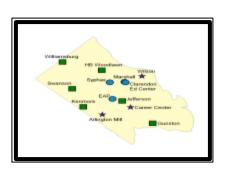




School Board's Adopted FY 2007 – FY 2012 Capital Improvement Plan



Reed



Multi-Site Study



Wakefield



Career Center



Jefferson



Yorktown

Arlington, Virginia www.arlington.k12.va.us

Adopted July 6, 2006 (revised October 5, 2006)



FY 2007 – FY 2012 School Board's Adopted Capital Improvement Plan

### **School Board**

Mary H. Hynes, Chair Libby Garvey, Vice Chair Edward J. Fendley David M. Foster Frank K. Wilson

## **Superintendent**

Dr. Robert G. Smith



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Mr. Chris Zimmerman Arlington County Board 2100 Clarendon Boulevard Arlington, Virginia 22201

Dear Mr. Zimmerman,

I am pleased to present the FY 2007 – FY 2012 Adopted Capital Improvement Plan (CIP) for the Arlington Public Schools. This plan, responsive to the School Board direction on the Capital Improvement Program, builds on the progress made since 1988 when the school system first crafted a formal CIP supported by a bond referendum every two years.

Since the 1994 bond referendum, the CIP has focused on major school renewals, replacements and additions. As a result of the Arlington community's consistent and generous support, we can take great pride in what has been achieved to upgrade our public school buildings, reflecting an intent to provide high quality learning environments for all public school students. Through the bond referenda from 1988 forward, the community has provided over \$375 million for school construction. This past September, citizens around the county welcomed the new Kenmore Middle School building, a state-of-the-art educational facility that includes performance facilities serving both the schools and the community. In September 2006, the renewed Nottingham Elementary School and the HB Woodlawn music addition will open. With the bond funds approved in 2004, we began recently the reconstruction of Washington-Lee High School and commenced design work for the Yorktown High School and the Reed School reconstruction projects.

The proposed 2006 bond provides a portion of the construction funding for Yorktown High School, following the design funds approved in the 2004 bond. Within this plan, additional construction funding is anticipated for Yorktown in the 2008 bond. Also included in the 2006 bond are funds for the designs of Thomas Jefferson Middle School, Wakefield High School and the Career Center. The estimated cost of these projects totals the \$33.7 million proposed for the 2006 bond.

This CIP continues the practice, adopted for the first time with the last CIP, of identifying the use of current revenues for major construction projects. Estimates of current revenues for capital projects over the six-year planning period total \$71,045,691. This total includes \$45,375,588 for "major construction" projects and \$25,670,103 for "minor construction/major maintenance" projects. These amounts reflect the School Board's continued commitment to fund capital projects with current revenues in addition to bond funds. The current revenue funds available to use for major construction in FY 2007 total \$15,307,061. A portion of these funds would defray the cost of three studies. Two of these studies will investigate needs related to scope, phasing, feasibility and cost, and develop site specific educational specifications for the Career Center and Wakefield. The third study is a comprehensive study of several sites and selected inter-related issues that require further analysis. The findings of all of these studies will inform our

CIP decisions in future years. Current revenues will also be used for the design of buildout of a to-be-determined lease space to address our long-term needs to house the High School Continuation program now at Arlington Mill. The remaining current revenues available will fund the construction of Reed and a portion of the construction of the Washington-Lee project.

The six-year Capital Improvement Plan totals \$258,071,691, with \$187,026,000 funded by bonds. Major construction projects identified resulted from a rank order determined by a comprehensive assessment analysis conducted by an outside consultant. The assessment took into consideration building condition, capacity utilization, educational adequacy and special considerations.

Since analysis of our financial condition interacts with the factors considered as part of the priority setting process, our staff worked with County staff to ensure that the debt associated with the bonds sold for the Schools' proposed projects remains within the County established debt guidelines and debt ratios. While this plan and the proposed project schedules allow us to remain within the debt guidelines, future conditions may challenge the assumptions made in constructing the plan. In the next six years we anticipate continued decline in enrollment. Lower enrollment not only decreases the percentage share of revenue we receive from the County; it also presents different challenges regarding the use of space in our school buildings. We will be reviewing our educational models in the middle schools as enrollment declines, along with needs for high school continuation and administrative space. The capital plan includes the Wilson building, but indicates "TBD" where funds would be provided.

Each of the projects in the FY 2007 – FY 2012 Capital Improvement Plan comports with the School Board's direction to provide permanent classrooms for all students and to renew school-owned buildings systematically. In addition, changes and developments in the field of education, including shifts in educational programs and other trends, affect a school system's capital program. Given the continuing support for public education in the Arlington community, I am confident that we will meet the challenges of delivering, in fiscally prudent ways, the necessary capital improvements for our community's schools. Implementation of the capital plan will allow Arlington to provide high quality instructional environments into the foreseeable future.

Sincerely.

Mary H. Hynes

Chair, Arlington County School Board

### **CIP Development Calendar**

June 9 CIP Work Session

July 11 MC/MM request package sent to Principals and Program

Managers

August 5 Principals and Program Managers submit completed

MC/MM request forms to Facilities

August 9 CIP Work Session

November 8 Draft of FY 2007 MC/MM projects presented to Senior Staff

November 21 Administrative Council review of draft MC/MM projects

December 13 Final draft of FY 2007 MC/MM presented to Senior Staff

during FY 2007 budget review

January 17 Senior Staff's preliminary review of AFSAP

February 2 Board Information Item – AFSAP

March 16 Facilities Assessment Report to School Board

April 7 Senior Staff review of preliminary CIP

April 17 Senior Staff review of preliminary CIP (continued)

April 19 Administrative Council review of preliminary CIP

May 4 Board Information Item – Superintendent's Proposed FY

2007 - FY 2012 CIP

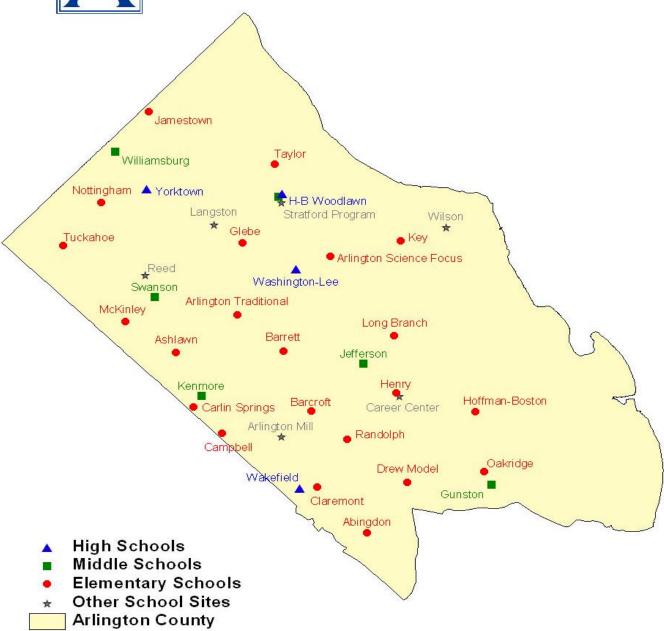
May 9 CIP Work Session

May 17 CIP Work Session/Public Hearing on CIP

July 6 Board Action Item – Adopted FY 2007 – FY 2012 CIP

July 8 County Board Adopts FY 2007 – FY 2012 CIP











Capital Improvement Plan Overview

#### INTRODUCTION

Every two years Arlington Public Schools (APS) develops a six-year Capital Improvement Plan (CIP) to address future facility needs. The CIP responds to requirements for new facilities, additions and renewals of existing schools and other student accommodation needs as set forth in the Arlington Facilities and Student Accommodation Plan (AFSAP). In addition to major construction projects, the CIP also addresses minor construction and major maintenance needs. The CIP serves as a project planning and financial planning document for the six-year period.

Staff develops the CIP on a two-year cycle. During the first year of the cycle (also known as the "off year"), no changes are made to the prior year's CIP. Instead, staff studies various programs, space needs and policies to substantiate and update the projects for inclusion in the next year's CIP. The second year of the cycle (also known as the "on year") corresponds with the year in which a bond referendum is held. During the second year of the cycle, project scopes and estimates are revised as necessary based on the findings from the staff studies and based on current construction market conditions. The CIP for FY 2007 – FY 2012 is the second year of the two-year CIP development cycle for major construction projects, and as such, contains revised project scopes, schedules and cost estimates.

#### ARLINGTON FACILITIES AND STUDENT ACCOMMODATION PLAN

The Arlington Facilities and Student Accommodation Plan (AFSAP) for FY 2007 – FY 2012 provides a comprehensive look at student enrollment and building capacity within Arlington Public Schools. The intent of this document is to provide APS staff with informative data on which to base the CIP. Specific information about each school is provided, as well as an overall look at enrollment and capacity issues throughout the county.

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

The AFSAP is available in electronic format through the Arlington Public Schools Facilities and Operations website at http://www.arlington.k12.va.us/facilities/afsap.html.

#### **PROJECT PRIORITIZATION**

Major and minor construction projects included in the CIP are determined based on a project ranking system. While the ranking systems differ for major and minor construction projects, each system is used to determine the relative need of projects considering certain variables.

#### Major Construction

The project ranking system for major construction projects examines facility needs based on four criteria: building condition, capacity utilization, educational adequacy and special considerations. Each of these factors consists of underlying components that can be evaluated and assigned a numerical score. The data for these measures is provided by a third-party assessment of facilities, guided by APS staff. Those projects with the highest ranked needs are given priority in the School Board's Adopted FY 2007 – FY 2012 CIP.

#### Minor Construction/Major Maintenance

Factors influencing the prioritization of minor construction/major maintenance projects include overcrowding, facility maintenance assessments, input from principals/building managers, input from the Advisory Council on School Facilities, pending bond referendum initiatives, safety concerns, scheduled maintenance services, statutory requirements, damage repairs, and improvements necessary for instructional purposes. Those projects with the highest ranked needs are included in the annual budget and in the corresponding CIP.

#### **FUNDING SOURCES**

Funding for the Capital Improvement Plan is provided by bond financing and by current revenues. 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. The 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, the County appropriates current revenues to APS that may be used for 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.

It is APS' practice to fund the design of a major construction project in one bond year followed by construction funding 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 next 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.

The following table provides is a summary of funding for the FY 2007 – FY 2012 CIP. **Note that** the information provided in the table for fiscal years 2008 through 2012 is a preliminary funding plan which may change as additional information is gained for the project scopes, project costs and the availability of revenues.

Funding	FY 2007 (2006 Bond)	FY 2008	FY 2009 (2008 Bond)	FY 2010	FY 2011 (2010 Bond)	FY 2012	Total FY 07 - FY 12
Major Construction							
Bond Funding	\$33,712,000	\$0	\$97,087,000	\$0	\$56,227,000	\$0	\$187,026,000
Current Revenues*	\$15,307,061*	\$5,069,481	<u>\$6,614,046</u>	<u>\$7,512,470</u>	\$10,872,530	TBD**	<b>\$45,375,588</b>
Sub-Total	\$49,019,061	\$5,069,481	\$103,701,046	\$7,512,470	\$67,099,530	TBD	\$232,401,588
Minor Construction/ Major Maintenance							
Current Revenues	\$5,015,790	\$4,007,897	\$4,062,897	\$4,133,097	\$4,177,111	\$4,273,311	\$25,670,103
Total	\$54,034,851	\$9,077,378	\$107,763,943	\$11,645,567	\$71,276,641	\$4,273,311	\$258,071,691

<sup>\*</sup>Includes \$1,397,526 from FY 2005 close-out funds previously appropriated to the Schools' capital reserve, \$5,466,219 from the FY 2006 Capital Projects Fund budget for a capital reserve and \$8,443,316 budgeted in the FY 2007 Capital Projects Fund for a capital reserve.

Please see page 13 for specific projects associated with the Major Construction funds and page 50 for projects associated with Minor Construction/Major Maintenance as shown in the chart above.

#### **COMMUNITY INVOLVEMENT**

Throughout the facilities planning process, a variety of school and community stakeholders provide valuable feedback that helps 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/administrative staff. The Advisory Council on School Facilities and Capital Programs, a group that periodically reports directly to the School Board, provides input to the School Board and to APS staff. At the school level, the Building Level Planning Committees (BLPCs) participate directly in the design of individual projects. 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 creates a schematic design that is presented to and approved by the School Board in terms of scope and budget.

<sup>\*\*</sup>FY 2012 Major Construction current revenues are shown as "TBD" because of the need to balance revenues and expenditures for the six-year period. Adding funds here would cause revenues to exceed expenditures.





# Capital Improvement Plan School Board Direction

#### SCHOOL BOARD DIRECTION

On September 22, 2005, the School Board provided the following direction on the FY 2007 – FY 2012 Capital Improvement Program:

- Implement current Capital Improvement Program to:
  - Renew school-owned buildings systematically;
  - Provide permanent learning spaces for all students with an emphasis on providing appropriate learning spaces in secondary schools;
  - Rank project urgency based on results of an independent consultant's evaluation of buildings' condition and need;
  - Respond to changing conditions; and
  - Recommend a prudent debt level that adheres to County debt guidelines.

More specifically, the Superintendent's Proposed FY 2007 – FY 2012 CIP will:

- ♦ Set CIP priorities based on a revised priority system that will include updated building condition evaluations. These evaluations will be completed by an independent consultant and will include the following buildings¹: Abingdon, Ashlawn, Barcroft, Barrett, Career Center, HB Woodlawn/Stratford, Henry, Long Branch, McKinley, Randolph, Reed, Taylor, Wakefield, Williamsburg and Yorktown.
- Respond to changing conditions and the assessment of needs presented in the CIP studies related to:
  - Jefferson facility assessment
  - Second Children's School needs assessment
  - Analysis of LEED program
  - Performance contracting investigation
  - Synthetic turf assessment
  - Project cost escalation
- Assess space needs and priorities for non-traditional programs in the schools (REEP, High School alternatives, early childhood education, expansion of daycare facilities, etc.) to determine how to be utilize space.
- Provide updates to out-year project costs consistent with findings of the project cost escalation system. Based on this study, initial<sup>2</sup> CIP costs will be escalated by 40% for all out-year projects for which no design work or facility assessment has been completed.

<sup>&</sup>lt;sup>1</sup> In FY 2002, an independent consultant was hired to assess all school buildings not renewed in the last five years. The assessment included 23 buildings and was completed to determine building condition, the age and condition of major systems and spatial adequacy. The schools listed here are the schools previously surveyed that have not been under construction since the initial survey. Washington-Lee is not listed because construction will begin at that location prior to the development of the CIP. Jefferson is not included because a facility assessment has already been completed for that building.

<sup>&</sup>lt;sup>2</sup> Initial CIP costs refer to the estimated construction costs included when the project's construction costs first appeared in a CIP.

- Provide analysis of the debt associated with the planned projects, the effect on the availability of both operating and capital funds for FY 2007 and future years, and the degree to which the Schools' debt fits the County's debt guidelines.
- Reflect continued coordination of the County and Schools CIP processes and provide information on the interaction of County and Schools projects.

#### RESPONSE TO SCHOOL BOARD DIRECTION

Arlington Public Schools' Capital Improvement Plan is consistently based on the need to renew facilities on a regular basis and to create sufficient permanent learning spaces for students. The primary purpose of the program is to provide appropriate facilities to support the educational mission of the schools. Need is based on the ability of the existing facilities to support the educational program in a safe and cost-effective manner.

Additionally, data from the Arlington Facilities & Student Accommodation Plan (AFSAP) was used to inform issues of capacity and student enrollment. As enrollment is projected to continue to decline, capacity is not as much of a concern with this CIP as it has been with previous CIPs. Whereas in previous years the focus has been on elementary additions and renewals, the renewal of secondary schools and multi-use facilities is the focus of the FY 2007 – FY 2012 CIP.

- Based on the School Board's direction, staff contracted with StudioJAED to perform an independent assessment of the building condition and educational adequacy of teaching spaces in 16 schools. The consultant's report provided a comprehensive needs assessment from which data was extracted to update the major construction project ranking system. This updated ranking system served as the primary factor in determining which projects would appear in this CIP.
- ♦ Last year, the School Board's direction to staff for the "off year" of the CIP included studies of various programs. The following is an overview of the findings of the studies along with staff recommendations and the ways in which those findings and recommendations have shaped the FY 2007 − FY 2012 CIP.

#### Jefferson Facility Assessment

Staff performed a detailed study of the existing Jefferson facility in 2005. The study started with the development of a program of spaces tailored to a capacity of 600 students. Next, a comprehensive facility assessment was completed. The Jefferson facility houses a middle school, a central kitchen, and a recreation center and community theater. All stakeholder groups were interviewed.

Findings indicate the need for substantial replacement of major building systems, such as heating ventilation and air conditioning (HVAC) as well as reconfiguration of middle school space and general code compliance improvements. Additional goals of a renewal will be the introduction of daylight into the academic portions of the building and improving the entry sequences for the school's visitors, students, and staff. The findings and cost estimates prepared in the study have been used as the basis for the proposed renewal project contained in this CIP.

#### Second Children's School Needs Assessment

This study found that the demand for a second childcare program like the Children's School exists. However, based on discussions with the Children's School Director and Board, the current Children's School management (a private not-for profit entity) does not wish to expand its services at this time given other priorities. Consequently, any replication of the current Children's School in the southern part of the County would be run by an entity other than the Children's School.

The proposed FY 2007 – FY 2012 CIP includes no plans for replication of the Children's School program due to other more urgent capital needs. However, with declining enrollment, the potential exists for housing a second program in available space in schools in the future. It is staff's recommendation that replication of the Children's School program continue to be evaluated in subsequent AFSAP and CIP planning.

#### Analysis of LEED Program

Staff studied the US Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) program and found benefits to APS and to the Arlington community as a whole. At the same time, it was noted that the LEED program was initially designed for office buildings, not schools, and therefore in some areas does not appropriately align with the APS capital program. The USGBC is developing a LEED for Schools Application Guide to assist school building owners and designers in the application of LEED to school construction projects. The USGBC Schools Application Guide has not been made public at this time.

Staff recommendations provided as part of the study included a continued case-by-case review of LEED for specific projects, staying with basic or silver certifications, and monitoring LEED and other metrics to make sure that the most relevant, effective and cost efficient approaches to sustainable design are applied.

The bid for reconstruction of Washington-Lee High School has been awarded and the design includes sufficient points to warrant expectation of a silver LEED certification at that facility. We have used the Washington-Lee cost data as a key benchmark for setting the budgets for current CIP proposed projects, thereby embedding LEED costs within the cost estimates for other projects. We anticipate the provision of more detailed LEED information at the preliminary and final design submission to the School Board to affirm LEED participation on a project- by-project basis.

Additional information on the LEED program may be found at: http://www.usgbc.org

#### Performance Contracting Investigation

Performance contracting is a means of defining, acquiring, and paying for needed facility improvements through energy savings projected to be achieved by those very improvements. Staff has discussed this topic with several performance contract vendors, has researched generalities of performance contracting, and is now developing an application model to test the generalities as well as to formulate a concrete recommendation regarding this methodology.

The FY 2007 preliminary (pre-design) study recommended for Wakefield as part of the FY 2007 – FY 2012 CIP is anticipated to include this performance contracting application model. This will support the completion of the study.

#### Synthetic Turf Assessment

This study found that, in general, Health and Physical Education staff is satisfied with the level of access to outdoor physical education provided by the natural turf fields now in service at schools across the county. It makes sense to consider synthetic turf fields in cases where there is a combination of significantly increased usage (requiring more fields to accommodate demand) and escalating land values (making new fields too expensive to purchase), as is the case in Arlington. However, this increased usage is a function of community demand; APS demand for field space, for both athletics and PE, is generally in balance with supply except when construction disrupts field availability. The full cost of ownership (installation and maintenance) of synthetic turf fields is more costly during at least the first 10 years. Based on these findings, no new synthetic fields are recommended in the proposed CIP.

#### **Project Cost Escalation**

A study was completed to evaluate the changes in estimated and actual project costs over time. The study centered on an analysis of 14 past projects and compared initial CIP estimates with final project costs. This analysis found that on average (mean), actual project costs were 46% greater than the initial project estimates. While project costs increased over the life of a project, the study showed that the bulk of the increase occurred between the project's initial appearance in a CIP and the preliminary design submission. Changes occurring after the preliminary design phase of the project yielded an average cost increase of 3% on the projects studied. This finding indicates that scopes have been incomplete at the initial planning phases of projects and have required considerable refinement during design.

The FY 2007 – FY 2012 CIP addresses the findings of the project cost escalation study in that the cost estimating methodology for currently proposed major construction projects has been revised to reflect a portion of the building replacement value in conjunction with the Facility Condition Index (FCI) and Educational Adequacy criteria from the project prioritization. Additionally, we have increased the annual escalation factor significantly based on information received about expectations of future construction market conditions. Nonetheless, it remains difficult to predict the volatile conditions in the construction market.

Additional information on construction market escalation may be found on pages 18-19.

To address the issue of incomplete project scopes during the initial planning phases of projects, preliminary (pre-design) studies are recommended for projects at the Career Center and Wakefield. The goal of these studies will be to develop site-specific educational specifications, to study phasing options, and to investigate needs and approaches to the project. Details on these preliminary studies are found beginning on page A-2 of the appendix.

◆ The FY 2007 – FY 2012 CIP addresses needs and priorities of both traditional and non-traditional programs. The AFSAP reports the availability of limited excess capacity in our existing building inventory, and how that inventory will be put to use to support programs where appropriate. Information from the AFSAP informs decisions in the CIP. For example, the CIP includes housing in available elementary school space the Virginia Preschool Initiative (VPI) classrooms previously slated for new/renewed space at Reed. This ensures that APS will not over-build its inventory - an especially important goal given declining enrollment and increasingly steep construction costs.

- ◆ The School Board's direction included updating out-year project costs by applying a 40% escalation factor to the project's initial CIP cost given the findings of the project cost escalation study. Since the majority of the 14 projects included in the cost escalation study were completed or were well underway before the construction market began reflecting drastic increases in escalation, it is not appropriate to assume project costs in the current construction market using the 40% escalator. Instead, staff used its understanding of facility needs (informed by the recent facility assessment) and the most current information on construction market outlook to develop a project by project cost recommendation.
- ◆ As part of the development of the FY 2007 FY 2012 CIP, analyses of debt associated with the planned projects were performed. These analyses were based on existing debt and projected bond sales factoring in the anticipated schedules for future projects. Projects proposed by the County and APS for inclusion in the FY 2007 FY 2012 CIP remain within the County guidelines in that debt per capita/per capita income does not exceed 6% and net tax-supported debt as a percentage of assessed property value does not exceed 4%. Additionally, the debt resulting from the projects proposed by APS complies with the guideline that total tax-supported debt service payments as a percent of current expenditures remain at or beneath 10% of projected APS expenditures. The financial analysis narrative, table and graph on pages 21-25 give more information about the debt analyses and the effect the debt associated with the proposed projects has on the availability of other funds.
- APS and County staff are communicating on the possibility of joint projects at several locations including the Reed School/Westover Library, the Career Center/Columbia Pike Library and Jefferson Middle School/Community Center.

In May 2006, a Memorandum of Understanding (MOU) regarding the redevelopment of the Reed School and the Westover Library was signed by the Superintendent and the County Manager. This agreement created a partnership for combining the Reed School project and the Westover Library project into one joint project which APS staff will coordinate. APS and the County have each included funds for projects at Reed/Westover in their respective FY 2007 – FY 2012 CIPs.

Additionally, both staffs recognize that there are considerable capital needs for each entity's space allocations at the Career Center/Columbia Pike Library and at Jefferson Middle School/Community Center. APS' FY 2007 – FY 2012 CIP includes funds for a preliminary study and design at the Career Center and design funding for a future construction project at Jefferson Middle School. While no funding is included in the County's FY 2007 – FY 2012 CIP for the Columbia Pike Library or the Jefferson Community Center, County staff understands that there is a need for County involvement in at least the early planning phases of these two projects.





### Capital Improvement Plan Major Construction Projects

#### MAJOR CONSTRUCTION PROJECTS

Major construction projects include renewals, reconstructions and renovations as defined below:

- 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. Examples of renewal projects include Key, Oakridge, Science Focus, Tuckahoe, Hoffman Boston, Glebe and Nottingham.
- Reconstruction: complete demolition of a building, leading to new construction as a replacement for the demolished structure. Examples include the Langston and Kenmore projects, the Washington-Lee project which is currently in progress, and the planned project at Yorktown (Phase II). Drew also included a significant amount of reconstruction.
- Renovation: replacement of selected finishes or systems as determined necessary to bring the facility up to code or current standards. A recent example is the work done at Campbell Elementary.

Building additions are also considered major construction projects.

#### Sources of Funds for Major Construction Projects

Major construction projects may be funded by bond financing, by current revenues, or a combination of the two. 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, Arlington County appropriates current revenues to APS which may be used for 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.

#### **BONDS**

Although in some cases current revenues in the Capital Projects Fund are allocated to fund portions of major construction projects, large projects – those costing \$500,000 or more with useful lives of 15 years or better – are typically funded with proceeds from bond sales. If a project is financed with bonds, it should have a useful life similar in length to the repayment schedule of the bonds issued for that project. Arlington Public Schools continues to implement a substantial bonded portion of the Capital Improvement Plan, and Arlington County voters have continued to approve bonds by a large majority. In 2002, a \$79.0 million referendum passed with 78% voter approval, and in 2004, a \$78.1 million bond was approved by 80% of the voters.

Since 1988 – the year of APS' first CIP – no school bond referendum has failed voter approval. In fact, no school bond referendum has received less than 73% voter approval.

The following tables provide information on the projects that have been completed or are ongoing with the bond funds approved in the last two bond referenda. Summary information on all APS major construction projects since 1996 may be found on pages 55-56 in the History of the CIP section.

2002 Bond Referendum = \$78,996,000								
Completed Projects	Ongoing Projects							
Arlington Traditional – Construction of Addition	N/A							
Glebe – Construction of Renewal & Addition								
Jamestown – Construction of Addition								
Kenmore – Construction of New Building								
Nottingham – Construction of Renewal &								
Addition								
Swanson – Construction of Addition								
Washington-Lee – Design of Reconstruction								
Williamsburg – Construction of Addition								
Yorktown – Construction of Addition								

2004 Bond Referendum = \$78,128,000							
Completed Projects	Ongoing Projects						
Kenmore – Construction of New Building	Reed – Design of Renewal & Expansion						
	Washington-Lee – Reconstruction						
	Yorktown Phase II – Design of Reconstruction						
Funds Redirected to Construction Reserve							
Arlington Mill – Design of Reconstruction <sup>3</sup>							

On November 7, 2006, voters will be asked to approve the 2006 bond. This bond referendum includes funds for the following:

2006 Bond Referendum = \$33,712,000
Career Center – Design of Renewal
Jefferson – Design of Renewal
Wakefield – Design of Renewal
Yorktown Phase II – Partial Funding of Reconstruction

#### **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.

School Board's Adopted FY 2007 – FY 2012 Capital Improvement Plan

<sup>&</sup>lt;sup>3</sup> Initially, the Arlington Mill project was a County-Schools joint project. In Fall 2005, a recommendation was made by the County Manager and the Schools Superintendent to pursue Community Center and school programs separately. Based on that recommendation, these funds were transferred to the Construction Reserve.

In this CIP, current revenues are proposed to provide the following:

- the remaining portion of the funds necessary for the reconstruction project at Washington-Lee;
- preliminary studies of Wakefield and the Career Center;
- the Reed School construction project;
- a multi-site study to include the Career Center, the High School Continuation program currently housed at Arlington Mill, the middle schools, leased space and Wilson; and
- design and build-out of to-be-determined lease space for the High School Continuation program currently housed at Arlington Mill.

Note that the current revenue estimates provided in the table for fiscal years 2008 through 2012 provide a preliminary funding plan which may change as additional information is gained on the actual availability of revenues.

Current revenues budgeted within the Capital Projects Fund total \$71,045,691 for the six-year plan. Of this amount, \$45,375,588 is projected to be applied to major construction projects. The funds for major construction include \$15,307,061 that the School Board has already set aside in a capital reserve over the last several years. Use of current revenues reduces the requests for bond funding.

The chart below shows the major construction projects planned over the next six years. Descriptions of each of the projects are found later in the document beginning on page 27.

	FY 2005/FY	AD	OPTED SIX-Y	EAR MAJOR C	ONSTRUCTIO	N FUNDING PLAN		Total
EXPENDITURE LOCATION	2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY07-FY12
	(2004 Bond)	(2006 Bond)	F 1 2000	(2008 Bond)	F 1 ZDTU	(2010 Bond)	F ( 2012	
MIDDLE AND HIGH SCHOOLS								
HB Woodlawn - Phase I music addition	\$20,978	\$0	\$D	<b>5</b> 0	<b>\$</b> 0	<b>5</b> 0	\$0	\$0
Jefferson - design	\$0	\$2,435,000	\$0	\$0	\$0	<b>\$</b> 0	\$0	\$2,435,000
Kenmore	\$1,370,900	\$0	50	\$0	<b>\$</b> 0	\$0	<b>\$</b> 0	\$0
Kenmore	\$2,203,362	\$0	\$D	\$0	\$0	\$0	\$0	\$0
Wakefield - study	\$0	\$100,000	\$D	<b>\$</b> 0	<b>\$</b> 0	50	\$0	\$100,000
Wakefield - design	\$0	\$4,477,000	\$0	<b>\$</b> 0	\$0	<b>\$</b> 0	\$0	\$4,477,000
Washington-Lee	\$72,735,300	\$0	<b>\$</b> 0	\$0	<b>\$</b> 0	\$0	<b>\$</b> 0	\$0
Washington-Lee	\$8,767,462	\$2,391,061	\$2,569,481	\$6,614,046	\$3,767,000	\$0	\$0	\$15,341,588
Yorktown - Phase II reconstruction	\$2,225,900	\$24,800,000	\$D	\$75,087,000	<b>\$</b> 0	50	\$0	\$99,887,000
MULTI-USE FACILITIES								
Arlington Mill	\$935,900	\$0	<b>\$</b> D	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> (3	\$0	\$0
High School Continuation	\$0	\$150,000	\$2,500,000	<b>\$</b> 0	\$0	\$0	\$0	\$2,650,000
Career Center - study	\$0	\$125,000	50	\$0	\$3	<b>\$</b> 0	<b>\$</b> 0	\$125,000
Career Center	\$0	\$2,000,000	\$0	\$0	\$0	\$0	\$0	\$2,000,000
Reed - Phase II renewal/addition	\$860,000	\$12,291,000	<b>\$</b> D	<b>\$</b> 0	<b>5</b> 0	<b>\$</b> 0	\$0	\$12,291,000
Comprehensive Study - CC, HSC, MS, Wilson, I	\$0	\$250,000	\$0	<b>\$</b> 0	\$0	\$0	\$0	\$250,000
SYSTEM-WIDE								
Syphax Academic Center (Ed. Center Annex)	\$914,000	\$0	\$0	\$0	\$0	<b>\$</b> 0	\$0	\$0
Secondary Schools & Multi-Use Facilities - TBD	\$0	\$0	<b>\$</b> 0	\$22,000,000	\$0	\$70,845,000	<b>\$</b> 0	\$92,845,000
Wilson	\$0	TBD	TBD	TBD	TBD	TBD	TBD	TBD
TOTAL EXPENDITURES	\$90,033,802	\$49,019,061	\$5,069,481	\$109,701,046	\$3,767,000	\$70,845,000	<b>\$</b> 0	\$232,401,588
REVENUE SUMMARY								
General Obligation Bonds	\$78,128,000	\$33,712,000	<b>\$</b> D	\$97,087,000	50	\$56,227,000	\$0	\$187,026,000
Current Revenues*	\$10,816,756	\$0	\$5,069,481	\$6,614,046	\$7,512,470	\$10,872,530	TBD	\$30,068,527
Capital Reserve	\$1,089,046	\$15,307,061	<b>\$</b> 0	\$0	\$0	\$0	<b>\$</b> 0	\$15,307,061
TOTAL MAJOR CONSTRUCTION REVENUE	\$88,944,756	\$49,019,061	\$5,069,481	\$103,701,046	\$7,512,470	\$67,099,530	\$0	\$232,401,588

- Grey highlights indicate funding from current revenues.
- Shading across all lines for fiscal years 2008 2012 indicates the funding shown is preliminary funding estimates which the School Board may change as additional information is gained for the project scopes, project costs and the availability of revenues.
- The funding plan assumes that any current revenues not used in the year in which they are received are carried forward for use in the following year(s) to reduce bond costs.

#### MAJOR CONSTRUCTION - SIX-YEAR PLAN

The projects in this CIP were identified and scheduled based on a facilities assessment conducted by the consulting firm StudioJAED, an updated prioritization process that takes into consideration building condition, educational adequacy, capacity concerns and special considerations. Considerable cost escalation in the construction market has also had a major impact on the cost estimates of projects included in this CIP and the affordability of those projects.

The following sections discuss the factors used to develop this six-year plan for major construction projects. As noted above, these factors include a revised project prioritization process, an updated analysis of capacity, construction market escalation and project affordability.

#### **CAPACITY ANALYSIS**

Projected student capacity for APS in September 2006 is 20,199 seats. This capacity includes additional space made available when Nottingham Elementary reopens and the music addition at HB Woodlawn is occupied. This number does not include capacity provided by relocatable classrooms. Overall, APS currently uses 89.5% of its building capacity and has 2,130 seats available countywide. These seats, however, are not evenly distributed throughout APS buildings. By 2009, when Phase I of the reconstructed Washington-Lee High School is occupied, APS' total building capacity is projected to have increased to 20,359 (an increase of 160 seats or 0.8% of current capacity). This change in seating capacity throughout Arlington has been a direct response to the School Board's direction to provide permanent learning space for APS students.

As student enrollment is projected to continue to decline, capacity is less of a concern with this CIP as it has been with previous CIPs. Whereas in previous years the focus has been on elementary additions and renewals, the renewal of secondary schools and multi-use facilities is the focus of the FY 2007 – FY 2012 CIP. Other than the project at Washington-Lee, none of the projects included in this CIP will increase school capacities.

The following table shows enrollment (current and projected) vs. capacity for each APS school building for the CIP planning years.

School		20	05	200	16	20	07	200	08	200	09	20	10	20	11
	Capacity	Enrollment	Percent	Enrollment	Percent	Enrollment	Percent	Enrollment	Percent	Enrollment	Percent	Enrollment	Percent	Enrollment	Percent
Abingdon	576	362	62.8%	353	61.3%	351	60.9%	345	59.9%	341	59.2%	337	58.5%	339	58.9%
ASF	440	412	93.6%	414	94.1%	410	93.2%	408	92.7%	398	90.5%	382	86.8%	389	88.4%
ATS	442	441	99.8%	443	100.2%	442	100.0%	442	100.0%	442	100.0%	442	100.0%	442	100.0%
Ashlawn	418	323	77.3%	333	79.7%	322	77.0%	314	75.1%	314	75.1%	316	75.6%	317	75.8%
Barcroft	442	362	81.9%	333	75.3%	319	72.2%	313	70.8%	310	70.1%	308	69.7%	310	70.1%
Barrett	531	366	68.9%	349	65.7%	353	66.5%	350	65.9%	360	67.8%	367	69.1%	364	68.5%
Campbell	397	275	69.3%	269	67.8%	264	66.5%	259	65.2%	258	65.0%	258	65.0%	259	65.2%
Carlin Springs	570	496	87.0%	459	80.5%	470	82.5%	466	81.8%	459	80.5%	460	80.7%	458	80.4%
Claremont	515	418	81.2%	458	88.9%	483	93.8%	494	95.9%	491	95.3%	500	97.1%	498	96.7%
Drew	564	460	81.6%	475	84.2%	474	84.0%	468	83.0%	471	83.5%	475	84.2%	475	84.2%
Glebe	377	327	86.7%	334	88.6%	355	94.2%	382	101.3%	403	106.9%	407	108.0%	404	107.2%
Henry	426	341	80.0%	335	78.6%	328	77.0%	318	74.6%	321	75.4%	318	74.6%	320	75.1%
Hoffman-Boston	581	392	67.5%	379	65.2%	393	67.6%	379	65.2%	370	63.7%	359	61.8%	356	61.3%
Jamestown	572	535	93.5%	548	95.8%	558	97.6%	545	95.3%	561	98.1%	552	96.5%	549	96.0%
Key	626	609	97.3%	615	98.2%	588	93.9%	579	92.5%	574	91.7%	569	90.9%	564	90.1%
Long Branch	493	416	84.4%	425	86.2%	399	80.9%	408	82.8%	405	82.2%	405	82.2%	407	82.6%
McKinley	387	380	98.2%	382	98.7%	388	100.3%	386	99.7%	373	96.4%	367	94.8%	375	96.9%
Nottingham*	430	369	85.8%	365	84.9%	342	79.5%	330	76.7%	330	76.7%	324	75.3%	329	76.5%
Oakridge	547	444	81.2%	456	83.4%	443	81.0%	449	82.1%	444	81.2%	437	79.9%	435	79.5%
Randolph	420	363	86.4%	341	81.2%	331	78.8%	321	76.4%	311	74.0%	305	72.6%	312	74.3%
Taylor	631	569	90.2%	577	91.4%	540	85.6%	523	82.9%	498	78.9%	488	77.3%	490	77.7%
Tuckahoe	499	555	111.2%	568	113.8%	572	114.6%	563	112.8%	571	114.4%	559	112.0%	555	111.2%
Total Elem Cap	10884	9215	84.7%	9211	84.6%	9125	83.8%	9042	83.1%	9005	82.7%	8935	82.1%	8947	82.2%
Gunston	798	602	75.4%	601	75.3%	554	69.4%	544	68.2%	533	66.8%	528	66.2%	514	64.4%
Jefferson	812	598	73.6%	565	69.6%	524	64.5%	518	63.8%	503	61.9%	497	61.2%	485	59.7%
Kenmore	850	724	85.2%	723	85.1%	718	84.5%	674	79.3%	664	78.1%	659	77.5%	638	75.1%
Swanson	815	754	92.5%	731	89.7%	762	93.5%	716	87.9%	704	86.4%	698	85.6%	674	82.7%
Williamsburg	850	937	110.2%	890	104.7%	865	101.8%	843	99.2%	822	96.7%	813	95.6%	790	92.9%
H-B Woodlawn~	205	211	102.9%	207	94.5%	207	94.5%	207	94.5%	207	94.5%	207	94.5%	207	94.5%
Total Middle Cap	4330	3826	88.4%	3717	85.8%	3630	83.8%	3502	80.9%	3433	79.3%	3402	78.6%	3308	76.4%
Wakefield	1564	1487	95.1%	1459	93.3%	1368	87.5%	1377	88.0%	1303	83.3%	1249	79.9%	1200	76.7%
Washington-Lee+	1468	1524	103.8%	1495	101.8%	1461	99.5%	1384	94.3%	1359	84.9%	1303	81.4%	1229	76.8%
Yorktown	1595	1637	102.6%	1602	100.4%	1583	99.2%	1512	94.8%	1472	92.3%	1412	88.5%	1331	83.4%
H-B Woodlawn~	358	380	106.1%	389	104.6%	389	104.6%	389	104.6%	389	104.6%	389	104.6%	389	104.6%
Total High Cap	4985	5028	100.9%	4945	99.2%	4801	96.3%	4662	93.5%	4523	90.7%	4353	87.3%	4149	83.2%
Total APS	20199	18069	89.5%	17873	88.4%	17556	86.8%	17206	85.1%	16961	83.3%	16690	82.0%	16404	80.6%
*Nottingham's capacit															
									at the mid	die school le	evel and 37	'∠ at the hig	n school le	evel.	
+vvashington-Lee's ca	H-B Woodlawn's capacity changes in 2006 based on the opening of the music addition. The new capacity is 219 at the middle school level and 372 at the high school level.  Washington-Lee's capacity changes in 2009 to 1600 to reflect the opening of Phase I of the new building.														

#### PRIORITIZATION OF MAJOR CONSTRUCTION PROJECTS

During the development of the FY 2003 – FY 2008 CIP, the School Board directed staff to "[a]rticulate clearly the process for determining the priority of projects and the process for scheduling the selected projects over the six-year CIP." In response to that direction, Facilities and Finance staff members worked to develop a system for ranking capital projects. Staff researched a variety of ranking systems and methodologies and came to agreement on the factors and components of the ranking system. In an effort to continually improve our methods, the original system has been modified this year to better mirror the conditions in our facilities and the priorities of our stakeholders.

The system ranks projects according to a variety of technical standards. This ranking system serves as a tool for the Superintendent and his staff to use in recommending projects to the School Board. Its purpose is to determine relative need considering the building condition, capacity utilization, educational adequacy, and special considerations of each project considered for inclusion in the CIP. Each of these factors consists of underlying components that can be measured.

To inform the update of this project ranking system for the FY 2007 – FY 2012 CIP, APS hired StudioJAED consultants to assess building condition and the educational adequacy of teaching spaces through a survey of 15 schools. The schools surveyed were Abingdon, Ashlawn, Barcroft, Barrett, Career Center, HB Woodlawn/Stratford, Henry, Long Branch, McKinley, Randolph, Reed, Taylor, Wakefield, Williamsburg and Yorktown. This study provided both a comprehensive needs assessment for the studied schools as well as an independent and objective ranking of schools to determine the relative need of major construction projects. The

assessment method used by StudioJAED was based on a variety of industry standards and was augmented by APS-developed worksheets to gather qualitative information.

The full Facilities Assessment is available on the web at <a href="http://www.arlington.k12.va.us/facilities/planning/fac\_assess.shtml">http://www.arlington.k12.va.us/facilities/planning/fac\_assess.shtml</a>

The factors of the ranking system and the rationale for each are described below. Each of the factors is assigned a total point value as indicated in parentheses.

#### Building Condition (50 points)

- Building Condition I (20 points) uses the Facility Condition Index (FCI), an industry standard, to represent the relative condition of each building. The FCI is computed by dividing the assessed renovation costs by the estimated cost of replacing the entire building. A higher FCI number (closer to 1.0) represents a building in poor condition.
- Building Condition II (10 points) assigns points based on the percentage of assessed needs
  that are in the Immediate or High Need categories. These are elements requiring attention in
  the very near term. In some cases the need is urgent.
- Building Condition III (20 points) points were assigned on the basis of qualitative factors that reflect systemic and environmental issues of particular concern to APS maintenance staff and school occupants.

#### Educational Adequacy (30 points)

- Educational Adequacy I (15 points) assigns points based on the percentage of teaching spaces in a school which are deficient when compared to the School Board's adopted Space Guidelines. Only spaces smaller than the standard by more than 10% were counted as deficient in this measure.
- Educational Adequacy II (15 points) reflects qualitative educational inadequacies represented by things such as inadequate daylighting, open space classrooms, ineffective adjacencies and building layouts which hinder administrative supervision ability.

Capacity Analysis (20 points) -- Schools projected to be enrolled in excess of their capacities were assigned points. One point was assigned for each percentage point over capacity that a school was projected to be in FY 2010.

Special Considerations (10 points) -- This measure provides for certain other considerations to be quantified, such as: the need for swing space, the presence of economies of scale, project synergies, and so on.

The ranking calculation for each building surveyed is provided in the table below. A summary table of project scores follows.

	Bldg Co	ndition 1	Bldg Co	ndition 2	Bldg Cor	ndition 3	Bldg	Ed Adea	uacy 1	Ed Ade	quacy 2	Educ.	Сар	acity	Special	Total
Facility Name	FCI	Point	% of	Point	Wksht	Point	Condition	% Def.	Point	Wksht	Point	Adequacy		Point /	Considerations	Facility
		Value	lm/High	Value		Value	Score	Classrms	Value		Value	Score		Score	Point / Score	Score
Abingdon ES	0.54	10	50%	5	99	10	25	20.00%	4	85	10	14	0	0	0	39
Ashlawn ES	0.07	1	60%	6	68	7	14	14.29%	3	65	7	10	0	0	0	24
Barcroft ES	0.32	6	15%	2	74	8	16	18.92%	3	43	5	8	0	0	0	24
Barrett ES	0.13	2	63%	7	100	10	19	22.22%	4	77	9	13	0	0	0	32
H B Woodlawn	0.10	2	1%	1	79	8	11	46.94%	8	55	6	14	5	5	0	30
Jefferson MS	0.49	9	51%	6	133	14	29	61.29%	10	98	11	21	0	0	0	50
Long Branch ES	0.07	1	32%	4	48	5	10	17.65%	3	50	6	9	0	0	0	19
McKinley Es	0.19	3	56%	6	99	10	19	7.41%	2	68	8	10	0	0	0	29
Patrick Henry ES	0.16	3	83%	9	56	6	18	24.32%	4	40	5	9	0	0	0	27
Randolph ES	0.47	9	19%	2	120	12	23	37.84%	6	88	10	16	0	0	0	39
Taylor ES	0.14	2	65%	7	85	9	18	12.82%	2	56	7	9	0	0	0	27
Career Center	0.38	7	95%	10	124	13	30	10.91%	2	57	7	9	0	0	5	44
Wakefield HS	0.37	7	41%	5	106	11	23	37.04%	6	58	7	13	0	0	4	40
Walter Reed	0.57	11	95%	10	157	16	37	94.44%	15	94	11	26	0	0	0	63
Williamsburg MS	0.26	5	33%	4	84	9	18	22.58%	4	71	8	12	0	0	0	30
Yorktown HS	0.45	9	81%	9	104	11	29	48.31%	8	70	8	16	0	0	0	45

Facility Name	Score
Walter Reed	63
Jefferson MS	50
Yorktown HS	45
Career Center	44
Wakefield HS	40
Abingdon ES	39
Randolph ES	39
Barrett ES	32
H B Woodlawn	30
Williamsburg MS	30
McKinley ES	29
Patrick Henry ES	27
Taylor ES	27
Ashlawn ES	24
Barcroft ES	24
Long Branch ES	19

It is important to note that while the prioritization scores of the projects serve as a guide for relevant needs, also factored into the placement of the projects within the six-year plan is staff's knowledge of the functionality of current building structures and systems. Additionally, any one of the factors described above could be of such paramount importance that the project would receive the highest priority despite having a comparatively low overall ranking. For instance, if the major systems in a building failed, it may require that the facility be renewed or replaced immediately even if there were no capacity utilization or adequacy issues.

#### **CONSTRUCTION MARKET ESCALATION**

Soaring construction market costs have been a major concern during the last few years. APS has experienced significant increases in costs at projects at Kenmore, Nottingham and Washington-Lee due to this construction market escalation.

Drastic increases in the market price of steel first appeared early in 2004 as a construction boom began in China. Although two of the largest steel mills in the world had just opened in China, that country did not have the scrap steel reserve that exists in the U.S. and as a result, they were paying a premium to import as much scrap metal as possible. To increase their profits, American steel mills began exporting scrap metal to China, causing a shortage in the U.S. The February 23, 2004 edition of the Wall Street Journal featured a front-page article with the headline "Steel Prices Surge, Causing Problems For Manufacturers." The article noted that "U.S. Steel Prices have jumped at least 30% in less than two months and continue to rise with such frequency that suppliers can't predict them from week to week, causing buyers to stockpile supplies, scrounge for less-expensive alternatives and look for other ways to offset rising costs. The increase ... is causing havoc for distributors, buyers and contractors down the supply chain." During 2004 and 2005, the US steel industry reorganized. Supplies are better now, but prices have not returned to what they were before the spike.

Other products have also experienced major increases due to an extremely high demand for construction related materials given a high level of construction activity in both the residential and non-residential markets. Further, damages from Hurricanes Katrina and Rita resulted in higher gas prices which effected the cost of all petroleum-based construction products.

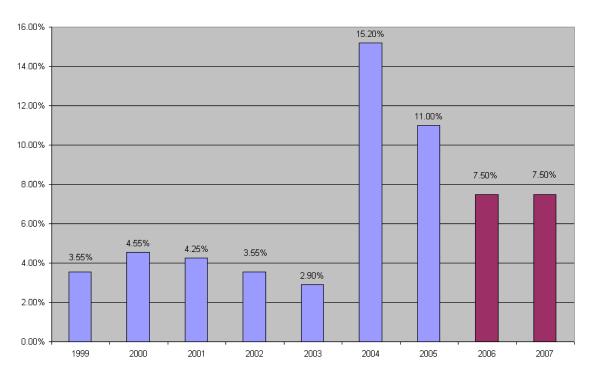
In his March 2006 report on construction inflation, Associated General Contractor's of America's chief economist Ken Simonson notes increases in many of the component materials of construction. While the following is not a complete list of all components of school construction, it is meant to serve as an example of recent increases in the market price of construction materials.

Raw Materials	Incre	ease
Naw Materials	2004	2005
Iron and steel scrap	50.8%	-10.9%
Steel mill products	48.8%	-3.6%
Copper ores	65.1%	34.1%
Structural, architectural metals	26.1%	3.1%
Cement	7.9%	11.7%
Concrete products	9.8%	3.5%
Asphalt	17.8%	-8.1%
Plastic construction products	22.6%	10.7%
Gypsum products	18.2%	5.6%

Mr. Simonson concludes "The construction industry has much less opportunity than many other industries have to reduce or substitute materials. As a result, rising construction activity is likely to mean higher materials costs ... Therefore, 2006 is likely to be another year of elevated construction materials prices, with selective shortages."

Costs for projects in this CIP have been estimated using 2006 dollars and have then been escalated by 7.5% for each year from now until the midpoint of construction. Below is a table

showing local construction market escalation as reported by Downey & Scott, a local construction estimating firm.



#### Local Construction Market Escalation

#### **REVISION OF COST ESTIMATES**

A number of changes in project estimates since the last CIP were identified and quantified during the development of this CIP. It is generally APS' practice to fund design in one bond year followed by construction the next bond year. This practice of funding design and construction of projects in separate bond years allows the design to be well underway if not substantially complete prior to the next bond year, thus providing a more accurate construction cost for inclusion in the next funding period. This reflects a capital planning approach that starts with a basic project estimate followed by subsequent refinement over time; each CIP change reflects new input and information in developing 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 serve to focus the scope of work. However, since the FY 2007 - FY 2012 CIP includes a preliminary study of the Career Center, a preliminary study of Wakefield and a multi-site study that will review selected inter-related issues among a number of sites and due to the magnitude of costs associated with the projects being considered, design work included in the 2006 bond is not followed by construction in the 2008 bond at this time. The School Board plans to address these projects and the placement of these projects in the next full CIP.

In comparison with the FY 2005 – FY 2010 CIP, the costs of the projects included in the 2006 bond have been revised for the following reasons:

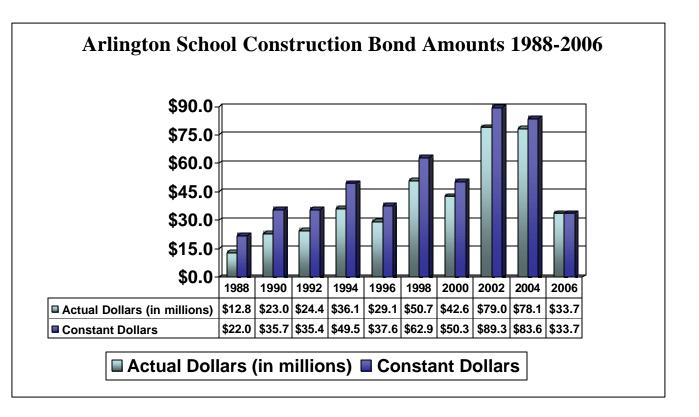
#### **2006 Bond**

Project	FY 2005 - FY 2010 CIP Estimate	FY 2007 - FY 2012 CIP Estimate	Difference	Reason
Abingdon Elementary	\$707,900	\$0	(\$707,900)	A,B
Jefferson Middle	\$2,691,500	\$2,435,000	(\$256,500)	A,D
Wakefield High	\$0	\$4,477,000	\$4,477,000	Α
Yorktown High – Phase II	\$40,300,700	\$24,800,000	(\$15,500,700)	A,C,F,G
Career Center	\$0	\$2,000,000	\$2,000,000	Α
Arlington Mill/High School Continuation	\$10,277,300	\$0	(\$10,277,300)	A,B,E,H
Reed	\$9,648,600	\$0	(\$9,648,600)	A,C,H
Total	\$63,626,000	\$33,712,000	(\$29,914,000)	

#### REASONS FOR REVISED COSTS

- A. Revised facilities assessment information
- B. Change in project or design work timing
- C. Construction market escalation
- D. Clarified scope of work based on feasibility study
- E. Revised scope of work
- F. More thorough understanding of Educational Specification requirements
- G. Portion of project funding deferred to out-year
- H. Project funded with current revenues instead of bond funds

The 2006 bond is the smallest since 1996, and in "2006 dollars," is the smallest bond since 1988. The graph on the following page shows the actual bonds since 1988 and the bonds in "2006 dollars" since 1988.



#### FINANCIAL ANALYSIS

The ranking system described in the previous sections does not specifically address the issue of scheduling projects because it looks at needs and not at resources. Analysis of our financial condition interacts with the analysis of need and both must be considered in development of the final schedule or placement of projects over the six-year period of the CIP. As part of the CIP process staff reviewed our financial condition, worked with County staff to evaluate the County's fiscal capacity and estimated the affordability of funding the identified projects.

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 market value or assessed value, and debt as a proportion of total income. Although there is no legal limit in Virginia on the level of general obligation debt issued by Virginia counties, Arlington has issued and plans to issue its general obligation debt prudently. As such, County and APS staff use the following debt guidelines to develop both the County and APS FY 2007 – FY 2012 Capital Improvement Plans:

- Total tax-supported debt service payments as a percent of current expenditures will not exceed 10% (Here, current expenditures includes all funds except the Capital Projects Fund.)
- Debt per capita/per capita income ratio will not exceed 6%
- Net tax-supported debt as a percentage of assessed property value ratio will not exceed 4%

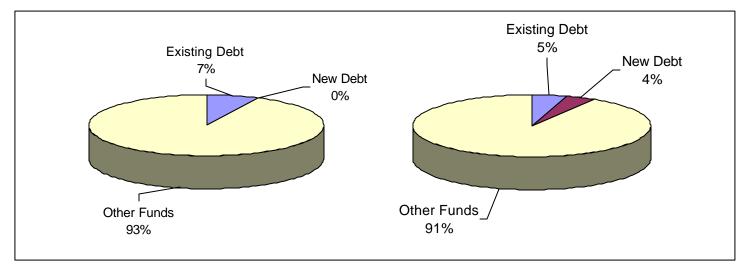
When assessing the debt guidelines, County and APS debt is combined for the debt per capita/per capita income ratio and the debt/property value ratio. However, each entity is assessed independent of the other for the debt service as a percent of current expenditures ratio. Upon review, the County staff determined that the projects put forward by the County and Schools meet the guidelines of the debt per capita/per capita income and net tax-supported debt/assessed property value ratios. Additionally, based on APS staff assessment of debt service as a percent of current (and projected) APS expenditures, the FY 2007 – FY 2012 CIP does not exceed 10% for this measure of affordability.

In FY 2007 for every dollar spent by APS on funds other than the Capital Projects Fund, approximately 7 cents will be applied to debt service. In FY 2012, assuming a 3.0% per year expenditures growth, it is anticipated that 9 cents of each dollar spent by APS will be applied to debt service.

FY 2007
Debt Service Compared to Other Funds

FY 2012

Debt Service Compared to Other Funds



The FY 2007 - FY 2012 CIP is based on the assumption of 4% growth in locally generated tax revenues for all years, 20 year bond payment terms and a fixed interest rate of 5.3% for bonds sold in all years. The analysis in the table on the following page assumes that, as shown in the major construction summary chart on page 13, \$33.7 million is included in the 2006 bond, with \$97.1 million in the 2008 bond and \$56.2 million in the 2010 bond; a total of \$187,026,000 over the six-year CIP period.

Debt service is incurred as a result of bond sales. To determine an estimate of when the bonds are sold for the projects, Facilities staff estimates the project schedules. The tentative start dates for the projects in the 2006 bond are identified below. Using the project schedules, Finance staff develops a cash flow projection for each project. The debt service detailed on the following page is based on the project schedules and the cash flow analysis. Projected schedules for the projects in the 2006 bond are as follows:

Location	Project	Tentative Start Date
2006 Bond		
Jefferson	Design	Early 2007
Wakefield	Design	Early 2007
Yorktown – Phase II	Construction	Summer 2008
Career Center	Design	Early 2007

During development of this CIP, Finance staff performed and analyzed nearly forty different financial scenarios in which the variables were project timing, project costs, use of current revenues, sale of bonds and growth in County revenues. These scenarios provided estimates of the funds available for years FY 2008 through FY 2012 when considering the cost of continuing services along with additional debt service caused by the proposed projects, capital reserves, and projected growth in County revenues given projected declines in enrollment.

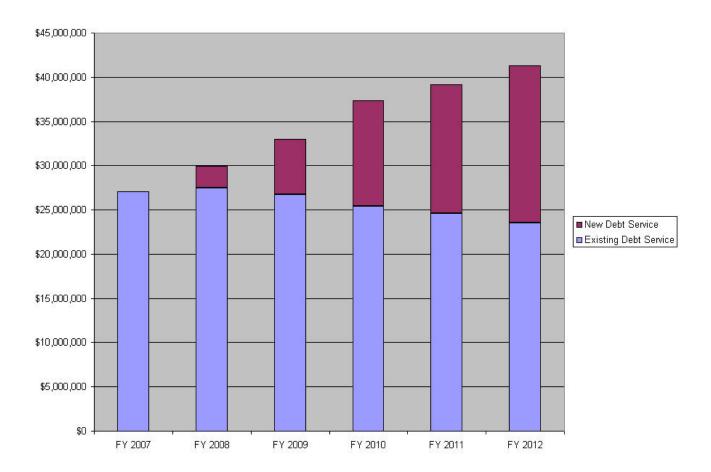
The table on the following page provides information from the financial analysis performed for the School Board's Adopted FY 2007 – FY 2012 CIP. The assumptions made for this analysis include:

- total locally generated County revenues increase by 4.0% per year;
- total County re-estimated revenue of \$12.5 million annually,
- the existing Revenue Sharing Agreement continues, but the rate at which APS shares revenue declines as a result of projected declining enrollment;
- State revenues increase by 4.0% per year;
- Federal revenues increase by 2.0% per year;
- debt service is based on the sale of bonds for a 20 year term at a fixed interest rate of 5.3%
- budgeted carry-forward equals \$2.5 million on an annual basis;
- use of current revenues to fund major construction projects (as shown on the funding chart on page 13); and
- cost of continuing services other than Minor Construction/Major Maintenance is estimated at approximately 87% of total revenues.

The "Funds Remaining for New Initiatives" column is derived by subtracting all other columns from the "Estimated Total Revenue" column.

		Est. Cost of	Debt Service	vice	=	
FY	Estimated Total Revenue	Existing Services (including MC/MM)	Existing	New	Est. Use of Current Revenues for Construction	Funds Remaining for New Initiatives
2008	\$407,455,227	\$358,926,410	\$27,512,898	\$2,464,790	\$5,069,481	\$13,481,648
2009	\$420,252,430	\$370,113,869	\$26,718,981	\$6,242,246	\$6,614,046	\$10,563,289
2010	\$433,417,588	\$381,635,852	\$25,422,687	\$11,896,011	\$7,512,470	\$6,950,570
2011	\$446,986,809	\$393,482,296	\$24,584,482	\$14,553,118	\$10,872,530	\$3,494,385
2012	\$460,971,388	\$405,741,333	\$23,549,075	\$17,728,354	\$0	\$13,952,626

### **New Debt Service Compared to Existing Debt Service**







Capital Improvement Plan Major Construction Project Details

#### MAJOR CONSTRUCTION PROJECT DETAIL DESCRIPTIONS

In this section of the CIP, an overview is provided for each of the projects planned in the next six years. The overviews include a general description of the project, and an assessment of the operating impact of the project. Also provided is a table that shows the fiscal year or bond year in which funds are planned over the six-year planning period (FY 2007 – FY 2012). Where applicable, prior year funds are noted.

## JEFFERSON MIDDLE SCHOOL

2700 S. LANG STREET, ARLINGTON, VA 22206

FY 2007 Capacity 812 FY 2007 Enrollment 565

FY 2012 Capacity 600 FY 2012 Enrollment 485

#### **Project Cost Estimates**

Design \$2,435,000 Construction TBD



# PROJECT DESCRIPTION

Jefferson was constructed in 1972. In 2005, a planning study was initiated to evaluate the current conditions at the school and to provide recommendations for the renewal of the facility. The study was completed in June 2005 and recommended a comprehensive renewal of the existing building to bring classrooms to current APS standards, meet ADA standards, replace existing mechanical, electrical and plumbing system, enhance building security, and improve the architectural character of the building. The planning study did not address the County's co-located community center in detail. However, the code compliance and systemic upgrades would effect the entire facility, including the community center. It is important to note that the existing facility is designed to support a greater number of students than the current and projected enrollments. Staff recommends a study of projected program needs across the school system to determine appropriate uses for the excess capacity, or other options for efficient use of existing space. Funding for design of the project is included in the November 7, 2006 bond referendum. Although construction funding is not included in this CIP, the 2005 feasibility study estimated the cost of renewal at \$32.4 million based on a capacity of 600 students.

County theater and recreation facilities are co-located with the Jefferson school building. While no funding is included in the County's FY 2007 – FY 2012 CIP for the Jefferson Community Center, County staff understands that there is a need for County involvement in at least the early planning phases of this project.

## OPERATING IMPACT

Since a renewal project replaces virtually all building systems, it is expected that this project will affect utility costs. However, until the project is designed with the scope of work defined and until specific systems are identified for use in the construction, the effect on utilities cannot be quantified. Since no additional square footage is planned, this project is not expected to impact the cleaning supply budget, custodial or other employee allocations, relocatables or the furniture and equipment budget.

Source of Funds	FY 2007 (2006 Bond)	FY 2008	FY 2009 (2008 Bond)	FY 2010	FY 2011 (2010 Bond)	FY 2012	Total
Bond	\$2,435,000	-	-	-	-	-	\$2,435,000
Current Revenues	-	-	-	-	-	-	-
Total	\$2,435,000	-	-	-	-	-	\$2,435,000

## Wakefield High School

4901 S. CHESTERFIELD ROAD, ARLINGTON, VA 22206

FY 2007 Capacity 1,564 FY 2007 Enrollment 1,459

FY 2012 Capacity 1,600 FY 2012 Enrollment 1,200

#### **Project Cost Estimates**

Preliminary Study \$100,000 Design \$4,477,000 Construction TBD



# PROJECT DESCRIPTION

Wakefield was constructed in 1953. A pool was added in the 1970s. Major building systems including plumbing and HVAC require significant investment. In addition, the building lacks fire sprinklers. Renovations are required to bring the facility up to current space guidelines. The project will include renewal of the pool. Funding for the design of the project is included in the November 7, 2006 bond referendum.

A preliminary study is recommended for this project prior to the design phase. The study will evaluate project scope and phasing, as well as assessing the potential for performance contracting for a portion of the necessary work. Funding for the preliminary study will come from current revenues previously set aside by the School Board for the purpose of major construction. A full description and timeline for the Wakefield preliminary study is included in the appendix on page A-3.

# OPERATING IMPACT

Since this project is expected to include significant HVAC and other major building systems work, it is expected that this project will affect utility costs. However, until the project is designed with the scope of work defined and until specific systems are identified for use in the construction, the effect on utilities cannot be quantified. Since no additional square footage is planned, this project is not expected to impact the cleaning supply budget, custodial or other employee allocations, relocatables or the furniture and equipment budget.

Source of Funds	FY 2007 (2006 Bond)	FY 2008	FY 2009 (2008 Bond)	FY 2010	FY 2011 (2010 Bond)	FY 2012	Total
Bond	\$4,477,000	-	-	-	-	-	\$4,477,000
Current Revenues	\$100,000	-	-	-	-	-	\$100,000
Total	\$4,577,000	-	-	-	-	-	\$4,577,000

## WASHINGTON-LEE HIGH SCHOOL

1300 N. QUINCY STREET, ARLINGTON, VA 22201

FY 2007 Capacity 1,468 FY 2007 Enrollment 1,495

FY 2012 Capacity 1,600 FY 2012 Enrollment 1,229

#### **Project Cost Estimates**

Design \$4,514,000 Construction \$94,539,350



# PROJECT DESCRIPTION

Scheduled to begin in Spring 2006, the project at Washington-Lee entails phased new construction of an approximately 350,000 square foot facility which will accommodate 1,600 students and will include a new 10-lane community swimming pool. The new school will strive to earn Leadership in Energy and Environmental Design (LEED) certification for being environmentally sound and energy efficient. The project will also provide approximately an acre of additional green space as the currently sprawling building will be tightened into a new four-level building. The total project cost is \$99,053,350.

# OPERATING IMPACT

Based on added square footage and improved energy efficiency, operating impact in the first year (FY 2010) of operation for Phases I and II is estimated at \$452,135 which includes 6.0 additional custodians (\$263,016), additional utility costs (\$178,612) and additional cleaning supplies (\$10,507). In FY 2008, the first year in which Phase I of the project will be occupied, furniture and equipment funds estimated at \$525,000 will be needed. Phase I is not expected to generate additional operating costs since it will replace an existing part of the building that will be demolished. Offsetting these added costs, but separate from the Operating budget, is an anticipated annual savings of approximately \$20,000 in the Capital Projects Fund due to the planned removal of four relocatables.

Although mechanical, electrical and plumbing systems in the new building will likely be more energy efficient than those in the existing building, it is difficult to estimate additional utilities cost savings at this point. Given our experience on other major construction projects, it generally takes some time after construction to configure the systems to operate at their most efficient settings.

Source of Funds	FY 2007 (2006 Bond)	FY 2008	FY 2009 (2008 Bond)	FY 2010	FY 2011 (2010 Bond)	FY 2012	Total
Bond	-	-	-	-	-	-	-
Current Revenues	\$2,391,061	\$2,569,481	\$6,614,046	\$3,767,000	-	-	\$15,341,588
Total	\$2,391,061	\$2,569,481	\$6,614,046	\$3,767,000	-	-	\$15,341,588

In addition to the funds shown in the table above, funds have been approved for the Washington-Lee reconstruction project as follows:

```
$1,609,000 – 2002 bond (design)
$72,735,300 – 2004 bond (construction)
$8,767,462 – FY 2005 current revenues - Capital Projects Fund (construction)
$83,111,762
```

Also, the County will contribute \$750,000 for the construction of two additional pool lanes.

## YORKTOWN HIGH SCHOOL

5201 N. 28<sup>TH</sup> STREET, ARLINGTON, VA 22207

FY 2007 Capacity 1,595 FY 2007 Enrollment 1,602

FY 2012 Capacity ~1,600 FY 2012 Enrollment 1,331

#### **Project Cost Estimates**

Design \$5,498,000 Construction \$96,589,000



# PROJECT DESCRIPTION

Following the 2005 completion of a 31 classroom addition, the site Master Plan (2002) calls for reconstruction and renovation of the remaining portions of the building, resulting in a new high school that will accommodate approximately 1,600 students. The completed building will include about 338,000 square feet (55,000 sq. ft. in the 31 classroom addition, about 264,000 sq. ft. for the reconstruction of remaining portions and about 19,000 sq. ft. for a pool with associated support spaces.) Construction will be phased as students will remain on the site during the construction period. Relocatable classrooms or other temporary facilities will likely be needed to accommodate the full educational program during construction. The approximately four-year construction period is expected to begin in Summer 2008.

# OPERATING IMPACT

Since this project is expected to include significant HVAC and other major building systems work, it is expected that this project will affect utility costs. However, until the project is designed with the scope of work defined and until specific systems are identified for use in the construction, the effect on utilities cannot be quantified. Since no additional square footage is planned, this project is not expected to impact the cleaning supply budget, custodial or other employee allocations, relocatables or the furniture and equipment budget.

Source of Funds	FY 2007 (2006 Bond)	FY 2008	FY 2009 (2008 Bond)	FY 2010	FY 2011 (2010 Bond)	FY 2012	Total
Bond	\$24,800,000	-	\$75,087,000	-	-	-	\$99,887,000
Current Revenues	-	-	-	-	-	-	-
Total	\$24,800,000	-	\$75,087,000	-	-	-	\$99,887,000

In addition to the funds shown in the table above, funds have been approved for the Yorktown reconstruction/renewal project as follows:

\$2,225,900 - 2004 bond (design)



## HIGH SCHOOL CONTINUATION

ADDRESS TO BE DETERMINED

#### **Project Cost Estimates**

Design \$150,000 Construction \$2,500,000

The picture to the right is Langston, the location of one High School Continuation Program.



# PROJECT DESCRIPTION

The need to relocate the High School Continuation program currently housed at Arlington Mill arises from the County's plans to go forward with a public/private partnership, and the joint County/APS recommendation to house the High School Continuation program elsewhere. This CIP anticipates the program to be housed in leased space, the location of which has not yet been determined. Current revenues the School Board has set aside for the purpose of major construction are expected to fund the design and build-out of the to-bedetermined leased space.

The multi-site study which is described on page 42 and on appendix pages A1-A2 includes the High School Continuation program. As assessment of options for the co-location of programs for middle schools, High School Continuation, and the Career Center will be conducted as part of the multi-site study.

# OPERATING IMPACT

Until a location is determined for the program, the project is designed with the scope of work defined and specific systems are identified for use in the construction, the operating impact cannot be quantified.

#### FY 2007 - FY 2012 PROJECT FUNDING

Source of Funds	FY 2007 (2006 Bond)	FY 2008	FY 2009 (2008 Bond)	FY 2010	FY 2011 (2010 Bond)	FY 2012	Total
Bond	-	-	-	-	-	-	-
Current Revenues	\$150,000	\$2,500,000	-	-	-	-	\$2,650,000
Total	\$150,000	\$2,500,000	-	-	-	-	\$2,650,000

## CAREER CENTER

816 S. WALTER REED DRIVE, ARLINGTON, VA 22204

FY 2007 Capacity N/A FY 2007 Enrollment 459

FY 2012 Capacity N/A FY 2012 Enrollment 459

#### **Project Cost Estimates**

Preliminary Study \$125,000 Design \$2,000,000 Construction TBD



# PROJECT DESCRIPTION

The Career Center was constructed in 1973. It has seen various interior renovations. At this time, major building systems do not meet current building codes and have outlived their expected life. In addition, the school was designed with demountable partitions, which no longer provide appropriate separation of teaching areas. Educational adequacy is difficult to assess because the specialized career and technical education programs do not neatly align with APS space guidelines. However, Career Center staff has requested an assessment and substantial reconfiguration of the partitioning within the facility.

A preliminary study is recommended for this project to develop a site-specific educational specification and to determine the scope of improvements required to bring the facility up to current standards and to serve the career and technical education programs of the future. Additionally, the multi-site study which is described on page 42 and appendix pages A1-A2 includes the Career Center. As assessment of options for the co-location of programs for middle schools, High School Continuation, and the Career Center will be conducted as part of the multi-site study. Full descriptions and timelines for the Career Center preliminary study and the multi-site study are included in the appendix beginning on page A-2.

The County's Columbia Pike Library is housed within the overall Career Center facility and shares major building systems with the Career Center program. While no funding is included in the County's FY 2007 – FY 2012 CIP for the Columbia Pike Library, County staff understands that there is a need for County involvement in at least the early planning phases of this project.

# OPERATING IMPACT

Since this project is expected to include significant HVAC and other major building systems work, it is expected that this project will affect utility costs. However, until the project is designed with the scope of work defined and until specific systems are identified for use in the construction, the effect on utilities cannot be quantified. Since no additional square footage is planned, this project is not expected to impact the cleaning supply budget, custodial or other employee allocations, relocatables or the furniture and equipment budget.

Source of Funds	FY 2007 (2006 Bond)	FY 2008	FY 2009 (2008 Bond)	FY 2010	FY 2011 (2010 Bond)	FY 2012	Total
Bond	\$2,000,000	-	-	-	-	-	\$2,000,000
Current Revenues	\$125,000	-	-	-	-	-	\$125,000
Total	\$2,125,000	-	-	-	-	-	\$2,125,000

## REED SCHOOL

#### 1644 N. McKinley Road, Arlington, VA 22205

FY 2007 Capacity 165 FY 2007 Enrollment 165

FY 2012 Capacity 258 FY 2012 Enrollment 258

#### **Project Cost Estimates**

Design \$991,000 Construction \$12,150,000



# PROJECT DESCRIPTION

The existing Reed School was constructed in the early 1900s with several additions occurring through the 1950s. The recent facility assessment and initial analysis by the design team indicate a probable cost equivalent to a replacement facility. The Reed project is in the early design phase. The project supports early childhood programs as well as the Teen Parenting Program. The early childhood program includes the Children's School and Integration Station. The total program anticipates the need for a 45,000 square foot facility.

The CIP includes housing in available elementary school space the Virginia Preschool Initiative (VPI) classrooms previously slated for new/renewed space at Reed. This ensures that APS will not over-build its inventory - an especially important goal given declining enrollment and increasingly steep construction costs.

In May 2006, a Memorandum of Understanding (MOU) regarding the redevelopment of the Reed School and the Westover Library was signed by the Superintendent and the County Manager. This agreement created a partnership for combining the Reed School project and the Westover Library project into one joint project which APS staff will coordinate.

# OPERATING IMPACT

Since this project is expected to include significant HVAC and other major building systems work, it is expected that this project will affect utility costs. However, until the project is designed with the scope of work defined and until specific systems are identified for use in the construction, the effect on utilities cannot be quantified. Since no additional square footage is planned, this project is not expected to impact the cleaning supply budget, custodial or other employee allocations. Relocatables will likely be necessary during the construction phase unless other temporary arrangements are made to house the students in the programs at Reed. Also, replacement furniture and equipment may be necessary.

Source of Funds	FY 2007 (2006 Bond)	FY 2008	FY 2009 (2008 Bond)	FY 2010	FY 2011 (2010 Bond)	FY 2012	Total
Bond	-	-	-	-	-	-	-
Current Revenues	\$12,291,000	-	-	-	-	-	\$12,291,000
Total	\$12,291,000	-	-	-	-	-	\$12,291,000

In addition to the funds shown in the table above, funds have been approved for the Reed School project as follows:

\$860,000 - 2004 bond (design)

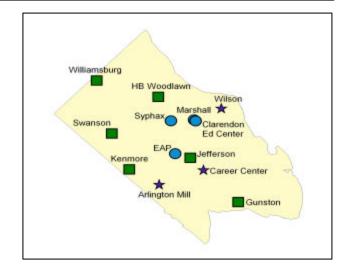
## MULTI-SITE STUDY

FY 2007 Capacity N/A FY 2007 Enrollment N/A

FY 2012 Capacity N/A FY 2012 Enrollment N/A

#### **Project Cost Estimates**

Study \$250,000



# PROJECT DESCRIPTION

A comprehensive study of several sites and selected inter-related issues that require further analysis is funded by current revenues. Included in the study are the Career Center, the High School Continuation program currently housed at Arlington Mill, the middle schools, leased space and Wilson, individually, and as they may relate to each other. The goals of the study are:

- to continue to ensure that APS programs are well supported by adequate facilities;
- to reduce lease costs:
- to identify and quantify the potential economic value of certain properties;
- to identify and assess the potential for and feasibility of Virginia's Public/Private Education Facilities and Infrastructure Act (PPEA) and/or other alternative financing options; and
- to support the efficient use of space.

A complete description of and a timeline for the multi-site study are included in the appendix beginning on page A-1.

## OPERATING IMPACT

N/A

Source of Funds	FY 2007 (2006 Bond)	FY 2008	FY 2009 (2008 Bond)	FY 2010	FY 2011 (2010 Bond)	FY 2012	Total
Bond	-	-	-	-	-	-	-
Current Revenues	\$250,000	-	-	-	-	-	\$250,000
Total	\$250,000	-	-	-	-	-	\$250,000





## **Arlington Public Schools**

## Capital Improvement Plan Capital Projects Fund

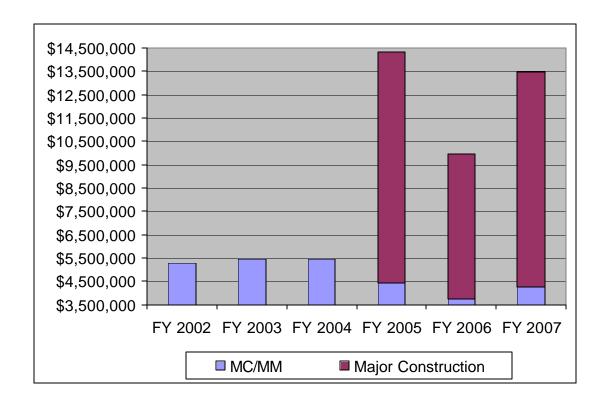
The Capital Projects Fund includes three programs:

- Minor Construction/Major Maintenance (MC/MM)
- Major Construction
- Joint Projects

Until FY 2005, the Capital Projects Fund, which is funded by current revenues, included only the Minor Construction/Major Maintenance program. However, with the increased desire to allocate current revenues to major construction projects such as renewals and additions it was necessary to establish a second program to distinguish funds for major construction from those allocated for minor construction/major maintenance projects. Additionally, a third program was established in which to account for funds received from the County as reimbursement for its share of joint construction projects. The Joint Projects program is essentially a holding account in which the funds reimbursed APS by the County are held until being paid out upon receipt of the next construction invoice on the joint project.

Prior to FY 2002, the funding level of the Capital Projects Fund had remained relatively constant. In the years prior to FY 2002, APS was under the assumption that there was a cap on the funding available for the Capital Projects Fund. So regardless of capital needs, the total Capital Projects Fund increased from year to year by not more than 3%. At a joint County Board/School Board meeting in September 2000, it appeared that the County had not assumed there was a cap on the fund. Therefore, beginning in FY 2002, the Capital Projects Fund budget was increased to begin addressing the backlog of major maintenance needs of the buildings and the continued need for relocatables. The graph below shows the Capital Projects Fund adopted budgets from FY 2002 through FY 2007.

Of the total FY 2007 Capital Projects Fund allocation of \$13,459,106, \$8,443,316 (62.7%) is applied to major construction projects to reduce the amount of the 2006 bond. The following table shows the funds budgeted in the Capital Projects Fund as part of each adopted budget since FY 2002.



#### MINOR CONSTRUCTION/MAJOR MAINTENANCE

The Minor Construction/Major Maintenance (MC/MM) program of \$4.3 million for FY 2007 provides funding for major system and component replacement, improvements in the configuration of educational spaces and facility systems, and a budget reserve. In most cases, the cost of a MC/MM project will generally not exceed \$500,000.

This year, over 300 requests estimated at more than \$12 million were received from principals, program managers and building managers in the Fall for consideration. The MC/MM Committee comprised of members of the Facilities and Finance departments and representatives from each principal group reviewed 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 their assessments of the requested projects, the Committee categorized 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 Desirable Immediate Instruction Mandate ranks higher than an Urgent Essential Building Repair. Some requests were forwarded to the Maintenance department to be completed as work orders. Once the remaining requests were reviewed and prioritized according to the criteria listed above, the recommended projects were presented to Senior Staff.

The MC/MM projects for FY 2007 identified on pages 51-53 total \$4,263,507.

#### **MAJOR CONSTRUCTION**

As part of the close-out of FY 2005, the Schools were re-appropriated \$2,486,572 from a combination of budget savings and re-estimated revenue. Those funds were then set aside in a

capital reserve. As part of the FY 2006 budget, \$5,466,219 was added to the capital reserve set-aside. Further, as part of the FY 2007 budget, the School Board allocated an additional \$8,443,316 to the capital reserve.

At its April 6, 2006 meeting, the School Board approved a transfer from the Capital Reserve set aside to the Kenmore Middle School construction project for added costs on the completion of that reconstruction project. As such, the remaining capital reserve set aside totals \$15,307,061. The FY 2007 – FY 2012 CIP allocates the remaining capital reserve set aside funding to preliminary studies at Wakefield and the

Additions
FY 2005 Close-out \$2,486,572
FY 2006 Budget \$5,466,219
FY 2007 Budget \$8,443,316
Subtotal \$16,396,107

Subtractions
Transfer - Kenmore (\$1,089,046)
Included in CIP \$15,307,061

Career Center; to a multi-site study; to design of the build-out of to-be-determined lease space for the High School Continuation program currently housed at Arlington Mill; to provide a portion of the additional funds necessary for the reconstruction project at Washington-Lee; and to the Reed construction project.

In addition to the capital reserve set aside, it is assumed that in fiscal years 2008 through 2011, current revenues of will be allocated for major construction each year. Note that the current revenues currently included in the out-years of the CIP may change as additional information is gained for the project scopes, project costs and the availability of revenues.

The FY 2007 – FY 2012 CIP provides a total of \$45,375,588 in current revenues for major construction projects. These funds are shown on page 13 in the funding chart for major construction projects as well as on page 49 in the funding chart of projects anticipated for funding with current revenues.

#### **JOINT PROJECTS**

No funds are budgeted in this program. As noted previously, this program is essentially a holding account in which funds reimbursed APS by the County for joint projects are held until being paid out upon receipt of the next construction invoice for the joint project.

#### **FUNDING SUMMARY**

As shown in the chart on the following page, the projections for out-year Capital Projects Fund allocations is derived in general by simply applying a 3% factor to the FY 2007 base.

The out-year projections shown are estimates only and will likely change, depending upon the availability of funds during budget development each year.

### **Capital Projects Fund**

Account	Adopted							Total
Description	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY07 - FY12
Bleacher Replacement	\$0	\$0	\$25,000	\$25,800	\$26,600	\$27,400	\$28,200	\$133,000
Relocatables	\$450,000	\$403,720	\$343,200	\$291,700	\$247,900	\$210,700	\$179,100	\$1,676,320
Contract Services	\$118,758	\$39,586	\$39,586	\$39,586	\$39,586	\$0	\$0	\$158,344
Signage	\$50,000	\$50,000	\$51,500	\$53,000	\$54,600	\$56,200	\$57,900	\$323,200
Asbestos Abatement	\$75,000	\$139,000	\$118,200	\$100,500	\$85,400	\$72,600	\$61,700	\$577,400
Facility Improvements	\$1,398,100	\$1,149,510	\$1,184,000	\$1,219,500	\$1,256,100	\$1,293,800	\$1,332,600	\$7,435,510
Concrete Replacement	\$30,000	\$54,000	\$55,600	\$57,300	\$59,000	\$60,800	\$62,600	\$349,300
Grounds Improvements	\$95,000	\$236,000	\$243,100	\$250,400	\$257,900	\$265,600	\$273,600	\$1,526,600
Paving	\$150,000	\$150,000	\$154,500	\$159,100	\$163,900	\$168,800	\$173,900	\$970,200
Roofing	\$254,000	\$219,000	\$225,600	\$232,400	\$239,400	\$246,600	\$254,000	\$1,417,000
Energy Conservation	\$131,000	\$834,000	\$138,000	\$142,100	\$146,400	\$150,800	\$155,300	\$1,566,600
Building System Renewal	\$145,000	\$150,000	\$154,500	\$159,100	\$163,900	\$168,800	\$173,900	\$970,200
Flooring	\$129,500	\$437,722	\$213,200	\$219,600	\$226,200	\$233,000	\$240,000	\$1,569,722
Playgrounds	\$110,000	\$170,000	\$30,900	\$31,800	\$32,800	\$33,800	\$34,800	\$334,100
Lockers	\$225,000	\$30,000	\$30,900	\$31,800	\$32,800	\$33,800	\$34,800	\$194,100
Consulting Fees	\$150,000	\$120,000	\$123,600	\$127,300	\$131,100	\$135,000	\$139,100	\$776,100
ADA Upgrades	\$25,000	\$25,000	\$25,800	\$26,600	\$27,400	\$28,200	\$29,000	\$162,000
Comm. Activities Credit	(\$247,009)	(\$233,533)	(\$233,533)	(\$233,533)	(\$233,533)	(\$233,533)	(\$233,533)	(\$1,401,198)
Salaries*	\$103,414	\$848,641	\$891,100	\$935,700	\$982,500	\$1,031,600	\$1,083,200	\$5,772,741
Budget Reserve	\$360,402	\$193,144	\$193,144	\$193,144	\$193,144	\$193,144	\$193,144	\$1,158,864
Subtotal - MC/MM	\$3,753,165	\$5,015,790	\$4,007,897	\$4,062,897	\$4,133,097	\$4,177,111	\$4,273,311	\$25,670,103
Major Construction	see FY 07	\$15,307,061	\$5,069,481	\$6,614,046	\$7,512,470	\$10,872,530	TBD	45,375,588
TOTAL	\$3,753,165	\$20,322,851	\$9,077,378	\$10,676,943	\$11,645,567	\$15,049,641	\$4,273,311	\$71,045,691

#### Notes:

- Out-year figures shown are estimates only. Funding for the Capital Projects Fund is assessed each year as part of the annual budget development and may change depending upon the availability of funds. Budgets for specific accounts will vary from year to year depending upon the types of projects funded.
- 2) FY 2012 Major Construction is shown as TBD because of the need to balance revenues and expenditures for the entire six-year period. Adding funds to this line would cause revenues to exceed the expenditures shown on page 13.
- 3) To keep actual major construction building costs separate from other capital costs, the 7.25 Major Construction positions moved to the Major Construction program in the Capital Projects Fund as part of the FY 2007 Budget are shown in the MC/MM salaries line item in the chart above.
- 4) The FY 2007 Major Construction total of \$15,307,061 shown in the table above includes \$1,397,526 from FY 2005 close-out funds previously appropriated to the Schools' capital reserve, \$5,466,219 from the FY 2006 Capital Projects Fund budget for a capital reserve and \$8,443,316 budgeted in the FY 2007 Capital Projects Fund for a capital reserve.





## **Arlington Public Schools**

## Capital Improvement Plan Capital Projects Fund – Project List

The following list provides information for the minor construction/major maintenance projects planned for FY 2007. Listed is the name of the building at which the work will be completed, the account in which the funds are budgeted, a brief project description and the anticipated cost of the project. Specific projects for the out-years will be identified each year during the annual budget process.

Arling	ton Traditional		•
	Flooring Facliity Improvements	Replace carpeting Repair wall leaks	\$180,000 \$33,000
		Repair Wair loaks	\$ <del>213,000</del>
Barret	t Facility Improvements	Repair hallway roof leaks	\$26,000
	Roofing	Repair library roof	\$20,000
	Facility Improvements	Install ice cream freezer in kitchen	\$4,500
			\$68,500
Camp	bell		
	Facility Improvements	Repair main office and classroom wall leaks	\$16,000 \$46,000
			\$16,000
Caree	r Center		
	Facility Improvements	Repair wall leaks	\$50,000 <b>\$50,000</b>
			ψ50,000
Clarer		Daduca anfatania and stana naisa	<b>#20.240</b>
	Facility Improvements	Reduce cafeteria and stage noise	\$20,310 <b>\$20,310</b>
_			. ,
Gunst	on Facility Improvements	Replace main office HVAC unit	\$70,000
	r acility improvements	Replace main office TVAC unit	\$ <b>70,000</b>
LID W	oodlawn		
пр w	Facility Improvements	Repair front steps	\$24,000
	Roofing	Replace roof at music addition joint	\$30,000
	Grounds Improvements	Replace damaged retaining wall	\$200,000
			\$254,000
James			•
	Facility Improvements Flooring	Interior and exterior painting Sand/refinish stage floor	\$35,000 \$2,000
	i looning	Janu/Tellillott stage 11001	\$37,000

Long Branch Facility Improvement	ents Interior and	exterior painting	\$70,000 <b>\$70,000</b>
McKinley Facility Improvement	ents Install new i	ce cream freezer in kitchen	\$4,500 <b>\$4,500</b>
Nottingham Facility Improvement Playgrounds		kitchen equipment nd install playground equipment	\$40,000 t <u>\$140,000</u> <b>\$180,000</b>
Stratford Contract Services	Replace chi	iller (year 2 of 5 year lease)	\$39,586 <b>\$39,586</b>
Swanson Facility Improvement Facility Improvement Facility Improvement	ents Interior pain		\$8,000 \$70,000 <u>\$3,400</u> <b>\$81,400</b>
Facility Improvements Facility Improvements Facility Improvements	ents Replace ext	•	\$10,000 \$35,000 ven <u>\$20,000</u> <b>\$65,000</b>
Wakefield  Building System R  Flooring  Grounds Improvent  Facility Improvement  Facility Improvement  Facility Improvement  Facility Improvement	ents Pool-pak re ent Replace po- ents Install salad	ym floor nading for softball dugout - Title pairs & component replacemen ol lockers	
Williamsburg  Building System R  Facility Improvement  Facility Improvement  Facility Improvement	ents Install salad	ice cream freezer in kitchen	\$150,000 \$4,500 \$7,500 <u>\$7,500</u> <b>\$169,500</b>
Washington-Lee Building System R Facility Improvement	enewal Repair va ents Pool-pak re	rious roof leaks pairs & component replacemen	\$50,000 t <u>\$31,000</u> <b>\$81,000</b>

#### Yorktown

Facility Improvements Facility Improvements Locker Replacement	Install stadium sound system Pool-pak repairs & component replacement Replace pool lockers	\$35,000 \$24,000 <u>\$15,000</u> <b>\$74,000</b>
System-wide		
Relocatables	Relocatables at various locations	\$403,720
Signage	Various projects - marquees	\$50,000
Asbestos/Air Monitoring	Various projects	\$139,000
Flooring	Replace flooring after asbestos abatement	\$230,722
Facility Improvements	Security - various projects	\$200,000
<b>Energy Conservation</b>	Retrofit inefficient lighting at various sites	\$134,000
Energy Conservation	Energy management control system upgrades	\$100,000
Facility Improvements	Installation of LCD projectors and TVs	\$100,000
Consulting Fees	Various projects	\$120,000
ADA Upgrades	Various projects	\$25,000
Concrete Replacement	Various projects	\$30,000
Roofing	Various projects	\$75,000
Paving	Various projects	\$150,000
Grounds Improvements	Various projects	\$20,000

Facility Improvements	Annual testing - fire alarms, sprinklerd, etc.	\$129,500
Facility Improvements	Cafeteria hood cleaning	\$13,600
Facility Improvements	Indoor Air Quality investigation & remediation	\$75,000
Community Activities	Credit from the Community Activities Fund	(\$233,533)
Salaries	Salaries – MC/MM	\$96,358
Salaries	Salaries/Admin Costs – Major Construction	\$752,283
Budget Reserve	Budget Reserve	\$193,144

\$30,000

Various projects

Major Construction Major Construction Reserve \$8,443,316 \$11,277,110

SUBTOTAL - Current revenues allocated to MC/MM \$4,263,507

SUBTOTAL - Current revenues allocated to Major Construction \$9,195,599

**TOTAL FY 2007 CAPITAL PROJECTS FUND** \$13,459,106

Playgrounds





## **Arlington Public Schools**

# Capital Improvement Plan 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 "facilty 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 nearly 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 more than \$375 million for school construction.

Since 1996, APS has renovated, renewed or expanded 16 schools; replaced or reconstructed four schools; constructed one entirely new school and one new track facility; and provided technology cabling for all schools. Also since 1996, the roof has been replaced at Wakefield and renovations to portions of the Ed Center have occurred. These projects and their actual costs (through December 31, 2005) may be found on the following page.

Additionally, since 1996, more than \$50 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. Nonetheless, they 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			
	\$375,886,500			

For the joint projects at Drew, Gunston, Hoffman-Boston and Langston, the costs shown include the APS and County project costs. The costs shown are the final project costs except where otherwise noted.

#### RENEWALS, RENOVATIONS AND/OR EXPANSION OF 16 SCHOOLS

1.	Abingdon	\$685,243	
2.	Arlington Science Focus	\$8,213,531	
3.	Arlington Traditional	\$5,853,918	As of 3/31/06
4.	Ashlawn	\$1,022,579	
5.	Barrett	\$3,417,215	
6.	Cambell	\$2,325,153	
7.	Claremont	\$7,596,177	As of 3/31/06
8.	Glebe	\$10,220,248	As of 3/31/06
9.	Gunston Phases II & III	\$18,787,032	
10.	Jamestown	\$5,844,715	As of 3/31/06
11.	Key	\$7,324,808	
12.	Oakridge	\$6,925,880	
13.	Swanson	\$6,350,455	As of 3/31/06
14.	Tuckahoe	\$5,892,673	
15.	Williamsburg	\$3,485,959	
16.	Yorktown Phase I	\$9,311,923	As of 3/31/06

#### REPLACEMENT/RECONSTRUCTION OF 4 SCHOOLS

1.	Drew	\$12,953,317	AS Of 3/31/06
2.	Hoffman-Boston	\$12,721,115	
3.	Kenmore	\$33,623,671	As of 3/31/06
		\$9,312,155	

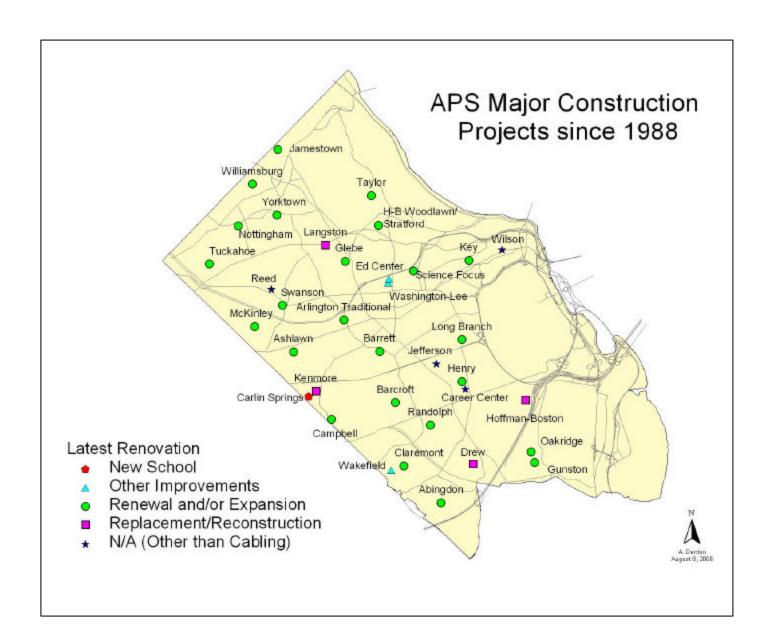
#### ONE NEW SCHOOL

1. Carlin Springs.....\$15,232,091

#### **O**THER

1.	Washington-Lee track	\$1,390,676
	Wakefield roof replacement	
	Ed Center renovations	

Also, the addition and renovation project at Nottingham and the music addition project at HB Woodlawn are continuing and are expected to open in September 2006.





# A

## **Arlington Public Schools**

## Capital Improvement Plan Appendix

Included in the FY 2007 – FY 2012 CIP are three studies which are funded with current revenues. The description and timeline of each study is provided below.

#### MULTI-SITE STUDY DESCRIPTION AND TIMELINE

A comprehensive study of several sites and selected inter-related issues that require further analysis is proposed. Included in the study are the Career Center, the High School Continuation program currently housed at Arlington Mill, the middle schools, leased space and Wilson, individually, and as they may relate to each other. The goals of the study are as follows:

- To continue to ensure that APS programs are well supported by adequate facilities;
- To reduce lease costs;
- To identity and quantify the potential economic value of certain properties:
- To identify and assess the potential for and feasibility of PPEA and/or other alternative financing options;
- To support the efficient use of space.

APS will seek the services of a qualified multidisciplinary consultant team, including educational facility planning, real estate and financial (including PPEA) expertise, and architectural/engineering capability with knowledge of Virginia zoning and law. An RFP will be issued and a qualification-based selection will occur. The consultant team will be provided with the various studies already undertaken in order to maximize the efficiency of the effort. The study will result in a report that will include the following:

- A real estate analysis of selected sites and evaluation of potential for PPEA and other
  alternative financing mechanisms. The primary sites to be considered for PPEA are
  Wilson and the Career Center. Wilson may be treated as an optional study element,
  contingent on whether a joint County/APS project develops independently of this study in
  the near term, based on previous work. Other alternative financing mechanisms may
  include, but will not be limited to performance contracting and tax increment financing.
- An assessment of options for co-location of programs for the middle schools, High School Continuation, and the Career Center. This assessment will take into consideration existing and required capacity, site characteristics, program considerations, phasing, existing joint County uses, and other factors.
- The study will analyze current leases against projected needs, with options for medium and long-term housing of programs now in leased space.

The findings of the study will support the next CIP, as well as interim decisions regarding both permanent and leased facilities, consistent with the goals outlined above.

The timeline for this study is as follows:

Proposals due: October 24, 2006 Committee Membership approved: October 19, 2006 Contract approved by School Board: November 30, 2006 Notice to proceed issued: December 1, 2006 Draft report due to APS: February 28, 2007 Final report due: March 30, 2007 Board Information Item: April 12, 2007 Board Action Item: April 19, 2007

#### CAREER CENTER STUDY DESCRIPTION AND TIMELINE

The Career Center study will develop parameters for the program and study options for providing appropriate facilities. Specifically, the study will include:

- An educational specification based on the Division of Instruction's recommended approaches to career and technical education (CTE). This will include, as a first step, an assessment of the current program model and alternative approaches.
- Alternative approaches to housing CTE on the Career Center site or in other location(s).
   The alternatives will consider Virginia Public-Private Education Facilities and Infrastructure Act (PPEA), phasing, and other relevant factors.
- A development of preliminary cost information regarding CTE facility needs, reflecting options for funding the project as described above.
- This study will take into account the potential for PPEA developed in the Comprehensive Study (described above), performance contracting, and the StudioJAED engineering study undertaken earlier this year.

Since the Career Center study relies on and may inform findings of the Multi-Site Study described above, the work of the two studies will require coordination.

The timeline for this study is as follows:

Proposals due:

BLPC Memberships set:

Contract approved by School Board:

Notice to proceed issued:

Final report due:

Board Information Item:

Proposals due:

September 19, 2006

October 5, 2006

November 30, 2006

December 1, 2006

April 23, 2007

May 3, 2007

May 3, 2007

#### WAKEFIELD STUDY DESCRIPTION AND TIMELINE

The Wakefield study will develop scope, project approach, and budget for the Wakefield renewal project. The study will include:

- The development of site-specific educational specifications;
- Alternative approaches to bringing the facility up to current building codes and into alignment with space guidelines and APS specifications;
- A phasing analysis; and
- A preliminary cost statement.
- This study will take into account the StudioJAED engineering study undertaken earlier this year.

The timeline for this study is as follows:

Proposals due:

BLPC Memberships set:

Contract approved by School Board:

Notice to proceed issued:

Final report due:

Board Information Item:

Proposals due:

September 19, 2006

October 5, 2006

November 30, 2006

December 1, 2006

April 23, 2007

May 3, 2007

Board Action Item:

May 24, 2007

