



Arlington Public Schools School Board's Adopted FY 2013 - FY 2022 Capital Improvement Plan





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Dear Ms. Hynes:

October 10, 2012

I am pleased to present the FY 2013 – FY 2022 Capital Improvement Plan (CIP) for Arlington Public Schools. One of our Strategic Plan Goals is to provide optimal learning environments. Thoughtful and prudent capital planning is a critical part of achieving that goal. Therefore, consistent with the Arlington County Government CIP, APS chose to adopt a ten-year CIP to enable us to better plan for our capital needs over the next decade as enrollment continues to increase. The CIP totals \$538 million and is focused on meeting the capacity needs of our growing student population.

During the last five years, from FY 2009 to FY 2012, APS enrollment has increased by 18%, or 3,400 students. We project that the school system will be over capacity system-wide by the next school year. Based upon current capacity, APS will have a deficit of more than 7,000 seats in ten years. To plan for this unprecedented enrollment growth, APS engaged in an extensive community process to assist in development of the CIP, which became known as “More Seats for More Students.”

The community engagement process began with a survey sent to all PTAs and the School Board’s development of weighted criteria to evaluate options for adding capacity. An evaluation committee comprising citizens and staff recommended sites for possible additions or new schools and Arlington County added two possible sites to that list. Feasibility studies were developed for a total of 20 sites, with 60 potential options to add capacity. Staff held meetings with eight PTAs and eight civic associations, sponsored five community forums, made presentations to numerous citizen advisory groups, and worked with the School Board during work sessions. Using the weighted criteria it had developed, and considering the significant community input, the School Board narrowed the list of options during work sessions until deciding on the best sites for both our students and the larger Arlington community.

For the first five years of the CIP, the School Board has voted to construct a new elementary school on the grounds of Williamsburg Middle School and a second new elementary school on the Carlin Springs Elementary/Kenmore Middle School campus. In addition, the CIP includes additions at Ashlawn and McKinley elementary schools and Arlington Traditional School. This plan will add approximately 1,875 seats. We are pleased that the Public Facilities Review Committee (PFRC) process has already begun and look forward to ongoing discussions with the County Board about these projects, culminating in our applications for use permits.

The CIP also includes funding for infrastructure projects to keep our facilities in good condition and to extend their life cycles as long as possible. A total of \$119 million is included for the next ten years for infrastructure projects including roofing, HVAC, and replacement of windows, lighting and electrical systems.

The 2012 bond referendum totals \$42.6 million and includes funding for HVAC and roofing improvements (\$6.8 million), construction for the new elementary school at the Williamsburg site (\$28.1 million), and design funds for the additions at Arlington Traditional School (\$1.6 million), McKinley Elementary School (\$1.6 million), and the new elementary school at the Carlin Springs/Kenmore site (\$4.5 million). The School Board has been building a reserve fund to assist in funding of capital projects and this fund will be used to pay for the design and construction of the addition at Ashlawn (\$14.9 million) and for the design and partial construction of the new school at the Williamsburg site (\$14.9 million).

The School Board appreciates the tremendous support that the County Board and Arlington community provide to our students and our schools. Without this support, APS could not be as successful as it is. We are very mindful of our responsibility to the entire Arlington community and believe that this CIP represents a responsive and responsible approach to the continuing enrollment growth in APS as well as the need to invest in maintenance of our facilities. The plan also conforms to the County’s financial policies for debt service.

On behalf of the School Board, I wish to extend our thanks to the County Board for its continued commitment to the success of our students and our schools.

Sincerely,

Abby Raphael
School Board Chair, FY 2012

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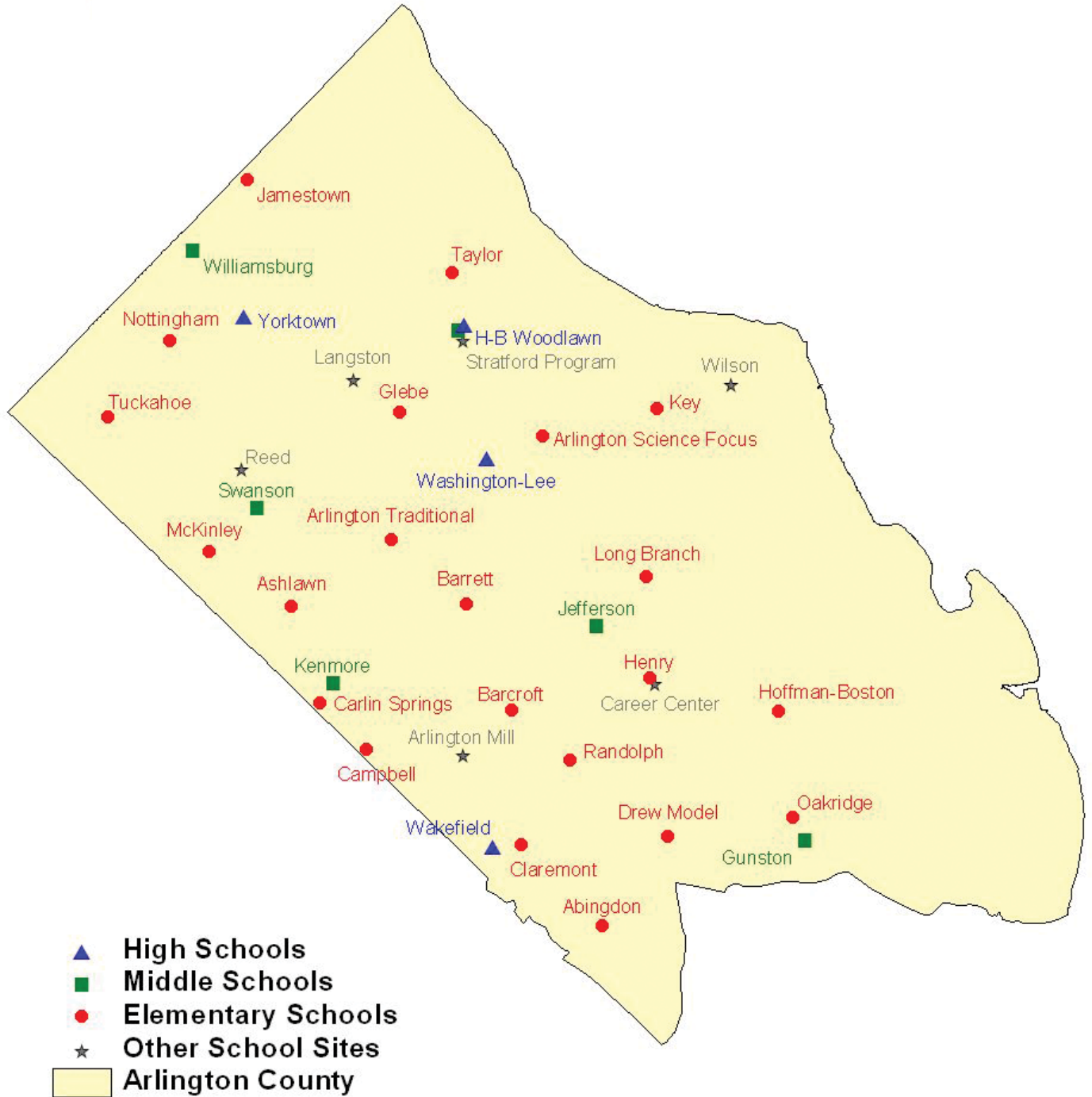
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CIP DEVELOPMENT CALENDAR

December 1, 2011	School Board Adopts CIP Framework
December 2011 — April 2012	Staff develops Superintendent’s Proposed CIP
May 10, 2012	Superintendent presents Proposed FY 2013 – FY 2022 CIP
May 15, 2012	CIP Work Session #1
May 19, 2012	County Manager presents County CIP
May 22, 2012	CIP Work Session #2
May 24, 2012	CIP Public Hearing
June 5, 2012	CIP Work Session #3
June 7, 2012	School Board’s Adopted FY 2013 – FY 2022 CIP — Information Item
June 12, 2012	CIP Work Session #4
June 19, 2012	School Board’s Adopted FY 2013 – FY 2022 CIP — Action Item
July 21, 2012	County Board adopts County CIP and Bond Referenda language



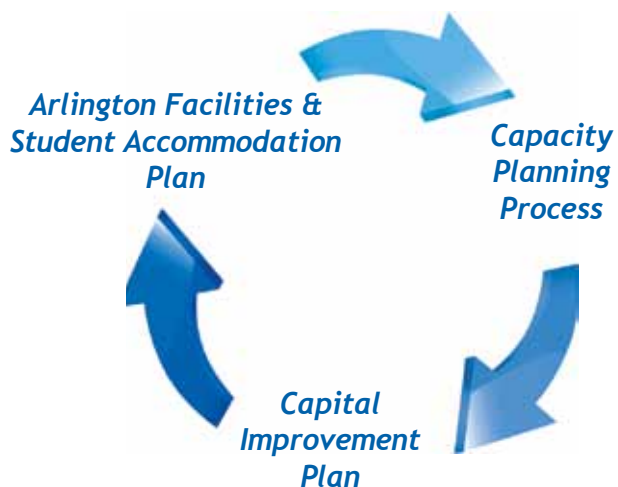
ARLINGTON PUBLIC SCHOOLS MAP



ARLINGTON SCHOOL BOARD'S ADOPTED FY 2013 - FY 2022 CAPITAL IMPROVEMENT PLAN

Meeting capital needs is critical to the success of any school division. Building, renovating, adding to or improving school buildings is a lengthy process. Typically, school construction takes years – it begins with identifying the needs of the division and is followed by obtaining bond authority from the citizens, and only then does the actual design and construction work begin. Because of the time required for construction and the importance of having the instructional space needed to educate the community's students, the capital improvement plan is one of the most important activities a school division undertakes.

Arlington Public Schools (APS) develops a multi-year Capital Improvement Plan (CIP) every two years. In the past, each CIP planned the coming six years, but this one will plan for the next ten years. The planning horizon for the CIP spans fiscal years FY 2013 through FY 2022. The driving element of this CIP is student enrollment growth and student needs. This focus emerged from both the biannual Arlington Facilities and Student Accommodation Plan (AFSAP) and community input over the last year. This plan is intended to provide for the needs of Arlington's school-age population by building new schools, putting additions on existing schools and renewing or upgrading older schools.



Every CIP includes two broad categories of projects: major construction and minor construction/major maintenance (MC/MM). Major construction projects include new buildings, additions, and renovations; minor construction/major maintenance projects primarily consist of HVAC, roofing, and infrastructure projects. Independent of the category, all CIP projects have a

useful life of twenty years or more. Most CIP projects are funded by general obligation bonds but, as is often the case, this CIP also proposes allocation of current revenues set aside in reserve for capital projects.

In 14 out of the last 18 years, APS has experienced student enrollment growth.

CHANGES IN THE FY 2013 - FY 2022 CIP

This CIP is different from earlier CIPs in three important ways:

1. There is a shift in the types of projects funded. The focus of this CIP is to provide additional capacity to accommodate student growth in contrast with the last several CIPs which provided for replacing and renovating existing facilities.
2. This CIP was developed using an entirely new planning process which is explained in detail in section IV. This process systematically evaluated various options against a set of values identified at the start of the process. The criteria for evaluating options was developed by the School Board and applied to the various possible options. The result is a CIP that is based on a very deliberate and objective analysis that involved the entire school community.
3. This CIP is the first ten-year CIP developed by APS.

Over the last 16 years, with the support of the larger Arlington community, APS has successfully renovated and rebuilt 27 schools. While not the focus of this CIP, it is anticipated that renovation and/or replacement of buildings will continue to be an important goal of future Capital Improvement Plans. This plan, like previous plans, provides for significant capital maintenance.

This year's CIP, however, is squarely focused on achieving greater instructional capacity throughout the system. Arlington's Public Schools' enrollment has grown steadily. Over the last five years – from FY 2007 to FY 2012 – APS has enrolled nearly 3,400 more students, an overall increase of more than 18 percent. Moreover, the rate of growth is at its highest level in decades. By the 2012-2013 school year, APS is expected to reach capacity at the elementary level. The entire system is projected to be over capacity by the 2013-14 school year. Section III details how student enrollment is changing and the trends that underlie the projections in this CIP.

SCHOOL BOARD DIRECTION

At the School Board's regular meeting on December 15, 2011, the framework for this CIP was adopted. The guidance covered the first six years of what later was changed to a ten-year plan. This CIP incorporates the Board's direction throughout the period.

The Superintendent's Proposed FY 2013 – FY 2022 CIP will incorporate the following:

CAPITAL INVESTMENT

In order to provide safe, adequate, and functional learning environments, it is important to provide capital funding for APS facilities. In anticipation of CIP development, APS engaged in a Capacity Planning Process to explore options to provide adequate space to meet enrollment. At the conclusion of that process, staff developed specific proposals for addressing capacity needs.

Major Capital Projects

APS considered the following in developing a strategic capacity plan:

- Options for renovations and additions to existing schools;
- Potential sites for new schools and other facilities;
- Opportunities to construct schools and other facilities as part of larger developments in Arlington County;
- Reprogramming and intensifying the use of existing spaces, where feasible; and
- Continuing the use of relocatables.

Major Maintenance

- Identify major maintenance investment needs for APS facilities, such as the repair and/or replacement of HVAC, roofing, and building envelope systems, detailed any additional funding needed above that identified in the MC/MM fund, and furnished options for providing additional funding.

FINANCE

The financial management of capital investments is an integral part of the overall management of all APS finances. The FY 2013 – 2022 CIP considered capital expenditures in the context of APS budget priorities and the Strategic Plan goals. The CIP:

- Provides an analysis of debt capacity under various funding scenarios to determine APS' ability to fund future construction projects;
- Assesses potential for capital funding from alternative sources such as public/private partnerships and higher education partnerships optimizing the value of existing assets; and
- Ensures continuation of the capital reserve.

DEMOGRAPHICS

The APS student population is projected to continue to grow. This growth will impact all areas of the county. In order to plan for these changes, the CIP:

- Evaluates enrollment projections to determine the need for future capacity.

ENERGY & ENVIRONMENT

APS has made it a priority to use new green technology in the development of its facilities not only to protect the environment but also to reap the economic benefit of using less energy. In the development of new facilities the CIP:

- Outlines the importance of developing projects that are sensitive to environmental concerns while taking advantage of the economic savings related to new green technology.

The Arlington Public Schools FY 2013 – FY 2022 Capital Improvement Plan (CIP) will ensure that APS continues to provide high-quality, safe, efficient and environmentally friendly facilities for the current and projected enrollment and work force.

ENROLLMENT GROWTH

INCREASING STUDENT ENROLLMENT

This CIP is targeted at meeting the challenge of more students with very limited capacity in our school buildings. This and the following sections provide both the rationale for the enrollment projections and describes the process APS engaged in to ensure there is adequate classroom space for students.

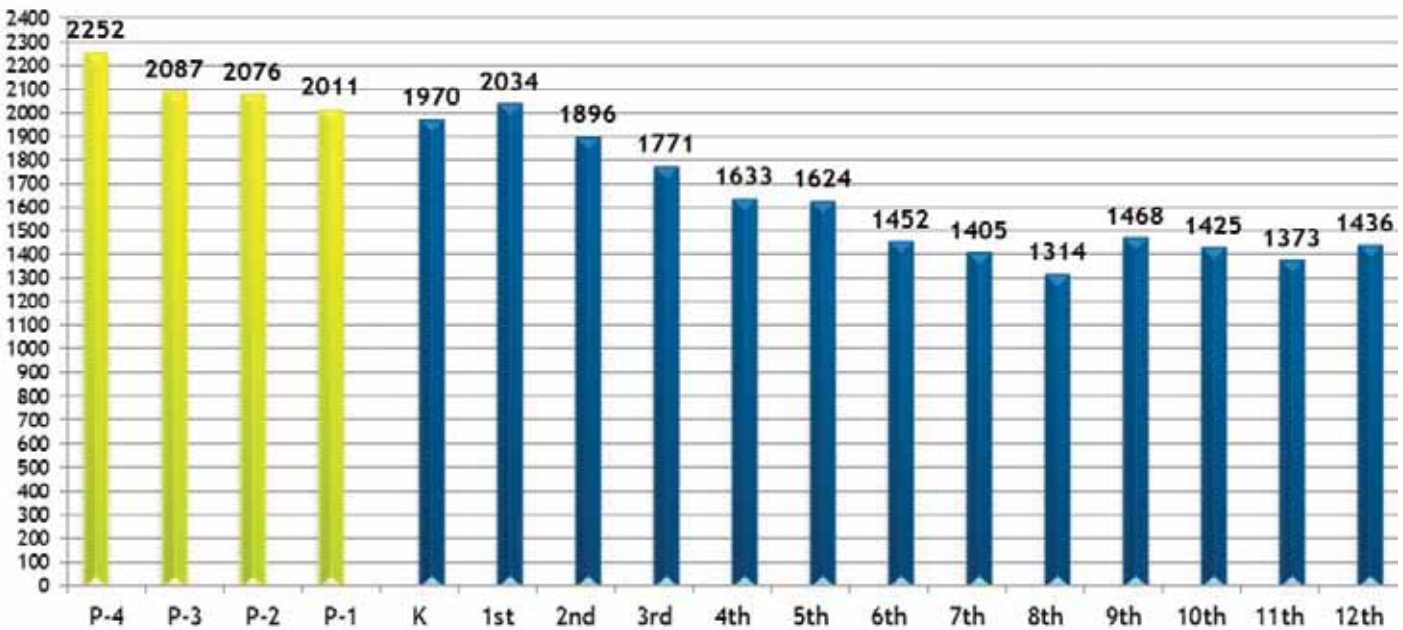
When estimating student growth, key indicators of how many students APS will enroll in the future are both the number of children born to Arlington residents and the increasing percentage who enroll in APS as kindergartners. The chart below illustrates current trends. Each of the blue/dark gray bars represents the number of students in a grade level, what is known as a cohort, for grades K-12. The yellow/light gray bars estimate the size of incoming classes or cohorts for the next four years. What is striking about the chart is that the size of incoming classes is significantly larger than the classes that are currently moving through APS. This increased

number of incoming student cohorts is driving the need for additional capacity in this CIP, first at the elementary level in years one through five, then at the secondary level in years six through ten.

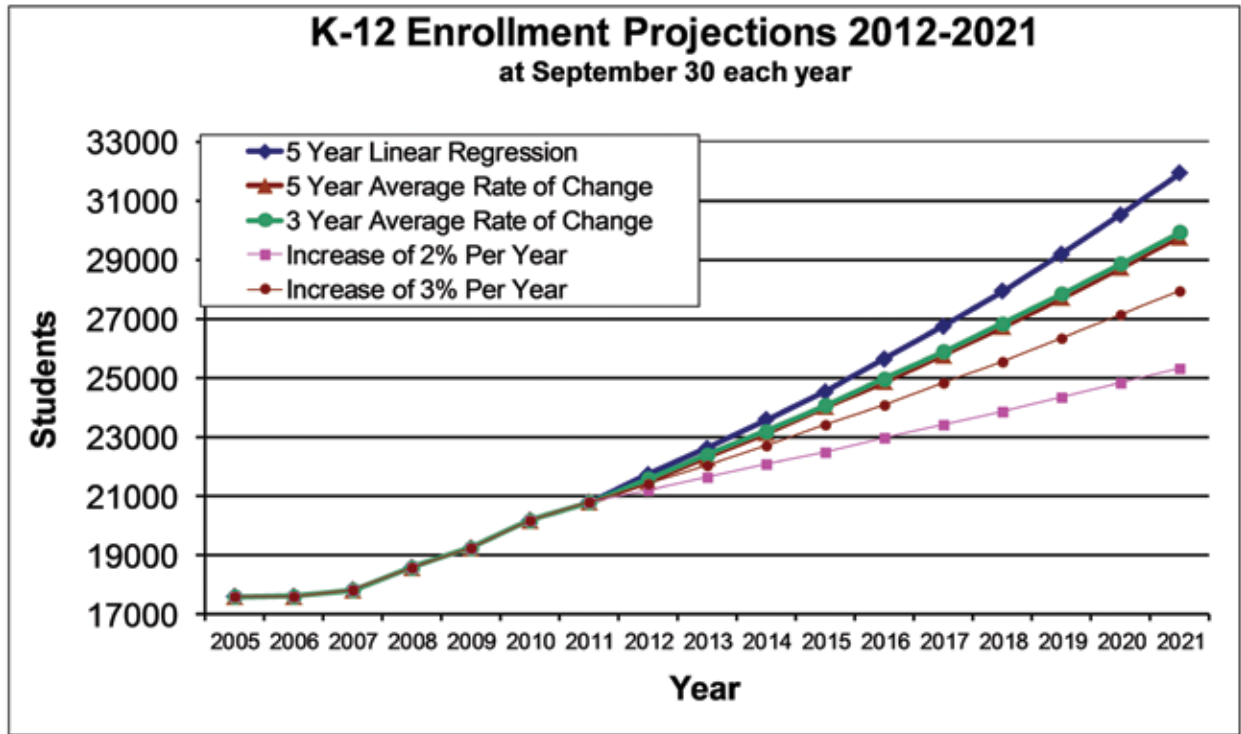
The projected size of the incoming classes is based on two statistical measures: birth rates and the number of five-year olds in the county. The Virginia Department of Health Statistics reports increasing numbers of births to Arlington residents. Additionally, the retention of these children into APS as five-year-olds continues to grow.

The overall increases in cohort size and retention rates result in a projection of increased enrollment for the foreseeable future. To develop a projection of total capacity need, APS staff began by extending projection models out to encompass a ten-year time frame. Although projections are less accurate in the out years, it is important to use the best available data in order to determine potential capacity need.

Current & Projected Cohorts as of 2012



As the 5,700 students currently in high school graduate over the next four years, 8,400 new students will enter APS.



Based on current enrollment trends, the APS student population will grow by more than 7,000 children by 2021.

The chart above shows projected student enrollment through 2021, using APS’ forecasting models. If current trends continue, APS is expected to reach approximately 30,000 students in the next ten years. What is unusual about these trends is the near identical trajectories of the three and five year forecasts.

When school opens in September 2012, APS will have over 100 relocatable classrooms.

ENROLLMENT-BASED CAPACITY REQUIREMENTS

APS is projected to reach system-wide capacity limits in Fall 2013 (see APS Building Capacities and Projected Student Enrollment 2011-2017, pp. 29-30, for further details). The total seat deficit for the next ten years is anticipated to be approximately:

- Elementary: 3,000 seats
- Middle: 2,500 seats
- High: 1,500 seats

This CIP addresses the most critical needs at elementary levels in the first five years, and plans for additional seats at both the elementary and secondary levels with placeholder dollars in years six through ten.



MEETING CAPACITY REQUIREMENTS

A HISTORY OF COLLABORATION

Throughout the capacity planning process, a variety of school and community stakeholders provided valuable feedback that helped shape the scope of the projects included in the CIP. Those stakeholders include local school communities, parents, citizen and civic groups, the broader Arlington community, County staff members and system-wide teacher and administrative staff.

Decision making is done with the advice of several different groups. The Advisory Council on School Facilities and Capital Programs, a group of parents and citizens who report directly to the School Board, provides input to both the School Board and to APS staff. When building design begins, Building Level Planning Committees (BLPCs) will participate directly in the design of individual projects. BLPC members consist of parents, County staff, Schools staff, commissioners, community leaders, PTAs and other interested constituents. In this process, the BLPC works with an architect appointed by the School Board to determine how best to meet the goals and objectives for the project as approved in the CIP. Through consensus, the BLPC assists in creating a schematic design that is presented to and approved by the School Board in terms of scope and budget.

Approximately five years ago, the County Board established a body designed to provide review of public projects. The Public Facilities Review Committee (PFRC) was formed to ensure that the highest quality of land use planning, design, transportation planning, and other important community aspects are incorporated into civic projects as assigned to the Committee by the Arlington County Board. More specifically, the PFRC allows advisory commissions and committees to have timely input on the development of significant County and Schools projects prior to the formal submission of the project for public hearings held by the Planning Commission and the County Board.

In preparing for this CIP, APS held meetings with 8 civic associations and 8 PTAs; it sponsored 5 community forums and presented at numerous advisory groups and School Board work sessions.

The PFRC is concerned with design issues relevant to the external building design, site placement, and relationship within the neighborhood context. The PFRC does not address internal building design, as that is guided by the educational or programmatic needs of the building users.

With the approval of FY 2013 - FY 2022 CIP, the PFRC and APS staff will begin to review the five elementary projects listed in the first half of the CIP. Future meetings have been scheduled so that County concerns are addressed at the outset of the design process and issues can be resolved within the BLPC and PFRC processes as quickly as possible.

INNOVATIVE STRATEGIES

In 2009 when faced with a growing need for building capacity, the School Board adopted the Progressive Planning Model (PPM) framework, a step-wise approach to developing additional capacity throughout the system. The PPM framework was developed in collaboration with the community and through a study with MGT of America, planning consultants. Through a series of community meetings, informal gatherings and a web survey, staff engaged the public in a dialogue about the pros and cons of capacity solutions and determined an initial focus for achieving additional capacity without immediate boundary changes.

The PPM framework identified three methods for achieving greater capacity and balancing the utilization of that capacity across the system:

- Using capacity throughout the system better through:
 - Boundary moves
 - Relocation programs
- Changing internal space use within schools by:
 - Scheduling changes (6/7 model and longer high school days)
 - Increasing class size
 - Moving “specials” (i.e., art and music) to carts
- Adding physical space:
 - Relocatables
 - Additions
 - Reconstruction
 - New buildings
 - Leased space

Using the Progressive Planning Model framework adopted by the School Board, APS has already implemented many options for increasing capacity. Those strategies, described above, included:

- Class size increases
- Increased utilization rate at secondary schools (6/7 scheduling and longer school days)
- Conversion of non-capacity classrooms into capacity-bearing rooms and putting programs on carts
- Relocatable (trailer) classrooms

Relocatables will continue to be relied on heavily for additional classroom needs in the future. Current projections indicate that APS will install 25 additional relocatable classrooms a year for the foreseeable future.

Additionally, to better balance enrollment between schools, APS has increased admissions to countywide schools including Arlington Traditional School, Campbell, Claremont, Drew, Key, and H-B Woodlawn for the 2011-12 school year and beyond.

“MORE SEATS FOR MORE STUDENTS” PROCESS

At the core of this CIP is the “More Seats for More Students” process initiated in spring 2011. At that time, the School Board directed staff to undertake a capacity planning process that set out to meet the following goals:

- To respond to increasing enrollment by adding permanent building capacity to APS as part of the Capital Improvement Plan; and,
- To achieve the plan for additional seats through a thoughtful, structured, and engaged process.

The “More Seats for More Students” planning process began in May of 2011 and culminated with the development of the proposed projects for years one through five of this CIP. A history of the process can be found on the APS website at www.apsva.us/capacity.

At the core of the “More Seats for More Students” initiative was community-wide collaboration, systematic evaluation of available options, well-defined evaluation criteria and a commitment to ensuring that the outcome meet the needs of students, instruction and the community. A key element to achieving the goal of this initiative is the planning process using computer modeling and facilitation by Decision Lens, described in a later section.



There were many steps in this year-long project and the major milestones of the process are listed below:

May 2011

Invitation to all PTAs to answer a capacity survey and to collectively develop potential options for adding system-wide capacity.

June and July 2011

School Board work sessions on developing a model for evaluating and ranking options based on weighted criteria. The ranking criteria developed by the School Board was applied to the options later in the process.

September 2011

Evaluation committee (made up of citizens, CCPTA president, Facility Advisory Committee members and staff) reviewed data on all APS sites and selected 16 APS sites to further investigate (County later added two sites for review).

November and December 2011

Presentation of feasibility studies for 18 APS sites and two County sites and development of option list (60 potential options).

January 2012

Evaluation of 60 options against model criteria.

February 2012

Board work session to review rankings, establish filter criteria and narrow list to 39 options.

March 2012

Presentation and review of four option sets for years 1-5 of CIP.

April 2012

Determination of projects for CIP and discussion of continued planning process.

At the conclusion of the capacity planning process, five elementary school projects were selected for specific inclusion in the CIP. Those projects include additions to Arlington Traditional School, Ashlawn Elementary School, and McKinley Elementary School as well as a new neighborhood elementary school on the Williamsburg Middle School site and a new choice elementary school on the Carlin Springs/Kenmore School site. Together, these projects will add approximately 1,800-1,900 seats of new, permanent elementary school capacity.

PLANNING PROCESS

The success of the “More Seats for More Students” initiative was augmented by the use of computer modeling and facilitation by Decision Lens. When planning for this CIP began, APS had exhausted most of the options identified by the Progressive Planning Model (PPM) such as converting internal space into capacity-bearing classrooms, changing scheduling practices, and adding relocatable classrooms. The remaining option for adding system-wide capacity was to build additional space either on current APS sites or acquire new sites.

To assist the School Board in developing a Capital Improvement Plan that focused on capacity-building projects, APS engaged Decision Lens, an Arlington-based developer of collaborative, decision-making software. Decision Lens computer modeling and facilitation guided the School Board in evaluating capital solutions based on pre-determined School Board criteria. The goals for using Decision Lens included:

- Creating a transparent framework around a very complicated decision-making process;
- Enabling clear articulation of strategy and alignment of solutions to objectives;
- Providing decision makers with scenarios around different funding strategies; and
- Rapidly adapting to changes in priorities and funding circumstances should they arise.

The planning process using Decision Lens began in July 2011 and concluded in April 2012.

Highlights of the process include:

July 2011

School Board developed the criteria model used to evaluate solutions.

September and October 2011

Developed a wide variety of possible building solutions with input from surveys to schools and refinement by a community and staff evaluation committee.

October 2011

Engaged the Arlington community to explain the process and revealed the APS sites that would undergo feasibility studies.

October and November 2011

Conducted feasibility studies with architectural consultants to determine what options were possible and to provide cost estimates for the options.

November 2011

School Board ranked the options using the Decision Lens model.

April 2012

Tentatively confirmed options selected for the first six years of this CIP following a series of School Board work sessions and community meetings.

May and June 2012

Superintendent presented the proposed CIP to the School Board in May; Board adopted the CIP in June.

School Board’s criteria for evaluating options:

- *Optimize capacity*
- *Minimize variation in preferred school size*
- *Consider impact on neighborhood resources*
- *Optimize operational effectiveness*

ARLINGTON FACILITIES AND STUDENT ACCOMMODATION PLAN

The next step in this process will begin in the summer of 2012 when work on the Arlington Facilities and Student Accommodation Plan (AFSAP) will begin. In the years when APS is not developing a CIP, a focused and comprehensive review of APS' student enrollment trends and building capacity is conducted. Specific information about each school is provided, as well as an overall look at enrollment and capacity issues throughout the county.

The current AFSAP is available in electronic format through the Arlington Public Schools Facilities and Operations website under the Facilities Planning section (www.apsva.us/afsap).

Information provided in the AFSAP includes:

- Current and projected enrollments by school and grade level
- Enrollment vs. capacity analysis
- Description of enrollment projection methodology
- Housing trends and impact on enrollment
- Capacity analysis maps

ENVIRONMENTAL STEWARDSHIP

APS recognizes the importance of being active stewards in protecting our environment and the School Board has adopted sustainability as a core value. Sustainability is reflected in all facility improvements and projects, both in the CIP and elsewhere. APS is committed to energy and environmental conservation, incorporating sustainability into our planning, construction, and daily school operations. APS continues to pursue the best practices in the areas of design and construction, energy efficiency, greenhouse gas reductions, purchasing, and water use and management.

SUSTAINABLE DESIGN AND CONSTRUCTION

APS uses the U.S. Green Buildings Council's Leadership in Energy and Environmental Design (LEED®) as a benchmark where feasible for new school construction. APS in collaboration with Arlington County opened its first LEED® Silver Facility, the Langston Brown School and Community Center. In 2009, APS received LEED® Gold certification for two facilities: Washington-Lee High School and a joint County-School facility, the Reed School

and Westover Library. APS continues to implement various sustainability strategies for new construction projects that reduce carbon emissions, reduce our water use and improve our students' learning environment to include:

- Energy efficiency that exceeds industry standards by a minimum of 20% by means of highly-efficient heating and cooling systems, higher insulation values, and heat recovery systems
- Water efficiency that exceeds industry standards by a minimum of 40% using low-flow restroom fixtures
- Specification of highly-recycled content material
- Storm water runoff reductions by incorporating vegetative roofing and improved filtration systems
- Efficient lighting systems to include natural day lighting, occupancy sensors and highly-efficient light fixtures
- Indoor air quality improvements by using low VOC materials and installing thermal comfort sensors



ENERGY EFFICIENCY AND GREENHOUSE GAS EMISSIONS REDUCTIONS

Energy efficiency is the keystone in reducing our greenhouse gas emissions. Improperly procured, maintained or outdated equipment increases our operations, maintenance, and energy costs and adversely impacts our learning environments. APS is committed to the best energy efficiency practices in heating and cooling, lighting, and building envelope technology. Examples of some of our ongoing practices include:

- Reroofing projects that specify insulation values of R30 and EPA's highly reflective cool roofs
- Lighting upgrades to energy efficient and easier to maintain T8, T5 and LED fixtures
- Continual upgrade of existing water fixtures to low-flow fixtures
- Automated control of heating and cooling systems

APS' commitment to reducing energy use and greenhouse gas emissions relies on building performance monitoring and evaluation. One measure that APS uses to monitor its efforts is EPA's Energy Star Portfolio Manager. EPA's Energy Star program benchmarks K-12 schools and identifies top performers with an Energy Star label. All APS facilities are benchmarked and monitored with Energy Star, and APS is pursuing certification for its qualifying facilities. Recently, the first three schools – Abingdon Elementary, Key Elementary and Tuckahoe Elementary – were certified with an Energy Star label.



RENEWABLES

As part of its effort to reduce greenhouse gas emissions, APS is pursuing renewable energy sources where feasible. Fifteen years ago, APS built its first geothermal mechanical system at Taylor Elementary. Taylor Elementary has the lowest energy costs and carbon emissions district-wide. Recognizing the efficiency gains from geothermal technology, APS is renovating the original mechanical equipment at Taylor Elementary in FY 2012 to preserve the use of the geothermal wells.

In addition, APS continues to pursue renewables for new construction projects as it better understands the value of these technologies and where they are economically feasible. At Yorktown High School, a solar thermal heating system is being installed to support needs of the Aquatics Center. The Wakefield High School project includes a geothermal mechanical system as well as solar thermal and photovoltaic systems.

SCHOOL BOARD'S CAPITAL IMPROVEMENT PLAN

Over the last several years, APS has been aggressive in its approach to maximizing the capacity of existing facilities. However, even with the processes and steps outlined above, APS will continue to require creative solutions to the ever-growing demand for space in our schools.

The School Board's ten-year Capital Improvement Plan totals \$538,792,804 and includes funding of \$136,600,000 for three additions at elementary schools plus two new elementary schools on APS property; \$55,630,000 for required infrastructure improvements to maintain and upgrade current facilities, and \$253,000,000 as a placeholder for capacity projects in the out years.

The CIP was developed with one primary objective: funding solutions to address the need for additional capacity across the system. This CIP specifically identifies five capacity-generating construction projects to be funded through current reserves and the 2012 and 2014 bond referenda. For years six through ten of this

CIP cycle, APS forecasts bond funding will be necessary to support the construction of additional seats. Because the School Board has not yet gone through the same detailed, thorough and transparent process as was used for determining the capacity solutions in years one through five of this CIP, specific projects for this period are not included as further planning, development, and study is needed. Recognizing this, placeholder funding is identified in the bond referenda for 2016-2020 to add 600 elementary seats (potentially one new school), 1,500 middle school seats (potentially one new middle school plus other middle school additions), and approximately 900 high school seats through projects yet to-be-identified. The estimated cost for these projects is approximately \$190 million in today's dollars, or approximately \$240 million when escalated by seven years. In total, approximately 3,000 seats would be achieved in years six through ten. The placeholders used for capacity funding in the 2016, 2018, and 2020 referenda total \$253 million.

PROJECT SUMMARIES

The table below provides summary data on the proposed CIP. Each project is listed along with the expected timing of cash flow for the various projects.

Description	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Total
Prior CIP											
Wakefield High School	\$29.1										\$29.1
Fiber Optic Cabling Project (C-Net)	\$0.3										\$0.3
Capacity Projects											
Ashlawn 12 Room Addition *	\$1.4	\$13.5									\$14.9
ATS 12 Room Addition		\$1.6	\$14.5								\$16.1
Carlin Springs/Kenmore—new ES		\$4.5	\$14.7	\$27.2							\$46.4
McKinley 12 Room Addition		\$1.6	\$14.5								\$16.1
Williamsburg-New ES *	\$17.7	\$25.4									\$43.1
Capacity Projects—Years 6-10					\$63.0	\$28.0	\$49.0	\$29.0	\$45.0	\$39.0	\$253.0
Infrastructure Investments											
HVAC & Roofing Projects	\$6.2	\$3.4	\$4.1	\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$34.6
Infrastructure Projects **				\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$21.0
Minor Construction/Major Maintenance	\$8.2	\$5.6	\$5.7	\$5.8	\$6.1	\$6.2	\$6.4	\$6.6	\$6.8	\$7.0	\$64.1
Grand Total All Projects	\$62.9	\$55.6	\$53.5	\$39.0	\$75.1	\$40.2	\$61.4	\$41.6	\$57.8	\$52.0	\$538.8

* The Ashlawn 12 Room Addition (\$14.9M) and planning and design and part of the construction cost for the new elementary school at Williamsburg (\$14.9M) are funded from the Capital Reserve.

** Infrastructure Projects include replacement of lighting, electrical systems, and windows.

Following is a summary of the sources of funding for the FY 2013 – FY 2022 CIP. In the first two years of the CIP, funding set aside from operating funds in a Capital Reserve will be used to fund one 12-room addition as well as planning and design and a portion of the construction of a new elementary school.

FUNDING SOURCES FOR CAPITAL PROJECTS

Fiscal Year	Construction Projects		Roofing, HVAC & Infrastructure Projects	MC/MM	Total
	Bond	Reserve	Bond	Operating	All Sources
2013	\$32,220,000	\$16,300,000	\$6,160,000	\$8,199,282	\$62,879,282
2014	33,100,000	13,500,000	3,360,000	5,607,235	55,567,235
2015	43,700,000		4,110,000	5,643,556	53,453,556
2016	27,200,000		6,000,000	5,801,242	39,001,242
2017	63,000,000		6,000,000	6,072,822	75,072,822
2018	28,000,000		6,000,000	6,150,791	40,150,791
2019	49,000,000		6,000,000	6,373,814	61,373,814
2020	29,000,000		6,000,000	6,582,606	41,582,606
2021	45,000,000		6,000,000	6,755,742	57,755,742
2022	39,000,000		6,000,000	6,955,714	51,955,714
	\$389,220,000	\$29,800,000	\$55,630,000	\$64,142,804	\$538,792,804

See the following pages for specific projects associated with the Major Construction funds (pp. 12–22) and for projects associated with Minor Construction/Major Maintenance (pp. 23–26).



MAJOR CONSTRUCTION PROJECTS

Major construction projects include new facilities, additions, renewals, reconstructions, and renovations.

- **New facilities:** a new school built on a new or existing site with playfields, common spaces, and attendance boundaries (or attendance policies in the case of choice schools).
- **Additions:** Space added to an existing school for purposes of adding new classrooms and resource rooms as well as site work and other needed infrastructure projects to support the new rooms.
- **Renewal:** a comprehensive project where virtually all systems are replaced, with a large amount of demolition that leaves only concrete, steel, and other structural elements remaining. This may include some elements of comprehensive demolition and new construction.
- **Reconstruction:** complete demolition of a building, leading to new construction as a replacement for the demolished structure.
- **Renovation:** replacement of selected finishes or systems as necessary to bring the facility up to code or current standards.

SOURCES OF FUNDS FOR MAJOR CONSTRUCTION PROJECTS

Major construction projects may be funded by bond financing, current revenues, or, for joint use projects, by County funds, or a combination of the three. Bond financing is generated through the sale of municipal bonds. Arlington County issues general obligation bonds which must be approved by the County's voters. Arlington County's practice is to schedule bond referenda for even-numbered calendar years (which correspond to odd-numbered fiscal years). Additionally, as part of the annual budget process, APS allocates some of the County transfer to Schools capital projects. The annual appropriation of current revenues to the Capital Projects Fund for capital improvements provides greater flexibility in addressing ongoing facility needs since Arlington has opted to seek voter approval for bond financing every other year.

Generally, it is APS' practice to fund the design of a major construction project in one bond year and the construction in the next bond year. This practice of funding design and construction of projects in separate bond years allows the project design to be well underway prior to the

second bond year, thus providing a more accurate construction cost for inclusion in the next funding period.

This practice reflects a capital planning approach that starts with a basic project estimate followed by subsequent refinement over time. Each CIP reflects new input and information about projects over a multi-year period. During planning, each project is progressively developed with regard to capacity information, school input, community input, and other factors that may refine the scope of work.

In this CIP, because of the timing of projects that occur in the next two years and the pressing need for the space the projects will generate, part of the construction for the new elementary school on the Williamsburg site is funded in the 2012 bond, even though planning and design will not yet be completed. For the additions and the new elementary school in the out years, planning and design is funded in one bond year and construction is funded in the next bond year.

BONDS

Large projects – those costing \$500,000 or more with useful lives of 20 years or greater – are typically funded with proceeds from bond sales, although, in past years, current revenues in the Capital Projects Fund have been allocated to fund portions of major construction projects. If a project is financed with bonds, it must have a useful life equal to or longer than the repayment schedule of the bonds issued for that project. Historically, Arlington County voters have always approved APS bonds by a large majority.

Arlington County established limits to bond sales to retain its triple A bond rating and to reflect strong fiscal management policy. The level of bond sales included in this CIP are within the County guidelines requiring that the average growth in the debt service over the planning period does not exceed 5.7% and the debt service as a percent of total APS expenditures does not exceed 10% over the planning period, as mandated by County policy.

CURRENT REVENUES

In addition to bond proceeds, projects may be funded with current revenues. Current revenues are funds other than those generated by the sale of bonds and are appropriated to APS on an annual basis through the annual budget process.

Over the past several years, the School Board has purposefully set aside funding available from one-time sources in a Capacity Reserve with the intent to use those funds to ameliorate capacity issues. In this CIP, one 12-room addition as well as the planning and design and a portion of the construction of a new elementary school are funded with current revenues from the Capacity Reserve.

The chart below shows the major construction projects planned over the next ten years with both their funding source and bond sale timing. For projects from the prior CIP, these are the remaining funds for these projects. Descriptions of each of the projects are found in this document beginning on page 16.

SUMMARY OF MAJOR CONSTRUCTION PROJECTS (\$ IN MILLIONS)

MAJOR CONSTRUCTION Description	Previous Bonds	Capital Reserve	2012 Referendum		2014 Referendum		2016 Referendum		2018 Referendum		2020 Referendum		Total
			FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	
Prior CIP													
Wakefield High School	\$29.1												\$29.1
Fiber Optic Cabling Project (C-Net)	\$0.3												\$0.3
Capacity Projects													
Ashlawn 12 Room Addition		\$14.9											\$14.9
ATS 12 Room Addition				\$1.6	\$14.5								\$16.1
Carlin Springs/Kenmore - New ES				\$4.5	\$14.7	\$27.2							\$46.4
McKinley 12 Room Addition				\$1.6	\$14.5								\$16.1
Williamsburg - New ES		\$14.9	\$2.8	\$25.4									\$43.1
Capacity Projects - Years 6-10							\$63.0	\$28.0	\$49.0	\$29.0	\$45.0	\$39.0	\$253.0
Infrastructure Investments													
HVAC & Roofing Projects	\$2.8		\$3.4	\$3.4	\$4.1	\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$34.6
Infrastructure Projects *						\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$21.0
Grand Total Major Construction	\$32.2	\$29.8	\$6.2	\$36.5	\$47.8	\$33.2	\$69.0	\$34.0	\$55.0	\$35.0	\$51.0	\$45.0	\$474.6
Referenda Total				\$42.6		\$81.0		\$103.0		\$90.0		\$96.0	\$412.6

MINOR CONSTRUCTION/ MAJOR MAINTENANCE Description	Previous Bonds	Capital Reserve	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Total
Current Revenues													
Minor Construction/Major Maintenance			\$8.2	\$5.6	\$5.6	\$5.8	\$6.1	\$6.2	\$6.4	\$6.6	\$6.8	\$7.0	\$63.4
Grand Total All Projects	\$32.2	\$29.8	\$14.4	\$42.1	\$53.5	\$39.0	\$75.1	\$40.2	\$61.4	\$41.6	\$57.8	\$52.0	\$538.8

* Infrastructure projects include replacement of lighting, electrical systems, and windows.

CONSTRUCTION MARKET ESCALATION

The costs included in the CIP for Major Construction projects are total project costs. Total project costs comprise construction costs, soft costs and contingencies, all calculated at current FY 2012 costs, plus an allowance for escalation through the mid-point of construction as currently scheduled. The total project costs for Major Construction projects included in the CIP are to be considered maximum costs; they will only be increased to reflect projected increases in escalation as noted below.

Construction costs comprise new building construction, renovations to existing buildings and site construction. Construction costs provided in this CIP are based on the conceptual designs developed in the feasibility studies. They were prepared and reconciled by two independent professional cost estimators active on K-12 projects in the metropolitan DC markets, including Northern Virginia.

Soft costs comprise architecture/engineering design, construction management and commissioning fees, furniture, fixtures and equipment, data/communications and technology plus other miscellaneous costs needed to provide a complete project. Soft costs on recent Major Construction projects at APS have been approximately 22.5% of construction costs plus design and construction contingencies. Therefore, 22.5% for soft costs has been included in the total project costs for the CIP projects.

Contingencies are provided for design and construction costs. Contingencies are typically reduced as the design becomes increasingly well-defined from conceptual design through bid documents. Since the costs for the projects included in the CIP are based on conceptual designs, the contingencies are 15% for design and 5% for construction. A contingency for soft costs is included within the total provided for soft costs.

Escalation allows for variation in future market conditions on the price of construction labor and materials and the profit and productivity levels that contractors apply to their bids. Based on a survey of construction managers and professional cost estimators active in the region 4% escalation has been included in the CIP projects for FY 2013, FY 2014 and FY 2015, and 3% has been included for the remaining years of the CIP. Clearly predictions for escalation become increasingly unreliable the further into the future they are made, so escalation can be expected to vary substantially for the Major Construction projects scheduled for the later years of the ten-year plan.



FINANCIAL ANALYSIS

As outlined in the previous sections, projects proposed for inclusion in the CIP are first evaluated on a number of factors. When that evaluation is complete, an analysis of APS' financial capacity is performed. Both the analysis of need and the analysis of financial capacity must be considered in the development of the CIP and the final placement of projects over the ten-year period of the CIP.

Financial capacity is defined as the ability to maintain service levels, withstand disruptions in the regional and local

economy, and meet the demands of normal growth and development. Because bond ratings reflect a jurisdiction’s financial condition and management expertise, the effect of a bond proposal on these ratings is also a concern. Bond rating agencies use a number of measures to evaluate the capacity of a jurisdiction to take on additional debt. Typically these are measures of wealth and ability to pay, and include debt as a proportion of the market or assessed value of real estate, and debt as a proportion of total income. There is no legal limit in Virginia on the level of general obligation debt issued by Virginia counties. County and APS staff use the following debt guidelines, outlined in County policy, to develop both the County and APS proposed capital improvement plans:

- Net tax-supported debt service payments as a percent of general expenditures will not exceed 10% within the ten-year projection (here, general expenditures includes all funds except the Capital Projects Fund)
- The ratio of net tax-supported debt to income will not exceed 6% within the ten-year projection
- Net tax-supported debt as a percentage of full market value ratio will not exceed 4% within the ten-year projection
- Debt service growth over the ten-year projection should not exceed the average ten-year historical revenue growth, currently 5.7%

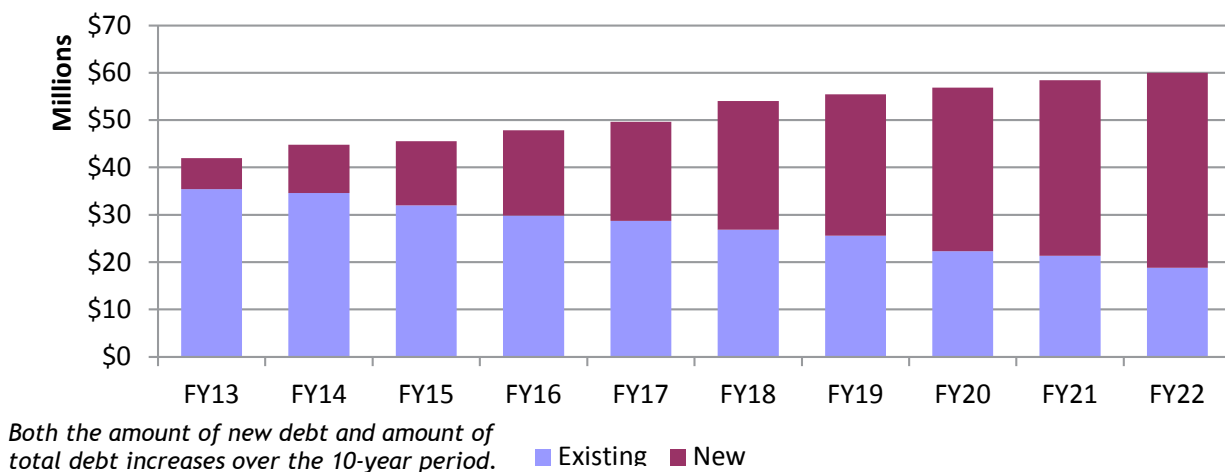
When assessing the debt guidelines, County and APS debt is combined for the debt to income ratio and the debt to property value ratio but each entity is assessed independently for the debt service as a percent of general expenditures ratio.

The table on page 13 shows the major construction projects that are included in APS’ FY 2013 – FY 2022 CIP as well as the timing of the sale of the bonds associated with these projects that allows us to meet the County’s debt management policies.

During the development of this CIP, Finance staff prepared and analyzed numerous financial scenarios in which the variables were estimated project timing, estimated project costs, timing of bond sales, and growth in County revenues. These scenarios provided estimates of funds available for the CIP.

Using the estimated project schedules and estimated costs as determined by professional cost estimators, APS staff developed a schedule of bond sales needed to fund each project. This, combined with the updated ten-year budget forecast, reviewed by the School Board at a CIP Work Session, provided the guidelines and framework for building a fiscally responsible CIP for FY 2013 – FY 2022.

New vs. Existing Debt



MAJOR CONSTRUCTION PROJECT DETAILS

In this section of the CIP, an overview is provided for each of the new projects planned for the next ten years as well as projects that were approved in and are ongoing from the FY 2011 – FY 2016 CIP. The project overviews include a general description of the project and a general assessment of the operating impact of the project.

Also shown is a summary outlining the total cost of the project, the fiscal year or bond year in which funding is provided over the ten-year planning period (FY 2013 – FY 2022), and the project timeline. For capacity projects at specific schools, the physical size of the school/ addition and the number of seats added is also provided. Where applicable, funding from prior years is noted.

NEW ELEMENTARY SCHOOL #1 WILLIAMSBURG MIDDLE SCHOOL SITE

Project Description

The proposed new neighborhood elementary school with a capacity of approximately 600 students would be located on the Williamsburg Middle School site, which at twenty-five acres is the largest middle school property in the County. The school would address critical capacity needs at existing schools, notably Tuckahoe, and projected enrollment growth in the northeast and northwest quadrants of the County. Boundary changes would be required to develop a “neighborhood” for the new school and to ensure a high level of utilization as soon as possible after completion. Integration with middle school boundaries will be examined as part of the planning process.

The new school would take advantage of available land while also retaining at least the same number of ball fields as currently exists. Proximity to Williamsburg Middle School would create a K to 8 campus and allow flexibility for future changes in enrollment.

Operating Impact

Additional staffing and additional overhead costs to operate the school will be required.

Project Highlights

Total Cost: \$43,100,000

Current Revenue:

2012 \$ 4,000,000 Design

2013 \$10,900,000 Construction

Bond Referenda:

2012 \$28,200,000 Construction

Project Timeline:

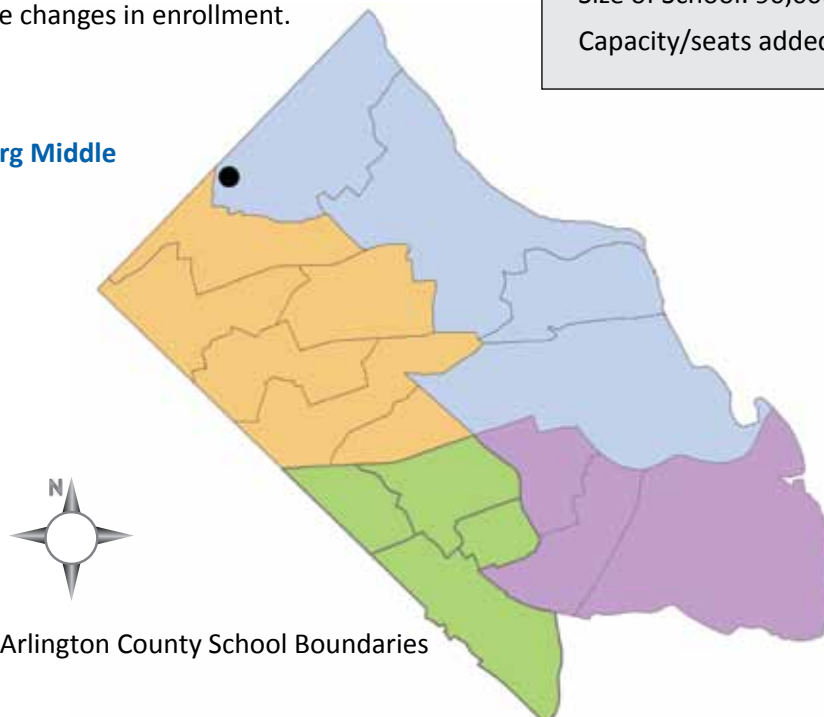
Design Completed 2013

Construction Completed 2015

Size of School: 90,000 square feet

Capacity/seats added: 600

Williamsburg Middle School Site



Arlington County School Boundaries

NEW ELEMENTARY SCHOOL #2

CARLIN SPRINGS ELEMENTARY SCHOOL/KENMORE MIDDLE SCHOOL CAMPUS

Project Description

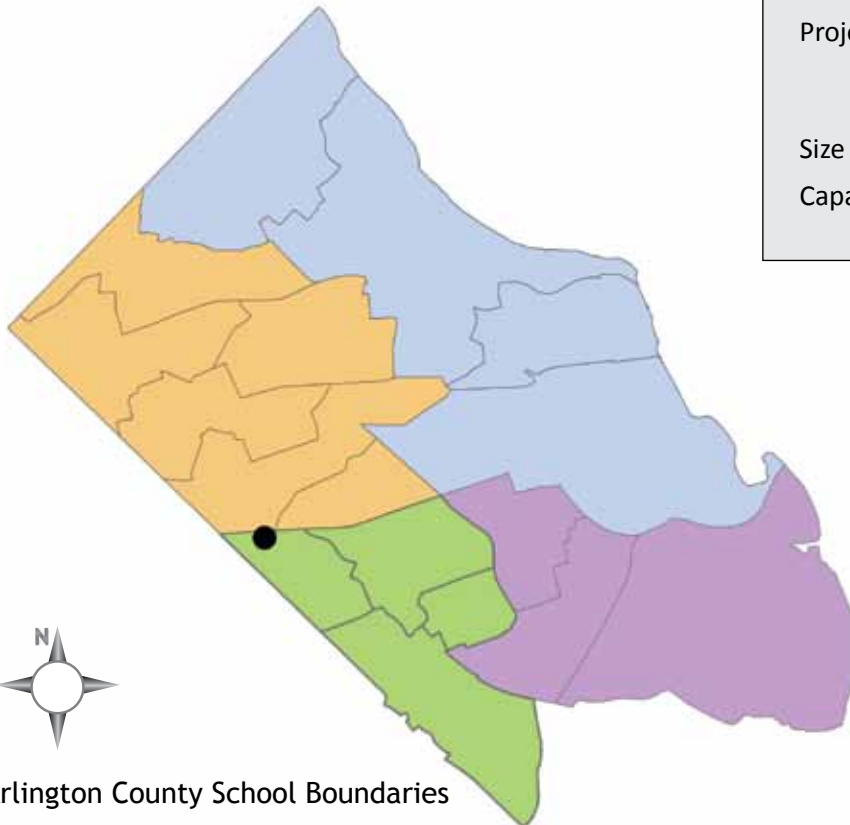
The proposed new choice elementary school with a capacity of approximately 600 students will be located on the Carlin Springs Elementary School/Kenmore Middle School Campus, which at thirty-two acres is the largest school property in the County. While the choice program has not yet been identified, the new school would address capacity needs both countywide and at one or more existing neighborhood schools if an existing choice program is relocated from another school or schools.

The new school would take advantage of available land while also retaining at least the same number of ball fields as currently exists. Proximity to Carlin Springs Elementary School and Kenmore Middle School would enhance the existing K-8 campus and allow flexibility for future changes in enrollment.

Operating Impact

Additional staffing and additional overhead costs to operate the school will be required.

Carlin Springs Elementary School/ Kenmore Middle School Campus



Project Highlights

Total Cost: \$46,400,000

Bond Referenda:

2012	\$ 4,500,000	Design
2014	<u>\$41,900,000</u>	Construction
	\$46,400,000	

Project Timeline:

Design Completed	2015
Construction Completed	2017

Size of School: 90,000 square feet

Capacity/seats added: 600

SCHOOL ADDITION

ARLINGTON TRADITIONAL SCHOOL

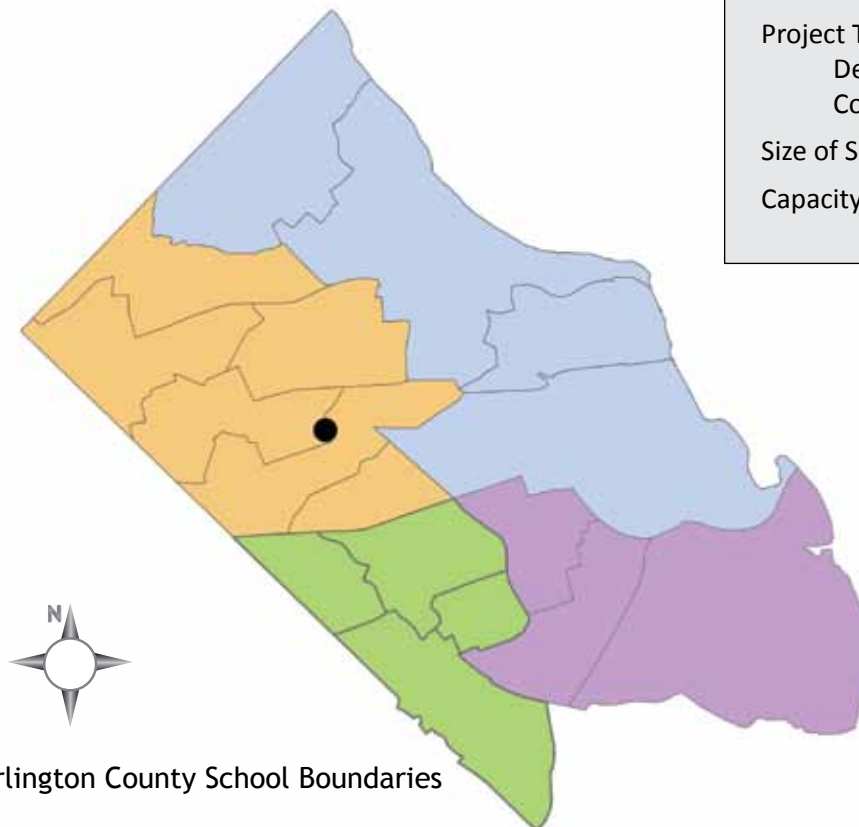
Project Description

The proposed twelve-room addition to Arlington Traditional School would increase school capacity from three to four classes per grade and provide space for pre-K or other stand-alone programs currently located at neighborhood schools. The addition would therefore address capacity needs county-wide. The project would include interior renovations and building system upgrades needed to accommodate the increased capacity, as well as site construction to improve pedestrian and vehicular circulation and parking.

Operating Impact

Additional overhead costs to operate the school will be required.

Arlington Traditional School



Project Highlights

Total Cost: \$16,100,000

Bond Referenda:

2012 \$ 1,600,000 Design

2014 \$14,500,000 Construction

\$16,100,000

Project Timeline:

Design Completed 2015

Construction Completed 2016

Size of School: 26,700 square feet

Capacity/seats added: 225

SCHOOL ADDITION

ASHLAWN ELEMENTARY SCHOOL

Project Description

The proposed twelve-room addition to Ashlawn Elementary School would increase the capacity of this neighborhood school. The additional capacity would address projected enrollment growth within the Ashlawn boundary and elsewhere in the northwest quadrant of the County as well as provide space for additional Pre-K or stand-alone programs.

The project would include interior renovations and building system upgrades needed to accommodate the increased capacity. New site construction would improve pedestrian and vehicular circulation and parking.

Operating Impact

Additional overhead costs to operate the school will be required.

Project Highlights

Total Cost: \$14,900,000

Current Revenue:

2012	\$ 1,400,000	Design
2013	<u>\$13,500,000</u>	Construction
	\$14,900,000	

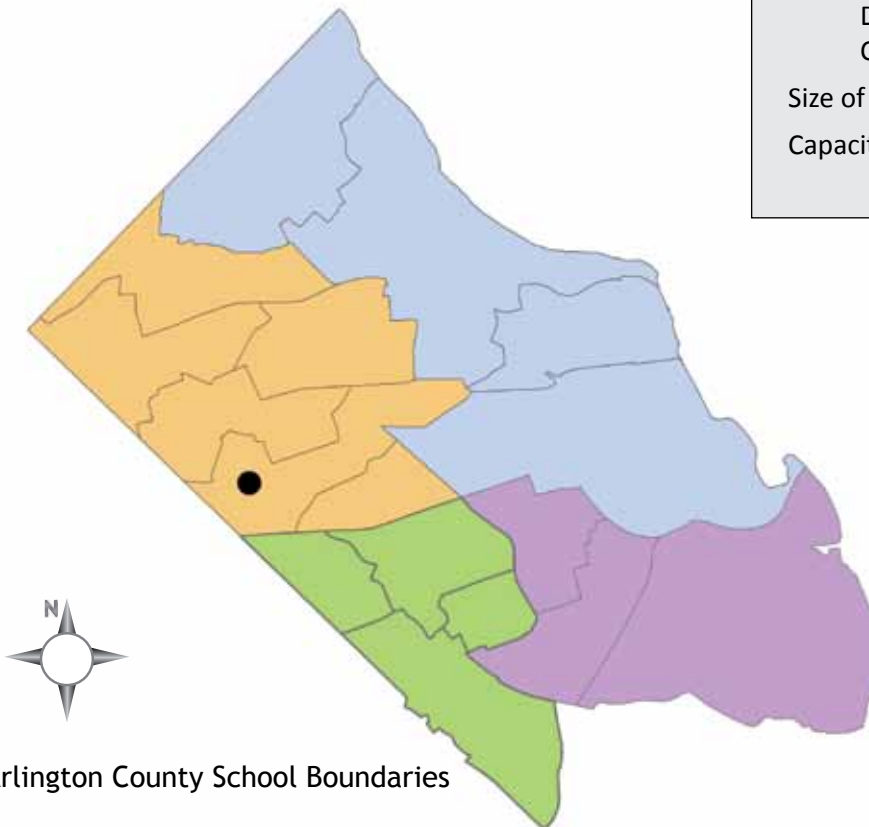
Project Timeline:

Design Completed	2013
Construction Completed	2014

Size of School: 26,700 square feet

Capacity/seats added: 225

Ashlawn Elementary School



Arlington County School Boundaries

SCHOOL ADDITION
MCKINLEY ELEMENTARY SCHOOL

Project Description

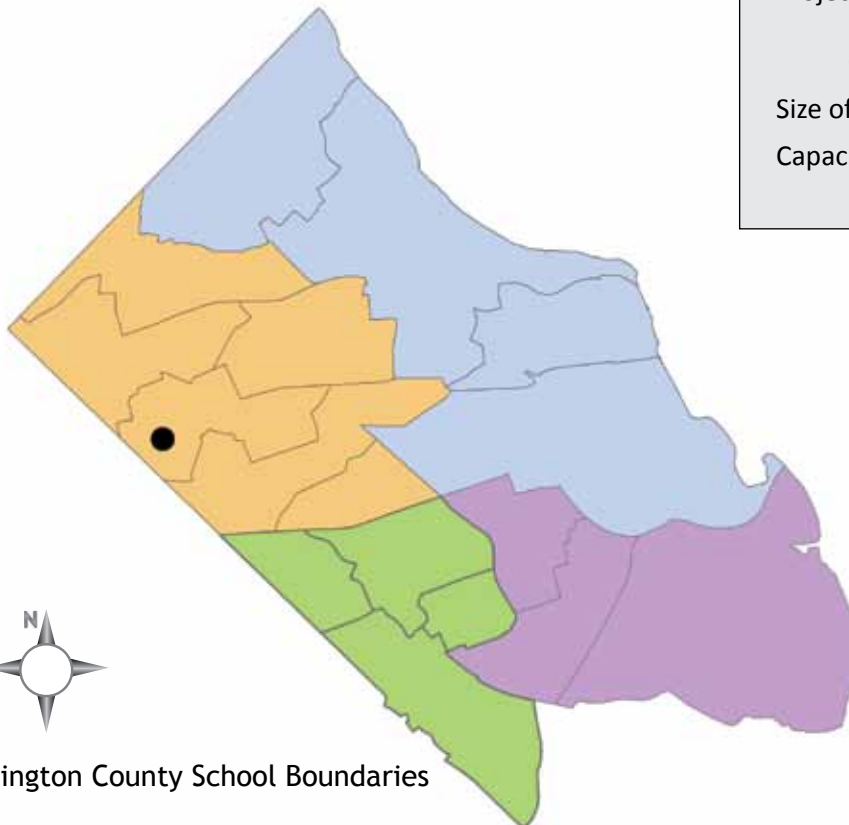
The proposed twelve-room addition to McKinley Elementary School would increase the capacity of this neighborhood school. The additional capacity would address projected enrollment growth within the McKinley boundary and elsewhere in the northwest quadrant of the County.

The project would include interior renovations and building system upgrades needed to accommodate the increased capacity. New site construction would improve pedestrian and vehicular circulation and parking.

Operating Impact

Additional overhead costs to operate the school will be required.

McKinley Elementary School



Arlington County School Boundaries

Project Highlights

Total Cost: \$16,100,000

Bond Referenda:

2012	\$ 1,600,000	Design
2014	<u>\$14,500,000</u>	Construction
	\$16,100,000	

Project Timeline:

Design Completed	2015
Construction Completed	2016

Size of School: 26,700 square feet

Capacity/seats added: 225

HVAC PROJECTS

Various Locations

Project Description

In 2007, APS created a task force to review HVAC needs throughout the system. The committee report was issued in July 2008 and recommended a number of corrective steps to recover from a period of deferred maintenance and improve the overall HVAC performance within APS. This formed the basis for a long-term Master Plan. Further detailed equipment and work order analysis was conducted and the Master Plan was presented to the School Board in April 2010 and helped inform bond requests in the last CIP. The key components were to achieve major gains in the area of preventive maintenance (PM) and to acquire funds for major improvements outside the parameters of normal Minor Construction/Major Maintenance (MC/MM) program funding. Both of these objectives were largely achieved: the first through the creation of an evening shift and the second through a successful bond referendum request. The projects at both Taylor and H-B Woodlawn are complete.

With the change to a ten-year CIP, Maintenance staff aims to expand this very successful approach to include years six to ten and have included a proposal for additional bond funding in this CIP with specific locations still to be determined.

Operating Impact

Since these projects are expected to include significant HVAC system work, it is expected that these improvements will affect utility costs. However, until projects are completed, the effect on utilities cannot be quantified.

Project Highlights

Total Cost: \$12,800,000

Bond Referenda:

2012	\$ 4,800,000
2014	\$ 2,000,000
2016	\$ 2,000,000
2018	\$ 2,000,000
2020	<u>\$ 2,000,000</u>
	\$12,800,000

Project Timeline:

Throughout Ten-year Cycle

ROOFING PROJECTS

Various Locations

Project Description

As part of the Minor Construction/Major Maintenance (MC/MM) budget process, APS has provided some funding for roofing repair projects in past years. To provide a more comprehensive approach to roof replacement as necessary throughout the system during development of the last CIP, APS contracted for a study to review buildings with perceived major roofing needs which may fall within the next six years. Specific details of work to be performed at each school are available in the Gale report, a copy of which is available in the Facilities and Operations department. The report recommendations provided a basis for acquiring the requisite funding which was clearly beyond the parameters of normal MC/MM program funding. The first funding was achieved through a successful bond referendum request in 2010. The work at the Career Center and Tuckahoe Elementary are complete and Facilities roof should be completed by the end of the summer of 2012. The balance of work locations are identified but the practical order in which to do them cannot be finalized until the "More Seats for More Students" project outcome is known.

With the change to a ten-year CIP, Maintenance staff aims to expand this very successful approach to include years six to ten and have included a proposal for additional bond funding in this CIP with specific locations still to be determined.

Operating Impact

Once major roofing systems are replaced or repaired, it is expected annual maintenance and energy costs will decrease significantly.

Project Highlights

Total Cost: \$21,830,000

Bond Referenda:

2012	\$ 4,720,000
2014	\$ 5,110,000
2016	\$ 4,000,000
2018	\$ 4,000,000
2020	<u>\$ 4,000,000</u>
	\$21,830,000

Project Timeline:

Throughout Ten-year Cycle

MAJOR INFRASTRUCTURE INVESTMENTS

Various Locations

Project Description

Following the early success of major HVAC and roofing replacement programs funded through bonds, APS proposes to expand these programs through the new ten-year CIP and add in major infrastructure investments in the form of electrical, lighting, and window component programs in years six through ten. All of this continues our recovery from a period of deferred maintenance and increases our building comfort and energy efficiency.

Operating Impact

Once major infrastructure systems are replaced or repaired, it is expected annual maintenance and energy costs will decrease significantly.

Project Highlights

Total Cost: \$21,000,000

Bond Referenda:

2014	\$ 3,000,000
2016	\$ 6,000,000
2018	\$ 6,000,000
2020	<u>\$ 6,000,000</u>
	\$21,000,000

Project Timeline:

Throughout Ten-year Cycle



ONGOING PROJECTS

FROM PRIOR CAPITAL IMPROVEMENT PLAN

Fiber Optic Cable Installation

County-Wide

Project Description

In 1998, the County and APS approved a franchise agreement with Comcast that provided for a private fiber optic network connected to most APS facilities which has become the backbone of APS communications. As part of the agreement, Comcast provided access to their cable at no cost to the County and APS. However, this cable franchise agreement expires on July 1, 2013. The County and APS now have a plan for providing fiber optic cable to buildings across the County, including school buildings.

Project Highlights

Total Cost: \$ 2,303,000

Bond Referenda:

2010	\$ 2,303,000
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Wakefield High School

Project Description

The Wakefield High School project commenced construction in the summer of 2011 and is scheduled for completion in the summer of 2014. Funding for the project was approved as part of the 2008 and 2010 bond referenda.

Project Highlights

Total Cost: \$115,271,000

Bond Referenda:

2008	\$ 11,100,000
2010	<u>\$104,171,000</u>
	\$115,271,000

OTHER CIP PROJECTS

MINOR CONSTRUCTION/MAJOR MAINTENANCE

The Minor Construction/Major Maintenance (MC/MM) program provides annual funding from current revenues for major system and component replacement, improvements in the configuration of educational spaces and facility systems, and a budget reserve.

Each year, the MC/MM Committee, composed of staff from the Facilities and Finance departments, representatives from each principals group and an Advisory Council on School Facilities member, meets throughout the fall and reviews all requests based on the following criteria:

- Mandates
- Immediate Instructional Needs
- Essential Building Repairs
- General Instructional Enhancements
- General Building Enhancements

Within these criteria, according to information received from the Facilities department after its assessments of the requested projects, the Committee categorizes the projects as:

- Urgent – cannot be delayed; needed immediately for health and safety reasons
- Necessary – needed within 3 years to maintain basic level and quality community services
- Desirable – needed within 4-6 years to improve quality and level of service

Based on this system, an Urgent, Immediate Instructional Need receives a higher priority than a Necessary, Immediate Instructional Need. Similarly, a Necessary, Immediate Instructional Need receives a higher priority than a Desirable, Immediate Instructional Need. After the Committee categorizes each project, some requests are forwarded to the Maintenance department to be

MINOR CONSTRUCTION/MAJOR MAINTENANCE FUND BY ACCOUNT						
Account Description	Adopted FY 2012	FY13	FY14	FY15	FY16	FY17
ADA Upgrades	\$100,000	\$102,500	\$105,575	\$108,742	\$112,005	\$115,365
Annual Testing	\$250,000	\$205,000	\$211,150	\$217,485	\$224,009	\$230,729
Asbestos Abatement	\$80,000	\$41,000	\$100,000	\$42,845	\$44,130	\$104,500
Concrete Replacement	-	\$51,250	\$52,788	\$54,371	\$56,002	\$57,682
Consulting Fees	\$120,000	\$246,000	\$253,380	\$260,981	\$268,811	\$276,875
Flooring	\$20,000	\$830,250	\$744,008	\$880,814	\$907,238	\$934,452
Grounds Improvements	\$65,000	\$76,875	\$159,181	\$163,957	\$168,875	\$173,942
HVAC Reserve	\$350,000	\$307,500	\$316,725	\$326,227	\$336,014	\$346,094
Indoor Air Quality (IAQ)	\$150,000	\$102,500	\$102,500	\$105,575	\$108,742	\$112,005
Kitchen Equipment	\$62,000	\$63,550	\$63,550	\$65,457	\$150,000	\$154,500
Painting	-	\$445,875	\$459,251	\$473,029	\$487,220	\$501,836
Paving/Striping	-	\$52,275	\$53,843	\$55,459	\$57,122	\$58,836
Playgrounds	\$60,000	\$56,375	\$238,066	\$245,208	\$252,564	\$260,141
Plumbing	-	\$102,500	\$105,575	\$108,742	\$112,005	\$115,365
Relocatables	\$2,210,000	\$2,203,125	\$312,625	\$322,004	\$331,664	\$341,614
Roofing	\$100,000	\$92,250	\$95,018	\$97,868	\$100,804	\$103,828
Security	\$200,000	\$205,000	\$211,150	\$217,485	\$224,009	\$230,729
Siding	-	\$35,875	-	\$40,000	-	\$40,000
Specific Projects	\$1,302,151	\$840,500	\$500,000	\$515,000	\$530,450	\$546,364
Theater Safety Projects	\$100,000	\$307,500	\$316,725	\$100,000	\$50,000	\$50,000
Sal & Ben./Adm. Costs	\$743,778	\$874,507	\$900,742	\$927,764	\$955,597	\$984,265
Capital Reserve	\$309,988	\$957,075	\$316,725	\$326,227	\$336,014	\$346,094
Total - MC/MM	\$6,222,917	\$8,199,282	\$5,618,577	\$5,655,239	\$5,813,275	\$6,085,216

completed as work orders. The remaining requests are reviewed and prioritized by staff according to the criteria listed above and the MC/MM budget is developed.

The current MC/MM budget is used as the basis for estimating the budgets for MC/MM for the next nine years. For FY 2013, the MC/MM budget totals \$8,199,282, including the purchase of additional relocatables.

FUNDING SUMMARY

The chart below outlines the current and coming year budgets for MC/MM as well as the out-year estimates of projected needs. The chart shows estimates only and will likely change each year, depending upon the availability of funds during budget development.



MINOR CONSTRUCTION/MAJOR MAINTENANCE FUND BY ACCOUNT						
Account Description	FY18	FY19	FY20	FY21	FY22	FY13-22
ADA Upgrades	\$118,826	\$122,391	\$126,063	\$129,844	\$133,740	\$1,175,050
Annual Testing	\$237,651	\$244,781	\$252,124	\$259,688	\$267,478	\$2,350,094
Asbestos Abatement	\$46,116	\$47,500	\$109,203	\$49,637	\$51,126	\$636,057
Concrete Replacement	\$59,413	\$61,195	\$63,031	\$64,922	\$66,870	\$587,525
Consulting Fees	\$285,181	\$293,736	\$302,549	\$311,625	\$320,974	\$2,820,112
Flooring	\$962,487	\$991,363	\$1,021,104	\$1,051,737	\$1,083,289	\$9,406,743
Grounds Improvements	\$179,160	\$184,535	\$190,071	\$195,773	\$201,646	\$1,694,016
HVAC Reserve	\$356,477	\$367,171	\$378,186	\$389,532	\$401,218	\$3,525,144
Indoor Air Quality (IAQ)	\$115,365	\$118,826	\$122,391	\$126,063	\$129,844	\$1,143,810
Kitchen Equipment	\$159,135	\$163,909	\$168,826	\$173,891	\$179,108	\$1,341,926
Painting	\$516,893	\$532,397	\$548,369	\$564,820	\$581,765	\$5,111,454
Paving/Striping	\$60,601	\$62,419	\$64,292	\$66,220	\$68,207	\$599,274
Playgrounds	\$267,946	\$275,984	\$284,263	\$292,791	\$301,575	\$2,474,914
Plumbing	\$118,826	\$122,391	\$126,063	\$129,844	\$133,740	\$1,175,050
Relocatables	\$351,862	\$362,418	\$373,290	\$384,489	\$396,024	\$5,379,115
Roofing	\$106,943	\$110,151	\$113,456	\$116,860	\$120,365	\$1,057,543
Security	\$237,651	\$244,781	\$252,124	\$259,688	\$267,478	\$2,350,094
Siding	-	\$40,000	-	\$40,000	\$40,000	\$235,875
Specific Projects	\$562,754	\$579,637	\$597,026	\$614,937	\$633,385	\$5,920,053
Theater Safety Projects	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$1,074,225
Sal & Ben./Adm. Costs	\$1,001,027	\$1,031,058	\$1,061,990	\$1,093,849	\$1,126,665	\$9,957,465
Budget Reserve	\$356,477	\$367,171	\$378,186	\$389,532	\$401,218	\$4,174,719
Total - MC/MM	\$6,150,791	\$6,373,814	\$6,582,606	\$6,755,742	\$6,955,714	\$64,190,257

The following tables provide more detailed information for the Minor Construction/Major Maintenance projects planned for FY 2013. The table below provides the location, whether a particular building or system-wide, at which the work will be completed, a brief project description, and the anticipated cost of the project.

FY 2013 Minor Construction/Major Maintenance (MC/MM) Projects by Location		
Building	Project	Anticipated Cost
Abingdon	Replace sewage ejector pit	\$25,625
Ashlawn	New Terraflex Gym Floor	\$51,250
Barcroft	Painting	\$102,500
Carlin Springs	Ventilation unit overhaul	\$35,875
Claremont	Replace PA system	\$10,250
Drew	Water infiltration correction	\$200,000
Glebe	Footpath lights to neighborhood	\$21,125
Gunston	Replace PA system	\$10,250
Henry/Career Center	Repave/restripe parking lot	\$76,875
Henry	HVAC improvements	\$20,500
Jamestown	Table and bench replacement	\$76,875
	Painting	\$102,500
Long Branch	Painting	\$102,500
McKinley	Table and bench replacement	\$76,875
Randolph	New VCT Floor	\$41,000
Stratford	Awning for path to trailer	\$25,000
Taylor	New Terraflex Gym Floor	\$76,875
Trade Center	Fire alarm replacement	\$121,250
Tuckahoe	Painting	\$102,500
Wakefield	Repair bleachers	\$100,000
Washington-Lee	Repair bleachers	\$40,000
Subtotal Projects by Location		\$1,419,625

FY 2013 Minor Construction/Major Maintenance (MC/MM) System-wide Projects	
Project	Anticipated Cost
ADA upgrades—various projects	\$102,500
Annual testing—fire alarms, water, backflow prevention, sprinklers, etc.	\$205,000
Asbestos/Air monitoring—various projects	\$41,000
Concrete/Paving—repairs	\$51,250
Consulting fees—various projects	\$246,000
Floors—repairs	\$46,125
Floors—three locations to be determined	\$615,000
Fields/Grounds upkeep—various projects	\$76,875
HVAC controls upgrade	\$307,500
Lot striping	\$52,275
Indoor Air Quality (IAQ) investigation and remediation	\$102,500
Kitchen equipment upgrades and installation	\$63,550
Painting	\$35,875
Playgrounds—various projects	\$56,375
Plumbing	\$102,500
Relocatables	\$2,203,125
Roofing—repairs	\$92,250
Security—various projects	\$205,000
Siding	\$35,875
Theater safety corrections	\$307,500
MC/MM Budget Reserve	\$957,075
Salaries & Benefits/Administrative Costs	\$874,507
Subtotal System-wide	\$6,779,282

Total Minor Construction/Major Maintenance	\$8,199,282
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A HISTORY OF THE CIP

Arlington Public Schools first began publishing a Capital Improvement Plan in 1988. The early CIPs included projects such as HVAC replacements, window replacements, recurring major maintenance like roof replacements and playground resurfacing, and “facility alteration/new construction”. At that time, “facility alteration/new construction” included projects such as kitchen construction, installation of elevators and renovation of science labs. Today, with over two decades of capital improvement planning experience, APS now includes many types of projects in its CIP - some are quite small and straightforward while others are very large and complex.

In 1988, Arlington County first began issuing bonds for the school system. Through bond referenda from 1988 forward, the Arlington community has provided \$611,911,500 for school construction.

Since 1996, APS has renovated, renewed or expanded 18 schools; replaced or reconstructed ten schools; constructed one entirely new school and one new track facility; and provided technology cabling for all schools. These projects and their actual costs (through December 31, 2011) may be found on the following page.

Additionally, since 1996, almost \$69 million has been budgeted for smaller recurring maintenance projects. These types of projects were previously called Pay-Go, but are now called Minor Construction/Major Maintenance (MC/MM). These projects are still funded by current revenues (non-bond) on a pay-as-you-go basis.

Bond Referenda Summary

1988	\$12,800,000
1990	\$23,000,000
1992	\$24,425,000
1994	\$36,100,000
1996	\$29,120,000
1998	\$50,705,000
2000	\$42,612,500
2002	\$78,996,000
2004	\$78,128,000
2006	\$33,712,000
2008	\$99,425,000
2010	<u>\$102,888,000</u>
	\$611,911,500



COMPLETED PROJECTS

Shown below are completed projects and their total cost. For the joint projects at Drew, Gunston, Hoffman-Boston and Langston, the costs shown include the total project costs for both APS and the County.

Renewals and/or Expansion

Abingdon	\$685,243
Arlington Science Focus	\$8,213,531
Arlington Traditional	\$5,967,856
Ashlawn	\$1,022,579
Barrett	\$3,417,215
Campbell	\$2,325,153
Claremont	\$7,596,177
Glebe	\$10,351,385
Gunston Phases II & III	\$18,787,032
H-B Woodlawn	\$3,613,026
Jamestown	\$5,907,181
Jefferson	\$9,835,328
Key	\$7,324,808
Nottingham	\$12,803,533
Oakridge	\$6,925,880
Swanson	\$6,457,246
Tuckahoe	\$5,892,673
Williamsburg	\$3,485,959

Replacement/Reconstruction

Drew	\$13,077,017
Hoffman-Boston	\$12,721,115
Langston	\$9,681,193
Yorktown Phase I	\$9,599,840

New School

Carlin Springs	\$15,232,091
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Other

Washington-Lee track	\$1,390,676
Wakefield roof replacement	\$1,330,880
Ed Center renovations	\$2,295,333

ONGOING PROJECTS

Shown below are ongoing projects and expenditures as shown in the Quarterly Status Report on Capital Programs ending March 31, 2012.

Replacement/Reconstruction of 5 Schools

Kenmore	\$37,898,469
Reed	\$16,623,344
Yorktown Phase II	\$66,075,958
Wakefield	\$30,484,196
Washington-Lee	\$99,327,247



SUPPLEMENTAL INFORMATION

APS BUILDING CAPACITIES AND PROJECTED STUDENT ENROLLMENT 2011-2017 (NO DUAL ENROLLED STUDENTS)

School	Capacity	2011		2012		2013		2014	
		Enrollment	Percent	Enrollment	Percent	Enrollment	Percent	Enrollment	Percent
Abingdon	589	500	84.9%	509	86.4%	503	85.4%	523	88.8%
ASF	553	573	103.6%	572	103.4%	621	112.3%	656	118.6%
ATS	465	489	105.2%	502	108.0%	501	107.7%	501	107.7%
Ashlawn	459	478	104.1%	543	118.3%	546	119.0%	587	127.9%
Barcroft	460	447	97.2%	491	106.7%	530	115.2%	557	121.1%
Barrett	576	555	96.4%	554	96.2%	555	96.4%	573	99.5%
Campbell	436	435	99.8%	460	105.5%	484	111.0%	498	114.2%
Carlin Springs	585	582	99.5%	586	100.2%	614	105.0%	619	105.8%
Claremont	599	577	96.3%	639	106.7%	645	107.7%	650	108.5%
Drew	674	589	87.4%	606	89.9%	626	92.9%	642	95.3%
Glebe	510	521	102.2%	527	103.3%	580	113.7%	617	121.0%
Henry	463	438	94.6%	464	100.2%	478	103.2%	491	106.0%
Hoffman-Boston	566	380	67.1%	404	71.4%	415	73.3%	415	73.3%
Jamestown	597	595	99.7%	636	106.5%	646	108.2%	657	110.1%
Key	653	645	98.8%	663	101.5%	679	104.0%	704	107.8%
Long Branch	533	510	95.7%	494	92.7%	506	94.9%	516	96.8%
McKinley	443	494	111.5%	545	123.0%	570	128.7%	605	136.6%
Nottingham	513	614	119.7%	617	120.3%	672	131.0%	680	132.6%
Oakridge	674	666	98.8%	705	104.6%	764	113.4%	802	119.0%
Randolph	484	431	89.0%	445	91.9%	481	99.4%	488	100.8%
Taylor	659	694	105.3%	723	109.7%	758	115.0%	811	123.1%
Tuckahoe	545	680	124.8%	701	128.6%	754	138.3%	781	143.3%
Total Elem Cap	12036	11893	98.8%	12386	102.9%	12928	107.4%	13373	111.1%
Gunston	932	733	78.6%	792	85.0%	840	90.1%	889	95.4%
Jefferson	931	681	73.1%	757	81.3%	792	85.1%	837	89.9%
Kenmore	985	741	75.2%	789	80.1%	837	85.0%	887	90.1%
Swanson	948	865	91.2%	919	96.9%	960	101.3%	1024	108.0%
Williamsburg	997	903	90.6%	972	97.5%	1008	101.1%	1073	107.6%
H-B Woodlawn	221	228	103.2%	222	100.5%	221	100.0%	221	100.0%
Total Middle Cap	5014	4151	82.8%	4451	88.8%	4658	92.9%	4931	98.3%
Wakefield	1797	1399	77.9%	1420	79.0%	1434	79.8%	1502	83.6%
Washington-Lee	1854	1927	103.9%	1926	103.9%	1967	106.1%	1946	105.0%
Yorktown	1862	1776	95.4%	1806	97.0%	1860	99.9%	1950	104.7%
H-B Woodlawn	390	385	98.7%	386	99.0%	389	99.7%	389	99.7%
Total High Cap	5903	5487	93.0%	5538	93.8%	5650	95.7%	5787	98.0%
Total	22953	21531	93.8%	22375	97.5%	23236	101.2%	24091	105.0%
Integration Station	n/a	52	n/a	52	n/a	52	n/a	52	n/a
Stratford Program	n/a	51	n/a	53	n/a	51	n/a	51	n/a
Arlington Mill	n/a	123	n/a	123	n/a	102	n/a	92	n/a
Langston	n/a	66	n/a	73	n/a	65	n/a	71	n/a
Enrollment TOTAL		21823		22676		23506		24357	

School	Capacity	2015		2016		2017	
		Enrollment	Percent	Enrollment	Percent	Enrollment	Percent
Abingdon	589	537	91.2%	540	91.7%	569	96.6%
ASF	553	666	120.4%	671	121.3%	675	122.1%
ATS	465	501	107.7%	501	107.7%	477	102.6%
Ashlawn	459	581	126.6%	590	128.5%	594	129.4%
Barcroft	460	578	125.7%	599	130.2%	587	127.6%
Barrett	576	566	98.3%	583	101.2%	587	101.9%
Campbell	436	512	117.4%	514	117.9%	518	118.8%
Carlin Springs	585	632	108.0%	643	109.9%	660	112.8%
Claremont	599	655	109.3%	654	109.2%	638	106.5%
Drew	674	659	97.8%	662	98.2%	682	101.2%
Glebe	510	621	121.8%	628	123.1%	651	127.6%
Henry	463	494	106.7%	505	109.1%	511	110.4%
Hoffman-Boston	566	410	72.4%	424	74.9%	425	75.1%
Jamestown	597	666	111.6%	680	113.9%	683	114.4%
Key	653	721	110.4%	724	110.9%	736	112.7%
Long Branch	533	529	99.2%	538	100.9%	547	102.6%
McKinley	443	629	142.0%	623	140.6%	656	148.1%
Nottingham	513	696	135.7%	711	138.6%	719	140.2%
Oakridge	674	828	122.8%	827	122.7%	835	123.9%
Randolph	484	507	104.8%	508	105.0%	514	106.2%
Taylor	659	820	124.4%	828	125.6%	854	129.6%
Tuckahoe	545	794	145.7%	804	147.5%	808	148.3%
Total Elem Cap	12036	13602	113.0%	13757	114.3%	13926	115.7%
Gunston	932	940	100.9%	1016	109.0%	1059	113.6%
Jefferson	931	884	95.0%	956	102.7%	996	107.0%
Kenmore	985	936	95.0%	1013	102.8%	1054	107.0%
Swanson	948	1080	113.9%	1165	122.9%	1216	128.3%
Williamsburg	997	1135	113.8%	1224	122.8%	1277	128.1%
H-B Woodlawn	221	221	100.0%	221	100.0%	221	100.0%
Total Middle Cap	5014	5196	103.6%	5595	111.6%	5823	116.1%
Wakefield	1797	1558	86.7%	1638	91.2%	1737	96.7%
Washington-Lee	1854	2088	112.6%	2191	118.2%	2305	124.3%
Yorktown	1862	2014	108.2%	2126	114.2%	2254	121.1%
H-B Woodlawn	390	389	99.7%	389	99.7%	389	99.7%
Total High Cap	5903	6049	102.5%	6344	107.5%	6685	113.2%
Total	22953	24847	108.3%	25696	112.0%	26434	115.2%
Integration Station	n/a	52	n/a	52	n/a	52	n/a
Stratford Program	n/a	51	n/a	51	n/a	51	n/a
Arlington Mill	n/a	110	n/a	110	n/a	112	n/a
Langston	n/a	68	n/a	75	n/a	80	n/a
Enrollment TOTAL		25128		25984		26729	