge High School (Auditorium Scheduled for Renewal in FY 2014)

#### School & Site Information

Construction (Year): 1974 Regular Classrooms: 125 Renovation (Year): 2006 Square Feet: 352,497 Program Capacity: 2,734 Site Size (Acres): 52.69

#### Maintenance & Repair

- Resilient floor tile and carpet need replacing (partial).
- Kitchen renovation.
- Track resurfacing.
- Fencing needs replacement (partial).
- Roof replacement (partial).
- Replace operable auditorium partitions.
- Areas of the building not renewed in 2006 (primarily the auditorium and administrative areas).

### Woodbridge Middle School

#### School & Site Information

Construction (Year): 1964 Regular Classrooms: 56 Renovation (Year): 2002-3 Square Feet: 125,311 Program Capacity: 1,066 Site Size (Acres): 37.36

#### Maintenance & Repair

• Window wall replacement.

#### Additional Space

• School needs a security apartment (has a security trailer).

### Yorkshire Elementary School

#### School & Site Information

Construction (Year):2009Regular Classrooms:46Renovation (Year):Square Feet:106,614Program Capacity:948Site Size (Acres):13.21

# APPENDIX B STUDENT ENROLLMENT & HOUSING DATA

- Enrollment Forecast Methodology
  - Analysis of Student Information
  - Analysis of Housing Unit Information
  - Preparation of Student Enrollment Forecasts
- Student Generation Factors
- Cohort Progression
- Alternative Solutions to School Overcrowding
- Student Enrollment Data: Current and Projected Enrollment
  - by School (Elementary, Middle, High and Special/Alternative Education), School Years 2011-2021
- Housing Units in Residential Development
  - by School (Elementary, Middle and High)
- Historical and Projected Enrollment Data Prince William County Schools
- Student Membership Projections Error Rate Analysis
- Geographic Areas Map and Table

#### **Enrollment Forecast Methodology**

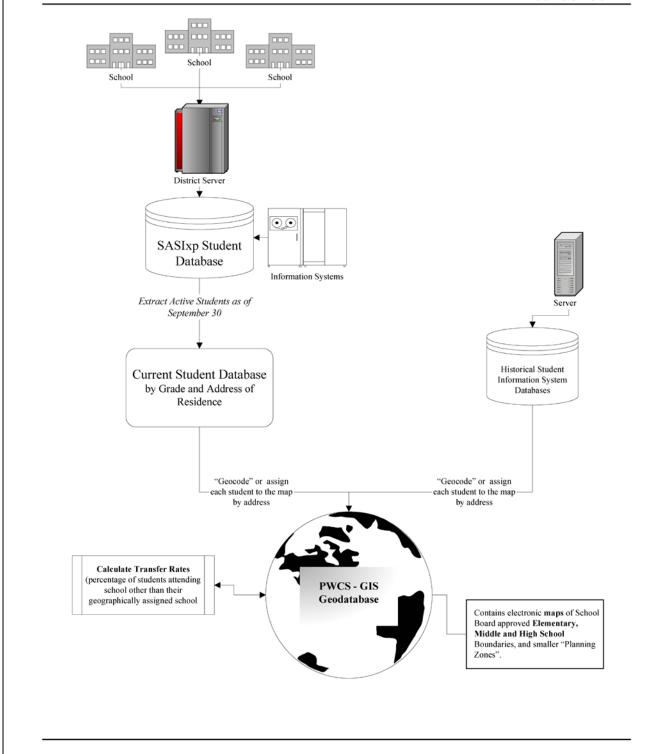
All forecasts have several things in common; all are an extrapolation of the past, all involve some level of judgment, and all forecasts are wrong. This is why judgment is so important when creating and evaluating the forecast. The real goal in the forecasting process is to reduce the range of error and monitor the process over time so it can continually be improved.

The forecasting methodology used to predict the number of students who will be enrolling in Prince William County Schools for the next 10 years is a combination of cohort progression method and student generation factors method, along with judgmental adjustment to fine-tune the forecasts. This combination of methods was chosen because it provides for very accurate forecasts and at the same time is relatively inexpensive to produce. The process is data intensive and involves the extensive use of Geographic Information System (GIS) to analyze the many geographic data involved.

The accuracy of this forecasting method has been very good in the past, with an average error of approximately 0.5% countywide. Success at the school level has not been as good but the forecasts have been well within the acceptable range. Countywide forecasts have been more successful than the school level forecasts because the population being forecasted is much larger. This phenomenon is common to all forecasting methodologies and is therefore expected.

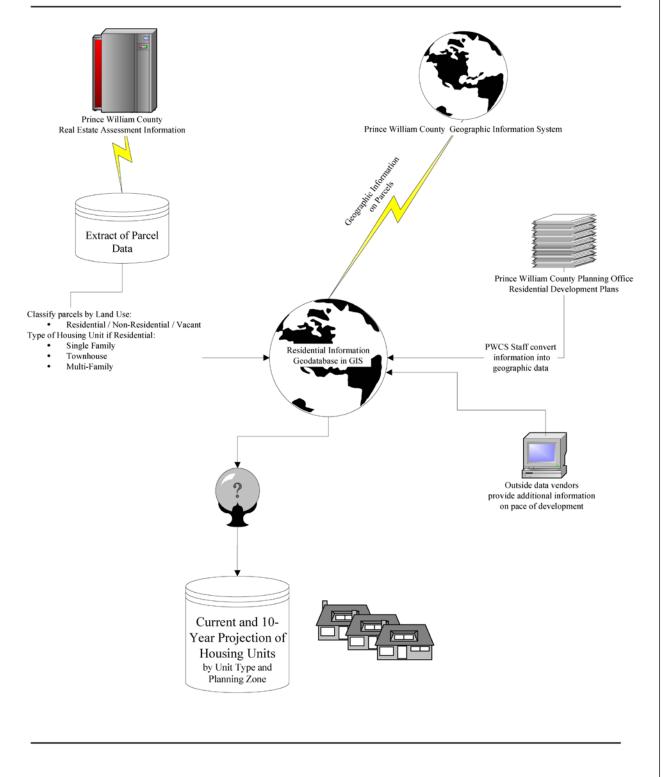
# Analysis of Student Information



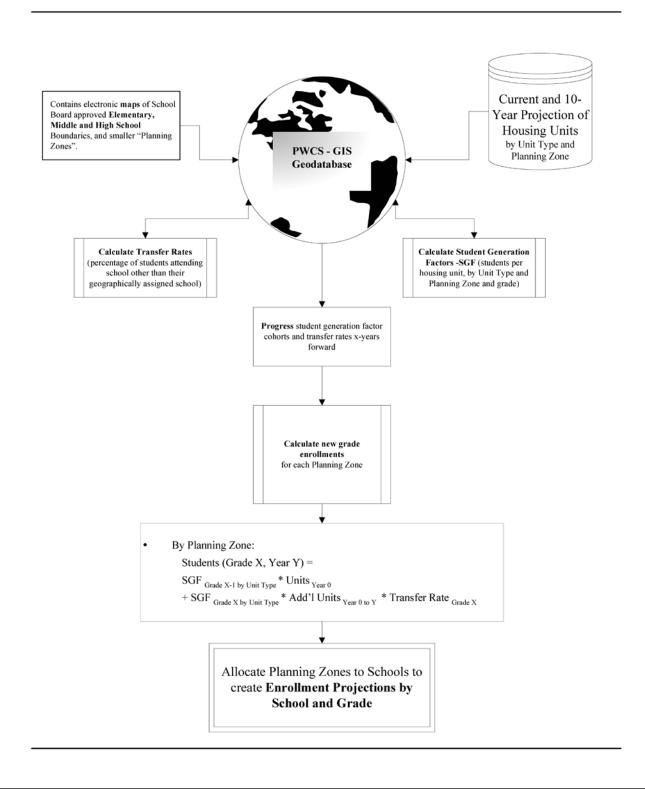


# Analysis of Housing Unit Information





# Preparation of Student Enrollment Forecasts



#### **Student Generation Factors**

The enrollment forecasts are now created using the **student generation factors** method combined with the **cohort progression method**. Together, these two means produce additional students using the current year's housing unit totals as a baseline. The process is detailed in the attached flow charts. This is an effective method that can, with accurate data, provide highly accurate forecasts of future enrollments.

Generation factors are created by calculating the number of students by housing unit type to the number of housing unit types by small "Planning Zones". The ratio is then applied to the number of predicted available units by year to produce the projections of new students in the Prince William County Schools.

In Prince William County, a year-by-year housing unit forecast is done, with a student generation factor then applied for the whole county on a grade-by-grade level to create the overall enrollment forecasts. These forecasts have been historically very accurate.

#### **Cohort Progression**

The cohort progression method is, in basic terms, the application of an average growth rate over time to the current year's enrollment by grade level cohort. This growth rate can be taken from the previous year, or from an average of several previous years. The resulting ratio or growth rate is then applied to the current year's enrollment by grade level cohort to project the next year's enrollment.

The cohort ratio calculation in the following example describes the progression of sixth graders to seventh grade on average over 3 years. The same could be done over 2, 5, or any desired number of years. A greater number of years in the cohort calculation lessens the effects of any given year on the forecast, effectively "smoothing out" the historical data. Keeping this in mind, the forecaster can adjust the number of years used to calculate the cohort ratio to adjust for current and expected economic conditions and produce more accurate forecast results.

Grade	Year <sub>(-3)</sub>	Year <sub>(-2)</sub>	Year <sub>(-1)</sub>	Year <sub>(0)</sub>	Cohort Ratio	Year <sub>(+1)</sub>
6 <sup>th</sup>	3,888	4,066	4,348	4,581		
7 <sup>th</sup>	N/A	4,024	4,184	4,525	1.0350	4,741

1. **Cohort Ratio** = 
$$(7^{th}_{Year(-2)} + 7^{th}_{Year(-1)} + 7^{th}_{Year(0)}) / (6^{th}_{Year(-3)} + 6^{th}_{Year(-2)} + 6^{th}_{Year(-1)})$$
  
 $7^{th}_{Year(0)}$  indicates the  $7^{th}$  grade cohort of Current Year.

2. **Cohort Ratio** = 
$$(4,024 + 4,184 + 4,525) / (3,888 + 4,066 + 4,348) = 1.0350$$

3. Forecasted 
$$7^{th}_{Year(+1)}$$
 Grade Cohort = 4,581 x 1.0350 = 4,741

The number of years used to calculate the cohort ratio has changed several times over the period starting with 1980 in Prince William County. These changes were made to help adjust for the increasing growth rates in the late 80's and in the 2000's. The three-year cohort had been used up until 2001 to project the one-year growth in student enrollment by grade. However, due to the high growth rates experienced in Prince William County in the 2000's, a two-year cohort, or combination of the two- and three-year cohort, has been used to calculate the forecasts for 2011-2012. This is because it is believed that the growth pattern over the last two years is a better representation of the short-term future. In the future the use of mixed cohorts may also be employed to adjust for differing growth rates within the county.

After each of these forecasts is calculated there is a reconciliation of the two using the judgment of the forecasters. The result is a forecast that is used as a baseline for the out-year forecasts.

#### Alternative Solutions to School Overcrowding

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

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

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

# Student Enrollment Data: Current and Projected Enrollment Elementary Schools SY 2011-12 to SY 2021-22

	Availal	ole Space	2	011-12		2	2012-13		2	016-17		2	021-22	
Elementary School	Capacity	Portable Classrooms	Students	+/-	%Util	Students	+/-	%Util	Students	+/-	%Util	Students	+/-	%Util
Alvey	780	Classrooms 0	796	-16	102.1%	827	-47	106.0%	936	-156		994	-214	127.4%
Antietam	616	1	589	27	95.6%	587	29	95.3%	624	-130	101.3%	643	-214	104.4%
Ashland	900	0	942	-42	104.7%	939	-39		1,149	-249		1,215	-315	135.0%
Bel Air	568	6	547	21	96.3%	562	6		596	-28	104.9%	615	-47	108.3%
Belmont	462	2	469	-7	101.5%	484	-22		490	-28	106.1%	729	-267	157.8%
Bennett	780	0	831	-51	106.5%	823	-43		908	-128	116.4%	1,172	-392	150.3%
Bristow Run	780	0	757	23	97.1%	773	7	99.1%	825	-45	105.8%	854	-74	109.5%
Buckland Mills	852	4	1,022	-170	120.0%	1,055	-203		1,265	-413	148.5%	1,531	-679	179.7%
Cedar Point	780	1	760	20	97.4%	733	47	94.0%	807	-27	103.5%	832	-52	106.7%
Coles	472	3	488	-16	103.4%	502	-30		540	-68		568	-96	
Dale City	496	3	443	53	89.3%	452	44	91.1%	483	13	97.4%	500	-4	100.8%
Dumfries	520	6	518	2	99.6%	562	-42	108.1%	612	-92	117.7%	631	-111	121.3%
Ellis	626	1	575	51	91.9%	610	16	97.4%	719	-93	114.9%	878	-252	140.3%
Enterprise	520	2	525	-5	101.0%	544	-24	104.6%	575	-55	110.6%	593	-73	114.0%
Featherstone	462	6	516	-54	111.7%	538	-76	116.5%	563	-101	121.9%	617	-155	133.5%
Fitzgerald	852	0	805	47	94.5%	834	18	97.9%	1,002	-150	117.6%	1,236	-384	145.1%
Glenkirk	780	2	805	-25	103.2%	855	-75	109.6%	971	-191	124.5%	1,022	-242	131.0%
Gravely	852	0	806	46	94.6%	830	22	97.4%	1,009	-157	118.4%	1,136	-284	133.3%
Henderson	592	2	562	30	94.9%	573	19	96.8%	627	-35	105.9%	647	-55	109.3%
Kerrydale	496	4	445	51	89.7%	454	42	91.5%	478	18	96.4%	493	3	99.4%
Kilby	414	1	373	41	90.1%	391	23	94.4%	426	-12	102.9%	581	-167	140.3%
King	520	2	525	-5	101.0%	487	33	93.7%	545	-25	104.8%	573	-53	110.2%
Lake Ridge	544	3	550	-6	101.1%	580	-36	106.6%	602	-58	110.7%	621	-77	114.2%
Leesylvania	804	0	763	41	94.9%	804	0	100.0%	943	-139	117.3%	1,017	-213	126.5%
Loch Lomond	414	3	361	53	87.2%	377	37	91.1%	396	18	95.7%	409	5	98.8%
Marshall	698	0	653	45	93.6%	656	42	94.0%	700	-2	100.3%	729	-31	104.4%
Marumsco Hills	650	7	718	-68	110.5%	778	-128	119.7%	966	-316	148.6%	1,190	-540	183.1%
McAuliffe	568	0	450	118	79.2%	470	98	82.7%	493	75	86.8%	508	60	89.4%
Minnieville	544	3	544	0	100.0%	586	-42	107.7%	590	-46	108.5%	643	-99	118.2%
Montclair	698	1	719	-21	103.0%	756	-58	108.3%	799	-101	114.5%	831	-133	119.1%
Mountain View	698	1	757	-59	108.5%	716	-18	102.6%	783	-85	112.2%	821	-123	117.6%
Mullen	698	9	966	-268	138.4%	1,055	-357	151.1%	1,098	-400		1,138	-440	163.0%
Neabsco	626	1	491	135	78.4%	507	119	81.0%	549	77	87.7%	574	52	91.7%
Nokesville	342	5	385	-43	112.6%	348	-6		403	-61	117.8%	428	-86	
Occoquan	520	6	611	-91	117.5%	638	-118		681	-161	131.0%	714	-194	
Old Bridge	626	0	703	-77	112.3%	694	-68		749	-123	119.6%	772	-146	123.3%
Parks	780	0	737	43	94.5%	778	2	99.7%	825	-45	105.8%	858	-78	
Pattie	698	0	689	9	98.7%	705	-7	101.0%	742	-44	106.3%	792	-94	113.5%
Penn	626	0	664	-38	106.1%	691	-65		812	-186	129.7%	885	-259	141.4%
Pennington	405	0	400	5	98.8%	405	0	100.0%	405	0		405	0	100.0%
Piney Branch	924	0	686	238	74.2%	700	224	75.8%	885	39		1,407	-483	
Porter	420	0		8		420	0				100.0%	420		100.0%
Potomac View	746	6	726	20	97.3%	764	-18		771		103.4%	803	-57	
River Oaks	616	4	591	25	95.9%	634	-18		755	-139		850	-234	
Rockledge	650	0	515	135	79.2%	561	89		583	67	89.7%	615	35	
Signal Hill	780	0	618	162	79.2%	600 740	180		696 771	202	89.2%	805	-25 201	
Sinclair	568	5	700	-132 -103	123.2%	740 722	-172			-203		869 800	-301	
Springwoods	592 462	1	695 480	-103	117.4% 103.9%	496	-130 -34		776 527	-184 -65		800 544	-208 -82	135.1% 117.7%
Sudley Swans Creek	626	0	645		103.9%	661	-34		1,012	-386		1,527	-82 -901	
Triangle	924	0		157	83.0%	762	162		903	-300	97.7%	973		105.3%
Tyler	568	2	609		107.2%	612	-44		702	-134		724	-156	
Vaughan	698	0	814		116.6%	849	-151		862	-164		999		143.1%
Victory	852	5	959		112.6%	978		114.8%	1,044		122.5%	1,103		129.5%
West Gate	568	13	658		115.8%	702	-134		718	-150		824	-256	
Westridge	568	3	660	-92	116.2%	671		118.1%	720		126.8%	742		130.6%
Williams	780	2	868		111.3%	928	-148		1,039		133.2%	1,114		142.8%
Wood	924	0	953	-29	103.1%	982	-58		1,033	-160		1,272		137.7%
Yorkshire	948	0	820	128	86.5%	858	90		907	41	95.7%	1,163		122.7%
Total			38,436		100.8%	39,599		103.8%			114.3%	48,949		126.9%
ıvıdı	38,273	132	აგ,43ნ	-103	T00.8%	59,599	-1,326	103.8%	43,861	-၁,၁४४	114.3%	48,949	-10,0/6	120.9%

# Student Enrollment Data: Current and Projected Enrollment Elementary Schools – Additional Space to be Constructed SY 2011-12 to SY 2021-22

Elementary School	20	11-1	2	2	012-13	3	2016-17			2	021-22	
Elementary School	Students	+/-	%Util	Students	+/-	%Util	Students	+/-	%Util	Students	+/-	%Util
2012												
Swans Creek Addition (6 rooms)					144			144			144	
Westridge Elementary Addition (6 rooms)					144			144			144	
2013												
Loch Lomond Elementary Addition (4 rooms)								96			96	
Mullen Elementary Addition (6 rooms)								144			144	
Penn Elementary Addition (7 rooms)								168			168	
Sinclair Elementary Addition (11 rooms)								264			264	
Sudley Elementary Addition (10 rooms)								240			240	
West Gate Elementary Addition (4 rooms)								96			96	
2014												
Elementary School (West - Haymarket/UVA)								852			852	
Nokesville K-8 School Replacement								258			258	
River Oaks Elementary Addition (7 rooms)								168			168	
2015												
Elementary School/IHS (West - Devlin Road Area)								852			852	
Featherstone Elementary Addition (6 rooms)								144			144	
New Dominion Addition (10 rooms)								240			240	
2016												
Elementary School/IHS (East - Ferlazzo)								852			852	
2017												
Elementary School (East - Harbor Station)											852	
Elementary School (East - Neabsco Mills Area)											852	
Kilby Elementary School Replacement											438	
Belmont Elementary Addition (4 rooms)											96	
Henderson Elementary Addition (8 rooms)											192	
Springwoods Elementary Addition (5 rooms)											120	
2018												
Elementary School (West - Linton Hall Area)											852	
2019												
Elementary Addition Haymarket Area (6 rooms)											144	
2021												
Elementary School (TBD)											852	
Sum of Additional Seats					288			4,662			8,208	
Total	38,436	-163	100.4%	39,602	-1,041	102.7%	43,859	-924	102.2%	48,950	-2,469	105.3%

### Student Enrollment Data: Current and Projected Enrollment Middle Schools SY 2011-12 to SY 2021-22

*****	Availabl	e Space	2	011-12		:	2012-13			2016-17			2021-22	
Middle School	Capacity	Portable Classrooms	Students	+/-	%Util	Students	+/-	%Util	Students	+/-	%Util	Students	+/-	%Util
Benton Middle School	1,233	1	1,299	-66	105.4%	1,258	-25	102.1%	1,425	-192	115.5%	1,527	-294	123.8%
Beville Middle School	1,191	0	1,152	39	96.7%	1,217	-26	102.2%	1,312	-121	110.2%	1,410	-219	118.4%
Bull Run Middle School	1,233	12	1,745	-512	141.5%	1,173	60	95.1%	1,270	-37	103.0%	1,378	-145	111.7%
Gainesville Middle School	1,233	5	1,451	-218	117.7%	1,313	-80	106.5%	1,528	-295	123.9%	1,858	-625	150.7%
Godwin Middle School	982	0	1,058	-76	107.7%	1,028	-46	104.7%	1,107	-125	112.7%	1,190	-208	121.2%
Graham Park Middle School	867	0	837	30	96.5%	872	-5	100.6%	991	-124	114.3%	1,081	-214	124.7%
Lake Ridge Middle School	1,191	0	1,212	-21	101.8%	1,172	19	98.4%	1,255	-64	105.4%	1,325	-134	111.2%
Lynn Middle School	1,170	0	939	231	80.3%	963	207	82.3%	1,055	115	90.1%	1,266	-96	108.2%
Marsteller Middle School	1,233	10	1,596	-363	129.4%	1,543	-310	125.2%	1,682	-449	136.4%	1,890	-657	153.3%
Parkside Middle School	1,139	0	1,166	-27	102.4%	1,246	-107	109.4%	1,369	-230	120.2%	1,639	-500	143.9%
Pennington Traditional School (MS)	243	0	240	3	98.8%	243	0	100.0%	243	0	100.0%	243	0	100.0%
Porter Traditional School (MS)	252	0	251	1	99.6%	252	0	100.0%	252	0	100.0%	252	0	100.0%
Potomac Middle School	1,233	0	1,093	140	88.6%	1,119	114	90.8%	1,397	-164	113.3%	1,726	-493	140.0%
Reagan Middle School	1,233	0	0	0		1,099	134	89.1%	1,291	-58	104.7%	1,516	-283	123.0%
Rippon Middle School	1,139	0	1,016	123	89.2%	1,076	63	94.4%	1,262	-123	110.8%	1,532	-393	134.5%
Saunders Middle School	1,212	0	1,077	135	88.9%	1,106	106	91.2%	1,239	-27	102.3%	1,330	-118	109.7%
Stonewall Middle School	1,003	3	1,117	-114	111.4%	1,095	-92	109.1%	1,172	-169	116.9%	1,279	-276	127.5%
Woodbridge Middle School	1,066	0	1,102	-36	103.4%	1,104	-38	103.6%	1,189	-123	111.5%	1,285	-219	120.5%
Reagan Middle (2012)							1,233			1,233			1,233	
Benton Middle (11 room addition, 2013	3)									231			231	
Potomac Middle (11 room addition, 20	13)									231			231	
Parkside Middle (16 room addition, 20	14)									336			336	
Rippon Middle/IHS East (9 room addition	on, 2016)									189			189	
Middle School (West - Linton Hall Area,	2018)												1,233	
Middle School (East, 2020)													1,233	
Sum of Additional Seats							1,233			2,220			4,686	
Total	17,620	31	18,351	-731	104.1%	18,880	-27	100.1%	21,037	-1,197	106.0%	23,726	-1,420	106.4%

## Student Enrollment Data: Current and Projected Enrollment High Schools SY 2011-12 to SY 2021-22

	Availabl	le Space	2	011-12	!	2	012-13			2016-17			2021-22	
High School	Capacity	Portable Classrooms	Students	+/-	%Util	Students	+/-	%Util	Students	+/-	%Util	Students	+/-	%Util
Battlefield HS	2,053	15	2,592	-539	126.3%	2,538	-485	123.6%	2,578	-525	125.6%	2,737	-684	133.3%
Brentsville HS	1,110		928	182	83.6%	742	368	66.8%	890	220	80.2%	1,194	-84	107.6%
Forest Park HS	2,053		2,370	-317	115.4%	2,471	-418	120.3%	2,827	-774	137.7%	2,754	-701	134.1%
Freedom HS	2,053		1,857	196	90.5%	1,819	234	88.6%	2,027	26	98.7%	2,821	-768	137.4%
Gar-Field HS	2,734		2,492	242	91.1%	2,470	264	90.3%	2,715	19	99.3%	2,965	-231	108.4%
Hylton HS	2,053		2209	-156	107.6%	2,165	-112	105.4%	2,312	-259	112.6%	2,151	-98	104.8%
Osbourn Park HS	2,430	2	2,744	-314	112.9%	2,752	-322	113.2%	2,807	-377	115.5%	3,022	-592	124.3%
Patriot HS	2,053		1,652	402	80.4%	2,335	-282	113.8%	3,118	-1065	151.9%	3,148	-1095	153.3%
Potomac HS	1,655	4	1,598	57	96.6%	1,572	83	95.0%	1,896	-241	114.6%	2,820	-1165	170.4%
Stonewall Jackson HS	2,409		2,332	78	96.8%	2,393	16	99.3%	2,581	-172	107.2%	3,247	-838	134.8%
Woodbridge HS	2,734		2726	8	99.7%	2,775	-41	101.5%	2,979	-245	108.9%	2,862	-128	104.7%
Potomac High School (30 room addition	n, 2013)									630			630	
12th High School - East (2016)										2,053			2,053	
13th High School - West (2019)													2,053	
14th High School - East (2021)	•	, and the second						•			·		2,053	
Sum of Additional Seats							-			2,683			6,789	
Total	23,337	21	23,500	-161	100.7%	24,030	-693	103.0%	26,730	-710	102.7%	29,720	406	98.7%

# Student Enrollment Data: Current and Projected Enrollment Special Education and Alternative Schools SY 2011-12

Special Education and	201:	1-12
Alternative School	Portable Classrooms	Students
Independent Hill SE	6	173
PACE West SE	3	103
Pre-School Child Find	0	74
School Based Pre-K	0	297
Woodbine SE	1	76
New Directions Alt	0	457
New Dominion Alt	10	115
TJHS Regional Magnet	0	53
Total	20	1,348
Parkside Middle Addition (IHS West 1 r	oom addition, 2	014)
West - Devlin Road (1 room addition, 20	015)	
East - Ferlazzo ES (1 room addition, 201	16)	
New Domion Alt (10 room addition, 210	O additional sea	ts, 2015)
Rippon Middle Addition (IHS 1 room ad	dition, 2016)	
12th HS (IHS 2 room addition, 2016)		
PACE East Replacement, 2018		

# Housing Units in Residential Development By Elementary School Attendance Area and Stage of Development September 2011

		Act	tive			Plar	nned		R	ezoning	Submitte	ed	<b>-</b> 1
Elementary School	SF	TH	MF	Total	SF	TH	MF	Total	SF	TH	MF	Total	Total
Alvey	142	-	-	142	130	-	-	130	-	-	-	-	272
Ashland	124	-	-	124	325	-	-	325	-	-	-	-	449
Bel Air	-	-	-	-	-	-	-	-	-	-	-	-	-
Belmont	-	-	-	-	-	-	732	732	-	-	-	-	732
Bennett	49	5	-	54	185	117	-	302	_	220	181	401	757
Bristow Run	47	-	-	47	-	-	-	-	21	-	-	21	68
Buckland Mills	177	94	46	317	230	168	222	620	84	523	-	607	1,544
Cedar Point	12	-	-	12	-	-	-	-	-	-	-	-	12
Coles	56	_	_	56	33	76	-	109	_	-	_	_	165
Dale City	-	-	-	-	4	-	-	4	-	-	-	-	4
Dumfries	_	_	192	192	11	_	-	11	_	_	_	_	203
Ellis	_	-	624	624	-	_	-	-	-	_	52	52	676
Enterprise	_	-	_	-	_	-	-	_	_	_	_	_	-
Featherstone	-	-	-	_	12	_	288	300	_	_	_	_	300
Fitzgerald	_	_	401	401	362	493	-	855	_	_	_	_	1,256
Glenkirk	183	30	-	213	70	-	-	70	_	_	_	_	283
Gravely	312	-	_	312	270	-	_	270	_	_	304	304	886
Henderson	-	-	-	-	21	-	-	21	-	_	304	-	21
Kilby	_	-	-	_	-	-	148	148	_	_	494	494	642
King	70	-	-	70	12	-	-	148	17	_	-	17	99
Lake Ridge	70		-	70	12	-	_	12	-	-	_	17	99
Leesylvania	29	65	32	126	33	152	550	735	-	_	_		861
Marshall	103	-	32	103	5	-	330	5	_	_	_	_	108
	103	-	- 621		-	-	-		-	-			
Marumsco Hills  McAuliffe			621	621 27			680	680			500	500	1,801
	-	27	-		-	-	-	- 210	-	-	-		27
Minnieville	- 51	-	-	-	-	30	289	319	-	-	-	-	319
Montclair	51	-	-	51	5	-	-	5	-	-	-	-	56
Mountain View	13	-	-	13	-	-	-	-	-	-	-	-	13
Mullen	-	-	-	-	-	-	20	20	-	-	-	-	20
Neabsco	- 420	-	71	71	-	-	-	- 24	-	-	-	-	71
Nokesville	120	-	-	120	31	-	-	31	8	-	-	8	159
Occoquan	14	-	-	14	59	-	-	59	-	57	-	57	130
Old Bridge	-	-	-	-	4	-	-	4	-	-	-	-	4
Parks	-	-	-	-	37	-	-	37	-	-	-	-	37
Pattie	-	-	-	-	-	40	-	40	-	-	-	-	40
Penn	45	-	-	45	372	51	-	423	28	-	-	28	496
Piney Branch	208	132	336	676	38	267	-	305	-	1,200	880	2,080	3,061
Potomac View	-	-	-	-	-	25	-	25	-	-	-	-	25
River Oaks	-	255	70	325	318	-	-	318	-	-	-	-	643
Rockledge	-	-	-	-	-	-	72	72	-	-	-	-	72
Signal Hill	66	-	-	66	89	110	320	519	-	-	-	-	585
Sinclair	-	-	-	-	-	-	-	-	-	-	319	319	319
Springwoods	-	-	-	-	21	-	-	21	-	-	-	-	21
Swans Creek	-	-	398	398	773	67	1,317	2,157	-	-	470	470	3,025
Triangle	54	-	-	54	130	291	46	467	-	-	-	-	521
Tyler	52	-	316	368	-	-	-	-	-	-	-	-	368
Vaughan	-	-	-	-	139	-	333	472	-	-	-	-	472
Victory	-	79	-	79	95	-	-	95	-	-	-	-	174
West Gate	-	-	-	-	-	-	400	400	-	-	-	-	400
Westridge	14	-	-	14	-	-	-	-	-	-	-	-	14
Williams	261	-	-	261	130	-	-	130	-	-	86	86	477
Wood	21	-	-	21	295	-	-	295	448	-	-	448	764
Yorkshire	-	-	-	-	27	-	877	904	-	-	-	-	904
Total	2,223	687	3,107	6,017	4,266	1,887	6,294	12,447	606	2,000	3,286	5,892	24,356

## Housing Units in Residential Development By Middle School Attendance Area and Stage of Development September 2011

		Act	tive			Plar	ned		R	ezoning	Submitte	ed	Total
Middle School	SF	TH	MF	Total	SF	TH	MF	Total	SF	TH	MF	Total	IOLAI
Benton	281	-	-	281	353	127	-	480	28	-	-	28	789
Beville	70	-	-	70	69	-	1	69	17	-	-	17	156
Bull Run	557	-	352	909	409	1	48	457	-	393	610	1,003	2,369
Gainesville	539	256	970	1,765	424	435	174	1,033	84	1,330	880	2,294	5,092
Godwin	-	-	71	71	4	30	289	323	-	-	-	-	394
Graham Park	54	-	192	246	141	331	46	518	-	-	-	-	764
Lake Ridge	-	-	-	-	-	1	-	-	-	-	-	-	-
Lynn	14	-	-	14	59	25	1,192	1,276	-	57	494	551	1,841
Marsteller	191	79	-	270	326	1	20	346	477	-	52	529	1,145
Parkside	115	5	-	120	301	227	1,197	1,725	-	220	181	401	2,246
Potomac	290	320	468	1,078	1,254	219	1,317	2,790	-	-	556	556	4,424
Rippon	-	-	1,054	1,054	395	493	1,518	2,406	-	-	500	500	3,960
Saunders	112	27	-	139	367	-	-	367	-	-	-	-	506
Stonewall	-	-	-	-	-	1	400	400	-	-	13	13	413
Woodbridge	-	-	-	-	164	-	93	257	-	-	-	-	257
Total	2,223	687	3,107	6,017	4,266	1,887	6,294	12,447	606	2,000	3,286	5,892	24,356

### Housing Units in Residential Development By High School Attendance Area and Stage of Development September 2011

		Act	tive			Plar	nned		Rezoning Submitted				Total
High School	SF	TH	MF	Total	SF	TH	MF	Total	SF	TH	MF	Total	Total
Battlefield	679	-	362	1,041	630	-	48	678	84	393	304	781	2,500
Brentsville	220	5	-	225	182	60	1	242	8	-	-	8	475
Forest Park	217	-	192	409	466	331	46	843	-	-	-	-	1,252
Freedom	-	-	1,054	1,054	12	518	2,731	3,261	-	-	500	500	4,815
Gar-Field	-	-	71	71	173	30	289	492	-	-	_	-	563
Hylton	82	27	-	109	70	76	-	146	17	-	-	17	272
Osbourn Park	233	-	-	233	539	218	1,197	1,954	28	220	181	429	2,616
Patriot	280	124		404	365	168	174	707	469	130	132	731	1,842
Potomac	290	320	468	1,078	1,637	219	1,317	3,173	-	-	556	556	4,807
Stonewall Jackson	208	211	960	1,379	133	267	420	820	-	1,200	1,119	2,319	4,518
Woodbridge	14	-	-	14	59	-	72	131	-	57	494	551	696
Total	2,223	687	3,107	6,017	4,266	1,887	6,294	12,447	606	2,000	3,286	5,892	24,356

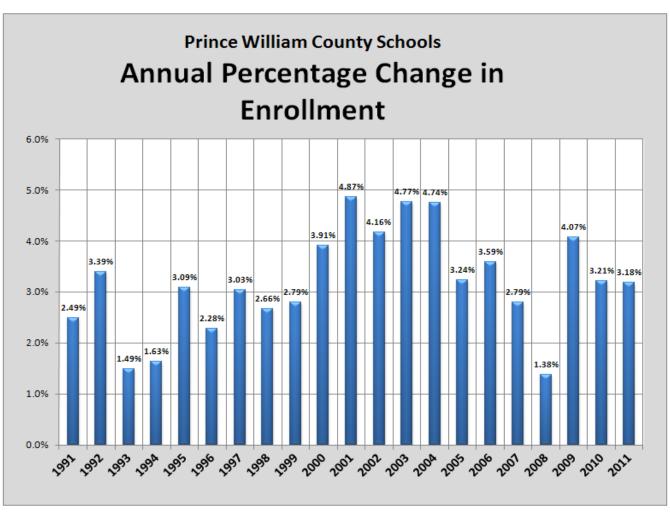
# Student Enrollment Data: Historical and Projected Special Education and Alternative Schools SY 2011-12

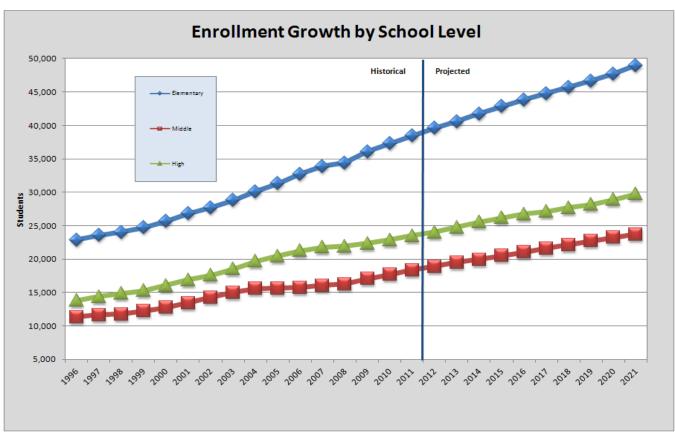
Year	Elementary	Middle	High	Special Education	Total	Change	Percent Change
1966	11,361	5,242	4,511	133	21,247		
1967	11,782	5,843	4,991	83	22,699	1,452	6.8%
1968	13,083	6,488	5,641	97	25,309	2,610	11.5%
1969	14,266	7,164	6,496	97	28,023	2,714	10.7%
1970	15,377	7,873	7,008	106	30,364	2,341	8.4%
1971	15,794	8,368	8,053	107	32,322	1,958	6.4%
1972	15,975	8,738	8,741	107	33,561	1,239	3.8%
1973	16,583	9,498	9,464	80	35,625	2,064	6.1%
1974	19,462	9,865	10,338	148	39,813	4,188	11.8%
1975	19,538	10,261	10,800	201	40,800	987	2.5%
1976	18,693	9,799	10,277	238	39,007	(1,793)	-4.4%
1977	16,626	9,041	10,463	309	36,439	(2,568)	-6.6%
1978	15,378	8,466	10,729	273	34,846	(1,593)	-4.4%
1979	16,166	8,344	10,918	286	35,714	868	2.5%
1980	15,385	8,465	10,993	310	35,153	(561)	-1.6%
1981	15,429	8,757	11,031	367	35,584	431	1.2%
1982	15,141	8,775	10,927	382	35,225	(359)	-1.0%
1983	15,334	8,701	11,128	401	35,564	339	1.0%
1984	15,598	8,438	11,464	383	35,883	319	0.9%
1985	16,326	8,273	11,844	447	36,890	1,007	2.8%
1986	17,130	8,414	11,850	526	37,920	1,030	2.8%
1987	18.143	8,460	12,010	611	39,224	1,304	3.4%
1988	19,334	8,730	11,883	703	40,650	1,426	3.6%
1989	20,130	9,060	11,652	692	41,534	884	2.2%
1990	20,702	9,320	11,638	686	42,346	812	2.0%
1990	20,702	9,861	11,846	709	43,400	1,054	2.5%
1992	21,768	10,212	12,178	712	44,870	1,470	3.4%
1993	21,708	10,654	12,501	779	45,539	669	1.5%
1994	21,826	10,733	12,822	900	45,339	742	1.6%
1995	22,473	11,085	13,329	825	47,712	1,431	3.1%
1996	22,886	11,327	13,828	760	48,801	1,089	2.3%
1997	23,529	11,636	14,366	751	50,282	1,481	3.0%
1998	24,044	11,744	14,839	994	51,621	1,339	2.7%
1999	24,690	12,212	15,292	868	53,062	1,441	2.8%
2000	25,653	12,774	16,079	633	55,139	2,077	3.9%
2001	26,814	13,445	16,881	683	57,823	2,684	4.9%
2001	27,717	14,256	17,558	698	60,229	2,406	4.2%
2002	28,820	15,035	18,525	719	63,099	2,400	4.2%
2003	30,101	15,580	19,652	760	66,093	2,994	4.8%
2004	31,286	15,623	20,448	877	68,234	2,141	3.2%
2006	32,704	15,748	21,228	1,003	70,683	2,449	3.7%
2007	33,858	16,040	21,792	964	72,654	1,971	2.8%
2007	34,428	16,273	21,930	1,027	72,657	1,003	1.4%
2009	36,055	17,034	22,328	1,239	76,656	2,999	4.1%
2010	37,261	17,700	22,857	1,298	79,116	2,460	3.2%
2010	38,436	18,351	23,500	1,348	81,635	2,519	3.2%
2012	39,602	18,880	24,030	1,325	83,837	2,202	2.7%
2013	40,581	19,500	24,769		86,191	2,354	2.8%
2014	41,727	19,941	25,532	1,359	88,559	2,368	2.7%
2015	42,816	20,521	26,183		90,898	2,338	2.6%
2016	43,859	21,037	26,730	1,400	93,026	2,128	2.3%
2017	44,795	21,591	27,137	1,422	94,945	1,919	2.1%
2018	45,733	22,133	27,694	1,447	97,007	2,062	2.2%
2019	46,659	22,707	28,187	1,474	99,028	2,002	2.1%
2020	47,735	23,236	28,886	,	101,362	2,335	2.1%
2020	48,950	23,726	29,720	1,539	101,302	2,533	2.4%
2021	40,330	23,720	23,720	1,339	103,333	2,3/3	2.0/0

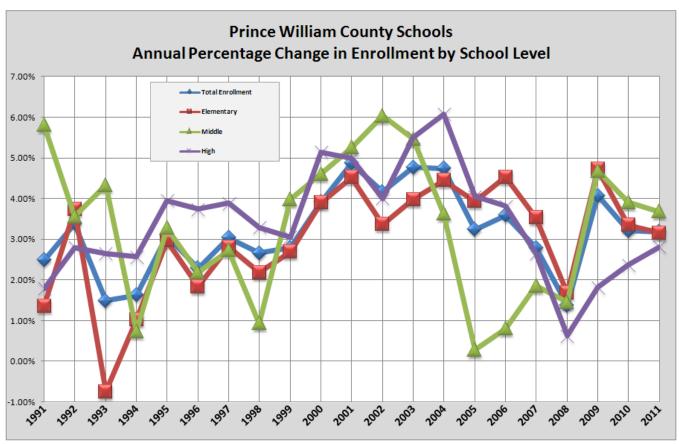
# Student Membership Projections \*\*Error Rate Analysis\*\* Prince William County Public Schools

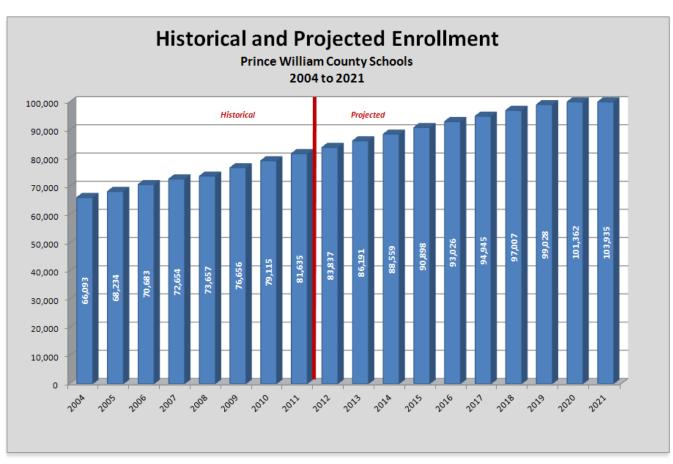
	Actual	Student Membership Projections								
<b>School Year</b>	Student	Or	ne Year Before	•	Two Years Before		Four Years Before		Five Years Before	
	Membership	Projection	Difference	% Error *	Projection	% Error *	Projection	% Error *	Projection	% Error *
1995-96	47,712	47,162	(550)	1.17%	47,255	0.97%	50,589	-5.69%	49,543	-3.70%
1996-97	48,041	47,991	(50)	0.10%	46,928	2.37%	49,765	-3.46%	50,738	-5.32%
1997-98	49,531	48,939	(592)	1.21%	49,033	1.02%	54,650	-9.37%	52,475	-5.61%
1998-99	50,627	50,785	158	-0.31%	49,865	1.53%	48,731	3.89%	50,746	-0.23%
1999-00	53,062	52,546	(516)	0.98%	53,102	-0.08%	52,567	0.94%	51,330	3.37%
2000-01	55,139	54,269	(870)	1.60%	53,352	3.35%	53,038	3.96%	53,831	2.43%
2001-02	57,823	57,026	(797)	1.40%	55,763	3.69%	54,788	5.54%	54,930	5.27%
2002-03	60,229	59,916	(313)	0.52%	58,829	2.38%	55,688	8.15%	57,231	5.24%
2003-04	63,109	62,391	(718)	1.15%	61,962	1.85%	58,059	8.70%	57,541	9.68%
2004-05	66,093	65,721	(372)	0.57%	64,321	2.75%	62,185	6.28%	59,639	10.82%
2005-06	68,234	68,988	754	-1.09%	68,181	0.08%	64,709	5.45%	63,717	7.09%
2006-07	70,683	70,211	(472)	0.67%	71,511	-1.16%	67,804	4.25%	66,393	6.46%
2007-08	72,654	72,187	(467)	0.65%	71,866	1.10%	71,555	1.54%	69,488	4.56%
2008-09	73,657	73,321	(336)	0.46%	73,592	0.09%	75,914	-2.97%	74,270	-0.83%
2009-10	76,656	74,736	(1,920)	2.57%	75,393	1.68%	74,840	2.43%	77,888	-1.58%
2010-11	79,115	78,308	(807)	1.03%	75,996	4.10%	75,226	5.17%	75,433	4.88%
2011-12	81,635	81,070	(565)	0.70%	79,866	2.21%	77,238	5.69%	76,766	6.34%
					_	_	_	_		
(MPE) Mean Percentage Error				0.58%		1.18%		1.98%		2.71%
(MAPE) Mean Absolute Percentage Error				0.86%		2.08%		4.44%		4.91%

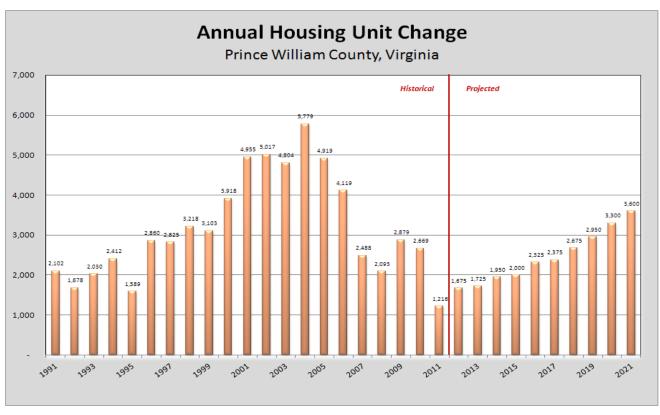
(MPE) Mean Percentage Error	0.58%	1.18%	1.98%	2.71%
(MAPE) Mean Absolute Percentage Error	0.86%	2.08%	4.44%	4.91%

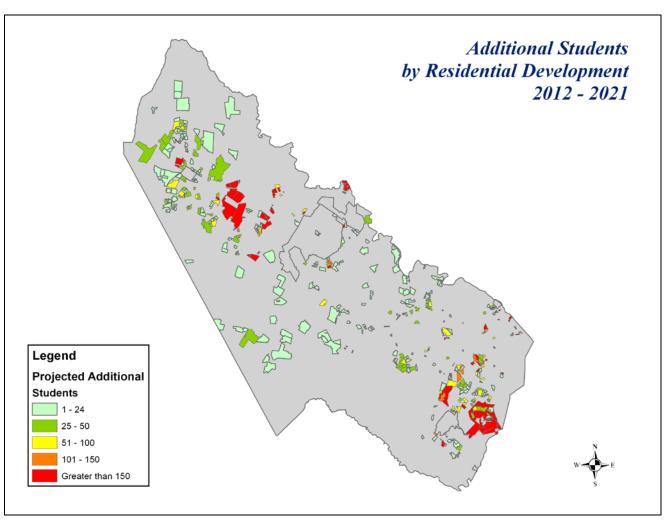


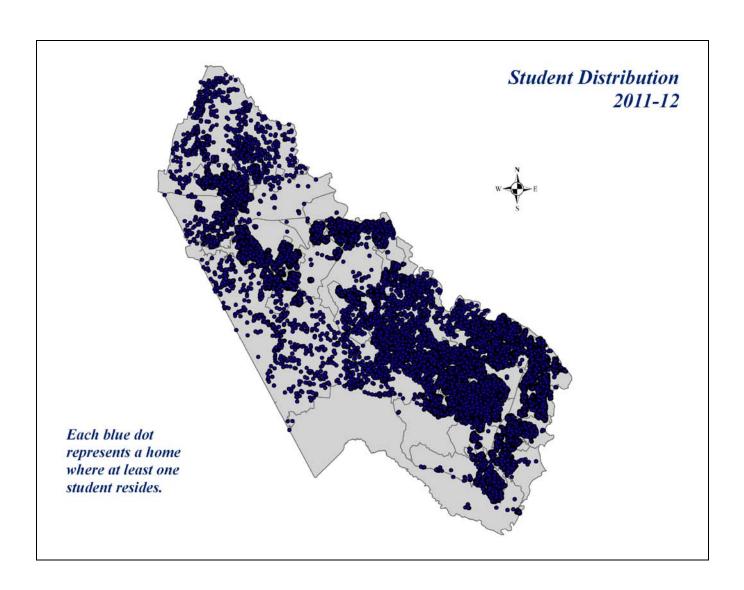






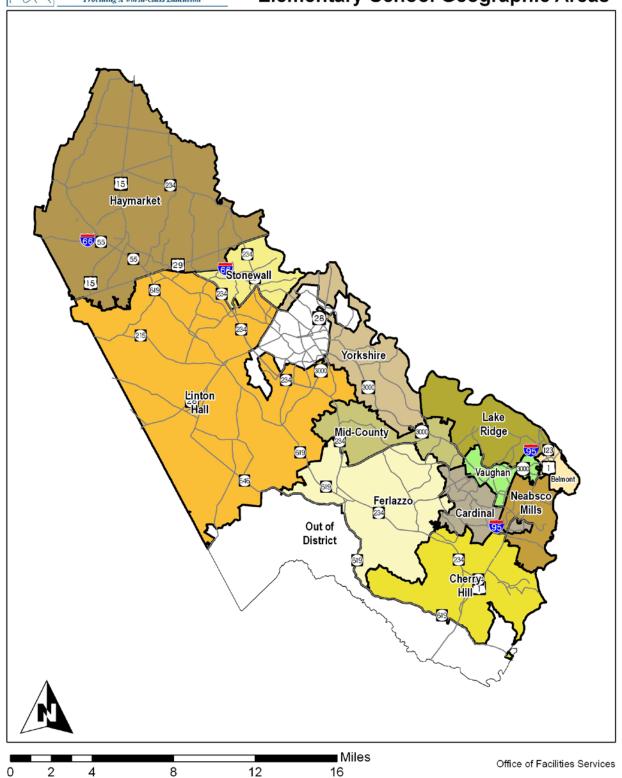








# Capital Improvements Program Elementary School Geographic Areas



# Elementary Schools by Geographic Area Prince William County Schools

Coographic Avec	Cabaala		
Geographic Area  Belmont Area	Schools		
Beimont Area	Belmont ES		
	Bel Air ES		
	Dale City ES		
Cardinal Area	Fitzgerald ES		
	Henderson ES		
	Minnieville ES		
	Neabsco ES		
	Dumfries ES		
	Pattie ES		
Cherry Hill Area	River Oaks ES		
J	Swans Creek ES		
	Triangle ES		
	Williams ES		
	Ashland Es		
	Coles ES		
	Enterprise ES		
Ferlazzo Area	King ES		
	McAuliffe ES		
	Montclair ES		
	Parks ES		
	Alvey ES		
	Buckland Mills ES		
Haymarket Area	Gravely ES		
	Mountain View ES		
	Tyler ES		
	Antietam ES		
	Lake Ridge ES		
	Occoquan ES		
Lake Ridge Area	Old Bridge ES		
_	Rockledge ES		
	Springwoods ES		
	Westridge ES		
	Bennett ES		
	Bristow Run ES		
	Cedar Point ES		
	Ellis ES		
Linton Hall Area	Glenkirk ES		
	Nokesville ES		
	Nokesville ES  Pinev Branch ES		
	Nokesville ES Piney Branch ES Victory ES		

Geographic Area	Schools		
	Kerrydale ES		
Mid-County Area	Marshall ES		
	Penn ES		
	Featherstone ES		
Neabsco Mills Area	Leesylvania ES		
iveabsco ivillis Area	Marumsco Hills ES		
	Potomac View ES		
	Mullen ES		
Stonewall Area	Sinclair ES		
Stollewall Alea	Sudley ES		
	Westgate ES		
Vaughan Area	Kilby ES		
Vaughan Area	Vaughan ES		
	Loch Lomond ES		
Yorkshire Area	Signal Hill ES		
	Yorkshire ES		

# APPENDIX C IDENTIFIED SCHOOL SITES

- Overall Map of School Sites Identified in the Capital Improvements Program
  - Nokesville K-8 (2014)
  - Haymarket/UVA Elementary School (2014)
  - Devlin Road Elementary School (2015)
  - Ferlazzo Elementary School (2016)
  - 12<sup>th</sup> High School (2016)
  - Harbor Station #1 Elementary School (2017)
  - Kilby Elementary School Replacement (2017)
  - PACE East Replacement (2018)
  - Avendale Elementary School (TBD)
  - Avendale Middle School (TBD)
  - Harbor Station #2 Elementary School (TBD)

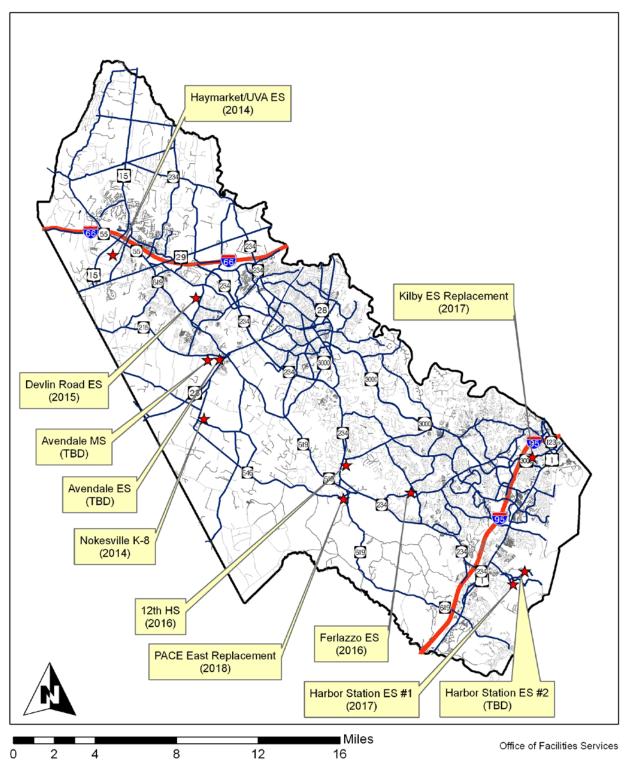
#### **School Site Maps**

Appendix C details the school sites that have been acquired by the School Division. Some of these sites are programmed to be utilized for new school facilities within this Capital Improvements Program document. Where this is true, the year that the site is to be constructed upon is shown on the map.

Other sites are depicted that are not currently scheduled to be constructed within the scope of this CIP document.



# School Sites Identified in the Capital Improvements Program (CIP)





# Nokesville K-8 School Opens September 2014



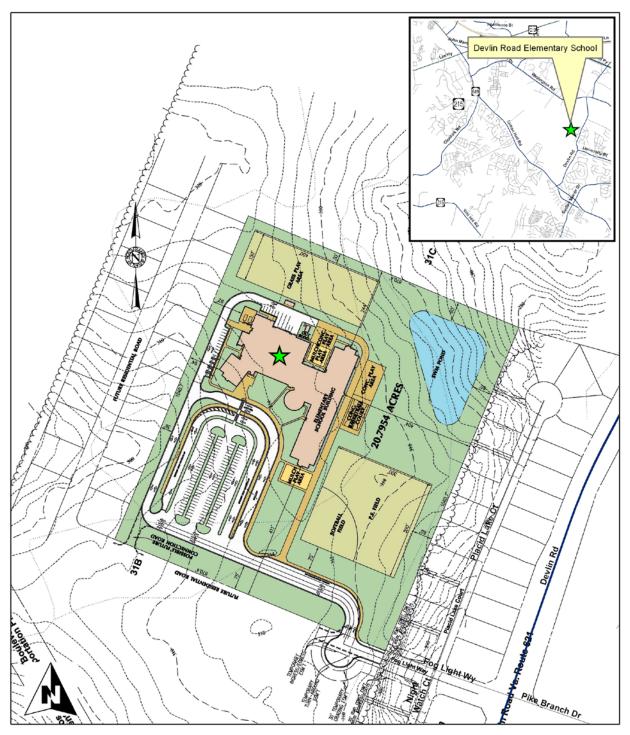


# Haymarket / UVA Elementary Opens September 2014





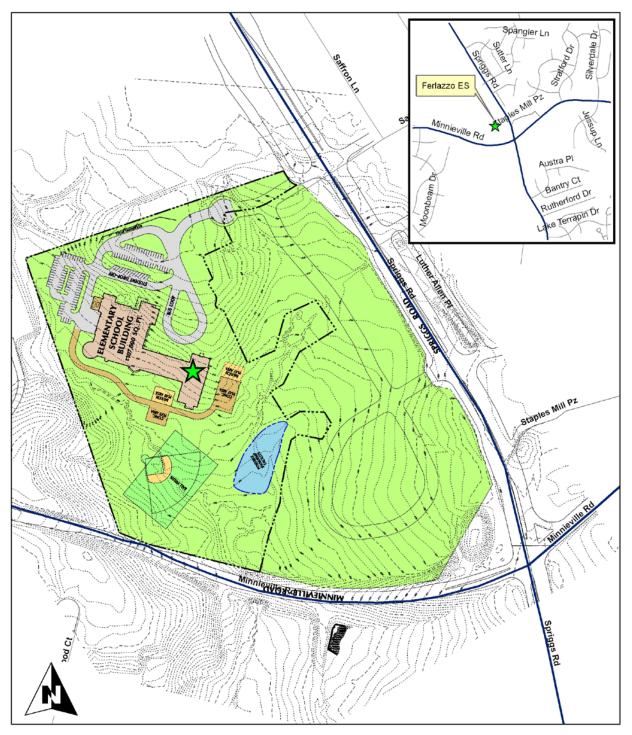
# Devlin Road Elementary School Opens September 2015





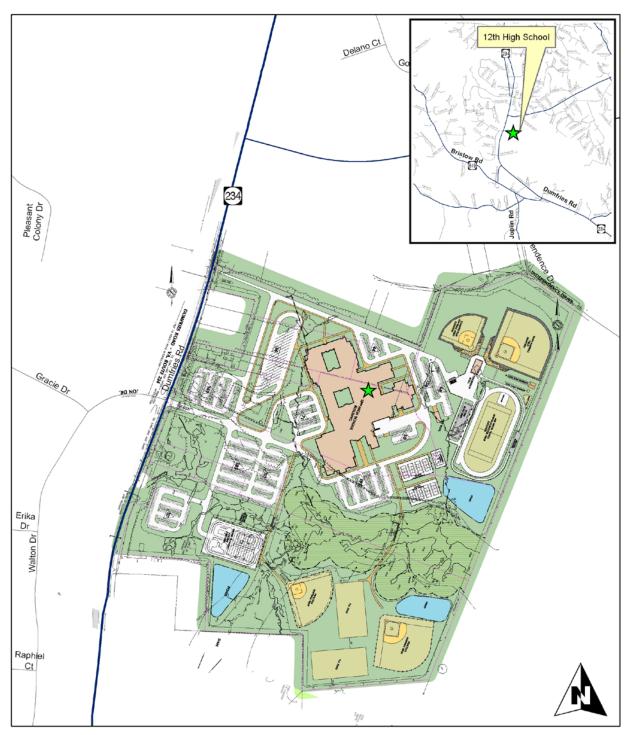
# Ferlazzo Elementary School

Opens September 2016





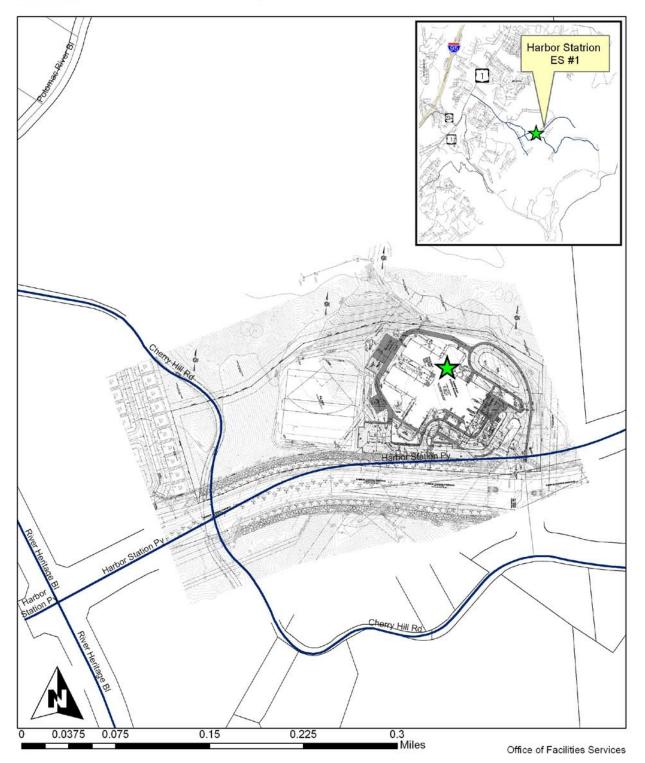
# 12th High School Opens September 2016





# Prince William County Harbor Station Elementary School #1

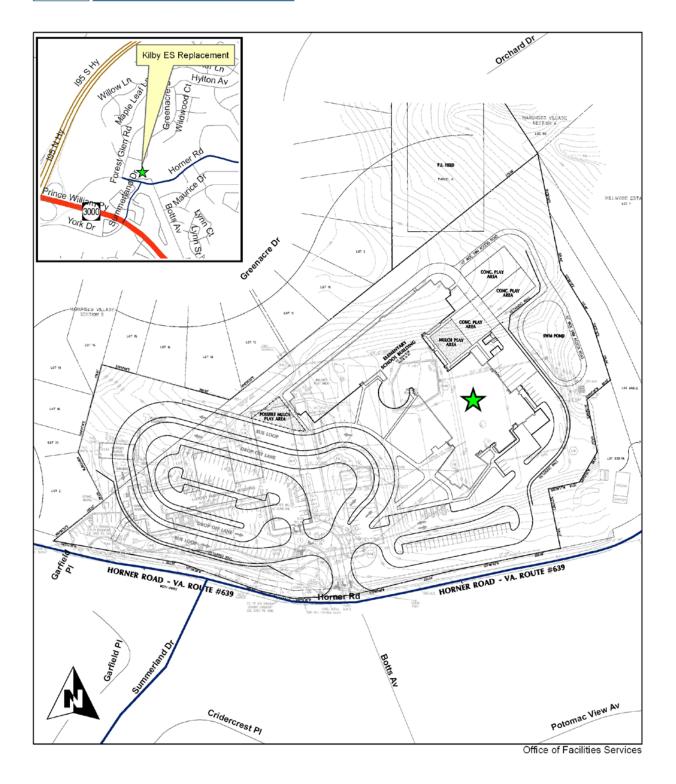






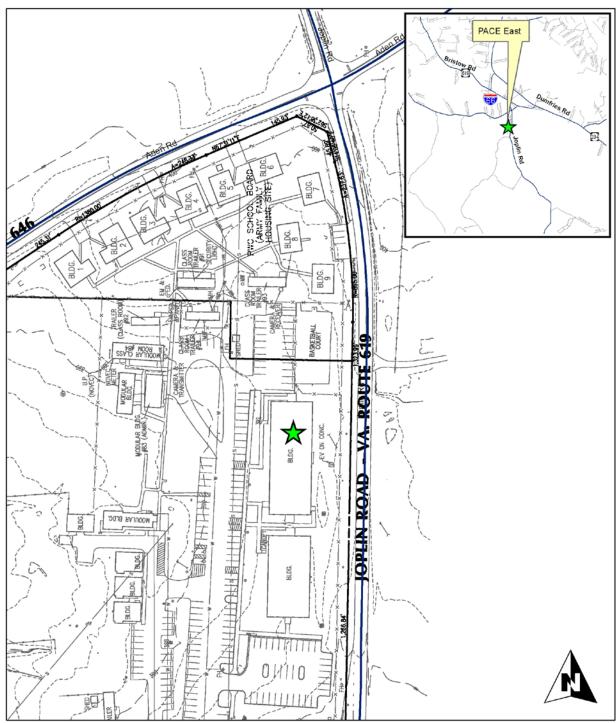
# Kilby ES Replacement

**Opens September 2017** 





### PACE East Replacement Special Education School Opens September 2018





# Avendale Elementary School Opening Year To Be Determined





# Avendale Middle School Opening Year To Be Determined





# Harbor Station Elementary School #2 Opening Year To Be Determined

