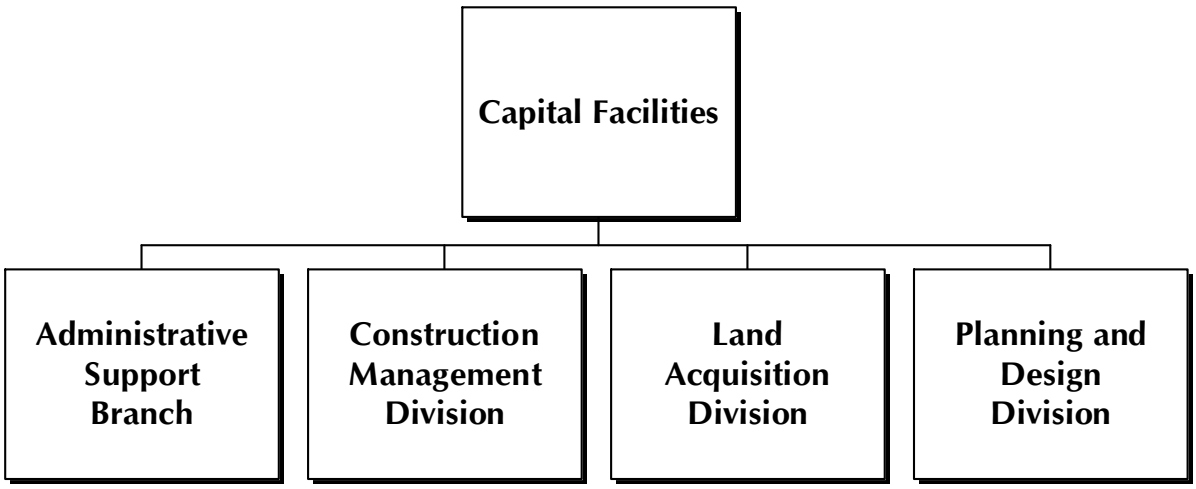
Capital Facilities



Mission

To provide Fairfax County with quality, cost effective buildings and infrastructures in a safe and timely manner.

Focus

Capital Facilities' purpose is to complete the construction of publicly funded projects. Specifically, Capital Facilities provides the design, land acquisition and construction services for governmental facility projects such as libraries, courts, police and fire stations. The agency supports user agencies during the site selection and feasibility study phases and coordinates with the user agencies throughout the project implementation process. The agency is also responsible for the implementation of infrastructure improvement projects, such as roads, sanitary sewer extensions, sanitary pump stations, pollution control plant expansions/upgrades, walkways, bus stop shelter installation and the land acquisition and construction management of stormwater drainage projects. Through the completion of these projects, Capital Facilities contributes to the health, safety and welfare of all who reside in, work in and visit Fairfax County.

One of the strengths of Capital Facilities is its technical and operational capabilities and, as such, its operations have continued to be recognized for technical excellence. To improve upon this excellence, Capital Facilities has focused many of its efforts over the last five years on improving three major aspects of the agency, including work culture, environmental stewardship, and relationships with the community.

Capital Facilities has several initiatives, including, but not limited to, the improvement of project delivery and customer service. As part of this initiative, the agency continues to refine the agency performance measures to establish meaningful tools and help measure existing performance and ultimately improve customer service.

Funding for capital construction projects administered by Capital Facilities is provided from bond funds, the General Fund and grant funds, and is affected by the economic climate and the availability of funds from the Commonwealth of Virginia and the federal government.

Budget and Staff Resources

Agency Summary				
Category	FY 2009 Actual	FY 2010 Adopted Budget Plan	FY 2010 Revised Budget Plan	FY 2011 Advertised Budget Plan
Authorized Positions/Staff Years				
Regular	128/ 128	123/ 123	123/ 123	123/ 123
Expenditures:				
Personnel Services	$9,299,606	$8,862,576	$8,862,576	$8,862,576
Operating Expenses	7,909,506	8,233,067	8,233,067	8,200,067
Subtotal	**$17,209,112**	**$17,095,643**	**$17,095,643**	**$17,062,643**
Less:				
Recovered Costs	($5,776,781)	($6,349,278)	($6,349,278)	($6,349,278)
Total Expenditures	**$11,432,331**	**$10,746,365**	**$10,746,365**	**$10,713,365**

FY 2011 Funding Adjustments

The following funding adjustments from the FY 2010 Adopted Budget Plan are necessary to support the FY 2011 program:

- **Employee Compensation** **$0**
  It should be noted that no funding is included for pay for performance or market rate adjustments in FY 2011.

- **Department of Vehicle Services** **($22,000)**
  A decrease of $22,000 in Operating Expenses is associated with anticipated requirements for fuel, vehicle replacement and maintenance charges.

- **PC Replacement Adjustment** **($11,000)**
  A decrease of $11,000 in Operating Expenses is associated with adjustments necessary to reflect the agency's PC Replacement inventory in FY 2011.

- **Reductions** **$0**
  It should be noted that no reductions to balance the FY 2011 budget are included in this agency, based on this agency's need to support required utility expenditures associated with streetlight operations and the fact that most of the remaining expenditures support project work and are charged to capital project funds.

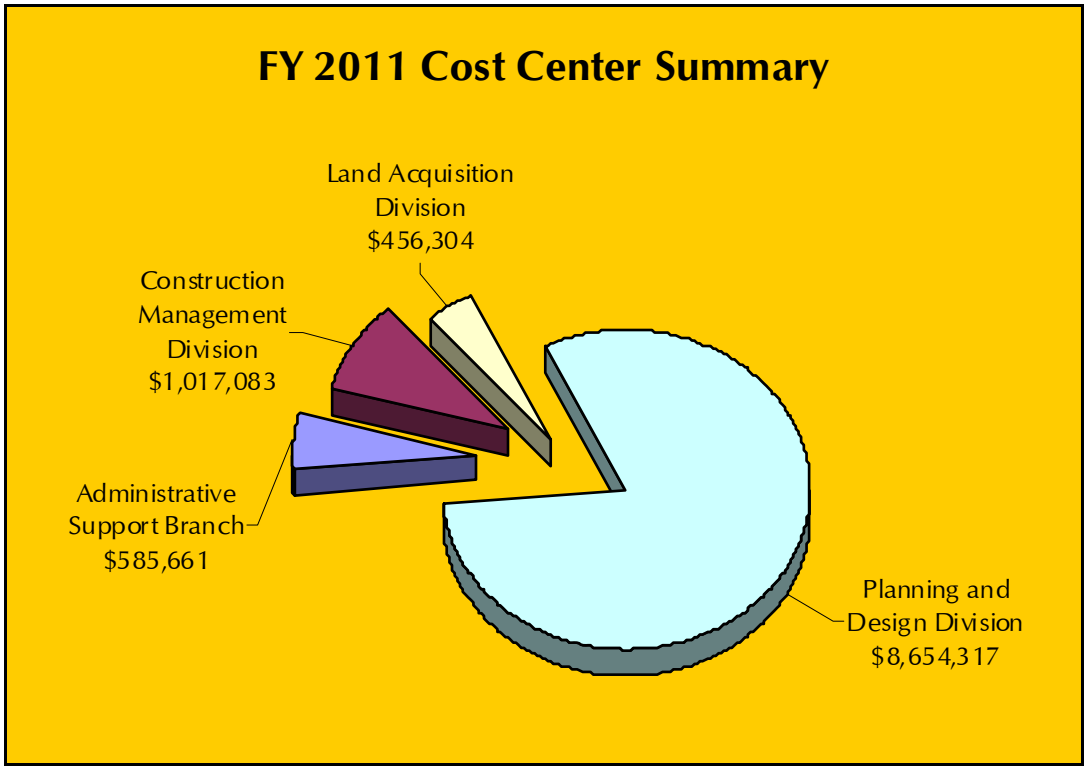
Changes to FY 2010 Adopted Budget Plan

The following funding adjustments reflect all approved changes in the FY 2010 Revised Budget Plan since passage of the FY 2010 Adopted Budget Plan. Included are all adjustments made as part of the FY 2009 Carryover Review, and all other approved changes through December 31, 2009:

- There have been no revisions to this agency since the approval of the FY 2010 Adopted Budget Plan.

Cost Centers

Capital Facilities has four cost centers including Administrative Support, Construction Management, Land Acquisition and Planning and Design.



Administrative Support Branch

Funding Summary				
Category	FY 2009 Actual	FY 2010 Adopted Budget Plan	FY 2010 Revised Budget Plan	FY 2011 Advertised Budget Plan
Authorized Positions/Staff Years				
Regular	8/ 8	8/ 8	8/ 8	8/ 8
Total Expenditures	**$826,095**	**$585,661**	**$585,661**	**$585,661**

Position Summary					
1	Management Analyst IV	1	Programmer Analyst III	1	Administrative Assistant IV
2	Financial Specialists I	2	Network/Telecom Analysts II	1	Financial Specialist II
TOTAL POSITIONS					
8 Positions / 8.0 Staff Years					

Goal

To provide personnel, procurement, information technology, budget and financial support to the cost centers within Capital Facilities to ensure they have adequate resources available in order to accomplish their goals.

Planning and Design Division

Funding Summary				
Category	FY 2009 Actual	FY 2010 Adopted Budget Plan	FY 2010 Revised Budget Plan	FY 2011 Advertised Budget Plan
Authorized Positions/Staff Years				
Regular	34/ 34	31/ 31	31/ 31	31/ 31
Total Expenditures	**$8,676,056**	**$8,665,367**	**$8,665,367**	**$8,654,317**

Position Summary					
1	Director	12	Senior Engineers III	2	Engineering Technicians III
2	Project Coordinators	4	Engineers IV	1	Administrative Assistant IV
1	Engineer VI	4	Engineers III	1	Administrative Assistant III
2	Engineers V			1	Administrative Assistant II
TOTAL POSITIONS					
31 Positions/31.0 Staff Years					

Goal

To provide essential professional engineering design and project management services in support of Capital Improvement Program (CIP) implementation including: sanitary sewers, pump stations, commuter parking lots, building projects including fire stations, libraries, police stations, parking structures, and other County facilities as well as commuter rail facilities, neighborhood improvement projects, commercial revitalization projects, roads, trails, sidewalks, and developer defaults and streetlights.

Construction Management Division

Funding Summary				
Category	FY 2009 Actual	FY 2010 Adopted Budget Plan	FY 2010 Revised Budget Plan	FY 2011 Advertised Budget Plan
Authorized Positions/Staff Years				
Regular	72/ 72	70/ 70	70/ 70	70/ 70
Total Expenditures	**$1,519,040**	**$1,039,033**	**$1,039,033**	**$1,017,083**

Position Summary					
1	Director	7	Senior Engineers III	1	Chief of Survey Parties
1	Management Analyst II	2	Engineering Technicians III	3	Senior Survey Analysts/Coordinators
2	Engineers VI	3	Engineering Technicians II	5	Survey Party Chiefs/Analysts
1	Engineer V	2	Supervising Engineering Inspectors	6	Survey Instrument Technicians
6	Engineers IV	7	Senior Engineering Inspectors	1	Administrative Assistant III
16	Engineers III	1	County Surveyor	2	Administrative Assistants II
2	Assistant Project Managers	1	Deputy County Surveyor		
TOTAL POSITIONS					
70 Positions/70.0 Staff Years					

Goal

To provide contract administration, inspections and land surveys for all assigned County capital construction projects, which will enhance governmental services to County residents (excluding School Board Construction).

Land Acquisition Division

Funding Summary				
Category	FY 2009 Actual	FY 2010 Adopted Budget Plan	FY 2010 Revised Budget Plan	FY 2011 Advertised Budget Plan
Authorized Positions/Staff Years				
Regular	14/ 14	14/ 14	14/ 14	14/ 14
Total Expenditures	**$411,140**	**$456,304**	**$456,304**	**$456,304**

Position Summary					
1	Director	1	Engineering Technician II	6	Right-of-Way Agents
2	Engineering Technicians III	2	Senior Right-of-Way Agents	1	Administrative Assistant III
1	Project Coordinator				
TOTAL POSITIONS					
14 Positions / 14.0 Staff Years					

Goal

To acquire easements, dedications, rights-of-way and other fee purchases requested by Fairfax County agencies in order to keep capital construction projects on schedule.

Key Performance Measures

Objectives

- To monitor design and construction activities in order to maintain construction cost growth at no more than 5.0 percent.

- To perform Value Engineering (VE) studies in accordance with the adopted Board of Supervisors policy to identify cost savings while meeting required performance, with Return on Investment (ROI) of at least 15:1.

Indicator	Prior Year Actuals			Current Estimate	Future Estimate
	FY 2007 Actual	FY 2008 Actual	FY 2009 Estimate/Actual	FY 2010	FY 2011
Output:					
Projects completed	120	113	87 / 116	91	107
Projects completed with total cost over $10,000,000	0	4	1 / 4	1	2
Projects completed with total cost over $100,000 and under $10,000,000	47	48	33 / 65	35	45
Projects completed with total cost under $100,000	73	61	53 / 47	55	60
Projects completed on time	91	79	65 / 74	64	78
Projects completed within budget	102	99	74 / 110	75	98
VE studies completed/accepted cost savings	3/$1,570,379	5/$3,856,304	2/$1,400,000 / 5/1,839,702	4/$2,500,000	4/2,500,000

Indicator	Prior Year Actuals FY 2007 Actual	FY 2008 Actual	FY 2009 Estimate/Actual	Current Estimate FY 2010	Future Estimate FY 2011
Efficiency:					
Design costs as a percent of construction costs for projects with total cost over $100,000 and under $10,000,000	10.7%	21.7%	18.0% / 20.7%	17.3%	20.0%
Design costs as a percent of construction costs for projects with total cost under $100,000	20.4%	30.5%	31.0% / 31.1%	31.0%	25.0%
Construction contract administration costs as a percent of construction costs for projects with total cost over $100,000 and under $10,000,000	10.7%	12.1%	10.0% / 5.6%	10.0%	10.0%
Construction contract administration costs as a percent of construction costs for projects with total cost under $100,000	16.5%	13.5%	16.0% / 15.9%	16.0%	15.0%
Staff cost per land acquisition instrument acquired for projects with total cost over $100,000 and under $10,000,000	$2,135	$3,082	$2,256 / $2,008	$2,407	$2,500
Staff cost per land acquisition instrument acquired for projects with total cost under $100,000	$2,988	$3,586	$2,988 / $2,875	$3,127	$3,000
Cost per VE study	$45,638	$43,773	$47,000 / $36,831	$42,081	$42,081
Outcome:					
Contract cost growth (1)	5.4%	4.9%	5.0% / 4.8%	5.0%	5.0%
Return on investment ratio for VE studies	35:1	18:1	15:1 / 10:1	15:1	15:1

(1) Cost Growth = (Final Construction Contract Cost – Initial Construction Contract Cost) / Initial Construction Contract Cost) * 100

Performance Measurement Results

Value Engineering (VE) studies involve a thorough, intensive review of project plans by a group of individuals with engineering expertise in various disciplines. The review identifies the functions of products, establishes the worth of those functions, and generates alternatives through the use of creative thinking. VE studies are performed at the preliminary design stage where the design is 35 percent complete and studies are conducted by using a combination of in-house staff and consultants depending on the type and size of the project. After VE study recommendations are evaluated by project managers and impacted agencies, they are reviewed by the Director of the Department of Public Works and Environmental Services (DPWES), who ultimately decides which recommendations will be accepted. The amount of VE cost savings and return on investment ratios vary from one fiscal year to another and are somewhat dependent on both the type and size of projects reviewed. In FY 2009, five VE studies were completed on projects with a construction estimate totaling $61,135,000, identifying $4,907,772 in savings with $1,839,702 in accepted savings.

Design costs include in-house design costs and consultant design costs, as well as the cost of survey work during design. Construction contract administration costs include the cost for in-house staff to administer construction contracts, as well as the cost of survey work during construction. The cost of construction includes the costs for contracted construction, in-house construction, and utility connections/relocations. The efficiency measure for staff costs per land acquisition instrument acquired is calculated by dividing land acquisition staff costs by the number of instruments, such as easements, acquired.

The efficiency measures are further broken out by the size of the completed projects. It is substantially more efficient to design and administer construction for larger projects and the staff cost per instrument is also less for larger projects. The three category breakout clearly shows the economy of scale achieved with larger projects.

During FY 2009, 116 projects were completed and 47 of these projects cost less than $100,000. Typically, smaller projects result in increased design and administrative costs as a percentage of total project costs as compared to larger, more expensive projects, which tend to be more cost-efficient. However, there were four projects with total costs over $10 million completed in FY 2009 versus none in FY 2007. The design and contract administration costs as a percent of costs efficiency indicator remained consistent between FY 2008 to FY 2009. In addition, design cost as a percent of construction costs for projects with total cost under $100,000 was 31.1 percent in FY 2009, which was equal to the FY 2009 estimate of 31.0 percent.

The agency continues to maintain cost growth of less than 5.0 percent. The use of abbreviated designs has been expanded in order to improve project delivery times. Using abbreviated designs may result in increases in cost growth, but current cost growth rates remain below the 5.0 percent benchmark.

In FY 2009, the agency completed more projects than anticipated due to the number of smaller projects. The expanded use of abbreviated designs helped to improve the number of smaller completed projects. Past process re-designs efforts and other initiatives within Capital Facilities helped to increase the number of completed projects overall.