IT Plan

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CHANGES TO THE IT PLAN FROM THE PRIOR YEAR

The FY 2009 to FY 2014 Information Technology Capital Improvement Plan (IT/CIP) total of $24.8 million continues the Citys Information Technology agenda. The IT/CIP total of $24.8 million in City funding compares with $22.8 million in City funding in the FY 2008 to FY 2013 Information Technology Capital Improvement Plan. This represents an increase of $2.0 million. This is primarily attributable to the inclusion of $4.0 million required to fund the replacement of the City's human resources, payroll and financial systems in FY 2010 and FY 2011, and the inclusion of $1.95 million in FY 2012, FY 2013 and FY 2014 to replace the City's Lotus Notes email system.

In years past, funding requests for projects were usually moved out a year or two if they were not funded in the current fiscal year, thus keeping the 6-year total high. This year's IT/CIP represents a break from this method, as projects that were not funded in FY 2009 were generally not funded in the "out" years either due to the overall City-wide CIP financial restrictions. This change has caused the 6-year total to level off, despite the funding of several important initiatives mentioned above. A listing of these projects is included below.

The City has been able to accommodate several new initiatives this year, however, by reprogramming prior year unallocated funds from several projects that will not need these funds in the near-term. These are described in detail below.

The City proposed funding for the FY 2009 to FY 2014 IT Plan is as follows:

	City Share	Outside Revenues	Total
FY 2009	$1,929,100	$1,207,125	$3,136,225
FY 2010	$6,786,875	$795,000	$7,581,875
FY 2011	$4,693,963	$795,000	$5,488,963
FY 2012	$2,304,161	$795,000	$3,099,161
FY 2013	$2,503,369	$795,000	$3,298,369
FY 2014	$1,427,612	$795,000	$2,222,612
Total	$19,645,080	$5,182,125	$24,827,205

The proposed FY 2009 to FY 2014 IT Plan includes projects that will continue to strengthen the City's IT infrastructure. On-going maintenance and improvements to the City's local area networks (LANs) and wide area network (WAN) ensure the continued integrity and availability of these essential components of the City's infrastructure.

Continued funding for system development projects allows the City to take advantage of emerging technologies, capitalize on investments already made, ensure compliance with federal and state mandates, and provide for improvements to existing processes and systems to increase efficiencies.

New Projects for FY 2009 - FY 2014

- *Customer Relationship Management System* – Existing funds in the amount of $300,000 from the city's e-government and website enhancements projects were reallocated in FY 2008 to fund this important system that will improve the City's current process of managing, tracking and completing citizen requests for information and services.
- *Criminal Justice Systems Data Storage* - A funding request for $100,000 in FY 2009 allows for the purchase and installation of a tape library data storage system for the Circuit Court Judges Chambers. This system will be used for separate data storage and backup of critical criminal justice and civil data information.
- *Replace Lotus Notes* - This project provides funds ($1.95 million) to migrate the City's current e-mail services, IBM's Lotus Notes, to Microsoft Exchange. An amount of $650,000 has been budgeted for this purpose in each of three fiscal years, beginning in FY 2011.
- *Enterprise Maintenance Management System* - Funds in the amount of $100,000 are included in FY 2009 to purchase additional modules for the new Computerized Maintenance Management System to be implemented in 2008, and to extend the use of this project into other departments.
- *General Services Energy Management System* – $50,000 in prior year monies were reallocated in FY 2008 from the HR/Payroll project to fund the City's acquisition of an energy management system to simplify the tracking and analysis of over 350 City energy bills. This system will pay for itself over time due to energy savings it will identify.
- *Telephone Emergency Notification System* - $100,000 in prior year monies were reallocated in FY 2008 from the HR/Payroll project to fund the replacement of the City's emergency notification system, used for targeted phone notifications during emergencies.

Existing Project Highlights

- *Library Automated Catalog Upgrade* – FY 2009 funds for this project have been increased by $35,000 to $170,000 to reflect a more accurate and recent estimate of anticipated costs.

FY 2009 funding requests (or a portion of the request) for some projects were deferred to FY 2010 or later to reflect a more realistic schedule of when the funds will actually be needed for the project. These include:

- *Payroll/Personnel Systems* — Funds in the amount of $2,000,000 are included in FY 2010 and another $1,000,000 in FY 2011 to provide some means to proceed with the acquisition of a new system that will replace the City's legacy system. The eventual cost of this system replacement is not known until specifications are completed, proposals received, and a contract negotiated.
- *Financial Accounting and Asset Management System* — Funding in the amount of $560,000 scheduled for FY 2009 has been increased to $1,000,000 and moved to FY 2011 to provide the means to replace the City's legacy financial applications, including Accounting, Purchasing and OMB systems. It is anticipated that a consolidated procurement will occur for both the payroll and financial systems.
- *Purchasing System Replacement* - Funding in the amount of $600,000 in FY 2009 has been eliminated as the Purchasing system replacement will be a part of the consolidated financial system procurement.

- *OMB System Replacement* – Funding in the amount of $75,000 in FY 2009 has been eliminated as the OMB System replacement will be a part of the consolidated financial system procurement.
- *Document Management and Imaging Infrastructure* – This project has been funded in the amount of $337,000 in FY 2009, a reduction of $38,000. The funds will primarily be used to complete scanning projects in departments that already have imaging services in place. This should directly impact the amount of physical storage currently required to house these documents.
- *AVL for Non-Public Safety* – The original FY 2009 funding request of $200,000 has been eliminated to provide funds for higher priority projects.
- *Sheriff Mobile Video System* – This project has been funded with prior year unallocated funds from the HR/Payroll project. No additional funds are needed at this time.

Some projects were able to forgo their original FY 2009 request, due to the availability of prior year funds. These projects include:

- *Web Site Enhancements* — Funding in the amount of $125,000 in FY 2009 has been eliminated.
- *Electronic Government* — Funding in the amount of $200,000 in FY 2009 has been eliminated.
- *Intranet* — Funding in the amount of $10,000 in FY 2009 has been eliminated.
- *Individual Building LAN Development* — Funding in the amount of $50,000 in FY 2009 has been eliminated.
- *Upgrade Network Operating System* — Funding in the amount of $25,000 in FY 2009 has been eliminated.
- *Wireless Information Utility* — Funding in the amount of $20,000 in FY 2009 has been eliminated.
- *Desktop Productivity*- Funding in the amount of $50,000 in FY 2009 has been eliminated.

Projects that have been Closed

- *Remote Time and Attendance* - This project has been completed.
- *Highway Video Program* - This project has been cancelled due to the elimination of required federal funding.

Project Requests Which Were Not Funded in FY 2009 - FY 2014

The following project requests for FY 2009 were classified as 'Tier III' funding priorities and therefore not funded. These projects will be candidates for restoring funding should more money be added to the IT/CIP.

- *Document Management and Imaging Infrastructure* - An amount of $337,000 has been funded in this project in FY 2009 to complete the imaging of land development documents. $174,000 requested to expand imaging initiatives to the Purchasing Office and to the Office of Historic Alexandria was not funded.
- *Citizen Finance Portal* – The request of $150,000 to create a 'one-stop shop' payment center for on-line citizen web services was not considered to be a time-sensitive need at this time.

- *Sheriff Mobile Data Browser* – A request of $70,500 to purchase additional mobile data browsers for Sheriff's vehicles was not considered to be a time-sensitive need at this time.
- *Fire Department Radios* – The request of $40,000 to fund additional radios for Fire staff was considered to be non-essential at this time.
- *TES DOT Paratransit Module* – This request of $32,000 was considered to be non-mission critical at this time.

The availability of funds in FY 2010 in the IT/CIP is limited due to the inclusion of several high-priority, critical funding requests in the IT Plan, as well as overall City-wide CIP financial restrictions. These include $3.6 million for public safety radios and $2 million in funding for the HR/Payroll system replacement. As a result, in FY 2010, neither Tier II nor Tier III prioritized project requests were funded. These projects, described below, will also be candidates for restoring funding should more money be added to the IT/CIP.

FY 2010 – TIER II:

- *Electronic Government* – $200,000
- *Document Management and Imaging Infrastructure* – $185,000
- *GIS Development* - $180,000
- *Police CAD/RMS* - $328,000

FY 2011 – TIER III:

- *Document Management and Imaging Infrastructure* - $200,000
- *AVL for Non-Public Safety*- $100,000
- *Intranet* - $10,000
- *Wireless Initiatives* - $20,000

Projects Organization

Information Technology projects are organized into two broad categories:

Systems Development Projects, project 015-015, which is sub-divided as follows:

- Public Access Development
- Document Management Systems
- Financial Systems
- Geographic Information Systems
- Public Safety Systems
- Recreation Systems

- Other Systems

Infrastructure Projects, project 015-014, which is sub-divided as follows:

- Local Area Network (LAN) Infrastructure
- Wide Area Network (WAN) Infrastructure
- Enterprise Services

A summary of these projects and costs is shown on page 31, with operating budget impacts on page 35.

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PROJECT PRIORITIES IN THE IT PLAN

Each project in the IT Plan has been assigned a rating to reflect its overall priority to assist with decision-making and resource allocation. Each project has been assigned one of three ratings - essential, very desirable, or desirable - or a designation that the project is currently unrated.

Generally, the highest rating of “essential” has been applied to projects that are either:

- Required to address an urgent health or safety hazard;
- needed to meet legal requirements or State or federal mandates;
- essential to the success of other projects or a larger program in progress;
- cannot be deferred without the loss of substantial non-City funding; or
- required for economic growth and development.

Other projects have been rated as “very desirable” or “desirable” depending upon the extent and degree of benefit provided. Generally, projects that maintain or improve a current system’s functionality are assigned priority over new projects that provide new system capabilities.

In addition, each project in the Information Technology Plan is linked with the City’s Strategic Plan element that most closely represents what the project is supporting.

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SUMMARY TOTALS

The following table summarizes proposed spending on Information Technology for FY 2009 to FY 2014. Detailed descriptions follow the summary.

Information Technology
Capital Improvement Plan For FY 2009 to FY 2014
19-Jun-08

	CIP Project ID	Project Title	Net Totals	Net Balances Prior Year	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	TOTAL General Fund Costs - All Information Technology CIP Projects				1,929,100	6,786,875	4,693,963	2,304,161	2,503,369	1,427,612
	Less Comcast Revenues				*-1,207,125*	*-795,000*	*-795,000*	*-795,000*	*-795,000*	*-795,000*
1	*TOTAL Net Costs - All Information Technology CIP Projects*		*29,353,315*	4,526,110	3,136,225	7,581,875	5,488,963	3,099,161	3,298,369	2,222,612
2										
3	*015-014 Systems Development*		*16,962,065*	3,024,110	1,504,100	6,129,750	3,418,963	974,161	1,168,369	742,612
4										
5	*015-014-1*	*Public Access Development*	*2,417,840*	*992,840*	*0*	*125,000*	*325,000*	*325,000*	*325,000*	*325,000*
6	015-014-1-1	Web Site Enhancements		417,340	0	125,000	125,000	125,000	125,000	125,000
7	015-014-1-2	Electronic Government		275,500	0	0	200,000	200,000	200,000	200,000
8	015-014-1-3	NEW Customer Relationship Management System		300,000	0	0	0	0	0	0
9	015-014-1-4	Public Access to Land Records		0	0	0	0	0	0	0
10										
11	*015-014-2*	*Document Management Systems*	*1,208,500*	*41,500*	*362,000*	*25,000*	*385,000*	*135,000*	*135,000*	*125,000*
12	015-014-2-1	MHMRSA Medical Records Management		41,500	25,000	25,000	0	0	0	0
13	015-014-2-2	Document Management and Imaging Infrastructure		0	337,000	0	385,000	135,000	135,000	125,000
14										
15	*015-014-3*	*Financial and Human Resource Systems*	*4,907,780*	*307,780*	*300,000*	*2,100,000*	*2,200,000*	*0*	*0*	*0*
16	015-014-3-1	Real Estate Assessment System		50,000	0	100,000	0	0	0	0
17	015-014-3-2	OMB Systems		0	0	0	0	0	0	0
18	015-014-3-3	Payroll/Personnel System		100,000	0	2,000,000	1,000,000	0	0	0
19	015-014-3-4	Financial Accounting and Asset Management System		107,800	0	0	1,000,000	0	0	0
20	015-014-3-5	Delinquent Revenue Collection Mgt. System		0	0	0	0	0	0	0
21	015-014-3-6	Business Tax System		49,980	200,000	0	0	0	0	0
22	015-014-3-7	NEW Real Estate Accounts Receivable System		0	100,000	0	0	0	0	0
23	015-014-3-8	Purchasing System Replacement		0	0	0	0	0	0	0
24	015-014-3-9	Personal Property Tax System		0	0	0	200,000	0	0	0
25										
26	*015-014-4*	*Geographic Information Systems*	*732,845*	*272,845*	*90,000*	*0*	*190,000*	*90,000*	*90,000*	*0*
27	015-014-4-1	GIS Development		187,600	90,000	0	90,000	90,000	90,000	0
28	015-014-4-3	AVL for Non-Public Safety		85,245	0	0	100,000	0	0	0
29										
30	*015-014-5*	*Public Safety Systems*	*6,509,500*	*773,545*	*357,100*	*3,854,750*	*283,963*	*389,161*	*583,369*	*267,612*
31	015-014-5-1	Public Safety Radio System Replacement		50,000	50,000	3,650,000	50,000	50,000	50,000	0
32	015-014-5-2	AJIS Enhancements		126,000	185,000	194,250	203,963	214,161	224,869	236,112
33	015-014-5-3	Police CAD/RMS Project		47,954	58,600	0	30,000	58,500	308,500	31,500
34	015-014-5-4	Fire Records Management Project		199,591	63,500	10,500	0	66,500	0	0
35	015-014-5-5	Interoperability Strategies for Public Safety		0	0	0	0	0	0	0
36	015-014-5-6	EMS Records Management System		40,000	0	0	0	0	0	0
37	015-014-5-7	Sheriff Accreditation Training System		75,000	0	0	0	0	0	0
38	015-014-5-8	Sheriff Network Connectivity Conversion		48,000	0	0	0	0	0	0
39	015-014-5-9	Sheriff Laptops		15,000	0	0	0	0	0	0
40	015-014-5-10	Sheriff Mobile Video System		72,000	0	0	0	0	0	0
41	015-014-5-11	NEW Telephone Emergency System Upgrade		100,000	0	0	0	0	0	0
42										

Information Technology
Capital Improvement Plan For FY 2009 to FY 2014
19-Jun-08

	CIP Project ID	Project Title	Net Totals	Net Balances Prior Year	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
43	*015-014-6*	*Recreation Systems*	*75,000*	*75,000*	*0*	*0*	*0*	*0*	*0*	*0*
44	015-014-6-1	Recreation Systems		75,000	0	0	0	0	0	0
45										
46	*015-014-7*	*Other Systems*	*1,110,600*	*560,600*	*395,000*	*25,000*	*35,000*	*35,000*	*35,000*	*25,000*
47	015-014-7-1	Permit Processing		330,600	0	0	0	0	0	0
48	015-014-7-2	Intranet		105,000	0	0	10,000	10,000	10,000	0
49	015-014-7-3	TES Infrastructure Management and Maintenance System		0	100,000	0	0	0	0	0
50	015-014-7-4	MHMRSA HIPAA Data Security Compliance		25,000	25,000	25,000	25,000	25,000	25,000	25,000
51	015-014-7-5	IT Project Management		50,000	0	0	0	0	0	0
52	015-014-7-6	DHS Payment System Replacement		0	0	0	0	0	0	0
53	015-014-7-7	Library Automated Catalog Upgrade		0	170,000	0	0	0	0	0
54	015-014-7-8	NEW General Services Energy Management System		50,000	0	0	0	0	0	0
55	015-014-7-9	NEW Enterprise Maintenance Management System		0	100,000	0	0	0	0	0
56										
57	*015-015*	*Infrastructure Projects*	*12,391,250*	*1,502,000*	*1,632,125*	*1,452,125*	*2,070,000*	*2,125,000*	*2,130,000*	*1,480,000*
58										
59	*015-015-1*	*Local Area Network (LAN) Services*	*6,074,250*	*310,000*	*832,125*	*657,125*	*1,270,000*	*1,215,000*	*1,220,000*	*570,000*
60	015-015-1-1	LAN Backbone Capacity		75,000	50,000	75,000	75,000	75,000	75,000	75,000
61	015-015-1-2	Individual Building LAN Development		50,000	0	25,000	25,000	25,000	25,000	25,000
62	015-015-1-3	Upgrade Network Operating System		25,000	0	15,000	15,000	15,000	20,000	20,000
63	015-015-1-4	Upgrade Work Station Operating Systems		160,000	200,000	50,000	50,000	50,000	50,000	50,000
64	015-015-1-5	Network Infrastructure Hardware Upgrades/ Replacement		0	482,125	492,125	455,000	400,000	400,000	400,000
65	015-015-1-6	NEW Criminal Justice Systems Data Storage		0	100,000	0	0	0	0	0
66	015-015-1-7	NEW Replace Lotus Notes		0	0	0	650,000	650,000	650,000	0
67										
68	*015-015-2*	*Wide Area Network (WAN) Services*	*4,762,000*	*1,022,000*	*625,000*	*570,000*	*625,000*	*640,000*	*640,000*	*640,000*
69	015-015-2-1	Institutional Network Development		0	375,000	375,000	375,000	450,000	450,000	450,000
70	015-015-2-2	Telephony Integration		621,000	0	0	75,000	75,000	75,000	75,000
71	015-015-2-3	Security		115,000	200,000	140,000	110,000	50,000	50,000	50,000
72	015-015-2-4	Application Deployment Management		28,000	50,000	25,000	25,000	25,000	25,000	25,000
73	015-015-2-5	Database Infrastructure		258,000	0	30,000	40,000	40,000	40,000	40,000
74										
75	*015-015-3*	*Enterprise Services*	*1,555,000*	*170,000*	*175,000*	*225,000*	*175,000*	*270,000*	*270,000*	*270,000*
76	015-015-3-1	E-mail Services		0	175,000	175,000	105,000	200,000	200,000	200,000
77	015-015-3-2	Wireless Initiatives (Information Utility)		120,000	0	0	20,000	20,000	20,000	20,000
78	015-015-3-3	Desktop Productivity Environment		50,000	0	50,000	50,000	50,000	50,000	50,000

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OPERATING BUDGET IMPACTS

The following table summarizes the estimated impacts of the costs of operating current IT systems as well as the operating costs of implementation of relevant projects included in the FY 2009 - FY 2014 Information Technology Plan of the City's operating budget.

Information Technology
Capital Improvement Plan For FY 2009 to FY 2014 - Estimated Operating Impacts
19-Jun-08

	CIP Project ID	Project Title	Six Year Totals	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
	(1)	(2)	(3)	(5)	(6)	(7)	(8)	(9)	(10)
1	*TOTAL Operating Costs - All Information Technology CIP Projects*		*22,781,831*	*3,044,172*	*3,331,430*	*3,743,589*	*3,951,892*	*4,090,528*	*4,620,220*
2									
3	*015-005 Systems Development*		*13,645,172*	*1,724,564*	*1,969,538*	*2,345,119*	*2,437,724*	*2,534,033*	*2,634,194*
4									
5	*015-014-1*	Public Access Development	905,534	136,520	141,981	147,660	153,566	159,709	166,097
6	015-014-1-1	Web Site Enhancements		67,600	70,304	73,116	76,041	79,082	82,246
7	015-014-1-2	Electronic Government		20,800	21,632	22,497	23,397	24,333	25,306
8	015-014-1-3	NEW Customer Relationship Management System		45,000	46,800	48,672	50,619	52,644	54,749
9	015-014-1-4	Public Access to Land Records		3,120	3,245	3,375	3,510	3,650	3,796
10									
11	*015-014-2*	Document Management Systems	478,582	72,152	75,038	78,040	81,161	84,408	87,784
12	015-014-2-1	MHMRSA Medical Records Management		22,152	23,038	23,960	24,918	25,915	26,951
13	015-014-2-2	Document Management and Imaging Infrastructure		50,000	52,000	54,080	56,243	58,493	60,833
14									
15	*015-014-3*	Financial Systems	4,124,568	432,420	450,341	765,154	794,561	825,143	856,949
16	015-014-3-1	Real Estate Assessment System		30,000	30,000	30,000	30,000	30,000	30,000
17	015-014-3-2	OMB Systems		18,720	19,469	20,248	21,057	21,900	22,776
18	015-014-3-3	Payroll/Personnel System		100,000	100,000	312,000	324,480	337,459	350,958
19	015-014-3-4	Financial Accounting and Asset Management System		140,000	151,424	157,481	163,780	170,331	177,145
20	015-014-3-5	Delinquent Revenue Collection Mgt. System		22,500	23,400	24,336	25,309	26,322	27,375
21	015-014-3-6	Business Tax System		31,200	32,448	33,746	35,096	36,500	37,960
22	015-014-3-7	NEW Real Estate Accounts Receivable System		15,000	15,600	16,224	16,873	17,548	18,250
23	015-014-3-8	Purchasing System Replacement		0	0	90,000	93,600	97,344	101,238
24	015-014-3-9	Personal Property Tax System		75,000	78,000	81,120	84,365	87,739	91,249
25									
26	*015-014-4*	Geographic Information Systems	949,844	0	175,367	182,382	189,677	197,264	205,155
27	015-014-4-1	GIS Development		139,776	145,367	151,182	157,229	163,518	170,059
28	015-014-4-3	AVL for Non-Public Safety		0	30,000	31,200	32,448	33,746	35,096
29									
30	*015-014-5*	Public Safety Systems	5,303,210	799,522	831,503	864,763	899,354	935,328	972,741
31	015-014-5-1	Public Safety Radio System Replacement		517,920	538,637	560,182	582,590	605,893	630,129
32	015-014-5-2	AJIS Enhancements		130,000	135,200	140,608	146,232	152,082	158,165
33	015-014-5-3	Police Computer Aided Dispatch (CAD)/RMS Project		39,000	40,560	42,182	43,870	45,624	47,449
34	015-014-5-4	Fire Records Management Project		39,000	40,560	42,182	43,870	45,624	47,449
35	015-014-5-5	Interoperability Strategies for Public Safety		0	0	0	0	0	0
36	015-014-5-6	EMS Records Management System		34,000	35,360	36,774	38,245	39,775	41,366
37	015-014-5-7	Sheriff Accreditation Training System		11,250	11,700	12,168	12,655	13,161	13,687
38	015-014-5-8	Sheriff Network Connectivity Conversion		-1,248	-1,298	-1,350	-1,404	-1,460	-1,518
39	015-014-5-9	Sheriff Laptops		2,600	2,704	2,812	2,925	3,042	3,163
40	015-014-5-10	Sheriff Mobile Video System		12,000	12,480	12,979	13,498	14,038	14,600
41	015-014-5-11	NEW Telephone Emergency System Upgrade		15,000	15,600	16,224	16,873	17,548	18,250
42									

Information Technology
Capital Improvement Plan For FY 2009 to FY 2014 - Estimated Operating Impacts
19-Jun-08

	CIP Project ID	Project Title	Six Year Totals	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
	(1)	(2)	(3)	(5)	(6)	(7)	(8)	(9)	(10)
43	*015-014-6*	Recreation Systems	41,390	6,240	6,490	6,749	7,019	7,300	7,592
44	015-014-6-1	Recreation Systems		6,240	6,490	6,749	7,019	7,300	7,592
45									
46	*015-014-7*	Other Systems	1,842,044	277,710	288,818	300,371	312,386	324,881	337,877
47	015-014-7-1	Permit Processing		166,400	173,056	179,978	187,177	194,664	202,451
48	015-014-7-2	Intranet		15,600	16,224	16,873	17,548	18,250	18,980
49	015-014-7-3	TES Infrastructure Management and Maintenance System		11,250	11,700	12,168	12,655	13,161	13,687
50	015-014-7-4	MHMRSA HIPAA Data Security Compliance		5,200	5,408	5,624	5,849	6,083	6,327
51	015-014-7-5	IT Project Management		4,500	4,680	4,867	5,062	5,264	5,475
52	015-014-7-6	DHS Payment System Replacement		31,200	32,448	33,746	35,096	36,500	37,960
53	015-014-7-7	Library Automated Catalog Upgrade		21,060	21,902	22,778	23,690	24,637	25,623
54	015-014-7-8	NEW General Services Energy Management System		7,500	7,800	8,112	8,436	8,774	9,125
55	015-014-7-9	NEW Enterprise Maintenance Management System		15,000	15,600	16,224	16,873	17,548	18,250
56									
57	*015-004 Infrastructure Projects*		9,136,659	*1,319,608*	*1,361,892*	*1,398,470*	*1,514,168*	*1,556,495*	*1,986,025*
58									
59	*015-015-1*	Local Area Network (LAN) Services	1,374,218	151,760	157,830	159,926	166,322	172,975	565,404
60	015-014-1-1	LAN Backbone Capacity		11,700	12,168	12,655	13,161	13,687	14,235
61	015-014-1-2	Individual Building LAN Development		7,800	8,112	4,218	4,387	4,562	4,745
62	015-014-1-3	Upgrade Network Operating System		5,200	5,408	5,624	5,849	6,083	6,327
63	015-014-1-4	Upgrade Work Station Operating Systems		7,800	8,112	8,436	8,774	9,125	395,000
64	015-014-1-5	Network Infrastructure Hardware Upgrades/ Replacement		6,760	7,030	7,312	7,604	7,908	8,225
65	015-014-1-6	NEW Criminal Justice Systems Data Storage		15,000	15,600	16,224	16,873	17,548	18,250
66	015-014-1-7	NEW Replace Lotus Notes		97,500	101,400	105,456	109,674	114,061	118,624
67									
68	*015-015-2*	Wide Area Network (WAN) Services	6,145,004	924,000	950,460	974,798	1,073,550	1,098,252	1,123,942
69	015-015-2-1	Institutional Network Development		739,000	753,560	768,702	859,450	875,829	892,862
70	015-015-2-2	Telephony Integration		120,000	124,800	129,792	134,984	140,383	145,998
71	015-015-2-3	Security		52,000	54,080	56,243	58,493	60,833	63,266
72	015-015-2-4	Application Deployment Management		7,800	8,112	8,436	8,774	9,125	9,490
73	015-015-2-5	Database Infrastructure		5,200	9,908	11,624	11,849	12,083	12,327
74									
75	*015-015-3*	Enterprise Services	1,617,438	243,848	253,602	263,746	274,296	285,268	296,678
76	015-015-3-1	E-mail Services		240,000	249,600	259,584	269,967	280,766	291,997
77	015-015-3-2	Wireless Initiatives (Information Utility)		2,600	2,704	2,812	2,925	3,042	3,163
78	015-015-3-3	Desktop Productivity Environment		1,248	1,298	1,350	1,404	1,460	1,518

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SYSTEM DEVELOPMENT PROJECTS

This CIP project category includes development of computer application systems in finance, geographic information and public safety for departments and agencies, the development of automated document management services, and the development of the City's radio communications network for both public safety and operating government agencies.

PUBLIC ACCESS DEVELOPMENT

	Prior Year Unallocated	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	Totals
Web Site Enhancements	417,340	0	125,000	125,000	125,000	125,000	125,000	1,042,340
Electronic Government	275,500	0	0	200,000	200,000	200,000	200,000	1,075,500
NEW Customer Relationship Management System	300,000	0	0	0	0	0	0	300,000
Public Access to Land Records	0	0	0	0	0	0	0	0
Total, Net City Cost	**992,840**	**0**	**125,000**	**325,000**	**325,000**	**325,000**	**325,000**	**2,417,840**

Web Site Enhancements
(015-014-1-1) Priority: Very Desirable

This project includes enhancements to, and applications for, the City of Alexandria's public web site at **alexandriava.gov** and related sites.

Monies in this project fund the ongoing development and evolution of departmental pages on the City's web site. Additional web site enhancements and applications are evaluated on a regular basis with input from the Commission on Information Technology, the Information Technologies Steering Committee, and the Alexandria Communicators.

Over the next year, web site enhancements will include:

- *Accessibility and Language* — The City's home page is compliant with federal ADA guidelines to assist web users with disabilities. All departmental and new development content is compliant with these guidelines. The City continues to work to add more web content in Spanish and other languages.
- *Content Management System* — With the City's new content management system (CMS), installed and operational in November 2007, more routine web updates will be made by department staff. This will permit the E-Government Team to shift their work focus to complex web work and new application development, as well as integrating new site features with the CMS.
- *Geographic Information System (GIS)* — Using the web map viewer as a foundation, the E-Government Team will continue to work with Planning & Zoning's GIS Office to integrate GIS data and other web content.
- *New Media* — The goal of e-government is to bring government to the customer, using technology to improve convenience and efficiency. This requires government to adapt to the technologies being used by customers, which increasingly include new media. For example, news headlines from the City's home page at **alexandriava.gov** are also published in the Really Simple Syndication (RSS) format, which allows users to

subscribe to the content with an aggregator (reader client). A key benefit of RSS for the City is that other web sites, such as neighborhood associations or local businesses, can incorporate City content automatically. This helps the City reach larger audiences with important information. Future applications of RSS will include content such as job listings, requests for proposals, and calendars of events. The City is a local government pioneer in using podcasting (the use of RSS to deliver audio files) to reach new audiences, and now produces seven podcast shows. Throughout FY 2008-2009, the City will look for more new media opportunities to reach more customers.

- *Online Payments* — The City's eChecks service has processed more than $17 million in payments since 2004. The E-Government Team will continue to work with the Finance Department to expand the availability of online payment methods, including credit cards and e-checks, with an emphasis on improving customer convenience, reducing fees, and creating internal efficiencies.
- *Online Permitting* — The E-Government Team will work with the Department of Planning and Zoning, the Department of Transportation and Environmental Services, and the Code Enforcement Bureau, to allow customers to apply for, pay for, and check the status of building, planning, and zoning permits.

These are just a few of the many potential uses which will require resources in 2008 - 2009. The public's reliance on the web site and the increasing use by staff of the Internet for work purposes continues to place a load on both equipment and telecommunications capacity. Residents increasingly come to depend on the web site as their "electronic City Hall."

Project Benefit:
This project provides enhanced services to the public by making information about the City government available 24 hours a day. In addition, the City's web site provides the platform for delivering certain kinds of City services in a more cost-effective and convenient manner.

Operating Budget Impact:
Maintenance costs for the City's web site are approximately $65,000 per year.

Change In Project From Prior Fiscal Years:
Sufficient prior-year funds remain such that no funds are requested for this project for FY 2009. Funding of $125,000 per year has been extended for remaining years through FY 2014, to reflect the ongoing work supported in this category.

Electronic Government
(015-014-1-2) Priority: Very Desirable

The City of Alexandria's E-Government project has been developed to aid in the identification of goals and associated monetary requirements to expand and develop e-government initiatives within the City. Electronic media are becoming increasingly popular and useful as a means of communication and providing services. As technology continues to evolve, so do the methods to develop e-government services to take advantage of these technologies to produce efficiencies in traditional business practices, providing better customer service in the delivery of government services and information.

E-Government services within the City of Alexandria are provided through a variety of electronic methods to City constituent groups (residents, employees, visitors, businesses and other governmental entities) to improve traditional interactions with the City. Many of the projects within the six-year Information Technology Plan, while perhaps not purely e-government projects, contain e-government elements and funding. The following chart shows the e-government initiatives being funded in the projects included in this plan.

E-Government Initiatives within the FY 2009 - 2014 IT Plan

Project Name	Initiative	FY 2009 Funding
Public Access to Land Records, page 43	To provide access to the Alexandria Circuit Court land records and related documents on the Internet.	$0; this project is underwritten by the State
Online Payments(see Web Site Enhancements project, page 39)	To expand and improve online services to allow customers to research and pay taxes, tickets, fees, and other payments with e-checks and credit cards. Citizens can now make contributions to the City's Open Space Fund, sign up for the Walk for Breast Cancer and will soon be able to pay Business Personal Property taxes with eChecks.	$30,000 in prior year project funds will be used to improve this service
Alexandria Justice Information System Enhancements, page 60	To develop enhancements to the system, including online access to certain information (See Public Access to Land Records project).	$185,000, a portion of which will be used for E-Government
Permitting Systems, page 71	To improve telephone and provide online inspection scheduling, and provide mobile access to the application.	There are sufficient prior-year resources in this project to address this need.
Intranet (CityNet), page 73	To provide access to employees to a variety of City-specific data. In the future, to provide access to some applications.	$0, there are sufficient prior year resources to address this need.
Customer Relationship Management System, page 42	To allow on-line submission of requests for service via the City's website.	$300,000, a portion of which will be used for this purpose.

Please refer to the specifics on each project in this plan for additional information. Please refer to the overall funding on page 31 for information on the FY 2009 - 2014 six-year funding for each of these projects.

Project Benefit:
Prospective new e-government initiatives are reviewed for conformance to the City's e-government strategic principles (see E-Government Guiding Principles, page 13) to ensure that services are developed that are consistent with the needs of our customers, are economical to deploy and maintain, are secure and have value.

Operating Budget Impact:
Maintenance costs for E-Government are approximately $20,000 per year.

Change in Project from Prior Fiscal Years:
Sufficient prior-year funds remain such that no funds are requested for this project for FY 2009. Funding of $200,000 per year has been extended for remaining years through FY 2014, to reflect the increasing work supported in this category.

Customer Relationship Management System
(015-014-1-3) Priority: Very Desirable

The City will acquire and implement an enterprise system in FY 2008 to receive and track requests for service, online correspondence, and other customer relationship information. This system will promote more efficient and consistent responses to requests, provide for additional accountability, and make better use of IT infrastructure. The Customer Relationship Management (CRM) system will be implemented and work in conjunction with the City's maintenance management system, currently in the procurement phase.

Project Benefit:
A Customer Relationship Management (CRM) system will improve internal City processes with respect to managing requests from citizens. Benefits of CRM software include better managed requests, status updates provided to requestors, reduced costs stemming from less administrative tracking time and greater turnaround time.

Operating Budget Impact:
The ongoing operation budget costs of the CRM system are estimated at $45,000 annually.

Change in Project from Prior Fiscal Year:
This is a new project in FY 2009. Funds in the amount of $300,000 were reprogrammed from prior year unallocated monies from the Web Site Enhancements and E-Government projects, as this project is considered to support the goals of both of these projects.

Public Access to Land Records
(015-014-1-4) Priority: Very Desirable

The purpose of this project is to make available the Alexandria Circuit Court land records and related documents on the Internet. The following table shows the land records and indexes and their status with regard to conversion to a format accessible through the Internet.

Date of Records	Status
Land Records from 1970 - present and future	Conversion to Internet readable format complete.
Land Records from 1930 - present and future	Conversion to Internet readable format complete.
Land Records from 1970 - present and future	Linked to images of actual recorded documents.

All the above records and indexes have been converted to a format compatible with web browser access with imaging. The records and indexes will be placed on a separate public access server isolated from the daily operating Records Management System (RMS). The City will provide links from the Clerk of Court page on the City's web site to access the land records data. In FY 2002, land records from 1970 through 1999 were converted to digital TIFF format, the format used by the State Supreme Court. In FY 2005, the indexes from 1930 to 1969 were converted to a format used by the Supreme Court for incorporation into RMS at a future date. The images from 1970 to present have been linked to the RMS indexes.

The Virginia General Assembly initiated a project to automate and create remote access to the Commonwealth's land records by funding through the Technology Trust Fund (TTF) (administered by the State Compensation Board and the Council on Information Management). The Clerk of Circuit Court is the official custodian of these records.

The initial phase in which the records were converted from CD and microfilm to a format accessible through the Internet has been accomplished. Circuit Court and Supreme Court staff have completed the second phase of the work, to link the indexes to scanned images.

The Clerk of Courts has contracted with the State Supreme Court to provide Internet access to these documents. It is anticipated that this service will be funded by the Clerk's technology surcharge of $5 for every document filed with this office.

The Clerk has completed all necessary work to establish internet access to RMS (Deeds) and AJIS (cases). The Clerk is currently waiting for city IT to establish the connection in order that the subscriber fee may be collected by the city.

Project Benefit:
This project will make the land records and AJIS records of the City of Alexandria electronically available to other City agencies and paid subscribers. As paper records age, they become more fragile and handling hastens their deterioration. Remote access provides access to essential land records 24 hours a day, gives other City agencies immediate access to the official land records and AJIS records in their own offices, converts the document into digital format, and gives access to title attorneys and real estate personnel who subscribe to more efficiently serve residents involved in real estate transactions in the City of Alexandria.

Operating Budget Impact:
Maintenance costs for this project are estimated at $3,000 annually, with anticipated revenues of approximately $180,000 yearly.

Change In Project From Prior Fiscal Years:
The Clerk's office intends on meeting the July 1, 2008 State-mandated deadline for making these records Internet-available.

DOCUMENT MANAGEMENT SYSTEMS

	Prior Year Unallocated	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	Totals
MHMRSA Medical Records Management	41,500	25,000	25,000	0	0	0	0	91,500
Document Management and Imaging Infrastructure								
Unfunded	*0*	*174,000*	*385,000*	*0*	*0*	*0*	*0*	*559,000*
Funded	0	337,000	0	385,000	135,000	135,000	125,000	992,000
Net City Cost		337,000	0	385,000	135,000	135,000	125,000	992,000
Total, Net City Cost	**41,500**	**362,000**	**25,000**	**385,000**	**135,000**	**135,000**	**125,000**	**1,083,500**

MH/MR/SA Medical Records Management System
(015-015-1-3) Priority: Very Desirable

In 1998, the Department of Mental Health, Mental Retardation and Substance Abuse purchased a client-server based comprehensive client database, assessment and treatment planning system (Anasazi). With the department serving approximately 4,500 individuals each year, Anasazi provides a comprehensive data management and billing system to handle all client and third party billing, including managed care, as well as department, City, State and Federal reporting requirements. Additionally, the Anasazi software offers a fully integrated automated client medical records system that provides for one clinical record per client that satisfies both managed care and national accreditation standards.

During FY 2007, the department made progress on several important system goals. Eighteen Broadband wireless (Verizon EVDO) laptops were deployed to clinical staff for use in the field. These laptops have dramatically improved staff's ability to obtain real-time clinical data while working with geriatric, adolescent and homeless consumers. In addition, the department developed a drug distribution and reordering database application to replace the paper-based system. This application is linked to and supplements the Anasazi application. Staff also redeveloped our waitlist application that tracks unmet consumer needs. This application also leverages the data contained in the Anasazi database. Lastly, the Critical Incident Reporting System (CIRS) was completely re-written in ASP .NET 2.0 to leverage the department's investment in Microsoft web server functions and email notification.

Project Benefit:
The medical records system has eased State reporting requirements by providing 'one button' State reports, and helped ensure continued licensure and other regulatory compliance. The system enhancements will help ensure compliance with the changes in Federal and State regulations, and will enhance the security and reliability of our medical records database. They will also greatly aid our migration to a paperless medical record as well as facilitate Medicaid reimbursement.

Operating Budget Impact:
Operating costs for this project are approximately $21,300 per year.

Change In Project From Prior Fiscal Years:
There is no change in this project from the prior fiscal year.

Document Management and Imaging Infrastructure
015-014-2-2) Priority: Very Desirable

City departments and agencies continue to express a need for electronic storage and retrieval of documents through the implementation of our Laserfiche Document Management and Imaging System. Laserfiche maintains archives of maps, drawings, and documents, provides instant access to public records while keeping those records secure, and redefines some of the more cumbersome work processes in the City reducing the document retrieval process from days of seconds.

Funding for this project in FY 2009 is $337,000 primarily to be used for imaging land development documents, including building site plans, as-builts, plot plans and site plan revisions, with the goal of imaging pertinent information relating to a particular address or project. This initiative is in phase III within the Planning and Zoning, Transportation and Environmental Services departments and the Code Enforcement division of the Fire Department. These land use and building records are among the most important and frequently used in the City. Therefore, the completion of this project will have tremendous staff, resident, and business user impact and benefit.

Project Benefit:
The Document Imaging project will provide convenient access to information and related services to residents, businesses and City staff, as well as promote data integration, improve security, and reduce paper storage requirements.

The Imaging Steering Subcommittee of the ITSC works to coordinate the prioritization, scheduling and completion of these projects and submits funding requests for each requesting department's imaging initiative. Not all requests are financed, however.

Operating Budget Impact:
Operating costs for this project are approximately $50,000 per year.

Change In Project From Prior Fiscal Years:
A total of $337,000 is included in FY 2009 funding to provide monies to continue imaging land development documents. The requirement for funding in this project is expected to decrease as the backlog of older paper documents are imaged, and the majority of future needs concern "day-forward" scanning. An additional FY 2009 funding request of $174,000 was not funded for this project, however. The requested funds were to be used to expand the imaging initiative to several departments including Purchasing and Historic Alexandria.

FINANCIAL SYSTEMS

	Prior Year Unallocated	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	Totals
Real Estate Assessment System	50,000	0	100,000	0	0	0	0	150,000
OMB Systems	0	0	0	0	0	0	0	0
Payroll/Personnel System								
> Payroll Personnel Study	100,000	0	0	0	0	0	0	100,000
> System Replacement	0	0	2,000,000	1,000,000	0	0	0	3,000,000
Totals	**100,000**	**0**	**2,000,000**	**1,000,000**	**0**	**0**	**0**	**3,100,000**
Financial Accounting and Asset Management System	107,800	0	0	1,000,000	0	0	0	1,107,800
Delinquent Revenue Collection Mgt. System	0	0	0	0	0	0	0	0
Business Tax System	49,980	200,000	0	0	0	0	0	249,980
NEW Real Estate Accounts Receivable System	0	100,000	0	0	0	0	0	100,000
Purchasing System Replacement	0	0	0	0	0	0	0	0
Personal Property Tax System	0	0	0	200,000	0	0	0	200,000
Total, Net City Cost	**307,780**	**300,000**	**2,100,000**	**2,200,000**	**0**	**0**	**0**	**4,907,780**

Real Estate Assessment System Replacement

(015-014-3-1) Priority: Essential

This project (formerly Real Estate Assessment and Accounts Receivable System Replacement) funded the replacement of the City's legacy mass appraisal system with a modern system to provide for greater functionality and a more robust operating environment. In FY 2006, the City awarded a contract to Colorado Custom Ware for their 'RealWare' assessment and appraisal application. The implementation of the RealWare application has been completed. Real Estate staff are working to ensure, through analysis over a full assessment cycle, that the costing models employed in the new system are consistent with the costing models in the old system. Accurate costing of properties is key to supporting accurate and uniform property assessments.

Project Benefit:

This project has enhanced staff productivity through improved processing speed, precise and accurate data to allow for additional tools for analysis in determining property valuations. System operations are greatly improved and data available to the public is more detailed in nature. New reporting tools have provided staff with the ability to be more responsive to requests for information. In FY 2008 the City will implement the Pictrometry project which will greatly enhance the City's ability to track changes to City properties.

Operating Budget Impact:

Operating costs for this project are approximately $30,000 per year.

Change In Project From Prior Fiscal Years:
Funds in the amount of $100,000 are included in FY 2010 to fund a required upgrade to a web-based version of the current software package.

OMB Systems
(015-014-3-2) Priority: Very Desirable

This project supports ongoing improvements and modifications in the City's budget systems. In 2000, the City replaced an older DOS-based budget preparation system with Performance Budgeting, a module from the City's General Ledger accounting system.

It is anticipated that the City will be replacing the City's legacy financial applications, including Payroll, Accounting, Purchasing and OMB systems in FY 2011 as part of a consolidated procurement.

Project Benefit:
This project improves productivity by improving the annual budget preparation. The system, used by every City department, simplifies and streamlines departmental budget submissions. The system also provides improvements to the personnel services cost analysis system, reducing staff effort in analyzing personnel costs and improving the accuracy of the systems' products.

Operating Budget Impact:
The maintenance costs of the current system are estimated to be $20,000 annually.

Change in Project from Prior Fiscal Years:
There are no funds budgeted in FY 2009 in this project. An amount of $1,000,000 is budgeted in FY 2011 in the Financial Accounting and Asset Management System procurement. This procurement is anticipated to include OMB Systems, Purchasing, Payroll and Human Resources functions for a total estimated cost of $4.0 million.

Payroll/Personnel System
(015-015-2-5) Priority: Very Desirable

The City's current payroll system is based on a 1984 system that does not adequately incorporate many human resources capabilities, such as applicant tracking, position control or benefits administration. The City needs a fully integrated, client-server or web-based system to better manage our human resources which are by far the City's largest expenditure.

In FY 2007, the City converted its current payroll system to a server-based system. This conversion was required because the City previously contracted with Arlington County to use the County's mainframe computer to run the City's payroll system. Arlington notified the City that they intended to decommission their mainframe as a result of technological improvements made at the County. As a result, the City's current payroll system was converted to a server-based system which is now located in the City's Network Operations Center (NOC).

The system conversion only addressed the requirement to move from the Arlington mainframe. The conversion does not provide the City with much-needed additional functionality. It is for this reason that the City has undertaken a

thorough review of its payroll and human resources business processes to develop clear, concise system requirements that will be used to acquire a new payroll and human resources application.

Project Benefit:
This project will enhance productivity through more effective, secure and reliable distribution of payroll and personnel data to staff, through the automation of processes that are currently manual. In addition, the implementation of position control as part of a new system will ensure that budgeted positions are appropriately requisitioned and filled.

Operating Budget Impact:
Current operating budget impact for this system is approximately $75,000 per year. This is anticipated to increase when the City acquires a new system.

Change In Project From Prior Fiscal Years:
This project includes $2,000,000 in FY 2010 and $1,000,000 in FY 2011 for a consolidated financial system replacement.

Financial Accounting and Asset Management System
(015-014-3-4) Priority: Desirable

This project provides for ongoing version maintenance, upgrades and eventual replacement of the City's general ledger and asset management and reporting system. The existing system from Tier Technologies, was placed in production in the fourth quarter of FY 1998, replacing the City's 15 year-old mainframe general ledger accounting system. In its current version and platform, the system is nearing the end of its useful lifecycle from both a technical and functional standpoint. Although the current system includes technology that provides departments and agencies with additional flexibility in managing, accessing and controlling financial information, it is not integrated with the City's current purchasing system and relies heavily on batch interfaces with other systems. Replacement of the general ledger, budgeting and asset management system has been rescheduled from FY 2009 to FY 2010 and coincide with replacement of the purchasing system, as well as waiting to determine if the promised upgrades of the Tier Technologies system will meet the City's future needs. Beginning in FY 2007, Finance staff anticipates beginning a review of the current accounting system in the context of available new technology and the City's other planned changes for the purchasing system and the human resources/ payroll system.

Project Benefit:
This project funds the City's centralized accounting system which is used throughout the City.

Operating Budget Impact:
Annual maintenance for the general ledger accounting system, which includes the fixed assets and budget module, is approximately $150,000 per year.

Change In Project From Prior Fiscal Years:
Funds budgeted in FY 2008 in the amount of $60,000 were moved to FY 2009 to reflect the availability of prior year funds. Funds budgeted reflect the most recent trend in costs.

Delinquent Revenue Collection Management System
(015-014-3-5) Priority: Desirable

The Finance Department is implementing a commercial-off-the shelf (COTS)-based integrated revenue collection system that would better assist staff managing the collection of delinquent accounts. This system, which would be similar to what private collection agencies use, would age the citizen accounts receivable, assign the appropriate collection staff, monitor the staff's collection efforts, and automatically generate delinquent notice letters. The Finance Department's Revenue Division is currently collecting receivables without an automated collection system. Most accounts are maintained manually. Staff also has no access to other overdue fees or debts owed by citizens to other agencies or departments. Some databases and spreadsheets, which lack full collection functionality, are also used. The Revenue Division does have a small database application to track audits, field activity and bankruptcies, but all lack an interface to other City financial information systems.

Project Benefit:
With the implementation of an integrated, delinquent revenue collection system, the ability to target revenue across multiple revenue systems would enhance the City's ability to collect and manage a citizen's delinquencies. A revenue collection management system would streamline and increase the efficiency of the delinquent tax collection process. The cost of this system is likely to be recouped by increased delivered revenue collections within twelve months of its installation.

Operating Budget Impact:
Annual maintenance of this product is anticipated to cost approximately $22,500.

Change in Project From Prior Fiscal Years:
This project was being funded in FY 2008.

Business Tax System
(015-014-3-6) Priority: Very Desirable

This project provides funding to replace the City's business personal property tax system. This new software will replace an outdated system. The enhancements to the business personal property tax system will be beneficial to both taxpayers and staff by automating the recording of tax returns, assessments, billing and the collection of payments. The completed project will reduce waiting time for citizens and business applicants appearing in person while tax accounts are created, edited and assessed for immediate payment at the Treasury window.

Project Benefit:
Improved efficiency through a new user application interface will ensure a more suitable and reliable system environment. The new system will eliminate the need to manually key tax returns received in bulk through the bank lockbox. It is also envisioned that the enhancements will be more suited to web integration, as well as interface with other City systems.

Operating Budget Impact:
The estimated operating budget impact for the new system is approximately $30,000 per year.

Change in Project from Prior Fiscal Years:
Funding provided in this project will be used to address the severe shortcomings and inefficiencies of the existing business personal property tax assessment and receivables system.

Real Estate Accounts Receivable System Replacement
(015-014-3-7) Priority: Very Desirable

The City of Alexandria's Real Estate Accounts Receivable (REAR) system is used to capture and classify real estate payments made by individual homeowners, businesses, banks and mortgage companies. The current system is based upon a legacy software platform known as Clipper, and last received a major upgrade in 1994. In the interim, the City has updated the Real Estate Assessment software to a Computer Automated Mass Appraisal (CAMA) system. Now that this task has been completed, it is essential that the City replace the current REAR system with one on a more robust platform and a more user-friendly interface. Replacement of the legacy Real Estate Accounts Receivable system would also allow the City to take full advantage of the capabilities provided by both the City's Geographic Information Systems (GIS) infrastructure and the new Real Estate Assessment software.

Project Benefit:
This project will enhance staff productivity through improved processing of Real Estate payments, and allow utilization of additional tools for analysis. Systems operation will be improved and the reliability of the application and data will also benefit.

Operating Impact:
The estimated annual operating budget impact for this software is $30,000.

Change In Project From Prior Fiscal Years:
Funds in the amount of $200,000 are included in FY 2009 for this project.

Personal Property Tax System Replacement
(015-014-3-8) Priority: Desirable

This project provides for replacement of the personal property tax system. The City's personal property tax system exists on an older development platform which should be moved to a more viable platform or replaced to reduce contractor hours required to support the application.

Project Benefit:
Redeveloping the current system will provide the means for achieving other efficiencies through the use of real time interfaces and will result in a reduction of manual work and batch processes. Functionality to allow citizens to be able to view and update their tax account data in real time via the City's web site will be pursued as part of this upgrade. This will redirect a considerable staff effort currently spent performing data entry, reviewing and editing data and collecting taxes. In addition, the Virginia Department of Motor Vehicles provides electronic information that requires significant manual intervention in order to include their information in the current application.

Operating Budget Impact:
There is no significant impact on operating costs other than internal costs for support which are likely to be less than or equal to current levels.

Change In Project From Prior Fiscal Years:
There are adequate prior year funds available in this project, so no funding is provided in FY 2008.

GEOGRAPHIC INFORMATION SYSTEMS

	Prior Year Unallocated	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	Totals
AVL for Non-Public Safety	85,245	0	0	100,000	0	0	0	185,245
GIS Development	187,600	90,000	0	90,000	90,000	90,000	0	547,600
Total, Net City Cost	**272,845**	**90,000**	**0**	**190,000**	**90,000**	**90,000**	**0**	**732,845**

AVL for Non-Public Safety

(015-014-4-3) Priority: Desirable

This project will fund the acquisition and implementation of "automatic vehicle locator" global positioning satellite (GPS) devices to be installed on City vehicles used for non-public safety purposes to track the location of the vehicles in real-time via a GIS map. Police and Fire have already implemented GPS/AVL technology for a portion of their vehicles. Initially this project will be piloted with six (6) refuse collection vehicles. Pending a review of the pilot and an analysis of the cost/benefit of the technology, this project may be expanded to include Dash buses, snow plows and other fleet vehicles.

Project Benefit:
This project will increase efficiency by providing the precise location of specific non-public safety vehicles throughout the City. This information will be used for real time management of vehicle resources as well as capturing history of routes for analysis such as identify new opportunities to optimize routes and allowing managers to answer questions from customers relating to vehicle activities (i.e., when was trash collected on a certain street?)

Operating Budget Impact:
It is anticipated that the operating budget impacts will cost approximately $30,000 per year, for the depreciation and maintenance on the GPS devices, AVL server software maintenance and communications costs. In addition, operating expenses related to staff time required to keep the system operational will be evaluated during the pilot phase.

Change in Project From Prior Fiscal Year:
Funds in the amount of $100,000 are included in FY 2011 to continue and expand this project.

GIS Development

(015-014-4-1) Priority: Very Desirable

Continued success of the Geographic Information System (GIS) is focused in three areas: data development and maintenance, application development and support, and geospatial analysis. These project areas are equally important to the success of Alexandria's enterprise GIS.

GIS Data/Layer Development and Maintenance

As of January 2008, the City has completed the FY 2007 aerial orthophoto project. In addition the planimetric base mapping update is 90% complete, and is expected to be finished by March 2008.

FY 2009 will see another base map update (base map updates occur every two years). This update will include an update to the fences data layer, which has not been updated since it was first collected in 2001. The utility of this layer has increased considerably in the past two years, as modeling pedestrian behavior has become a frequent analysis task of the GIS Division.

With the demands of maintaining the base map and over 50 other layers in the system, (Appendix C, page111) and with many more in various states of completeness, new layer development has slowed significantly. GIS staff is at capacity with regards to the ability to continue to maintain layers in a timely and accurate manor.

At the same time GIS has become a more integral underpinning of many of the City's enterprise applications. These applications have evolved from simple mapping and pin-pointing tasks to now rely on the spatial processes that make a GIS powerful. The GIS Division must continue to raise the level of sophistication of its data models to support the ever growing sophistication of its applications. Therefore, instead of adding new layers to the system, the layer development focus for the next two years will be on improving the integrity and functionality of the layers already in the system. This project will transition the City of Alexandria GIS data from a series of layers to a carefully modeled and integrated database. One of the key elements developed will be an integrated universal address master and structures model. The structures model will capture the use and function of each building (i.e. multiple uses, fire preplan information, and interior unit locations). In addition, a routable multimodal transportation base map versatile enough to emulate pedestrian decision-making and support AVL and other transportation projects will be designed and developed.

Finally a new set of data integrity routines and rules, as well as revamped maintenance procedures and a new workflow management and tracking application will be implemented.

Hardware/Software/Training

The GIS plotter, large format scanner and several GIS workstations were replaced as planned in FY 2008.

The City currently maintains 19 GIS product licenses, plus extensions. These shared licenses support most of the City's GIS user community. Five licenses are ArcINFO and are used primarily by GIS Division staff. Two ArcEditor licenses are shared among the few non-GIS staff users who create edits in the enterprise database. Twelve licenses are ArcView and are shared throughout the City's GIS user community. Extensions maintained by GIS include 3D Analyst, Tracking Analyst, Spatial Analyst, and Stereo Analyst.

During FY 2008, GIS continued to focus on increasing awareness and use of GIS throughout the City. During this time the training class "Introduction to ArcExplorer" was changes to "introduction to GIS" it is still taught six (6) times per year, but now along with teaching the fundamental of GIS through a lightweight desktop application it also introduces students to the many available and targeted GIS web applications. Web-based GIS is slowly supplanting use of the desktop application for the majority of the City's casual GIS users. The mid-level ArcGIS desktop classes continue to be taught three (3) times per year. During FY 2008, the number of mid-level users increased only slightly as staff turnover now keeps pace with the number of new users requesting training. The GIS Division has now trained approximately 60 users Citywide since the inception of the training class series in March 2004.

In FY 2008, many more users were introduced to GIS through intuitive ArcIMS applications now being deployed. As the GIS is distributed and used more extensively throughout the City, this is quickly becoming the best method to bring targeted GIS benefits to end users. FY 2008 saw the release of the most sophisticated GIS web based application to date, The SRS Viewer. This web-base GIS analyses tool is one of the main struts of the police departments Strategic Response System (SRS). The SRS is a brand-new policing structure and logic that combines data-driven decision-making with geographic accountability.

The SRSViewer supports the SRS by providing all levels of the police command structure with access to interactive crime data in a mapping environment. Mapping crimes allows police to see patterns, trends and clusters that could not otherwise be identified. Users can explore the data at any level of granularity for a particular crime. Currently approximately 130 users within the Police department have been trained on and are actively using the system.

Also in FY2008 GIS completed its first integration project with the City's new document imaging system, the PlatViewer. This application is an online dynamic mapping application that helps City staff locate, view, and print historical subdivision plats served by the LaserFische system. Without this tool, plat research can be a time-consuming (more often impossible) process because the plat boundaries and referencing systems have changed considerably over time, independent of addressing changes. The map provides the critical data link between historical plats, parcels, and addresses. The system currently provides access to 2,000 plats.

The future of GIS web based applications will be ArcServer. The migration from ArcIMS to ArcServer will happen gradually over the next several years. ArcServer will have a limited rollout in the end of FY 2008 . The first applications will focus on better organization of data, performance and cartography than can be achieved with the current GIS web-based (ArcIMS) application. ArcServer also provides opportunity for the pushing of many targeted geoprocesses (used to answer location-based questions in real time) to the end users. The first application to incorporate this additional functionality will be a Planning application tentatively called "Land Analyzer"; this application will let the user specify what kind of information they would like to receive about a parcel and will return a custom-generated report and maps. This application will be especially useful to planners who can often have many regulatory boundaries influencing what decisions can be made regarding a parcel of land. This application will be deployed in late FY 2009

Project Benefit:

Geographic Information Systems enhance productivity by providing a tie between seemingly disparate data. GIS enables numerous departments to share resources and reduce research, analysis, and data collection burdens. It serves as a data warehouse for many of the City's critical layers such as roads, buildings, and parcels. It creates a centralized responsibility for the maintenance and dissemination of these layers. GIS simultaneously updates map data City-wide and ensures all City agencies have access to identical spatial data. City staff and the public are provided with quick access to consistent answers City-wide. GIS enables staff to provide City Council, various boards and commissions, and the public with accurate maps, which help synthesize significant amounts of information about geographically related issues such as zoning, demographics, routing, and infrastructure. Finally, and perhaps most significantly, GIS provides unique solutions to complex spatial problems, which would otherwise be cost- or time-prohibitive to undertake.

Operating Budget Impact:

The Department of Planning and Zoning is responsible for management of the GIS Division. A staff of six (one Division Chief, two Programmer Analyst IIs, two Customer Support Engineer IIIs, and one Planning Technician) are currently

responsible for implementing the enterprise GIS function as well as supporting the GIS needs of Planning and Zoning. Staff time is evenly split between these two functions.

Change in Project From Prior Fiscal Year:
This project has been funded in FY 2009 in the amount of $90,000.

PUBLIC SAFETY SYSTEMS

	Prior Year Unallocated	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	Totals
Public Safety Radio System Replacement								
Expenditure Totals								
Less: Federal Byrne Grant								
Net City Cost	50,000	50,000	3,650,000	50,000	50,000	50,000	0	3,900,000
Alexandria Justice Information System (AJIS) Enhancements	126,000	185,000	194,250	203,963	214,161	224,869	236,112	1,384,355
Police Computer Aided Dispatch (CAD)/RMS Project	47,954	58,600	0	30,000	58,500	308,500	31,500	535,054
Fire Computer Aided Dispatch (CAD)/RMS Project	199,591	63,500	10,500	0	66,500	0	0	340,091
Interoperability Strategies for Public Safety								
Expenditure Totals	0	0	0	0	0	0	0	0
Less: Revenue Totals	0	0	0	0	0	0	0	0
Net City Cost	0	0	0	0	0	0	0	0
EMS Records Management System	40,000	0	0	0	0	0	0	40,000
Sheriff Accreditation Training System	75,000	0	0	0	0	0	0	75,000
Sheriff Network Connectivity Conversion	48,000	0	0	0	0	0	0	48,000
Sheriff Laptops	15,000	0	0	0	0	0	0	15,000
Sheriff Mobile Video System	72,000	0	0	0	0	0	0	72,000
NEW Telephone Emergency System Upgrade	100,000	0	0	0	0	0	0	100,000
Total, Net City Cost	**773,545**	**357,100**	**3,854,750**	**283,963**	**389,161**	**583,369**	**267,612**	**6,509,500**

Radio System Replacement

(015-014-5-1) Priority: Essential

This is a continuation of a project begun in FY 1997 to upgrade the City's 800 MHz shared radio system. Funding in FY 1999 provided for the phased replacement of obsolete mobile and portable radios utilized by City agencies, provided a backup conventional radio system and increased the capacity of the City's shared primary trunked radio system.

The majority of this project has been completed. Radio system completion and final acceptance took place in December 2006.

Annually, $50,000, for the replacement of mobile or portable radios that reach their end of life cycle are replaced on an ad-needed basis.

In FY 2010, $3.6 million is included for radio replacements. This will enable the City to maintain interoperability with other jurisdictions. There are more than 1,700 subscriber radios operating on the City of Alexandria trunked radio system. The city's radio system is used by multiple jurisdictions within the National Capital Region and federal and

state agencies. In addition, the City's subscriber radios also have the capability to interoperate with other state/local/ federal agencies and have the national interoperability channels.

Project Benefit:
The radio replacements will enhance productivity and provide interagency interoperability:

- Allowing interoperability with newer systems,
- Improving the clarity of transmissions through the use of modern technology; and
- Facilitating mutual aid operations with Airport Authority Police and Fire, and Arlington and Fairfax counties, who are also implementing technologically compatible radio systems.

Operating Budget Impact:
The annual cost of maintenance for the replaced system is estimated at $498,000.

Change In Project From Prior Fiscal Years:
In FY 2010, $3.6 million has been budgeted to purchase new radios so the City will be in a position to take full advantage of the national interoperability channels, as well as to maintain current interoperability capacity.

Alexandria Justice Information System (AJIS) Enhancements
(015-014-5-2) Priority: Very Desirable

New capabilities and enhancements are continually added to AJIS. Examples include a refreshed LiveScan—AJIS interface will be in production shortly including new equipment, PCs and more sophisticated cameras. A third booking and fingerprint station will soon be installed at the Courthouse.

Complementing the Circuit Court Clerk's Office's extensive AJIS functionality, work on new efficiencies will soon begin including AJIS-provided fiduciary document and system-generated Court Order signature imaging modules.

New Jail Management features are added or enhanced virtually every month. More recent improvements include the tracking of Detention Center volunteers and inmate educational programs; the logging of inmate haircuts; the tracking of inmate visitor "no-shows"; and expanded gang management functionality including the cataloging of gang tattoo images.

Off-site, real-time replication of AJIS data, now in its final test phase, will soon provide public access to Court data. Additionally, it has the added benefit of providing an accessible, convenient back-up of AJIS data. Back-ups of AJIS data are to be stored in Colorado if needed for local catastrophic events and regional disasters.

Expanded use of AJIS for various tasks by all departments has aided in registering sex offenders, reporting suspected illegal aliens, completing deportation documentation, collecting DNA samples and expungement tracking.

Expanding the development and availability of printed reports and forms needed by all departments continues as an important initiative to aid in statistical analysis and accreditation compliance.

AJIS will continue to require modifications based on changes to federal, state and local statutory requirements. This funding is also needed for upgrades required by the variety of software used by AJIS. This will ensure that AJIS continues to perform as a highly reliable and critical system.

Project Benefit:
On-going enhancements to the Alexandria Justice Information System will protect the City's investment by ensuring that the system will continue to grow to meet changing statutory and technological requirements.

Operating Budget Impact:
Operating budget impacts for the AJIS system are approximately $120,000 annually.

Change In Project From Prior Fiscal Years:
Monies in this project will be used to fund several initiatives for the Sheriff's Department in FY 2009. In addition, project funds were increased to reflect inflationary increases in the cost of the required consultant support.

Police Computer Aided Dispatch (CAD)/Records Management System (RMS) Replacement
(015-015-3) Priority: Essential

This project provides for the phased replacement of the hardware for the City's mission-critical Police computer aided dispatch and records management systems. The replacements are:

- The CAD PC-based equipment will require replacement in FY 2010, FY 2012, and FY 2014. This equipment should ideally be replaced at least every two years as it is in operation 24 hours a day, seven days a week, is rarely turned off and serves critical public safety needs.
- The CAD servers, which support the essential functions of the CAD and mapping server, should be replaced every 3 years. These are a critical component of the CAD system.
- The replacement of the two IBM AS/400 mini-computers should ideally occur every three years due to normal life cycle expectancy under a 24 x 7 operation. Monitors are replaced every 3 years.

Automatic Vehicle Locator (AVL) devices and the associated mobile mapping software have been tested and implementation has begun. One hundred and fifteen laptop computers with embedded GPS antennae have been purchased and are scheduled for deployment in January 2008. The software allows display of the vehicles in the dispatch center as well as on the laptops, improving the management of field resources and increasing safety. Most of these units will be deployed in the patrol division, and as computers are replaced in FY 2009 and FY 2010 the mobile mapping capability will be extended department wide.

Planned initiatives for FY 2009 include continuing AVL deployment as older mobile computers are replaced.

The Records Management Systems, housed on the AS/400, provides the base for almost all data collected by Police staff.

Project Benefit :
The Records Management Systems, housed on the AS/400, provides the base for almost all data collected by Police staff.

Operating Budget Impact:
The estimated operating budget impact for this project is $75,000 per year.

Change in Project From Prior Fiscal Years:
Funds in the amount of $58,600 are included in FY 2009 for this project.

Fire Records Management System (RMS)
(015-014-5-4) Priority: Essential

This project provides for the phased replacement of the hardware for the City's mission-critical Fire integrated computer aided dispatch (CAD) and records management systems. The replacements are:

- Seven CAD workstations were replaced in FY 2008 and will require replacement in FY 2010, and FY 2012. This equipment should ideally be replaced at least every two years as it is in operation 24 hours a day, seven days a week, is rarely turned off and serves critical public safety needs.
- CAD Monitors and video cards are replaced on a three-year cycle. FY 2009 is the next scheduled replacement. Each CAD workstation has a three monitor configuration.
- Fire and EMS Records Management Systems require two servers for database management and data communications with mobile units in the field. These are high-priority systems in constant use and should be replaced on an accelerated cycle. Since Fire and EMS Records Management Systems were moved to Windows-based SQL Server from AS/400, substantial cost savings will be realized in spite of an accelerated replacement cycle.

Automatic Vehicle Locator (AVL) devices are in place in all primary response Fire and EMS vehicles. AVL provides the ability to constantly monitor the location of vehicles to improve the management of field resources and to increase safety. The Fire Department is actively working with our CAD software vendor to utilize AVL data to send the closest appropriate unit to the scene of an incident.

Planned initiatives for FY 2009 include purchasing a separate mapping server. This will support a modified CAD architecture as specified by the Police and Fire CAD vendor. In addition, the department plans to purchase PowerPhone software, which will provide total response computer aided call handling. It is installed as a front end to the CAD system and provides a single set of protocols that ask questions for each call type. It rates answers and suggests a priority. It includes pre-arrival advice for Fire calls and also recommends resources to send to each incident. It has a built-in quality improvement system with objective performance measurement tools. All the data this system collects is automatically entered into the CAD system once the call taker hits the enter button. This was deferred from FY 2008 since CAD system upgrades, a prerequisite to this initiative, were not completed until January 2008.

LG Address and LG Route software will be acquired to provide integrated administration of address records for both CAD and mapping through an interactive map interface. LG Route allows mobile maps to direct responders to the scene of the incident using the fastest route.

The department is also actively pursuing an initiative to connect CAD systems in different jurisdictions to expedite call handling and dispatch when multiple jurisdictions are needed to respond to an incident.

Project Benefit:
This project ensures continued development and improvement to the City's Computer Aided Dispatch and Records Management functions in the Fire Department.

Operating Budget Impact:
The estimated operating budget impact for this project is $75,000 per year.

Change in Project From Prior Fiscal Years:
Funds in the amount of $63,500 are included in FY 2009 for this project.

Interoperability Strategies for Public Safety (CommTech Project)
(015-014-5-5 Priority: Essential

The Alexandria Police Department has been in partnership with the National Institute of Justice's CommTech Program (formerly AGILE - Advanced Generation of Interoperability for Law Enforcement) as an operational test bed since March 1999. The project's focus is two-fold: 1) to test public safety interoperability solutions (hardware/software) to improve issues regarding connectivity among data and radio systems of public safety agencies with overlapping or adjacent jurisdictions, and 2) to provide technology assistance to those agencies. Technology has improved drastically since the inception of the program (one of the most successful programs of the National Institute of Justice) and as a result, interoperability has become less challenging in regards to technology but much more challenging in regards to governance structures. The Alexandria Police personnel assigned to the project have become experts in advising other agencies on governance and other operational agreement structures.

The Alexandria Police Department has continued to serve as the public safety communications interoperability host for most of the public safety agencies in the National Capital Region. The Alexandria Police Department has achieved interoperability with 19 different public safety agencies, including the Montgomery County Police, Maryland State Police, Prince William County Police Department, Pentagon Force Protection Agency and the United States Coast Guard.

This project continues to serve as a national model for interoperability communications technology needs. Documentation regarding the technical evaluation, initial lessons learned and the Gateway Subsystem installation documentation can be found on the CommTech web site at http://www.ojp.usdoj.gov/nij/topics/technology/communication. In the future, the CommTech Program will focus on standards for interoperability communications nationwide through affiliation with groups such as the International Association of Chiefs of Police - Communications and Technology Committee, which has international implications; the Department of Homeland Security SAFECOM Program and locally, the Metropolitan Washington Council of Governments (COG). Data sharing among law enforcement agencies and voice over Internet protocol (VOIP) are two key targets of development for this project, as well as the standardization that will be expected in these areas.

Project Benefit:
The project has focused its efforts towards outreach and technology support for public safety agencies across the United States following the incidents of September 11, 2001. Locally, the program focuses on any interoperability issues impacting the region. In addition, the CommTech Program is often contacted to lead communications efforts for large interoperability events such as presidential inaugurations, large special events such as the dedication of national monuments, July 4th on the Mall, etc.

In addition to working on communications interoperability solutions, the CommTech Program is also working on data interoperability projects, such as the Regional Pawn Data Sharing System and evolving data sharing projects emerging in the National Capital Region.

Operating Budget Impact:
The estimated operating budget impact for this project is $57,000 per year.

Change in Project From Prior Fiscal Years:
There is one change to this project from the prior fiscal year. The CommTech Program provides full funding for training and travel costs and half the funding for personnel costs.

Emergency Medical Services Records Management System
(015-014--6) Priority: Essential

The City uses a commercial system to gather data regarding emergency medical services responses to medical emergencies. The data in this system is used to provide a hard copy report to hospitals on the patient status when a patient is left at a hospital. The data is transferred to the Fire/EMS Records Management System and then a data transfer is made to the City's ambulance billing agency for the calculation of the appropriate ambulance billing charges. This system was successfully upgraded in FY 2006. In FY 2008, funds in the amount of $40,000 are budgeted to purchase and implement a module to collect preplan and hazard information for emergency responders. The goal will be to tie this information to CAD and Code Enforcement for integrated life safety reporting. A pilot project in concert with City GIS was started in FY 2008 to create map layers to support preplanning. Therefore, implementation of the preplan module has been postponed to the last quarter of FY 2008 or the first quarter of FY 2009.

Project Benefit:
The new system provides the EMS staff the capability to gather accurate patient data which results in better information conveyed to hospitals on patient status. In addition, the information is used for ambulance billing charges, enabling more accurate and timely billing and follow up.

Operating Budget Impact:
The ongoing operating budget impact is approximately $34,000 per year.

Change in Project from Prior Fiscal Years:
There are no changes in this project from the prior fiscal year.

Sheriff Accreditation Training System
(015-014-5-7) Priority: Desirable

The American Correctional Association (ACA) and Commission on Accreditation for Law Enforcement Agencies (CALEA) requires all Deputy Sheriffs and select civilian staff to receive 40 hours of training each year. Further, the Department of Criminal Justice Services (DCJS) requires all Deputy Sheriffs to receive 40 hours of training in law enforcement, corrections and/or court security every two years. Currently, the City's yearly staff training is completed at various criminal justice academies in the Northern Virginia area. Deputy Sheriffs are required to leave their assigned Sheriff's Office duty post (Detention Center, Courthouse) to complete this mandatory training. Overtime is required to

ensure minimum staffing at the various Sheriff's Office locations while staff participates in off-site training. This project requests funding for an in-house computer based training program that will allow Deputy Sheriffs and civilian staff to participate in training during their normal duty hours. The computer based training program will also allow for training to be delivered to staff that is agency-specific, so that staff may benefit from training focused directly on Sheriff's Office policies, procedures and practices.

Project Benefit:
The computer-based training will be interactive and document the staff person participating, training dates and times, and testing process. Allowing Deputy Sheriffs to take computer-based training classes to meet annual training requirements will reduce the number of training hours delivered off-site, thereby ameliorating the cost of overtime and the burden of backfilling staff to ensure minimum staffing requirements are met. Appropriate videos, training aids, web-based programs and an in-house curriculum would be utilized to provide as much training for Sheriff's Office staff to meet the training requirements of the Office's accreditation programs and the Virginia Department of Criminal Justice Services (DCJS).

Operating Budget Impact:
Annual maintenance costs for this project are expected to be about $11,250.

Change in Project from Prior Fiscal Year:
There is no change in this project from the prior fiscal year.

Sheriff Network Connectivity Conversion
(015-014-5-8) Priority: Desirable

Currently, PC workstations within the Alexandria Detention Center are connected to the City's I-Net via fiber optic cable (fiber). With constant and increasing changes in network technologies and capabilities, the Office of Sheriff finds itself at a financial disadvantage keeping up with such technological advances. The fiber optic wiring costs the Office more because we have to purchase expensive fiber-specific network hardware in addition to the City-provided network solutions. For example, when adding necessary peripherals to the network, such as printers and switches, it costs the Office additional budgetary resources because fiber optic transceivers have to be purchased in order convert the fiber signal to a digital signal. Transceivers cost an average of $300 per unit. A network fiber card must be purchased for every workstation at an approximate cost of $150 per card.

This project proposes replacing the current fiber optic cabling with CAT-5 network cabling. Standard CAT-5 cabling decreases the cost of connecting to the network by an average cost of $225 per drop.

Project Benefit:
Using standard CAT-5 network cabling will allow the Office of the Sheriff to use the available networking capabilities already installed on purchased PC workstations and other network peripherals without the added cost of fiber to digital transceivers.

Operating Budget Impact:
This project should reduce the operating budget impact of maintaining fiber optic cable in the Alexandria Detention Center.

Change in Project from Prior Fiscal Year:
There is no change in this project from the prior fiscal year.

Sheriff Laptops
(015-014-5-9) Priority: Desired

The Sheriff's Office requires laptop computers to further its innovative approach for completing in-house training for 216 staff. Required training includes new employee training (NET), mandated in-service training, AJIS and training for other software applications utilized. Laptops will be purchased with these funds, to facilitate ease in sharing PC assets among users.

Project Benefit:
By providing laptop computers for training purposes, the Sheriff's Office will be better equipped to provide training to staff on duty and off-duty, thus decreasing the amount of time staff are required to be away from their duty post assignments.

Operating Budget Impact:
The estimated operating budget impact for this project is $15,000.

Change in Project from Prior Fiscal Year:
There is no change in this project from the prior fiscal year.

Sheriff Mobile Digital Video System
(015-014-5-10) Priority: Desired

Mobile digital video cameras will be installed in Sheriff's Office vehicles normally used to transport prisoners. The mobile digital video system will record audio and video of prisoners being transported in the rear of the vehicle and will also be capable of recording vehicle frontal view events such as traffic stops, pursuits, emergency events, hazardous conditions, and high threat evictions. The video monitoring of prisoners is extremely important and will enhance deputy sheriff safety and aid in the investigation of potential complaints from prisoners, citizens and staff.

Project Benefit:
Prisoners occasionally complain about unprofessional conduct by deputy sheriffs or have claimed to be injured during transports. In addition, prisoners have caused damage to transport vehicles during transport. The mobile digital video system will record activities during prisoner transports for staff and inmate safety and accountability.

Operating Budget Impact:
The estimated operating budget impact for this project is $12,000 per year.

Change in Project from Prior Fiscal Year:
Funds for this project in the amount of $72,000 are now available.

Telephone Emergency System Upgrade
(015-014-5-11) Priority: Highly Desired

Since 2002, the City has used a software system that has the ability to contact, via telephone system-based devices, citizens and businesses concerning various kinds of public safety or public health emergency situations and conditions. Notification is customized for contact by specific geographic locations or by use of profiles, such as professional designation (doctors). The service is able to contact pagers, cell phones, facsimile machines, satellite phone and answering machines, as well as standard telephones. The current system is at the end of its useful life, and must now be replaced.

Project Benefit:
The telephone emergency notification system enables the City to quickly and efficiently target notifications of public safety or public health issues to residents of the City, employees or other groups of stakeholders.

Operating Budget Impact:
The estimated operating budget impact for this project is $30,000 per year.

Change in project from prior fiscal year:
This is a new project in FY 2009. Funds in the amount of $100,000 have been made available by reallocating HR/ Payroll prior year monies for this purpose.

RECREATION SYSTEMS

	Prior Year Unallocated	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	Totals
Recreation Systems	75,000	0	0	0	0	0	0	75,000
Total, Net City Cost	**75,000**	**0**	**0**	**0**	**0**	**0**	**0**	**75,000**

Recreation Systems
(015-014-6-1) Priority: Desirable

This project provides for the development and installation of automated systems within the Department of Recreation, Parks and Cultural Activities. The department began addressing administrative and resident services issues through the better application of technology in FY 2001. Currently, all recreation centers have installed the Pass Management, Activity Registration and Facility Reservation modules of the department's major recreation system and are connected with the department's main administrative office for real-time tracking of on-site customers.

In FY 2003 the Park Maintenance division was given the park and facility maintenance automation modules to improve time management and maintenance tracking for over 800 park acres. The PDATrac module of the Recreational System was put into operation in 2006. Currently, the City is acquiring a maintenance management work order tracking application. The Recreation department may implement this system as well, as there are efficiency and effectiveness benefits to be realized from using one centralized work order tracking system. Funds are included in the Enterprise Maintenance Management project for this purpose.

In August 2006, the telephone registration module of the Recreation management system, which allows residents to register and pay for recreational activities electronically using a telephone, became operational. Over $10,000 in activity registrations were taken in the first 24 hours after implementation.

During the Summer of 2007, the City Marina used the Rentals, Facility and Point of Sale modules over wireless connections to process over $172,000 in real-time business transactions. Over $32,500 of the transactions were made with the use of credit cards.

The Web Registration module, which allows the public to register for activities, recreation classes and camps from the City's website, is now in use. For the past two registration cycles (Spring/Summer 2007, Fall 2007), over 45 % of the registrations (over $179,000 in transactions) were done through the web site. Currently, the method of collecting payment is through electronic checks. It is planned that with the Spring 2008 registration, credit card payments will be offered on a prototype basis. It is projected a full implementation of the credit card payment method will be in place by the end of Summer 2008.

Project Benefit:
This project provides an improved quality of service through the identification of the usage of recreation centers and the types of services that are best suited to the residents who make use of those centers. This system provides the capability for residents to register and pay for recreation classes and activities electronically, either on the telephone or over the Internet.

Operating Budget Impact:
The combined annual maintenance fee on these systems is $9,750. The annual maintenance fee includes telephone support during business hours and upgrades to the software at no additional charge.

Change in Project from Prior Fiscal Years:
There is no change in this project from the prior fiscal year.

OTHER SYSTEMS

	Prior Year Unallocated	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	Totals
Permit Processing	330,600	0	0	0	0	0	0	330,600
MHMRSA HIPAA Data Security Compliance	25,000	25,000	25,000	25,000	25,000	25,000	25,000	175,000
Intranet	105,000	0	0	10,000	10,000	10,000	0	135,000
TES Infrastructure Management and Maintenance System	0	100,000	0	0	0	0	0	100,000
IT Project Management	50,000	0	0	0	0	0	0	50,000
DHS Payment System Replacement	0	0	0	0	0	0	0	0
Library Automated Catalog Upgrade	0	170,000	0	0	0	0	0	170,000
General Services Energy Management System	50,000	0	0	0	0	0	0	50,000
NEW Enterprise Maintenance Management System	0	100,000	0	0	0	0	0	100,000
Total, Net City Cost	**560,600**	**395,000**	**25,000**	**35,000**	**35,000**	**35,000**	**25,000**	**1,110,600**

Permit Processing

(015-014-7-1) Priority: Essential

This project provides for the continued development of the City's various building-related permit systems, the most important of which is Permit*Plan, which supports the administration of the City's land development process. The permit process includes the administration of the fire prevention permits, building maintenance and city ordinance complaint tracking (for complaints regarding existing structures), civil penalties ticket tracking, fire inspections performed, residential rental inspections program , tenant/landlord complaints, Planning and Zoning complaints, development special use permits, special use permits, Transportation and Environmental Services permits, occupancy certificates and other construction related permits such as building, mechanical, electrical, gas system, elevator, fire protection systems and plumbing.

In addition, code modification records, vacant building registration, unfit property tracking and outdoor dining permits are issued and tracked through the system.

Members of the City's Permitting Committee work with staff from the various user departments to identify on-going system needs to address current and planned business practices.

Internet access to the City's permitting system data is now available on the City's web site. At present, site visitors may check the status of applied for permits and obtain inspection status by knowing project number, address or by permit number. Citizens and construction contractors have requested an increase in the services of the site to enable users to apply and pay for simple permits and schedule inspections from the City's web site. These needs are being addressed by the City's e-Government manager in the context of improvements to the Code Enforcement, TES and Planning and Zoning web sites. The project will include improved information offerings, a combined development review and permitting website and web-based permitting.

The "Code Mobility" program allows field inspectors access to the City's permitting application while in the field. This project increases efficiency by eliminating the need for inspectors to enter field data twice (once in the field, and again in the office), and by having updated information on inspection status available to the public at nearly real-time. The Fire Inspection unit, TES, and zoning inspectors are anticipated to be added to this program by the end of FY 2008.

The Code Enforcement bureau is currently replacing the Integration Voice Response (IVR) unit that supports phone-based inspection requests. The new IVR unit will provide several new customer service features including the ability for inspectors to leave recorded messages for the citizen/contractors. Additional modules (reverse phone inspection results and email inspection results) to improve the capabilities of the replaced IVR unit will be considered once all field laptops and printers are purchased.

Project Benefit:
This project enhances productivity for City staff in Code Enforcement, Planning and Zoning, Transportation and Environmental Services, Health, Archaeology and Recreation by reducing the time to transmit permit requests among the departments that must review them. The system enables better customer service by enabling staff to answer inquiries about the status of permit applications quickly and accurately. In addition, the Integrated Voice Response (IVR) system allows contractors, residents and customers to use telephone automation to schedule inspections, get inspection results, have applications faxed and get general information regarding when permits are required, which frees up staff to do other tasks.

Operating Budget Impact:
Annual operating budget costs for current system maintenance and costs of the mobility project (for field computer depreciation) are approximately $220,000 per year.

Change in Project From Prior Fiscal Years:
Funding currently programmed for the projects completion will be adequate. This will include the field laptop deployment in the Fire Inspection unit, TES and Planning and Zoning.

Intranet
(015-014-7-2) Priority: Very Desirable

An intranet is the application of Internet technologies over an organization's internal network, allowing City employees to share data and more easily access services. The information that is provided through an intranet is available only to an organization's employees and allows for the display of documents, submission of information using electronic forms and enhanced employee collaboration. An intranet resides on an organization's existing network and is usually protected from the outside world by a firewall. The City of Alexandria's intranet is called CityNet.

This project enables staff to continue developing the City's intranet infrastructure, content, and applications.

Project Benefit:
An intranet allows the City government to:

- Distribute information quickly to all City government employees who have network connections or other authorized access.

- Take advantage of browser/client technology to reduce the cost and effort of making client/server applications available to appropriate City staff. (See the Application Deployment Management project for additional information, page 91).
- Allow departments to electronically distribute information solely to their own staff without having to make this information available to all City staff.

Operating Budget Impact:
The estimated operating budget impact for this project is $15,000 per year.

Change In Project From Prior Years:
This project is able to forego funding in FY 2009 due to an availability of prior year resources.

TES Infrastructure Management and Maintenance System
(015-014-7-3) Priority: Essential

Transportation and Environmental Services (T&ES) Operations Division (Maintenance and Solid Waste Divisions) uses semi-automated processes for work input and control of the City's municipal physical public works assets. These systems log work to be accomplished and completed work, but no entry is made into a history file. If management wants to see the amount and type of work that has taken place over a period of time on a specific asset element (for example, the 8-inch sanitary sewer main connecting East Bellefonte Ave with the Commonwealth Connector), a manual records search has to be done.

The system to be implemented would have the capability to assist in the infrastructure maintenance and customer service activities of other divisions in T&ES. A preferred system would include the following elements, and will be interfaced with the City's GIS system for mapping, and the City's accounting and budgetary systems for cost data.

The system will provide information on work management to include labor, material and equipment usage and costs for:

- Labor records
- Material inventory
- Work orders and projects
- Equipment used on projects
- Labor assigned to projects
- Work requests

Once populated with the correct information, it is envisioned that the system will provide information on asset management to include inventory quantities, condition and value of the following:

- Traffic signs and signals
- Storm and sanitary sewers

- Fire Hydrants
- Pavement
- Paving
- Curbs and Gutters
- Sidewalks
- Markings
- Street lights
- Solid waste receptacles
- Recycling drop-off centers

The City issued an RFP for this system in early FY 2008 and is now in the process of evaluating proposals. It is anticipated the City will make a formal selection in February, 2008. The system chosen will also serve similar customer service and infrastructure maintenance needs in departments such as General Services, Recreation, Parks, and Cultural Activities, and Mental Health. It will also be the platform on which a Citywide Customer Relationship Management (CRM) system will operate.

Project Benefit:
This project enhances productivity by improving customer service, eliminating unnecessary manual data entry, accumulating more accurate maintenance data and creating a database of infrastructure items and maintenance activities. Customer satisfaction is improved due to the City's enhanced ability to respond to resident complaints about City infrastructure in a more timely and accurate fashion.

Operating Budget Impact:
The annual operating budget impact is estimated at approximately 15 percent of the current year software cost, or $11,250.

Change In Project From Prior Fiscal Years:
Funds in the amount of $100,000 have been requested in FY 2009 for the second phase of system implementation that will take place in the Transportation Division of T&ES.

MHMRSA HIPAA Data Security
(015-014-7-4) Priority: Essential

The Health Insurance Portability Accountability Act of 1996 (HIPAA) was enacted by Congress and signed into law to regulate and standardize information exchanges and establish standards for the privacy and security of individually identifiable health insurance information. HIPAA impacts all functions, processes and systems that store, handle, or generate health information.

The act is complex and the regulations by design leave the procedural implementation decisions open to interpretation. The scope of this project includes a self-assessment of current business functions and their impact on HIPAA

regulations and compliance issues. MH/MR/SA staff are familiar with the Security Rules and the department has a voting member on the Virginia Community Services Boards' (VACSB) HIPAA Security Subcommittee. This subcommittee developed a Risk Analysis Tool. MH/MR/SA is using this tool to assess risk and implement appropriate measures to mitigate these risks.

In FY 2007, the department established biometric log-ins for all WAN-connected MH/MR/SA staff to log-in to the City's network, and automated the process of backing up to the redundant file servers in 15-minute increments. In FY 2008 the department replaced the server that hosts the Anasazi Microsoft SQL database. The server OS and the SQL database software was upgraded to MS SQL 2005. These improvements tripled the amount of RAM available to users, increased storage capacity and decreased the server footprint. Planned improvements in this project include adding a biometrically aware Citrix Server to the Citrix farm to test remote biometric validation.

Project Benefit:
This project provides funding to ensure City compliance with HIPAA regulations.

Operating Budget Impact:
The estimated operating budget impact for this project is $5,000 per year.

Change In Project From Prior Fiscal Years:
Funding for this project continues through FY 2014 in the amount of $25,000.

Information Technology Project Management
(015-014-7-5) Priority: Very Desirable

The City has worked hard to communicate the necessity for excellent project management with respect to the IT Plan projects that are included in this document. To that end, the Information Technology Project Office within the ITS department serves as a City-wide resource for project management assistance. The Project Office provides formal project management services, including consultation services, as well as less formal assistance to help City staff plan, initiate, execute, control and close their information technology projects.

This project provides funding for contract project management staff where no obvious departmental resource exists to fulfill this role. In addition, monies in this project will be used to purchase additional software licenses for the City's enterprise project management software application for departmental staff who desire to use this web-based application.

Project Benefit:
This project provides funding to expand the City's use of professional project management services, which will improve communications and project success.

Operating Budget Impact:
The City currently pays approximately $5,000 annually for maintenance for the enterprise project management software application.

Change in Project from Prior Fiscal Years:
There is no change in this project from the prior fiscal year.

DHS Payment System Replacement
(015-014-7-6) Priority: Desirable

The Human Services department's current payment and case management system is at the end of its useful life and needs to be upgraded to a web-based version. The current system is used by Human Services, MHMRSA, Alexandria City Health Department, Alexandria City Schools and Court Services personnel for service-related cases.

The system vendor has notified DHS that continued support would only be performed with payment of an hourly programming fee. In FY 2007, DHS issued a 'Request for Information' (RFI) to obtain additional information about products in the marketplace. Two companies offered additional services to spend time with DHS finance staff, program staff, any and all staff that are part of the application to understand social services payment structures, case management, and evaluate how to customize their product or create a product to meet DHS needs.

Project Benefit:
The new desired version of the software will provide a more flexible, cost-effective and portable software solution for staff. The solution should include improvements in overall access, security, reporting and screen design, and will also allow access by staff not connected to the City's network. Vendors could access payment information via web. Any changes the State has and will make in reporting requirements shall be included in the web version.

Operating Budget Impact:
The estimated operating budget impact for this project is $30,000 per year.

Change in Project From Prior Fiscal Years:
There is no change in this project from the prior fiscal year.

Library Automated Catalog Upgrade
(015-014-7-7) Priority: Very Desired

In FY 2005 the Alexandria Library replaced its integrated automated library system with the Horizon/Dynix automated catalog system. Implementing a new system improved the library patron's access to the library's collection, its on-line reference resources and other special services such as remote reserving and renewing of material, delivery to the homebound, and movement of materials between and among branches upon request.

The system's vendor recently released a schedule of required upgrades to the system. This project provides funds to acquire necessary hardware, software and services to complete the upgrade.

Project Benefit:
Implementing required updates protects the City's investment in its applications by ensuring continued product support and user access to new product functionality.

Operating Budget Impact:
The estimated operating budget impact for this project is $20,250 per year.

Change in Project from Prior Fiscal Year:
Funds in the amount of $170,000 are included in FY 2009 for the upgrade.

General Services Energy Management System
(15-14-7-8) Priority: Highly Desired

The General Services department is seeking to purchase an Energy Management system to help facilitate the tracking, analysis, and audit of over 350 utility accounts the department manages.

Project Benefit: The software will enable staff to audit and check bills for various problems such as excessively high or low usage, cost, unit cost, demand; bill duplicates; abnormal dates; or missing bills. In addition, historical cost data will be maintained to compare any number of budgets on a detailed meter-by-meter and month-by-month basis. This will result in efficiency savings to the City both in terms of the number of mistakes identified and rectified earlier, and in terms of easing the manual process currently required to perform this review.

Operating Budget Impact:
The annual operating budget impact for this project is $7,500.

Change in Project from Prior Fiscal Year
This is a new project in FY 2009. Funds in the amount of $50,000 have been reprogrammed from the HR/Payroll project for this project.

Enterprise Maintenance Management System
(15-14-7-9) Priority: Highly Desired

Funds in the amount of $100,000 are requested for the Enterprise Maintenance Management System. This project will provide funding required to extend the City's use of the T&ES Maintenance Management System (see page 73) to other departments, including the Recreation Department and the MH/MR/SA department. It is anticipated that this project will work in conjunction with the City's Customer Relationship Management System (see page 42) to track and provide real-time information on citizen requests.

Project Benefit:
Utilizing one system for various work order and service requests made throughout the City will allow City staff to centrally identify, assign, track, and manage requests. Duplicate service requests will be quickly identified and closed before valuable resources are spent resolving the issue.

Operating Budget Impact:
The annual operating budget impact for this system will be approximately $15,000.

Change in Project from Prior Fiscal Year:
This is a new project in FY 2009.

LOCAL AREA NETWORK (LAN) DEVELOPMENT

	Prior Year Unallocated	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	Totals
LAN Backbone Capacity								
Expenditure Totals	75,000	50,000	75,000	75,000	75,000	75,000	75,000	500,000
Less Revenues	0	-50,000	-20,000	-20,000	0	0	0	-90,000
Net City Cost	75,000	0	55,000	55,000	75,000	75,000	75,000	410,000
Individual Building LAN Development	50,000	0	25,000	25,000	25,000	25,000	25,000	175,000
Upgrade Network Operating System	25,000	0	15,000	15,000	15,000	20,000	20,000	110,000
Upgrade Work Station Operating Systems	160,000	200,000	50,000	50,000	50,000	50,000	50,000	610,000
Network Infrastructure Hardware Upgrades/ Replacement								
Expenditure Totals	0	482,125	492,125	455,000	400,000	400,000	400,000	2,629,250
Less Revenues	0	-482,125	-400,000	-400,000	-345,000	-345,000	-345,000	-2,317,125
Net City Cost	0	0	92,125	55,000	55,000	55,000	55,000	312,125
NEW Criminal Justice Systems Data Storage								
Expenditure Totals	0	100,000	0	0	0	0	0	100,000
Less Revenues	0	-100,000	0	0	0	0	0	-100,000
Net City Cost	0	0	0	0	0	0	0	0
NEW Replace Lotus Notes	0	0	0	650,000	650,000	650,000	0	1,950,000
Total, Net City Cost	**310,000**	**200,000**	**237,125**	**850,000**	**870,000**	**875,000**	**225,000**	**3,567,125**

Increase the Capacity of the LAN Backbone
(015-015-1-1) Priority: Essential

A Local Area Network (LAN) backbone is the set of electronic components (electronic Ethernet, switches, routers, cables, concentrators and hubs) and software that connect multiple LAN servers within a single building to one another. In City Hall the LAN backbone also connects to the City's Wide Area Network (WAN), and includes high-speed WAN services the City's Institutional Network (I-Net), and virtual private network (VPN) services and to Arlington County, Virginia, as part of the Nation Capital Region Interoperability Program (NCRIP) .

A backbone's capacity is a key factor constraining data transmission speed. At present, the backbone for a typical City building transmits data using ethernet communication protocols with a data rate of 1 gigabit per second. With the continued deployment of document storage and retrieval services, as well as the increased data traffic that is being introduced by the development of the Geographic Information System, the Alexandria Justice Information System, the Police and Fire Computer Aided Dispatch Systems and the other Public Safety systems and the large deployment of Lotus Notes e-mail, additional backbone capacity is needed in many City facilities.

Project Benefit:
This project continues to fund improvements to staff productivity by increasing the speed with which data are delivered to users of the City's computer networks. By providing equipment upgrades to the network backbones, it is possible to

provide better quality service to computer users by significantly reducing the time spent waiting for network responses for data. The upgrades also enable a much wider exchange of graphical images and other items such as maps and video that demand high-bandwidth.

Operating Budget Impact:
The estimated operating budget impact for this project is $11,250 per year.

Change In Project From Prior Fiscal Years:
Funding for this project is provided in FY 2010. There are sufficient prior year resources to forgo funding in FY 2009.

Individual Building LAN Development
(015-015-1-2) Priority: Very Desirable

The project includes installation of, or upgrades to, local area networks (LANs) located in many City government buildings. Monies will fund the acquisition of the LAN infrastructure components (ethernet switches, punch-down blocks, cabling, etc.) needed for relocation of staff as they move to new office space (Job Link, Code Enforcement staff, Police vehicle facility, etc). These new components will be connected to the I-Net switches at each site, and additional LAN infrastructure equipment will be installed where necessary. These upgrades or new connections will provide at least 1 gigabit per second switched ethernet connections. As the I-Net is deployed further and the specific needs of each building are clearly identified, costs will be updated accordingly.

Project Benefit:
LANs can provide better quality service for staff by improving access to data and by making new functions available that can improve the quality of customer service.

Operating Budget Impact:
The estimated operating budget impact for this project is $7,500 per year.

Change In Project From Prior Fiscal Years:
Funds in the amount of $50,000 are included in this project in FY 2009. Funding for this project has been extended to FY 2014 in the amount of $25,000.

Upgrade Network Operating System
(015-015-1-3) Priority: Essential

This project provides software upgrades and replacements for the City's enterprise network infrastructure, as well as associated tools for network management and desktop administration. These products include scripting software that simplifies network management and reduces the time required to perform administrative tasks. Other initiatives in this area include tools to monitor the complete network environment from software to electrical power and provide real-time notification to City network engineers in the event of an actual or potential device failure.

Licenses and operating system software for new servers to expand or increase network performance are also purchased through this program. One example of these types of licenses is sever client access licenses (CALs). CALs provide for simultaneous server connections, which are necessary as ITS moves in the direction of server

consolidation and virtualization. Consolidation and virtualization will create network efficiencies and reduce operating costs as the number of servers is reduced and dispersed throughout the network. Terminal Services CALS are also funded from this project to allow for remote access to Microsoft Windows servers. Current pricing for Microsoft Windows 2003 Server Standard Edition is approximately $1,200 per license. Server consolidations and server virtualization will reduce the number of physical servers purchased.

This project will also fund the purchase of CALS for Microsoft Server 2008 when it is deployed on City servers. Pricing is not available at this time for the operating system or CALs.

This project is closely planned and implemented in conjunction with the Network Infrastructure Hardware Upgrades/ Replacement project; see page 83.

Project Benefit:
This project enhances productivity by making network management task more efficient, reducing the time spent by ITS staff managing and monitoring the City's network services. Introduction of new software and management tools has the secondary effect of providing training and developing proficiencies for City network engineers as they work with the latest operating systems and software tools.

The City continues to move toward virtualization of the servers supporting City operations. As virtualization technologies emerge, the need to purchase multiple server operating systems will diminish. The purchase of server virtualization products such as Microsoft Virtual Server 2005 will be funded from this project. ITS accomplished a major virtualization milestone this year with the migration of the City's payroll system from a legacy mainframe environment to a client server application. This server has a "virtual server provisions" within the application server providing for data redundancy on one actual server.

Operating Budget Impact:
The estimated operating budget impact for this project is $5,000 per year.

Change In Project From Prior Fiscal Years:
This project has sufficient prior year funding available, and is therefore not funded in FY 2009.

Upgrade Workstation Operating Systems
(015-015-1-4) Priority: Essential

This project provides funds to upgrade the operating system on City computer workstations with an appropriate version of Windows. This project also provides funds for additional workstation memory, larger capacity hard drives, or other related hardware components as necessary. This project also provides for the labor costs of installing the new operating systems. These upgrades are required to support the next generation of City e-mail messaging, financial, public safety, GIS, human resource, maintenance management and other applications.

The City replaces desktops and workstations on a five-year cycle and as these are replaced the operating system is typically upgraded. However, this funding is for those computer workstations that are not in need of physical replacement, but still require the upgrade of the operating system to allow a new or upgraded application to run. Additionally, this funding is used to test the viability of newer operating systems on current City applications and hardware.

The current desktop operating system standard is Windows 2000 and Windows XP. All new workstations are deployed with Windows XP. After the completion of the FY 2008 equipment replacement cycle, ITS estimates that there will be less than 1,000 workstations with Windows 2000 and about 1,300 with Windows XP.

Microsoft maintains a 10-year minimum support cycle for their product line. On June 30, 2005, the Windows 2000 product family transitioned from mainstream support to its extended support phase. Microsoft will continue extended support for Windows 2000 through July 13, 2010. With the release of Microsoft's next generation operating system, Windows Vista in January 2007, mainstream support for Windows XP is scheduled to expire on April 14, 2009 and extended support is scheduled to end on April 8, 2014.

Effective June 30, 2008, Dell Inc., will no longer offer Windows XP operating systems on newly acquired computers. Funding in the amount of $200,000 in FY 2009 will be used for careful Windows Vista migration planning, training, testing, and limited deployments, to ensure that no major systems are disrupted during this migration process.

Project Benefit:
This project ensures that the City's desktop computing environment is viable and meets the requirements of new software and hardware technologies needed by City computer users.

Operating Budget Impact:
The estimated operating budget impact for this project is $7,500 per year.

Change In Project From Prior Fiscal Years:
Funding for this project in FY 2009 is $200,000. After FY 2009, funding will be extended through FY 2014 in the amount of $50,000.

Network Infrastructure Hardware Upgrades/Replacement
(015-015-1-5) Priority: Essential

This project provides for the phased replacement of the hardware and software required to operate the City's computer network services in a safe and reliable manner. This project also provides funds for consulting services to properly plan and execute the scheduled network infrastructure upgrades.

The table in Appendix A on page 97, identifies the units that are scheduled to be replaced each year and, where consolidation of file servers is planned, when and how that consolidation is to occur.

Several essential purchases and upgrades are required for this project this year. Data storage devices and additional files servers are needed to accommodate projected growth. Consolidation of servers, will reduce the number of physical servers by replacing them with more powerful servers with quad processors; multiple drives and data storage devices improving performance without increasing the price. Specialized cooling racks may also be needed to support these more consolidated servers.

Several additional features are funded and will enhance the remote network management and operating capabilities. A new KVM (Keyboard, video, mouse) IP-based system was implemented in the Network Operations Center to reduce the number of physical KVM devices and provide remote access across the network. Operating in conjunction with the

IP-based KVM device, a server monitoring tool that monitors the server's health and sends alerts to network engineers greatly enhances remote operations. Finally, IP-based cameras allow engineers to view conditions in the NOC.

Project Benefit:
This project funds hardware and software for the phased replacement of servers in accordance with the Appendix A schedule. New servers that are required to provide the expected level of system reliability and availability are also purchased along with the necessary administrative software and desktop licenses to manage the network.

Future initiatives for this project include the replacement and consolidation of legacy file servers and network printers. Further refinement of the City's data storage and backup procedures is also being examined. Implementation of virtual machines is also funded under this project. Virtualization allows multiple instances of applications to reside on a single server. These servers can be clustered for data redundancy and business continuity initiatives.

Operating Budget Impact:
New and replacement servers are acquired with four year on-site maintenance warranty service, holding annual network equipment maintenance costs to a minimum. The estimated operating budget impact for this project is $6,500 per year.

Change In Project From Prior Fiscal Years:
There is no change in this project from the prior fiscal year.

Criminal Justice Systems Data Storage
(015-015-1-6) Priority: Very Desirable

Project Benefit:
Funding in the amount of $100,000 in FY 2009 allows for the purchase and installation of a tape library data storage system for the Circuit Court Judges Chambers. This system will be used for separate data storage and backup of critical criminal justice and civil data information. This information has unique retention schedules and access requirements and must be managed by Circuit Court Judges Chambers staff separately from other City data.

The purchase of a data storage system for the Courts will help them comply with Virginia Code requirements for management and preservation of public records. Virginia Code specifies that paper and electronic records have the same retention schedules. This includes the requirement to expunge police and court records, juvenile records as well as indefinite storage of certain documents and civil records. This important synchronization will be more easily executed after a storage system is in place.

Ensuring that Alexandria's criminal justice agencies are equipped with a reliable data backup and storage system that meets the Code of Virginia requirements is critical to the integrity of their data and daily operations.

Project Benefit:
Ensuring that Alexandria's criminal justice agencies are equipped with a reliable data backup and storage system that meets the Code of Virginia requirements is critical to the integrity of their data and daily operations.

Operating Budget Impact:
This operating budget impact of this project is approximately $15,000 per year.

Change In Project From Prior Fiscal Year:
This is a new project in FY 2009.

Replace Lotus Notes E-mail Systems
(015-015-1-7) Priority: Desired

This project provides funds to migrate the City's current e-mail services, IBM's Lotus Notes, to Microsoft Exchange. The IBM Lotus Notes product portfolio provides electronic mail (e-mail) services to City employees, as well as the Lotus Domino multi-platform server foundation for collaboration and e-business, which includes support of the e-mail infrastructure.

Project Benefit:
This project provides funds to implement important e-mail initiatives that improve productivity by improving access to essential information, improving the speed and reliability of services, and taking advantage of emerging technologies. The City will benefit by standardizing on a single enterprise platform that will provide better integration of messaging into existing Microsoft based applications. Financial benefits, in future years will be realized with enterprise agreement pricing availability.

Funding for this project will provide for consulting services to assist in developing migration strategies, provide cost estimates and on-going support during the project. Microsoft Exchange training for employees will be funded by this project during the migration. Lotus Notes databases other than e-mail will also need to be converted to a Microsoft compatible platform. Additional server hardware and software will need to be purchased to set up test environments before live e-mail is migrated. Running dual e-mail platforms during the migration will also be required until all users are migrated.

Operating Budget Impact:
The operating budget impact is unknown at this time. The City may choose to purchase an 'Enterprise' license with Microsoft for their product line. This will carry a significant annual cost; however, the City will be entitled to bulk pricing that is simpler to administer and manage, thus making the process more efficient.

Change in Project from Prior Fiscal Years:
This is a new project in FY 2009. Funds for this project ($1.95 million) are not budgeted until starting in FY 2011.

WIDE AREA NETWORK (WAN) DEVELOPMENT

	Prior Year Unallocated	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	Totals
Institutional Network Development								
Expenditure Totals	0	375,000	375,000	375,000	450,000	450,000	450,000	2,475,000
Less Revenues	0	-375,000	-375,000	-375,000	-450,000	-450,000	-450,000	-2,475,000
Net City Cost	0	0	0	0	0	0	0	0
Telephony Integration								
Expenditure Totals	621,000	0	0	75,000	75,000	75,000	75,000	921,000
Less Revenues	-621,000	0	0	0	0	0	0	-621,000
Net City Cost	0	0	0	75,000	75,000	75,000	75,000	300,000
Security								
Expenditure Totals	115,000	200,000	140,000	110,000	50,000	50,000	50,000	715,000
Less Revenues	-115,000	-200,000	0	0	0	0	0	-315,000
Net City Cost	0	0	140,000	110,000	50,000	50,000	50,000	400,000
Application Deployment Management	28,000	50,000	25,000	25,000	25,000	25,000	25,000	203,000
Database Infrastructure	258,000	0	30,000	40,000	40,000	40,000	40,000	448,000
Total, Net City Cost	**286,000**	**50,000**	**195,000**	**250,000**	**190,000**	**190,000**	**190,000**	**1,351,000**

Institutional Network (I-Net) Development
(015-015-2-1) Priority: Essential

This project enables the City to deliver scalable data, audio and video communications to the ACPS, the libraries and the City government as those services are needed and warranted.

In FY 2005 the City contracted with a private firm to upgrade all of the I-Net switches from ATM to ethernet coursewave (which is the next generation of this technology) to improve throughput and to increase the longevity of the I-Net. This upgrade was completed for the Schools in June 2006, and was completed for the City in November 2007.

Funding for this project is provided by Comcast Cable Communications capital grant monies required to be provided under the City's cable franchise agreement with Comcast. This sustains the continued activation of the fiber optic network called the City's Institutional Network (I-Net). Other IT Plan projects that are part of the City's I-Net infrastructure and are supported through Comcast revenues are shown in the following table.

PROJECT	FY 2009 COMCAST REVENUES
I-Net Development	$375,000
Network Infrastructure Hardware Upgrades	$482,125
Security	$200,000
LAN Backbone Capacity	$50,000
Criminal Justice Systems Data Storage	$100,000
TOTAL	$1,207,125*

*Includes $795,000 in current year Comcast revenues and $412,125 in prior year Comcast revenues.

Project Benefit:
This project has enhanced productivity by providing direct high-speed connectivity among City government offices and by allowing several City schools (ACPS) to have video services to connect classrooms.

Operating Budget Impact:
I-Net maintenance costs vary depending on whether the site is a primary site (connected directly to the Comcast provided fiber) or a secondary site that is connected downstream from a primary site. This is because the downstream sites have less equipment to maintain. Assuming maintenance, repair and engineering, the cost estimate for a primary site is $3,500/yr. and for a secondary site is $2,500/yr.

Change In Project From Prior Fiscal Years:
There is no change in City funding for this project from the prior fiscal year.

Telephony
(015-015-2-2) Priority: Very Desirable

This project funds the City's telephone and telecommunications infrastructure, including telephone switches and handsets. The estimated cost of this project is $2.4 million, to be funded with prior year funds. No funding in FY 2009 is necessary. The project has been modified to reflect the City's plan to implement a Voice Over Internet Protocol (VOIP) system. VOIP converges telephone voice and computer data services over a common network. The network in this case will be the City's Institutional Network (I-Net).

The Telephony project includes funds for the City to begin implementing VOIP in FY 2008. There are some compelling technical and business reasons for the City to pursue this technology now. Parts of Alexandria's current phone system have aged beyond their recommend service life and are becoming increasing harder to maintain and replace. Continued reliance on the existing system will result in less dependable service and higher maintenance costs. VOIP has become better and cheaper to implement, and the City stands to reap greater benefits by implementing this technology now rather than continuing to fund the support of the older telephone infrastructure.

The ITS implementation strategy calls for a hybrid VOIP solution as the preferred approach for the City. This technique mixes IP and digital phones, providing full VOIP functionality across the entire network, ensuring reliability while reducing technical risk and installation costs. Additionally, a hybrid approach will minimize disruptions of I-Net data during the critical voice transition.

Project Benefit:
Implementing VOIP will dramatically improve the over all quality of the City's' phone system. Both citizens, and City employees will benefit from enhanced system functionality. Staff will have their own direct-dialed phone number (eliminating the City's current use of extensions), with the use of four or five-digit-dialing enabled within the network. VOIP will also provide the capability for the City to have a centralized voice mail system, with a wide range of advanced calling features available throughout the network. The system will provide centralized call accounting and tracking features that will enable the City to be more responsive to citizen needs during high demand cycles such as tax collections.

Operating Budget Impact:
VOIP will reduce the amount of leased services the City purchases from Verizon. However since ITS doesn't have a large enough staff to install, operate, and maintain the VOIP network, the City will need to purchase a managed service option from the vendor. The operating and maintenance costs of telephone switches and voice mail units are not included in the ITS budget. Therefore, City departments and agencies work with the City's telecommunication coordinator to develop operating and maintenance budgets for telephone switches, phone sets, wireless phones, and pagers.

Change In Project From Prior Fiscal Years:
Funding for this project ($2.4 million) has changed to reflect the costs of implementing voice over IP in the City.

Security
(015-015-2-3) Priority: Essential

This project encompasses functions related to assuring security of data on City computers, servers, networking equipment, and wireless and telephone switching equipment. The goal of this project is to minimize the risk of unauthorized access, intentional or accidental loss or destruction of City data.

This project provides the funding to implement the infrastructure needed to help support the City's Security Policy. New initiatives that will be implemented with the funding over the next fiscal year include a log consolidation project, a password management system, a network access control solution and a redundant firewall.

Currently, the City has logs and events that are periodically reviewed by the administrator. The City must have an automated solution that provides faster alert and response time on security incidents as well as system failures. The City is seeking a central log management system that collects the raw logs of many devices, correlates them, and alerts City staff if any incident is occurring.

With new complexities built into the new password scheme, the City needs a solution that provides the required protection for City information while at the same time not hinder productivity by making it easy for users to log in and not

have to memorize four or five different complex passwords. The SSO or password management system will allow all City employees to memorize only one password or authentication key.

The City must have a network access control (NAC) system to manage access to the City's network. At present network engineers do not have the ability to easily monitor and control network usage or actively make sure no malware is introduced into the City's network by authorized users. Implementing a NAC will also help the City insure that sensitive information is not inadvertently released.

Project Benefit:
The central log system reduces costs and gains efficiencies by eliminating the need for system operators to log in and check the logs manually. It also alerts the operators immediately upon detection of an incident, eliminating the time needed to do a root cause search. It also helps reduce critical business downtime caused by security incidents or hardware failures.

The password management system will reduce the number of service calls to the helpdesk. Users will be able to reset their own passwords if they forget them. It will also improve efficiency by allowing users to only remember one password instead of many different ones.

Operating Budget Impact:
With each of these new security systems, there will be recurring maintenance and upgrade costs. The estimated operating budget impact for all of these new initiatives is approximately twenty to thirty percent of the cost for the hardware/software solution.

Change in Project From Prior Fiscal Year
This project is funded in the amount of $200,000 in FY 2009.

Application Deployment Management
(015-015-2-4) Priority: Very Desirable

The City has a number of application systems employing client/server technology. Client/server technology is designed so much of the work done by the application system is performed by the server, and very little is performed at the client workstation. Client services can also be delivered through a web browser using a class of software called terminal servers, of which Citrix Metaframe and Microsoft Terminal Services are the leading products in this class. By using this technology, City employees can have access to the full range of their applications through the Internet on a daily basis. This project also plays an important role in supporting the City's remote access initiatives:

- Mobile Workforce — Provides the ability for City field workers to efficiently access City applications and network resources from mobile job sites despite very slow network connections.
- *Application Deployment* — Deploy complex and expensive applications with heavy client configurations, manage and update software without needing to access each user's workstation.
- V*irtual Workforce* — Provides the ability for City employees to work from locations other than their desktop. This supports the City's telecommuting initiatives by enabling staff to access applications remotely. ITS network engineers are able to provide remote after-hours support to the enterprise through Citrix connections. Engineers

can conduct server management operations without travel time to the City's Data Center improving response time and City staff access to data services.

- *Business Continuity* — Provides for rapid data availability to City department and agencies during planned or emergency events where normal work locations are inaccessible. The combination of Citrix and Wyse terminals (thin client) provide multiple users their normal work location desktop functionality with minimum setup and configuration.

Project Benefit:
This project provides remote network and application access during contingencies. It reduces software administration costs by reducing the number of hours required to install, upgrade and maintain software applications on individual PC's.

This project also reduces the number of applications that require installation on client workstations because the applications will reside at the Citrix "farm," For some applications, this will also reduce the number of licenses the City is required to purchase.

Operating Budget Impact:
The estimated operating budget impact for this project is $7,500 per year.

Change In Project From Prior Fiscal Years:
The server farm capacity has been increased with additional servers providing load balancing and dedicated resources for key City staff. The servers were upgraded to Presentations Server 4.5 which provided for Vista desktops, automatic reconnections, local drive access and local printer access. These enhancements have expanded the use of Citrix by employees who need to access City applications from locations that are not on the City's Institutional Network such as the City Marina, Fort Ward, City Libraries and the Apothecary Shop. Other non-traditional uses are also emerging. General Services after-hours engineers are now able to remotely check HVAC settings at certain City sites using Citrix.

Database Infrastructure Development
(015-015-2-5) Priority: Very Desirable

This Project provides for new and replacement database infrastructure hardware, software, licensing, upgrades, and tools. This project also provides for consulting services to properly maintain and enhance the data infrastructure. Additionally, this project provides funding to research, test, and implement new database software and tools.

Current initiatives under this project include upgrading the City's enterprise database engines from MS SQL Server 2000 to SQL Server 2005; installing and upgrading the Business Objects Crystal Reports 11 database reporting tool; and consulting initiatives in support of Domino database migrations to SQL Server 2005.

Project Benefit:
Nearly all of the City's major software applications utilize databases as their data stores and are served by this project. Keeping the database infrastructure up to date preserves optimum application performance and scalability, ensures the City's software applications remain supportable, supports interoperability between the databases and the latest Operating System Software and Server Hardware, and allows City staff to use new and improved database features.

Operating Budget Impact:
The estimated operating budget impact for this project is $5,000 per year.

Change In Project From Prior Fiscal Years:
There is no change in this project from the prior fiscal year.

ENTERPRISE SERVICES

	Prior Year Unallocated	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	Totals
E-mail Services	0	175,000	175,000	105,000	200,000	200,000	200,000	1,055,000
Wireless Initiatives (Information Utility)	120,000	0	0	20,000	20,000	20,000	20,000	200,000
Desktop Productivity Environment	50,000	0	50,000	50,000	50,000	50,000	50,000	300,000
Total, Net City Cost	**170,000**	**175,000**	**225,000**	**175,000**	**270,000**	**270,000**	**270,000**	**1,555,000**

E-mail Systems Development
(015-015-3-1) Priority: Very Desirable

This project provides funds to improve and evolve the City's electronic mail (e-mail) services. The City currently uses IBM's Lotus Notes as the software package to provide e-mail services for City employees. Lotus Domino is used to provide servers with a multi-platform foundation for collaboration and e-business, as well as supporting the Notes e-mail infrastructure.

Access to e-mail is also provided by Blackberry handheld devices. This mobile access is essential for keeping designated employees connected to City e-mail services. Currently, there are about 200 devices in use by City staff. iNotes, a web-based browser accessible email application is another way City employees can remotely access their City e-mail.

The City is currently implementing a disaster recovery plan for email services. The project involves the consolidation of current e-mail servers while creating redundant capacity. When this project is completed, fail-over will cascade from the primary site to a warm site within the City and if necessary, to a hot site outside the Beltway with minimal (if any) disruption for users. Server consolidation will produce a new data architecture for the City through the application of virtualization and DAS (direct attached storage) technologies. The consolidation will eliminate the number of servers currently required to accommodate the City's growing data requirements and reduce the data recovery response time. Another important part of this project is the implementation of a new "spam" and rule-based filtering solution.

E-Mail archiving and journaling will begin in FY 2008. Symantec's Enterprise Vault will reduce storage requirements by eliminating the use of mail archives locally or on servers. This product will provide a single centralized repository for all e-mail allowing full text search capabilities across all e-mail databases. This new capability will benefit the City in complying with e-discovery requirement and FOIA (Freedom of Information Act) requests.

Lotus Notes application support and maintenance is critical for normal operation of the e-mail system. Although there is no new development of Notes applications, there are still approximately 45 Notes databases that are considered mission critical by owner departments, and which require high availability. These include Docket Storage and Retrieval; the Planning Commission Docket System; and the Fire Department data portal. Support for these databases is currently being provided through contracted services.

Project Benefit:
This project provides funds to maintain existing email services until such time that these are replaced by a newer technology (see Replace Lotus Notes project, page 85).

Operating Budget Impact:
The estimated operating budget impact for this project, including the disaster recovery service and Enterprise Vault is approximately $240,000 per year.

Change in Project from Prior Fiscal Years:
Funds in the amount of $175,000 are requested in FY 2009 for this project.

Wireless Information Utility
(015-015-3-2) Priority: Desirable

This project provides funding for various wireless initiatives in the City, to benefit both the general public and City employees. Wireless technologies and applications are becoming commonplace across the United States and throughout the world. This technology trend is a direct response to the changing economic landscape, where the world is becoming increasingly information-based. Consequently, workers and consumers are demanding easy access to information - any time, any place, anywhere. The City will determine in 2008 whether and how to begin a process to solicit bids from vendors for a citywide wireless network, once a review of the economics of such services, its technology, and its marketplace viability is undertaken. (See Wireless Alexandria, page 18 for additional information.)

Project Benefit:
Monies in this project will be used for research and development to promote wireless use in the City.

Change In Project From Prior Fiscal Years:
This project has sufficient prior year funding, so no additional funds are sought in FY 2009.

Desktop Productivity Environment
(015-015-3-3) Priority: Desirable

In FY 2007, the City converted its desktop productivity software standard from Corel Suite 9 to Microsoft Office (Word, Excel, PowerPoint). The initial Microsoft migration funding accounted for the installation of Microsoft Office on computers with only Corel Suite 9 loaded. In FY 2007, the City installed over 1,000 licenses of Microsoft Office 2003 to replace its outdated Corel WordPerfect Office suite. A version of Microsoft Office is now installed on every primary desktop computer. After a reconciliation of licenses owned by the City, the City has an estimated 700 licenses predating Office version 2003. These 700 licenses will eventually need to be upgraded to align with Microsoft's product support schedule. Microsoft's mainstream support for Office 2000 ended on June 30, 2004. The Office 2000 extended support period will last from July 1, 2004 through July 14, 2009. Microsoft ended mainstream support for Office XP on July 11, 2006. The extended support period for Office XP will last from July 12, 2006 through July 12, 2011. In order to maintain a viable desktop productivity environment, the City must budget for software upgrades to ensure all Microsoft Office suites are upgraded before the end of their extended support periods.

Project Benefit:
The purchase of the most recent MS Office license will ensure the City is not utilizing software beyond its extended support lifecycle. It will help ensure the desktop environment is prepared to meet the demand of new technologies.

Operating Budget Impact:
This project would help ensure departments have a viable Microsoft Office product installed; therefore there would be limited operating budget impact.

Change in Project From Prior Fiscal Year:
Prior year funding of $50,000 will be used to upgrade at least 150 Microsoft licenses in FY 2009. There is $50,000 budgeted each year from FY 2010 through FY 2014 to upgrade the remaining 550 licenses predating MS Office 2003.