



**SIX-YEAR
CAPITAL OUTLAY
PLAN:
2004 - 2010**



**Commonwealth of Virginia
November 2003**



SIX-YEAR CAPITAL OUTLAY PLAN FOR 2004 - 2010

TABLE OF CONTENTS

Chapter 1. Capital Planning and Budgeting in Virginia	1
Chapter 2. Capital Performance Measures	13
Chapter 3 The Commonwealth Capital Program.....	15

Appendices

Appendix A:

Yearly draw schedules for all projects approved by the 2002 & 2003 sessions of the General Assembly

Appendix B:

High-priority projects for 2004 - 2010



Chapter 1

CAPITAL PLANNING AND BUDGETING IN VIRGINIA

This report presents the six-year capital outlay plan for the Commonwealth for 2004-2010. The Commonwealth first started submitting reports of the six-year capital planning process in December 1990 because of language in the 1990 Appropriation Act that directed the Secretary of Finance to review the use of debt in the Commonwealth and to recommend a plan for maintaining the state's high credit rating. During the 2002 session, the General Assembly further formalized the six-year capital planning process by requiring the Governor to submit to the General Assembly by November 1 of each odd-numbered year a six-year capital improvement plan (CIP).

This six-year capital outlay plan is composed of three chapters. This chapter highlights the six-year capital plan and its purpose and examines the continuing and emerging infrastructure needs of the Commonwealth. Chapter 1 also provides an overview of the long-range capital outlay planning process used in Virginia, including a definition of a capital project as used in the Commonwealth's capital outlay budgeting process. It also discusses the alternative methods of financing capital expenditures and concludes with the Commonwealth's capital performance measure statistics.

Chapter 2 provides the latest performance indicators on how well state agencies are performing at completing their capital projects in a timely manner and within budget.

Chapter 3 identifies high-priority capital projects for the six-year period.

Since this six-year plan is the first submission under the new procedure, the process used by the administration is evolving. The plan largely defers to capital priorities established by the agencies.

The inclusion of a project in this six-year plan is not a guarantee that it will be funded. Given the current economic climate and the modest recovery, which is only now beginning to take hold, projects and priorities are subject to change. Furthermore, agency needs and priorities may change. Therefore, there is the potential for significant revisions to occur over time.

Definition of capital outlay

The Appropriation Act authorizes the expenditure of current revenues over a two-year period. It contains two types of budgets: an operating budget and a capital budget. The operating budget shows those expenditures associated with the activities and programs provided by state agencies and institutions of higher education. The capital budget deals with large, non-recurring expenditures such as the construction of a building, repairs, and improvements to a water supply system, or the installation of a new sewage system. An operating budget appropriation is limited to the costs of running operations for each year of a biennium. A capital budget appropriation is limited to the cost of the item, and may be expended over a longer period until the project is completed.

In addition to the cost for construction, costs associated with a capital project include:

- ▶ Architectural and engineering services,
- ▶ Installed equipment, and
- ▶ Site development and improvements.

The cost, size, and scope of a project determine whether a project is included in the operating or capital budget. For budgeting purposes, Virginia defines a capital project as a tangible asset, such as land or a building, costing more than \$250,000 to construct or \$500,000 to improve. However, there is some discretion in determining whether expenses related to property, plant, and equipment should be included in the operating or capital budget.

There are four categories of capital projects: acquisition, new construction, improvements, and equipment. The table below defines the four categories of projects and gives criteria for determining when the expenditure goes in the operating or capital budget. The guidelines apply whether the facility is owned or leased by the state.

Table 1

Categories of capital projects

1) Acquisition consists of obtaining any interest in real property, including improvements of any kind located on the acquired land, except certain utility easements. All acquisitions, including by gift, are subject to the capital outlay process. Leases are included in the capital budget if:

- ▶ The lease agreement involves the acquisition or improvement of real property, as that term is defined in the Commonwealth Accounting Policy and Procedures (CAPP) Manual;
- ▶ The equipment obtained through the lease would meet the capital project definitions if it was purchased outright; or,
- ▶ The acquisition or improvement of real property financed by a lease agreement has a project cost equal to or in excess of \$5.0 million. "Project cost" is equal to (1) the annual amount of the lease payments multiplied by the number of years of the lease, including the automatic renewal periods, up to a maximum of 20 years, or (2) the expected total of all annual lease payments over the term of the lease if the lease amount varies from year to year.

2) New construction is a single undertaking involving construction of one or more facilities. It includes: (1) construction of or site work for a new facility; (2) any addition, expansion, or extension to a structure that adds to its overall exterior dimensions; and (3) complete replacement of a facility. If a new construction project meets one or more of the following criteria, it is subject to the capital process:

- ▶ It creates additional building space of 5,000 square feet or greater;
- ▶ It has a total project cost of \$250,000 or greater; or,
- ▶ It is acquired through a lease with options to purchase, or any other alternative financing approach.

3) Improvements are a complete and usable change to an existing facility or structure. Improvements include (1) alteration or conversion of interior space and other physical characteristics, (2) renovation to a facility or its infrastructure, (3) restoration of a facility or structure, and, (4) major repairs to restore a facility or system. If an improvement costs \$500,000 or greater, it is subject to the capital process.

4) Equipment is a tangible resource of a permanent or long-term nature used in an operation or activity. No precise criteria exist to help determine whether equipment is an operating or capital expense.

The on-going operational costs of property, plant, and equipment, regardless of the expense or method of financing should be included in the operating budget. These expenses include employee compensation, utility bills, rental charges, supplies, and materials.

Any capital project included in an agency's operating budget because the project's cost falls below the dollar threshold for capital must normally be completed within the fiscal year in which the funds are appropriated. This time limit constraint of the operating budget and the existing dollar thresholds on projects that can be included in the operating budget ensure that only low-cost capital expenditures are funded in the operating budget.

Projects funded in the operating budget are not subject to the state's capital outlay review process. However, all construction projects funded through the operating budget must still meet the following requirements:

- ▶ The Uniform Statewide Building Code;
- ▶ The Commonwealth's Construction and Professional Services Manual, Chapter 7;
- ▶ The Commonwealth's Handicapped Accessibility Standards;
- ▶ The Department of Environmental Quality's environmental impact statements for projects costing over \$100,000; and
- ▶ The agency's approved Master Site Plan.

Furthermore, §2.2-2402 of the Code of Virginia provides that an agency or institution of higher education may not begin construction or erection of a building or remodeling, removal, or addition to the exterior of an existing building unless the Art and Architectural Review Board has approved its design and proposed location.

Overview of the Capital Outlay Process

Virginia's capital outlay process consists of three distinct phases: budget development, legislative review, and execution. This multi-layered planning and execution process can take as little as 18 months or as long as five to eight years from the initial project proposal to completion of construction.

Table 2 summarizes the key dates for the typical six-year capital outlay submissions.

Table 2

Biennial budgeting: Key dates for the agency six-year capital budget submissions

Date	Action
February (<i>odd-numbered years</i>)	Agencies notified of which high-priority projects in existing six-year plan to prepare detailed narrative justifications and schematic information.
May to August (<i>odd-numbered years</i>)	Agencies conduct issue assessments and revise strategic plans.
April (<i>odd-numbered years</i>)	Agencies submit six-year capital requirements including maintenance reserve requests and capital leases.
May (<i>odd-numbered years</i>)	Agencies submit detailed information for high-priority projects authorized in February.
June (<i>odd-numbered years</i>)	Agencies (1) are notified of other projects in their April six-year plan to prepare detailed narrative justifications and schematic information, and (2) submit information on existing capital leases.
June (<i>odd-numbered years</i>)	DPB validates maintenance reserve subprojects that meet criteria.
August/September (<i>odd-numbered years</i>)	Agencies submit (1) detailed information for projects authorized in June, (2) annual maintenance reserve plan, and (3) financial feasibility studies for revenue bond projects.
November 1st (<i>odd-numbered years</i>)	Governor submits Six-Year Capital Improvement Plan to the General Assembly.
December (<i>odd-numbered years</i>)	Governor submits Executive Budget to the General Assembly.
April (<i>even-numbered years</i>)	Biennial Budget enacted, effective July 1.
Fall (<i>even-numbered years</i>)	Agencies submit capital requests for emergency projects or to supplement projects that have been bid but have insufficient funds.
December (<i>even-numbered years</i>)	Governor submits Executive Budget amendments to the General Assembly.
March to May (<i>odd-numbered years</i>)	Amendments to biennial budget enacted, effective upon passage.

Long-range capital planning in Virginia

Since the 1992-94 biennium, state agencies and institutions of higher education with a physical plant have prepared capital outlay proposals covering a prospective period of six years. Agencies justify the need for the requested projects with respect to their strategic and master plans as well as their current and projected customers, programs, and services. These six-year capital outlay plans identify the

agencies' capital needs over the next six years, rank the projects in priority order, and represent one component of the Commonwealth's efforts to integrate long-range planning into its fiscal decisions.

The 2002 session of the General Assembly formalized the six-year capital improvement planning process by requiring the Governor to submit to the General Assembly by November 1 of each odd-numbered year a six-year capital improvement plan (CIP) that identifies the capital projects that the Governor deems necessary for the next six years. This legislation (Chapter 839, 2002 Acts of Assembly) further refined the process for funding capital outlay projects and established parameters for the Governor to use when recommending the type of funding for future capital budgets. These parameters specify a minimal size for the capital budget in the Governor's budget bill, excluding maintenance reserve, as being no less than two percent of the projected general fund revenues for the biennium.

In addition to establishing a minimum level of funding, the legislation also specifies the maximum percentage of debt to be recommended based upon the expected growth in general fund revenues over the preceding fiscal year. Specifically, the legislation states that:

- ▶ When the projected general fund revenues for a fiscal year or years are eight percent or greater than the projected general fund revenues for the preceding year, the amount of general fund appropriation for the capital plan shall not be less than two percent of the projected general fund revenues for each fiscal year.
- ▶ When the projected general fund revenues for a fiscal year or years are at least five but less than eight percent greater than the projected general fund revenues for the preceding year, the Governor may recommend funding of up to one-half of the biennial capital appropriation from alternative funding mechanisms, including but not limited to bonded indebtedness. The remaining amount is to be funded from the projected general fund revenues.
- ▶ When the projected general fund revenues for a fiscal year or years are less than five percent greater than the projected general fund revenues for the preceding year, the Governor may fund the entire required biennial capital appropriation from alternative funding mechanisms, including but not limited to bonded indebtedness.

This report of the Commonwealth's six-year capital outlay plan builds on the framework of the earlier plans and enables the reader to clearly focus on how the Commonwealth is investing in capital projects, why it is doing so, and what lies ahead. It identifies the most critical capital outlay projects that the agencies have asked the Governor to conclude are necessary for the next six fiscal years.

The Commonwealth's Debt Financing Programs for Funding Capital Projects

Every state and almost every municipality use debt financing to some degree. The principal method of debt financing used by the Commonwealth is long-term bonds. However, short-term debt may be used to finance assets with short useful lives or for funding in anticipation of issuing long-term bonds.

State debt falls into two broad categories, defined by the source or method of repayment: tax-supported debt and non tax-supported debt. Tax-supported debt is that debt for which the debt service is paid or ultimately pledged to be paid from tax revenues. Payments on non tax-supported debt are derived from other revenue sources.

The Debt Capacity Advisory Committee was established in 1991 to annually review the size and condition of the Commonwealth's tax-supported debt and submit to the Governor and General Assembly an estimate of the maximum amount of new tax-supported debt that prudently may be authorized for the next two years. The Committee uses the Debt Capacity Model as the means of

calculating the Commonwealth's tax-supported debt affordability. The model calculates the maximum amount of incremental debt that may prudently be issued by the Commonwealth over the next ten years. The model uses the ratio of tax-supported debt service as a percentage of revenues as its base calculation. The Debt Capacity Advisory Committee adopted a measure that the maximum ratio of debt service as a percentage of revenues should be no greater than five percent.

The model was last updated using the December 2002, official revenue forecast and was provided to the Governor and General Assembly for the 2003 session. The model indicated that a maximum of \$481.92 million of tax-supported debt could prudently be authorized by the 2003 and 2004 sessions of the General Assembly. This information will be updated with the official December 2003, revenue forecast when the Debt Capacity Advisory Committee meets on December 17, 2003.

Article X, Section 9 of the Virginia Constitution, provides for the issuance of debt by or on behalf of the Commonwealth. General obligation debt is that debt which carries the "full faith and credit" and taxing power of the issuer to repay the debt. This debt may be supported by tax revenues or by other revenue resources.

Tax-supported debt -- general obligation debt

Article X, Section 9 of the Virginia Constitution authorizes three categories of general obligation debt:

- ▶ **Section 9(a) debt.** Debt incurred under Article X, Section 9(a) may be issued to meet emergencies, to redeem previous debt, or, on a short-term basis, to meet casual deficits in revenue, or in anticipation of collection of revenues.
- ▶ **Section 9(b) debt.** Debt incurred under Section 9(b) is long-term debt for capital projects. It must be authorized by a majority vote of each house of the General Assembly and approved in a referendum by the citizens of the Commonwealth. The source of funds for repaying this debt is general fund revenues of the Commonwealth.
- ▶ **Section 9(c) debt.** Debt incurred under Section 9(c) is long-term debt for revenue-producing capital projects. Both the revenues of the projects and the full faith and credit of the Commonwealth back this so-called "double barreled" debt. Issuance of Section 9(c) debt requires a two-thirds vote of each house of the General Assembly and certification by the Governor that anticipated net revenues will be sufficient to meet principal and interest payments on the debt. Should project revenues prove insufficient, the state's full faith and credit is pledged to repay the debt.

Of the three types of general obligation debt, the debt issued under the authority of Section 9(c) is used most often. Section 9(c) bonds have been issued for three areas of government -- higher education, transportation, and general government and examples of funded projects include dormitories, dining halls, parking projects, toll roads, and bridges.

Debt incurred under the authority of Section 9(b) has been used sparingly. The most recent referendum for the sale of 9(b) general obligation bonds was passed by Virginia voters in 2002 to provide approximately \$900.5 million to fund the various projects for institutions of higher education and \$119.0 million for projects at parks and recreational areas and to acquire open spaces.

Finally, debt issued under the authority of Section 9(a) is rarely used except for refunding of outstanding general obligation bonds.

Tax-supported and non tax-supported debt – nongeneral obligation debt – Section 9(d)

If the full faith and credit of the Commonwealth is not pledged or committed to the payment of debt obligations, the debt is issued under the authority of Section 9(d) of the Constitution. There are various types of 9(d) revenue bonds issued by authorities, institutions, and agencies used to finance a variety of state and local capital projects for which the Commonwealth's full faith and credit are not pledged. The source of debt service payments on section 9(d) bonds may be from appropriations by the General Assembly of general or nongeneral funds, general revenues of an institution of higher education, from revenues derived from self-supporting enterprise systems, or payments from local governments. Debt supported by general or nongeneral fund revenues may be considered tax-supported debt while debt supported by enterprise systems or payments from local governments is not.

Whether 9(d) obligations are considered tax-supported or non tax-supported debt of the Commonwealth is largely a function of the source of the revenue stream used to repay the obligations. If the proceeds of the obligations were used to finance a local project and such obligations were repaid with local funds, then such obligations would not be considered tax-supported debt of the Commonwealth. Various state programs and local programs are described in more detail below.

Section 9(d) debt -- state programs

Section 9(d) debt is issued to fund capital projects of state agencies by a number of different entities or authorities.

- ▶ **Higher Education Section 9(d) Debt.** Institutions of higher education may individually issue Section 9(d) debt based on their own credit through a pledge of their general revenues, or as pure revenue bonds with specific revenue sources pledged. This financing mechanism is realistically open only to those institutions with strong financial underpinnings.
- ▶ **Virginia Department of Transportation Section 9(d) Debt.** The Commonwealth Transportation Board (CTB) issues all Section 9(d) bonds for highway construction projects. Examples of such projects include the U.S. Route 58 Corridor Development Program, various projects for the Northern Virginia Transportation District, Oak Grove Connector in the City of Chesapeake, and Route 28. Sources of repayment include state recordation taxes, federal highway reimbursements, and the Transportation Trust Fund (TTF). Debt issued by the CTB is considered tax-supported debt or non tax-supported debt depending upon the source of the revenue stream used to repay the obligations.
- ▶ **Virginia Public Building Authority.** The Virginia Public Building Authority (VPBA) issues Section 9(d) debt most often to finance the construction of state facilities or other capital projects including reimbursement to localities and regional jail authorities for the state's share of approved construction costs of local and regional jail facilities and juvenile detention facilities. The source of repayment of the VPBA's obligations is both general and non-general fund appropriations by the General Assembly and all VPBA debt is considered tax-supported debt.
- ▶ **Virginia College Building Authority.** The Virginia College Building Authority (VCBA) issues bonds to finance projects for public higher education institutions through its pooled bond program, its 21st Century program, and its equipment-financing program. It also acts as a conduit issuer for private higher education institutions to issue tax-exempt bonds.

The VCBA pooled financing program provides a method by which higher education institutions can finance projects by issuing obligations through the VCBA. The VCBA issues its bonds and buys notes issued by the institutions. Payments made by the institutions on their notes are used by the VCBA to repay its bonds. The program provides access to the capital market to all of the Commonwealth's institutions of higher education regardless of individual financial strength. Debt

issued through the VCBA pooled program is not considered tax-supported debt of the Commonwealth.

- ▶ **The VCBA 21st Century program and the equipment-financing program.** This program provides institutions with funding for capital projects and equipment needs. Debt service on bonds issued under these programs is primarily funded from general fund dollars appropriated by the General Assembly and the debt is considered tax-supported debt.
- ▶ **Virginia Port Authority.** The Virginia Port Authority (VPA) issues Section 9(d) bonds to finance the construction of port facilities in Virginia, primarily in the Hampton Roads area. The security structures for these bonds differ, with some bonds secured by revenues from terminal operations, and others secured by the Commonwealth Port Fund (part of the Transportation Trust Fund). The General Assembly may also provide additional appropriations. Debt secured by the Commonwealth Port Fund is considered tax-supported debt.
- ▶ **Other Section 9(d) Debt – State Programs.** Other state-level authorities have issued bonds to support various activities. Examples of such issuers include the Innovative Technology Authority and the Virginia Biotechnology Research Park Authority. Debt issued by these authorities is typically considered to be tax-supported debt.
- ▶ **Other Section 9(d) Debt – Lease Financing.** The Commonwealth is involved in numerous agreements to lease buildings, personal property, and other equipment. Lease financing, like other kinds of debt financing authorized by Section 9(d), is not considered debt for which the full faith and credit of the Commonwealth is pledged, and is treated as tax-supported debt if paid from general fund appropriations. The Commonwealth has used lease-backed financing transactions to provide funding for both state and local programs.

Section 9(d) debt -- local programs

Section 9(d) debt is also issued to fund various types of capital projects for localities. It is issued by a number of different entities or authorities. This debt may provide direct or indirect support for local infrastructure projects. Direct support mechanisms include certain Virginia Public School Authority (VPSA) programs and the regional jail and juvenile reimbursement programs funded through the VPBA.

Indirect support is provided through mechanisms that give easy and low-cost access to the capital markets for localities. Indirect support mechanisms include the Virginia Resources Authority (VRA), the CTB's Route 28 and Northern Virginia Transportation District (NVTD) road construction programs, Literary Fund loans, and the VPSA pooled bond and stand-alone programs.

The VPSA also provides a program that provides a combination of direct and indirect support through an interest rate subsidy program which combines the features of a Literary Fund loan and a VPSA pooled bond issue and an equipment-financing program.

- ▶ **Commonwealth Transportation Board.** The Commonwealth Transportation Board (CTB) issues bonds for local transportation improvement projects. These bonds constitute indirect support. The security structure for these bonds differs with the particular financing program. Certain bonds issued by the CTB are secured by real estate taxes levied in a special assessment district, recordation taxes, and the Commonwealth's Transportation Trust Fund (TTF).
- ▶ **Virginia Resources Authority.** The Virginia Resources Authority (VRA) provides funding and assistance to localities to finance a variety of infrastructure projects including water, wastewater, solid waste, public safety, brownfields, and airport projects.

The VRA issues bonds through its pooled bond program that is secured by bonds of localities and is further secured by the Commonwealth's moral obligation pledge. The moral obligation is a

legislative commitment to consider (but not require) appropriation of general fund revenues if there are insufficient funds to meet debt service payments. The bonds of the localities are further secured by the provisions of the State Aid Intercept whereby any and all local aid from the state is subject to interception in the event the localities do not make the required payments on their bonds. Bonds issued with the moral obligation pledge are not considered tax-supported debt of the Commonwealth but are deemed to constitute a limited or contingent liability.

The VRA also issues bonds that do not utilize the Commonwealth's moral obligation pledge including certain leveraged revolving fund and subsidy programs.

- ▶ **Virginia Public School Authority.** The VPSA uses a number of different methods of issuing bonds to provide funds for primary and secondary public school capital projects that provide both direct and indirect support to localities.

Like the VRA and VCBA, the VPSA operates a pooled bond program. The VPSA uses the proceeds of its bonds to buy bonds issued by localities. Payments received on the local school bonds are used to repay the VPSA bonds. This program provides indirect support. Various provisions including the Commonwealth's moral obligation and the provisions of the State Aid Intercept have also secured the VPSA pooled bonds. The VPSA's current pooled bond program is backed by 1) a sum sufficient appropriation from the Literary Fund and 2) a sum sufficient appropriation of the Commonwealth's general fund to pay debt service in the event revenues are not sufficient and does not carry the moral obligation pledge. Debt issued by the VPSA under the pooled bond program is not considered to be tax-supported debt of the Commonwealth.

When authorized, the VPSA also operates an interest rate subsidy program, which allows it to provide what are in essence low-rate Literary Fund loans to localities through a combination of bonds and cash subsidies from the Literary Fund. The VPSA issues bonds as described above, and cash from the Literary Fund is used to "buy down" the interest cost of the bonds issued on behalf of localities to a level equivalent to what the locality would pay for a standard Literary Fund loan. This debt is not considered tax-supported debt of the Commonwealth.

When authorized, the VPSA also provides direct support through the issuance of its educational technology equipment financing notes. These five-year notes are repaid through appropriations from the Literary Fund and provide grants to local school districts as opposed to loans that must be repaid. The grant funds must be used for purposes as specified in the Appropriation Act. Currently those provisions specify that the note proceeds be used to purchase educational technology equipment and related infrastructure. These notes are further backed by a sum sufficient appropriation from the Commonwealth's general fund. This debt is not considered tax-supported debt of the Commonwealth.

- ▶ **Virginia Housing Development Authority.** The VHDA issues a number of different types of mortgage revenue bonds to finance single-family and multi-family housing for primarily low-income families. VHDA is the largest issuer of debt in the Commonwealth. Previous VHDA borrowing programs utilized the Commonwealth's moral obligation pledge but the VHDA now issues its multi-family housing bonds without the moral obligation pledge. The VHDA is one of the highest rated housing finance agencies in the nation and its debt is not considered to be tax-supported.
- ▶ **Virginia Public Broadcasting Board.** The Board has issued Section 9(d) debt to assist local public television corporations to purchase the equipment necessary to comply with the digital broadcasting standard set by the Federal Communications Commission. The financing is to be repaid by General Assembly appropriations and is considered tax-supported debt.

Continuing and emerging issues

Within state government, four major factors contribute to the need for capital expenditures. These factors are:

- ▶ The need to repair or upgrade major building components due to the general aging of state-owned structures;
- ▶ Increasing and changing demands for state services;
- ▶ Modifications in building codes and changes in compliance with other federal and state mandates that require significant investment in existing facilities to maintain healthy and safe conditions; and,
- ▶ The rapidly changing nature of technology.

Aging infrastructure. The Commonwealth of Virginia owns over 1,100 tracts of land, ranging in size from under an acre to over 37,875 acres. There are over 11,000 buildings located on these properties, with in excess of 88.4 million gross square feet. The average useful life of a typical building, without substantial renovations, is 30 to 40 years. About 28 percent of the Commonwealth's buildings -- 3,100 -- are in excess of 40 years old.

Aging facilities and the general wear-and-tear that results from their constant use creates a continuing demand for capital expenditures. All buildings need routine maintenance and upkeep. As buildings age, major components such as roofs, heating and ventilation systems, and electrical and lighting systems must be upgraded or replaced. Crucial system components such as roofs and heating and ventilation systems usually require major repairs or replacement of the system or equipment every 15 to 20 years.

Older buildings are costly to maintain and operate. Building designs and layouts to meet original program requirements are often not efficient for current or revised program requirements and can contribute to increased heating and electrical costs. It can also increase the costs of the programs housed in the building. For example, an existing housing unit for juvenile offenders may not be efficient for current program requirements and can create the need for more security staff than would be necessary in a more efficiently design to meet current program. Some buildings can be renovated to make them less expensive to maintain and operate. Some, however, cannot be improved through renovation and a new facility is needed to meet program requirements.

As the state's buildings age, the efficiency of the energy-using systems will continue to degrade and, in turn, increase the day-to-day cost of operating these facilities. Old technologies and worn-out equipment, especially equipment at the end of its useful life, also contribute to the escalating use of energy resources. Replacement systems are designed for greater efficiencies and will cost less to operate than the original systems did when they were new.

The Commonwealth spent almost \$163 million in fiscal year 2003 to heat, cool, and light state facilities. While this is less than the previous year, additional savings can be achieved by upgrading lighting and HVAC (heating, ventilating, and air conditioning) systems and controls to maximize their efficiency. For each year that an energy retrofit project is delayed, energy continues to be wasted and potential dollar savings are lost to the Commonwealth. Besides reducing present and future operating costs, energy efficiency upgrades can also serve to improve the work environment and customer service.

Building envelopes contribute significantly to the size of the operating costs as well as occupant comfort. Windows, doors, and insulation are critical components that are frequently overlooked or difficult to include in renovation or upgrade projects. New envelopes can take advantage of daylighting techniques, thus reducing the amount of fixtures, electricity, and operating costs. However, increased daylighting (windows) must be evaluated along with the potential increased initial costs for the energy

efficient windows in the building envelop and accompanying increases in operating costs for heating and cooling.

At some point, however, a building reaches the end of its useful life where needed modifications will cost more than constructing a new facility. The decision to discontinue the use of a building is very difficult as the natural inclination is to think that a tangible asset such as a building must have value and can be used for some purpose. Because of this, buildings sometimes continue to be used and operated at huge costs or are renovated at great cost only to be judged as not suitable for the activities housed in them.

As buildings have deteriorated and agencies have required more administrative office space, officials have increasingly turned to leasing space. Over time, this can become a costly solution for meeting the state's need for administrative space. However, leasing can be cost effective in situations where agencies commonly relocate their sites so they can better provide services. For example, the ABC liquor stores are almost all housed in leased space so that the stores can continuously be located in the best commercial locations.

Replacement facilities should be designed on a life cycle cost basis considering use of energy efficient systems, low annual maintenance of systems and building components, allow for replacement of lighting and heating/cooling equipment, and design building to be easily adaptable for changes in configuration for program changes in a similar use.

As more agencies move administrative functions into leased space, the question of co-location arises. State government needs to assess the costs and benefits of housing several state agencies together. A "critical mass" of state operations may make it less costly to build administrative offices or even to lease an entire building for state operations.

Increasing and changing demands for state services. A growing population with expanding public expectations affects the number and nature of facilities that are needed to support and house the desired services. Changing demographics -- including increased population, the aging of the general population, and population movement also influence the demand for services. An expanding population means greater demand for education, hospital, park facilities, and transportation.

Policy decisions to offer certain programs or services also produce demands that require that new facilities be built, or established facilities be renovated to provide those services statewide. Changes in policy may also require the expansion or modification of facilities. For example, stricter criminal sentencing creates the need for additional facilities to house greater numbers of inmates. Conversely, the policy change to move to community-based mental health and mental retardation services has reduced the number of inpatient mental health hospital and mental retardation training center beds that are required.

Legal mandates. In addition to the general wear and tear affecting all facilities, a number of state and federal mandates for correcting threats to life and health compel capital improvements be made at many state facilities. One of the most important mandates is compliance with the Life Safety Code. Examples of other legal mandates impacting on the state's capital outlay needs are the remediation of leaking underground storage tanks, asbestos and lead base paint abatement, compliance with air pollution standards and the Americans with Disabilities Act of 1990, and the phasing out of certain gases used in refrigeration.

The Americans with Disabilities Act of 1990 requires that "programs and services be accessible in a dignified manner" to those with disabilities. While the act does not mandate building alterations or construction of new facilities, changes that are "readily achievable" must be made as soon as practicable.

With the changing needs of state agencies, their employees, and clients, facility needs change and compliance with the ADA remains an ongoing effort.

Environmental legislation has resulted in the need to renovate building systems and infrastructures. Specifically, the ban on the use of chlorofluorocarbons (CFC's), a commonly used refrigerant whose production was banned after 1995, necessitated renovations to air conditioning systems in order to comply with the legislation. Continued renovations of boiler plants have been needed to comply with the Clean Air Act. Likewise, underground storage tanks were replaced or upgraded to comply with regulations issued by the Environmental Protection Agency. Finally, renovations must address regulations issued by the Department of Labor and the Occupational Safety and Health Administration concerning limits on exposure to asbestos and lead. Asbestos abatement and lead-based paint are ongoing issues with repair and renovation projects because of the age of many of the Commonwealth's facilities. These hazards continue to be addressed during improvement projects and in cases where the existing asbestos or lead-based paint has deteriorated and must be abated.

Technology Infrastructure. Technology infrastructure supports electronic communications between agencies and moves information quickly to the people who need it. Investment in technology infrastructure can add significant long-term value to any capital project. Technology infrastructure could include providing high-speed switched digital services that support voice, data, and video transmissions; building a state-local information highway that consolidates state agencies' individual voice and data lines; establishing a statewide electronic academy; developing interactive service kiosks where Virginians register vehicles, make state park reservations, or obtain hunting and fishing licenses; and linking state office buildings through a high-speed fiber optics network.

Available technology now permits the use of universal wired and wireless systems to interconnect voice, data and video communications, as well as security, and energy management systems. Such systems are becoming a more dominant factor in facilities planning. The concept of a "smart" building can have even greater implications for college and university space than it has for administrative or office buildings.

The facility considerations that result from rapidly advancing technology trends are increasingly apparent. State government must adapt its physical facilities to accommodate the increasing investment in a robust technology infrastructure. For example, new and renovated buildings require built in (wired or wireless) networks to support computers and related telecommunication equipment. A universal cabling system, which uses industry standards and accepted practices, can link technology within an agency and can connect agencies to one another and to localities. How the Commonwealth deals with technology infrastructure in the next six years will influence significantly the scope, quality, and cost of future government services.

There are also numerous advancements in the field of energy management that can produce cost savings if incorporated in the design and construction of new facilities or in the renovation of existing facilities. Emerging technologies, such as fiber optic lighting systems, ice storage systems for cooling, geothermal heat pumps, and cogeneration of electricity, have the potential for significant operating cost savings and building environment improvement.



Chapter 2

CAPITAL PERFORMANCE MEASURES

Performance measurement is the systematic collection, analysis, and reporting of information that tracks resources used, work produced, and intended results achieved. The establishment of performance measures for capital projects was first required by Section 4-5.05d2 of Chapter 814, the 2002 amendments to the 2000 Appropriation Act. This section directed the staff from the Department of Planning and Budget (DPB) and Bureau of Capital Outlay Management (BCOM) to develop performance measures for the capital outlay process effective July 1, 2001. The purpose of these measures is to assess whether state agencies are successful in completing capital outlay projects on schedule and within budget.

Six measures were chosen for the initial assessment of capital outlay project performance. This part of the Six-Year Capital Outlay Plan documents the performance measures for the past three years, using agency capital project status reports submitted in May of each year. The specific measures are:

1. Time from project authorization to hiring of architect,
2. Time from project authorization to project completion,
3. Cost changes from original cost estimate to final project cost,
4. Number of change orders,
5. Total cost of change orders, and
6. Average cost per change order.

Because of the complexity and age of many of the capital outlay projects active or completed, umbrella, phased, and maintenance reserve projects were not included in this assessment of capital performance measures and the review was further limited to those projects originally authorized on or after July 1, 1998.

The capital performance measures reported below are a composite of the measures calculated for fiscal years 2001, 2002, and 2003. The three years have been combined to form a baseline against which the capital performance measures from future years can be assessed.

1. **Time from project authorization to hiring of architect.** A total of 413 projects had an architect under contract when the agency capital project status reports were submitted in May. The average time to contract was 312 days.
2. **Time from project authorization to project completion.** Sixty-six projects were completed in 70,833 days, for an average time to completion of 1,073 days, or 2.94 years.
3. **Cost changes from original cost estimate to final project cost.** The average cost change for the 66 projects was a savings of \$200,676. This was 0.29% of the final cost.

4. **Number of change orders.** There were 70 change orders for the 66 completed projects, or a rate of 1.06 change orders per project.
5. **Total cost of change orders.** The 70 change orders totaled \$1,393,302.
6. **Average cost per change order.** The average cost per change order was \$19,904.



Chapter 3

THE COMMONWEALTH CAPITAL PROGRAM

Capital Projects Approved by the 2002 and 2003 Session of the General Assembly

During the 2002 session, the General Assembly authorized the issuance of nearly \$1.7 billion in tax-supported bonds to sustain the construction of more than 300 capital projects across the Commonwealth. The projects supported by these bonds included frozen capital projects originally authorized in prior biennia, a number of high-priority construction and renovation projects to be initiated during the current 2002-2004 biennium, and many new facilities and facility upgrades on Virginia's college and university campuses and within the state parks system.

The legislation also established a series of planning and reporting requirements for these capital projects that were intended to ensure the orderly issuance of debt, and the careful staging of construction over the next several years. The bills stipulated that state agencies and institutions of higher education were to submit capital implementation plans to the Governor and the Chairmen of the Senate Finance and House Appropriations Committees describing the timeframes and costs associated with these projects. This was to be followed by the Governor's own capital implementation plan for the state. Finally, the legislation limited to \$250 million the total annual (with a carryforward provision for any unused portion) debt the Commonwealth could issue to complete the capital projects included in Chapters 855, 887, 827, 859, 854, and 884.

The Governor's first capital implementation plan, issued in March 2003, provided a framework for the completion of the 310 construction and renovation projects authorized by the 2002 General Assembly. Projected draw schedules for these projects stayed within the \$250 million annual issuance cap specified in the enabling legislation, as well as within the debt service appropriated for the current biennium. The plan showed that debt service requirements would increase significantly each fiscal year through FY 2009, after which they would begin to decline. The plan also indicated that about \$195.4 million in equipment and operating costs would be required to support the new or renovated structures, once construction was complete.

The 2002 session of the General Assembly also passed the Public-Private Educational Facilities Infrastructure Act of 2002 (PPEIA) which allows private entities to "acquire, design, construct, improve, renovate, expand, equip, maintain or operate qualifying projects" after reaching an appropriate agreement with the Commonwealth. A PPEIA proposal may be either solicited by the Commonwealth or delivered by a private entity on an unsolicited basis. Proposers must follow a two-part submission process consisting of an initial conceptual phase (Part 1) and a detailed phase (Part 2). The initial phase of the proposal contains specific information on proposer qualifications and experience, project characteristics, project financing, anticipated public support or opposition, or both, and project benefit and compatibility. Part 2 contains specified deliverables. To date, five agencies have reported centrally the receipt of PPEIA proposals for construction, expansion, and/or renovation projects valued at approximately \$433 million.

During the 2003 session, the General Assembly authorized an additional \$236.4 million of tax-supported debt. These projects are not subject to the \$250 million annual debt issuance limit.

The 2004-2010 Capital Improvement Plan

The first step in determining funding priorities for new projects was to determine the amount of debt issuance that will be required beginning in FY 2005 to complete the projects authorized by the 2002 and 2003 sessions of the General Assembly. Table 3 below shows the requirements by year. A listing of the annual amounts required to complete each capital project is attached as Appendix A.

Table 3

Summary of Draw Schedule for Projects Approved by the 2002 & 2003 Sessions of the General Assembly

	<i>FY 2005</i>	<i>FY 2006</i>	<i>FY 2007</i>	<i>FY 2008</i>	<i>FY 2009</i>	<i>FY 2010</i>	<i>6 Year Total</i>
Capital Improvement Plan	414.0	302.9	223.7	86.8	51.6	21.4	1,100.4
2003 session	41.6	73.2	32.1	2.8	0.2	0.0	149.9
Total	455.6	376.1	255.8	89.6	51.8	21.4	1,250.3
2% of Projected Revenues (Dec. 2002)	237.7	249.2	260.4	273.6	287.1	301.4	1,609.4

Table does not show actual or anticipated expenditures in FY 2002, 2003, or 2004.

In FY 2003, the Department of Treasury oversaw the issuance of \$226.8 million for the Virginia Public Building Authority, Virginia College Building Authority 21st Century Construction Program, and General Obligation Bond programs. Activity to date from those issues is set forth in Table 4 below.

Table 4

FY 2003 Bond Issuance (in millions)
Projects approved by 2002 and 2003 General Assembly
As of September 30, 2003
(Includes projects not subject to the \$250 million issuance limitation)

	VCBA (21st Century Construction)		
	Issued	Spent	Remaining
FY 2003	\$116.8	\$ 52.5	\$64.3

	Virginia Public Building Authority		
	Issued	Spent	Remaining
FY 2003	\$ 56.6	\$ 10.1	\$ 46.5

	General Obligation Bonds		
	Issued	Spent	Remaining
FY 2003	\$ 53.4	\$ 2.4	\$ 51.0

Necessary Projects for the 2004-2010 time period

Section 2.2-1509 of the Code of Virginia requires the Governor's introduced budget to have a biennial appropriation for capital that is not less than two percent of the projected general fund revenues for the biennium. The December 1, 2002, official revenue forecast for FY 2005 was \$11,885.1 million and \$12,459.4 million for FY 2006. Using this latest forecast, two percent would be \$237.7 million and \$249.2 million, respectively. The December 2002 official estimate shows a projected 4.8 percent growth in each year of the next biennium.

The legislation provides that if projected revenues are less than five percent, the Governor may fund the entire required biennial capital appropriation from alternative funding mechanisms, including but not limited to bonded indebtedness. Since the projected revenue growth is less than five percent, the Governor, in accordance with the Code, has the option of funding all of the proposed capital projects for the 2004-2006 biennium using alternative funding mechanisms.

As is evident from Table 3 above, by funding the Capital Implementation Plan and the projects authorized by the General Assembly in 2003, the requirements for a two percent per year capital plan have been exceeded. Based on the draw schedule in Appendix A, Table 3 shows that already authorized debt issuances scheduled for FY 2005 and FY 2006 are \$455.6 million and \$376.1 million respectively. In FY 2007, the planned debt issuance is \$4.6 million below the two percent floor. Only starting in FY 2008 does planned debt issuance significantly dip below the two percent floor. Completing the projects funded by the 2002 and 2003 sessions of the General Assembly will be the Governor's highest priority.

In addition to completing previously funded projects, the Governor has established working priorities for new projects. First priority will be given to any supplemental funding required to complete projects previously approved by the General Assembly. This will include funds for equipment as well as cost increases. Next priority will be for projects that are needed to address code compliance or essential infrastructure repairs necessary for the continued use of a building. From there, priority should be given to public safety issues and projects.

The 2004-2010 capital budget process started on May 23, 2003 with state agencies and institutions of higher education identifying their priority capital outlay needs for the next six years and submitting their capital budget requests. These requests totaled almost \$7.2 billion for the three biennia and are summarized in Table 5 below.

Table 5
Summary of Requested Capital Projects for 2004-2010
\$ in thousands

<i>Type of Project</i>	<i>Number of Projects</i>	<i>Total Dollars</i>
Infrastructure repairs	189	\$851,655
Code compliance and ADA access	72	233,865
Improvements	342	1,372,500
Acquisition and construction	630	4,488,137
Equipment	80	167,950
Planning	18	28,312
Other	12	27,951
Total	1,343	\$7,170,370

Figures may not add due to rounding. Source: Department of Planning and Budget

DPB and the Governor’s Cabinet Secretaries reviewed the programmatic need for these requested projects to determine which were the most critical. In June 2003, agencies were asked to prepare detailed narrative and conceptual information on the projects determined to be most critical.

During July 2003, the agencies submitted the detailed project information, which consisted of additional scope and cost information and a detailed narrative justification for the project. The detailed information also identified any potential energy and technology impact. The narrative justification provided a carefully reasoned explanation of the need for the project and demonstrated how the project relates to the agency’s strategic and master plans. The scope and cost information was used by the Department of General Services (DGS) to assess the reasonableness of the project and its estimated cost.

Based on the Governor’s priorities, DPB and the Governor’s Cabinet Secretaries categorized the capital requests based on the following criteria: supplemental funding needed for equipment or other reasons, code compliance, broken infrastructure, public safety requirements, and time sensitive projects. These projects, which are summarized in Table 6 and Table 7 below and shown in Appendix B, are currently under further review. The fact that a project is on these lists does not mean there is a commitment to fund it at this time. The projects in Table 7 and Appendix B are shown in specific biennia for working purposes only. Based on the Governor’s policy goals and the availability of funds, the highest priority projects on this list will be included in the Executive Budget for the 2004-2006 biennium and the remaining projects will be adjusted as necessary.

Table 6
Summary of High-Priority Projects for 2004-2010
 \$ in thousands

<i>Type of Project</i>	<i>Number of Projects</i>	<i>Total Dollars</i>
Supplements to previously funded projects	13	\$27,847
Equipment for previously funded projects	83	151,391
Code compliance issues	11	18,463
Infrastructure repairs	36	135,997
Public safety requirements	7	220,453
Other capital projects	38	504,044
Nongeneral fund projects	102	811,477
Capital leases	6	62,911
Total	296	\$1,932,583

Figures may not add due to rounding. Source: Department of Planning and Budget

Table 7
Funding of High Priority-Projects for 2004-2010
 \$ in thousands

<i>Totals for</i>	<i>Nongeneral Fund</i>	<i>Revenue Bonds</i>	<i>GF/TaxSupported Debt</i>	<i>Recommended</i>
2004-2006	\$365,959	\$379,859	\$511,240	\$1,257,058
2006-2008	46,522	63,778	132,551	242,851
2008-2010	139,499	20,000	273,175	432,674
Total	\$551,980	\$463,637	\$916,966	\$1,932,583

Figures may not add due to rounding. Source: Department of Planning and Budget

Appendix A

**Yearly Draw Schedules for All Projects Approved
by the 2002 & 2003 Sessions of the General Assembly,
by Secretarial Area, Agency, and Agency Priority**

Appendix B

High-Priority Projects for 2004-2010