

# FUND 104

## INFORMATION TECHNOLOGY

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### ***Board of Supervisors' Adjustments***

***The following funding adjustments reflect all changes to the FY 2004 Advertised Budget Plan, as approved by the Board of Supervisors on April 28, 2003:***

- ◆ The Board of Supervisors made no changes to the FY 2004 Advertised Budget Plan.

***The following funding adjustments reflect all approved changes to the FY 2003 Revised Budget Plan from January 1, 2003 through April 21, 2003. Included are all adjustments made as part of the FY 2003 Third Quarter Review:***

- ◆ As part of the *FY 2003 Third Quarter Review*, various project adjustments were required, including an overall expenditure decrease of \$134,716 due to lower than projected interest income.
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## ***County Executive Proposed FY 2004 Advertised Budget Plan***

### **Purpose**

Fund 104, Information Technology, was established in FY 1995 to strengthen centralized management of available resources by consolidating major Information Technology (IT) projects in one fund. Based on the 1994 Information Technology Advisory Group (ITAG) study, this fund was created to account for spending by project and is managed centrally by the Department of Information Technology. Historically, the E-911 Emergency Telephone Service Fee, a General Fund transfer, the State Technology Trust Fund, and interest earnings are sources for investment in Information Technology projects. However, in FY 2001, the E-911 Emergency Telephone Service Fee revenue and related project expenses were moved to Fund 120, E-911 to satisfy a State legislative requirement that E-911 revenues and expenditures be accounted for separately.

The County's technological improvement strategy has two key elements. The first element is to provide an adequate infrastructure of basic technology for agencies to use in making quality operational improvements. The second is to redesign existing business processes with technology to achieve large-scale improvements in service quality and achieve administrative efficiencies. The County's long-term commitment to provide quality customer service through the effective use of technology is manifested in service enhancements, expedited response to citizen inquiries, improved operational efficiencies, better information for management decisions, and increased performance capabilities.

### **FY 2004 Initiatives**

FY 2004 recommended project funding totals \$9,649,844, which includes a general fund transfer of \$9,449,844 and interest income of \$200,000. In keeping with guidelines established for FY 2004, agencies were instructed that project requests must meet the following criteria: no funding would be provided to new projects; additional funding for existing projects would be considered for contractual obligations and to complete a phase of the project; and the project must be completed and maintained without additional staff.

A Project Review Team consisting of business and technical staff from the Department of Information Technology (DIT) and the Department of Management and Budget (DMB) reviewed all submissions. The project review included identification of projects that provide opportunities for improvement, those that help sustain the performance and reliability of the County technology infrastructure, and those poised to take advantage of technological advancements.

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In addition, projects were reviewed from both a business and a technical perspective. On the business side, consideration included whether the implementation of the project would benefit citizens, the County or both. Benefits of the project were weighed against the cost of the project and several risk factors, including the risk of cost and scope escalation due to factors such as the type of technology chosen, organizational disruption, schedule viability, and the impact of delaying the project.

On the technical side, factors examined included how closely the project matched, and its impact on, existing County IT infrastructure, and the technical uncertainty of the project as it pertained to the commercial availability of, and the organizational experience with, the proposed hardware, software, and support. In addition, consideration was given to the availability of human resources both in DIT and the sponsoring agency to staff the project.

Once reviewed, funding consideration was guided by the five information technology priorities established by the Senior Information Technology Steering Committee, which is comprised of the County Executive and senior County managers.

These priorities are as follows:

| Priority  | FY 2004<br>Adopted<br>Funding |
|---|-------------------------------|
| Convenient Access to Information and Services         | \$1.48 million                |
| High Level of Responsiveness to Customer Requirements | \$2.52 million                |
| Management of County Information Assets               | \$2.77 million                |
| Management of County Technology Assets                | \$2.55 million                |
| Management of County Human Resource Assets            | <u>\$0.33 million</u>         |
| <b>TOTAL</b>  | <b>\$9.65 million</b>         |

In FY 2004, funding of \$9.65 million is included for initiatives that meet the priorities established by the Senior Information Technology Steering Committee. These initiatives include a mix of projects that provide benefits for both citizens and employees and that adequately balance continuing initiatives with the need for maintaining and strengthening the County's technology infrastructure. Funded projects will support initiatives in the Human Services, Planning and Development, General County Services, and Public Safety program areas.

### **Convenient Access to Information and Services**

Ultimately, providing citizens, the business community, and County employees with timely, convenient access to appropriate information and services is one of the most important uses of information technology. There are several projects funded in FY 2004 that provide for additional means of accessing County information and for interacting with County agencies. Many of the projects expand on existing methods of accessing information.

Public access to technology through the County's web site has become a key component in the way the County does business. Local, State, national, and international authorities have repeatedly recognized the site as a model for e-government and public access. But more importantly, the constituents of Fairfax County have recognized the site as a vital means of finding information and communicating with local government officials.

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Funding of \$.80 million has been included in FY 2004 to continue development and maintenance of the County's Internet and Intranet initiatives. The funding will support new and upgraded hardware, software, and technical training needs in addition to providing an emergency funding pool for emerging technology projects not funded elsewhere. This includes continued support for Content Management System and the Electronic Payment Services program, which integrates enhanced payment transaction capabilities with emerging Web technologies. The process incorporates secure design and proven management principles. The County's plan is to have one vendor to supply the electronic payment solutions for all agencies, and all access vehicles including public Kiosks, Interactive Voice Response (IVR) and the Internet. These initiatives will continue to keep the County's Internet web site and Intranet online 24 hours per day, 7 days per week, and 365 days per year.

In addition, \$.31 million is included to fund an Electronic Notification and Alert system for Fairfax County, which includes a communication system for emergency management situations and citizen notification capabilities. The system will strengthen the County's communication capabilities by disbursing emergency information to essential personnel and citizens on a variety of platforms and devices. It will enable authorized personnel to deliver the right information, to the right people at the appropriate time. Due to national and local events, emergency notification has become a critical need in our dynamic, global society. Alert and Notification systems offer a diversified means of communication and has several advantages over traditional communication methods, including the ability for an individual to be notified on their preferred device, (pager, cell phone, personal e-mail, etc.). This also minimizes the failure of a single carrier that can result in a complete communication black out.

Funding of \$.32 million is included to develop multiple system interfaces to link the Health Management Information System (HMIS) to other health systems used by Health Department staff in order to provide a comprehensive set of services to the public. Some of the systems that the Management Information System will link to include the Community Access Program, laboratory systems, pharmacy system, environmental health system, Adult Day Health Care system, and WICNET State system. Developed interfaces will integrate applicable data with the basic profile found in HMIS. With the interfaces in place, staff will be able to readily view lab results and prescription dates in the HMIS patient file. This will also eliminate the risk of error in transcribing such data.

In order to complete Phase III of the Fire Department's Incident Reporting and Training system which began in last year, funding of \$.05 million has been included in FY 2004. Phase III of this project integrates hand-held mobile computers (mobile clients) into the EMS patient care reporting process and updates the manual process of physically transporting data by tape from the Public Safety Communications Center to the County's Department of Information Technology technical facility for processing and storage with an interface to the Computer Aided Dispatch (CAD) system. The CAD system is used to dispatch equipment and personnel to events and emergencies and provide up-to-date incident information. By having a single point of entry for EMS incident information, data reliability and validity are enhanced, legal liability is reduced, staff time spent archiving and retrieving reports to accommodate State archive requirements and FOIA requests is lessened, and time spent in completing duplicative reports is eliminated.

### **High Level of Responsiveness to Customers**

Several projects use collaborative tools and approaches to formulate business solutions that address customer needs. FY 2004 efforts continue to provide the County with web-based Graphical User Interface (GUI) software to use in conjunction with County corporate information systems. Efforts will continue to provide the tools to extend appropriate portions of the County's purchasing and financial systems to external customers, the vendor community, and create 24 hours per day, 7 days per week, 365 days per year "self service" opportunities. Being open to changing business practices also affords the County the ability to meet customer requirements if current processes do not accommodate existing needs.

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Funding of \$.87 million is included to continue the replacement of the Inspection Services Information System (ISIS) in the Department of Public Works and Environmental Services, Fire Department and the Complaints Tracking Management System used by the Department of Planning and Zoning. This is a collaborative effort to determine a business solution that will replace both systems with the same technology platform. The ISIS portion of the project will meet the demands of customers to make the permitting process simpler to understand, more convenient to use, more efficient and more predictable by creating a one-stop shop consisting of multiple review agencies. In addition, the application will have an e-permitting component, laying the foundation for future e-government solutions in land development. The replacement of the Complaints Tracking Management System will allow the agency to continue to manage zoning enforcement caseloads with greater accuracy and reporting capability and increase the flow of information to other agencies, thereby improving the County's responsiveness to citizen complaints. This funding includes replacing multiple databases in the Fire Department with a web-enabled system that will be integrated with the DPWES ISIS system to capture fire prevention activities including fire prevention code permits, invoices, plan review, systems testing, and inspections. As a module of the replaced ISIS system, the application will be compatible with all other modules and will allow customers to schedule inspections and obtain information via the Internet.

Funding of \$1.06 million is included to complete the upgrade and modernization of the existing mainframe tax system that uses computer-programming languages that are no longer supported by the vendor or, for which, in-house and contract programmer expertise is not available. The outdated languages limit integration of the current system to GIS and other relational County databases, and cannot be enhanced to add data characteristics used during property valuation. As part of the modernization effort, a commercial off the shelf (COTS) product was procured and implemented for processing miscellaneous and non-tax payments, and for processing business license (BPOL) payments in FY 2003. Additional funding of \$.10 million is provided to complete the implementation of the Revenue Collections Cashiering System which began last year. Currently, the DTA cashiering functions are supported using two automated cashiering systems, designed in 1990 to handle the specific business processes at that time. Business operations have changed significantly and the in-house system is no longer able to support business process changes without major enhancements being applied. The objective of this project is to implement a comprehensive cashiering solution that provides the required functionality and is technically capable of accommodating future legislative changes, business operations and the ability to interface with multiple architectural platforms.

Funding of \$.29 million is provided to implement the Adult and Aging module within the Human Services Client Information System, Harmony. This module will allow for the replacement of several independent systems such as the Adult and Aging, Home Based Care, and Provider databases, which must be retired as they are operating on an old, unsupported platform and the information requirements have exceeded the capacity to support all of the processing needs. This project will unify and standardize existing systems into one, web-enabled interfaced system for staff to use in remote locations and allow consumers to access the system from their private residence.

Funding of \$.20 million is provided to enhance remote office processing for adult services programs that use the Human Services Client Information System (Harmony) and the Health Department's new client system, AVATAR. The enhancements will include: developing an automated interface between the two systems to allow regular updates of Congregate Meals service and billing data enabling the Health Department to produce both summary data to report to the State and individual client bills; providing bar-coding features (in the form of cards, printed rosters, or name tags) for clients using Congregate Meals services to record units of service delivered; and preparing portable assessment forms to collect data on laptops or tablet PCs in the field, for assessment data to be then electronically uploaded to Harmony.

### **Management of Information Assets**

Focusing on internal business practices is a key element to effectively managing the County's information assets. A number of projects have been identified in FY 2004 that create, share or reuse a repository of common information objects such as databases and records, that provide for data standardization and that streamline processes to capture data only once.

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Funding is provided for the Geographic Information System (GIS) project, which provides County agencies and citizens a means to electronically access, analyze, and display land related data. Funding of \$.18 million will continue to update the aerial imagery and orthophotography (spatially corrected aerial imagery) data for the 399 square miles of the County. The imagery update will cover about a quarter of the land within the County and also update specific areas as required by ongoing countywide projects. In addition, funding of \$.15 million is provided to purchase and install a GIS application to provide 3-dimensional imagery to the County. This imagery will enable agencies such as the Department of Tax Administration and Public Safety agencies to view County land in a 3-dimensional capacity at their desktop, reducing field time in assessing and planning. In addition it will enable them to conduct analyses of buildings that are currently not possible.

Funding of \$.21 million is included to expand the Citizen Relationship Management system to all County agencies, which will provide a readily available infrastructure for them to use to capture communications and track contacts, events, and complaints. This project will give users the ability to link to other areas within the database and to extend outside the system through scheduling, scanned images, email, fax, and incoming/outgoing postal mail.

Funding of \$2.23 million is required to complete the replacement of the Plans and Agreements Monitoring System (PAMS) by including the last remaining elements of this legacy system into the Plans and Waivers System (PAWS). This project will provide the Department of Public Works and Environmental Services and its customers a single comprehensive database system for tracking and documenting site construction plans and their associated bonds and legal agreements. Once this project is completed, it will be possible to discontinue the use and maintenance of the PAMS system. This project will also enable the County to better monitor the implementation of specific proffered improvements and to track the allocation of proffered funds. Furthermore, it will provide the Office of Site Development Services (OSDS) staff the capability to track developer funds placed in escrow and to more effectively maintain and distribute these funds that have been set aside for specific and much needed public improvements.

### **Management of County Technology Assets**

Funding of \$2.55 million is provided to continue the upgrade of the Public Service Radio System. This continuing project will replace the Public Service Communications System, which provides two-way radio communications for all County non-public safety agencies, as well as the Fairfax County Public School Transportation Department (school buses), FASTRAN, and the Fairfax County Water Authority, with updated technology that meets the needs of the user agencies. The completed system will provide adequate call processing capacity and area coverage to more than 90 percent of the area within the jurisdictional boundaries of Fairfax County.

FY 2004 total costs of \$5.32 million includes both infrastructure costs and based on a staggered implementation schedule, the purchase of half of the required radios. Based on a portion of project costs, derived from the number of radios users will have operating on the system, \$2.77 million will be supported in FY 2004 by Non-General Fund Supported Agencies, the Fairfax County Public Schools, and the Fairfax County Water Authority.

### **Management of Human Resources**

Effectively managing the County's people assets will lead to a high performing organization. Maintaining high technical competence and maximizing productivity through strategic initiatives are two methods for accomplishing this. Two projects are funded in FY 2004, which invest in employee and organizational development. Funding of \$.30 million has been included to provide for information technology training in recognition of the challenges associated with maintaining skills at the pace of technological changes and to ensure that the rate of change in information technology does not out-pace the County's ability to maintain proficiency. As the County's workforce becomes increasingly dependent on information technology, training support has become more essential.

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Funding of \$.03 million is included to expand the telecommuting option to a larger number of County employees. The Telework Expansion Project provides competency-based training for managers of teleworkers and for teleworkers themselves. Training optimizes the success and longevity of telework arrangements with information on technology and best practices. In addition, the project provides loaner PCs for employees who need them, thus eliminating a “technology gap” between employees with their own PCs and those without. The project also provides security devices to assure only authorized users have access to the county’s network.

### Funding Adjustments

*The following funding adjustment reflects all approved changes to the FY 2003 Revised Budget Plan since passage of the FY 2003 Adopted Budget Plan. Included are all adjustments made as part of the FY 2002 Carryover Review and all other approved changes through December 31, 2002:*

- ◆ At the *FY 2002 Carryover Review*, the Board of Supervisors approved an increase of \$22,938,070 due to the Carryover of unexpended project balances in the amount of \$24,115,984, partially offset by a reduction of \$138,337 based on lower actual interest income than projected, as well as a reduction of \$1,039,577 necessary to offset budget requirements for FY 2003 as approved by the Board of Supervisors as part of the FY 2003 Adopted Budget Plan.

The following table lists the projects contained in Fund 104, Information Technology. Descriptions for FY 2004 funded projects follow the Project Summary table. Information regarding technology initiatives can also be found in the FY 2004 Information Technology Plan prepared by the Department of Information Technology.

| Project Summary   |                   |                                   |                                   |                                      |                                   |
|---|-------------------|-----------------------------------|-----------------------------------|--------------------------------------|-----------------------------------|
| Category  | FY 2002<br>Actual | FY 2003<br>Adopted<br>Budget Plan | FY 2003<br>Revised<br>Budget Plan | FY 2004<br>Advertised<br>Budget Plan | FY 2004<br>Adopted<br>Budget Plan |
| IT0002, Human Services  | \$431,633         | \$185,500                         | \$1,331,543                       | \$493,200                            | \$493,200                         |
| IT0003, Planning and Development<br>Business Process Redesign | 928,916           | 1,291,250                         | 1,388,345                         | 2,230,000                            | 2,230,000                         |
| IT0004, Geographic Information<br>System (GIS)                | 276,173           | 230,400                           | 1,159,525                         | 327,880                              | 327,880                           |
| IT0006, Tax/Revenue Administration                            | 1,264,413         | 100,000                           | 2,977,613                         | 1,155,000                            | 1,155,000                         |
| IT0008, Library Projects                                      | 586,515           | 0                                 | 1,943,846                         | 0                                    | 0                                 |
| IT0010, Information Technology<br>Training                    | 412,731           | 250,000                           | 301,917                           | 300,000                              | 300,000                           |
| IT0011, Imaging and Workflow                                  | 73,702            | 450,000                           | 931,007                           | 0                                    | 0                                 |
| IT0015, Health Management<br>Information System (HMIS)        | 108,950           | 191,433                           | 403,379                           | 319,000                              | 319,000                           |
| IT0020, Land Records Automated<br>System (LRAS)               | 1,281,364         | 885,900                           | 2,875,131                         | 0                                    | 0                                 |
| IT0021, Network Modernization                                 | 198,006           | 0                                 | 18,022                            | 0                                    | 0                                 |
| IT0022, Tactical Initiatives                                  | 794,139           | 160,000                           | 1,499,589                         | 207,920                              | 207,920                           |
| IT0023, Electronic Data Interchange<br>(EDI)                  | 21,759            | 0                                 | 113,994                           | 0                                    | 0                                 |
| IT0024, Public Access to Information                          | 1,077,935         | 1,701,470                         | 3,583,411                         | 1,110,000                            | 1,110,000                         |
| IT0025, Criminal Justice Redesign                             | 501,770           | 0                                 | 1,048,458                         | 0                                    | 0                                 |
| IT0026, Innovation Fund                                       | 8,540             | 0                                 | 1,602                             | 0                                    | 0                                 |
| IT0029, BOS Tracking System                                   | 0                 | 0                                 | 0                                 | 0                                    | 0                                 |
| IT0030, LAN Migration   | 0                 | 0                                 | 0                                 | 0                                    | 0                                 |

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| Project Summary  |                     |                        |                        |                           |                        |
|--|---------------------|------------------------|------------------------|---------------------------|------------------------|
| Category   | FY 2002             | FY 2003                | FY 2003                | FY 2004                   | FY 2004                |
|  | Actual              | Adopted<br>Budget Plan | Revised<br>Budget Plan | Advertised<br>Budget Plan | Adopted<br>Budget Plan |
| IT0031, Microsoft Product Application                          | 3,019,448           | 0                      | 1,151,066              | 0                         | 0                      |
| IT0033, Citrix MetaFrame Migration                             | 58,766              | 0                      | 6,500                  | 0                         | 0                      |
| IT0034, Treasury Management System                             | 49,108              | 0                      | 26,586                 | 0                         | 0                      |
| IT0035, Legislative Tracking                                   | 0                   | 0                      | 0                      | 0                         | 0                      |
| IT0036, Systems Management                                     | 84,909              | 0                      | 149,023                | 0                         | 0                      |
| IT0037, ISIS/PAMS Handheld Computers                           | 59,941              | 0                      | 94,257                 | 0                         | 0                      |
| IT0039, Court Modernization Projects                           | 0                   | 0                      | 250,000                | 0                         | 0                      |
| IT0040, Performance Measurement Database                       | 51,594              | 0                      | 49,265                 | 0                         | 0                      |
| IT0041, Program Conversions and Replacements                   | 365,958             | 0                      | 554,006                | 0                         | 0                      |
| IT0042, FASTRAN Scheduling System                              | 0                   | 0                      | 341,200                | 0                         | 0                      |
| IT0043, Human Resources Information System                     | 931,884             | 0                      | 651,792                | 0                         | 0                      |
| IT0044, Telecommunication Study                                | 747,134             | 0                      | 38,390                 | 0                         | 0                      |
| IT0045, Enterprise Technology Center Modernization             | 1,707,771           | 0                      | 386,417                | 0                         | 0                      |
| IT0046, Server Replacement                                     | 167,294             | 0                      | 41,683                 | 0                         | 0                      |
| IT0047, Upgrade Commodity/Service Codes                        | 0                   | 0                      | 84,000                 | 0                         | 0                      |
| IT0048, Incident Reporting and Training System                 | 207,123             | 358,982                | 553,776                | 50,000                    | 50,000                 |
| IT0050, Public Service Communications Replacements             | 52,883              | 1,580,268              | 2,464,253              | 2,552,844                 | 2,552,844              |
| IT0051, Fleet Management System                                | 797                 | 0                      | 499,204                | 0                         | 0                      |
| IT0053, Telework Expansion                                     | 159,528             | 0                      | 110,472                | 30,000                    | 30,000                 |
| IT0054, SYNAPS   | 300,507             | 0                      | 203,493                | 0                         | 0                      |
| IT0055, ISIS Replacement / DPZ Complaint Tracking              | 49,566              | 88,000                 | 2,941,005              | 874,000                   | 874,000                |
| IT0056, Pilot Courtroom Technologies                           | 2,212               | 0                      | 102,788                | 0                         | 0                      |
| IT0057, Community Policing/Technology Infrastructure Expansion | 0                   | 400,000                | 400,000                | 0                         | 0                      |
| IT0058, Remote Access  | 0                   | 250,000                | 250,000                | 0                         | 0                      |
| <b>Total Funds</b>   | <b>\$15,982,967</b> | <b>\$8,123,203</b>     | <b>\$30,926,557</b>    | <b>\$9,649,844</b>        | <b>\$9,649,844</b>     |

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| IT0002                 | Human Services          |                      |                             |                             |              |
|------------------------|-------------------------|----------------------|-----------------------------|-----------------------------|--------------|
| Total Project Estimate | Prior Year Expenditures | FY 2002 Expenditures | FY 2003 Revised Budget Plan | FY 2004 Adopted Budget Plan | Future Years |
| TBD                    | \$12,045,668            | \$431,633            | \$1,331,543                 | <b>\$493,200</b>            | TBD          |

This project pursues a system integration approach to facilitate seamless, secured sharing of information between Human Services business systems. This project establishes an architecture that allows business units to retain specialized commercial off the shelf (COTS) and/or legacy applications tailored to specific business practices of individual Human Services agencies, while providing a common user platform for secured collaboration among authorized users and portal for macro level data analysis and decision support. This approach makes the greatest use of investments in existing systems, as well as integration of COTS and newer application technologies.

FY 2004 funding of \$293,200 is provided to implement a web-based application for improved case management for the Adult and Aging programs in Human Services. The revamped application will replace several older, unsupported, and disparate Paradox and MS Access databases whereby the user demands and system requirements have exceeded the capacity to support all of the processing and information needs and are not well integrated; these include the outdated Adult and Aging client database, Home Based Care database, and the Home Care Provider database. The current systems have become difficult and resource intensive to maintain; can not easily share information between them; and can not be accessed from remote sites. This project will standardize the existing systems into one, web-enabled interfaced system, giving staffs the ability to use them from remote locations, including Fairfax Hospital and the Fairfax County Public Schools. Conflicts with State reporting processes will be eliminated since the County will migrate to Oracle versions consistent with State applications, offering streamlined functions with the ability to accommodate more concurrent users and enhance and capture key data elements to support performance measurement activities. It is anticipated that over 150 users in five different agencies will be provided the capability to use the internet-based module.

Additionally, funding of \$200,000 is included to enhance remote office processing for adult services programs that use the Human Services Client Information System, Harmony, and the Health Department's new client system, AVATAR. The enhancements will include: developing an automated interface between the two systems to allow regular updates of Congregate Meals service and billing data enabling the Health Department to produce both summary data to report to the State and individual client bills; providing bar-coding features (in the form of cards, printed rosters, or name tags) for clients using Congregate Meals services to record units of service delivered; and preparing portable assessment forms to collect data on laptops or tablet PCs in the field for assessment data to be then electronically uploaded to Harmony.

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| IT0002   | Human Services |
|--|----------------|
| <p><b>Return on Investment (ROI):</b> It is anticipated that annual license fee cost savings will result from combining the existing Adult and Aging, Home Based Care, and Provider database applications into one system. Moving to a single application will also reduce the amount of time and effort involved in releasing multiple new software versions needed to be installed on each user desktop, which can take several days or weeks to complete. It is projected that the agency will save an average of 40 staff hours a month currently required to troubleshoot software version conflict issues, enabling at least one System Administrator and various staff members to spend more time on other activities such as report generation, and system monitoring and evaluation.</p> <p>It is estimated that staff spend an average of 10 to 15 hours per month preparing the necessary Congregate Meals paper reports which are then forwarded to the Department of Administration for Human Services to be summarized and prepared for transmission to the State. It is estimated that administrative staff spend a minimum of 20 hours per month synthesizing the Congregate Meals data, and reconciling it to other manual reports and bank deposits. Additional time is required when a special request for program data is required. The enhanced Congregate Meals process would allow the agency to collect money owed for guest meals and track the activity and receipts through bar-coding. Automation of the Health Department billing process will accelerate billing time, reduce errors from manual transcription, and allow for more timely receipts and tracking.</p> |                |

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| IT0003                 | Planning and Development Business Process Redesign |                      |                             |                             |              |
|------------------------|--|----------------------|-----------------------------|-----------------------------|--------------|
| Total Project Estimate | Prior Year Expenditures                            | FY 2002 Expenditures | FY 2003 Revised Budget Plan | FY 2004 Adopted Budget Plan | Future Years |
| TBD                    | \$15,500,989                                       | \$928,916            | \$1,388,345                 | <b>\$2,230,000</b>          | \$0          |

This project provides for the information systems development and technology infrastructure required to redesign the County's Planning and Development functions. Planning and Development redesign efforts are focused on automating the functions and activities conducted by the Department of Planning and Zoning (DPZ), and the Offices of Site Development Services (OSDS) and Building Code Services in the Department of Works and Environmental Services (DPWES). The efforts are directed toward the goal of making functional boundaries transparent to the customer and providing services in a more timely, integrated manner.

FY 2004 funding of \$2,230,000 will complete the replacement of the Bonding and Grading Plan modules from the Plans and Agreements Monitoring System (PAMS) with the Plans and Waivers System (PAWS), and allowing for the discontinuation of the PAMS system. This will provide the development communities ready access to all land development information available through the County. It will allow all associated development plans to be monitored throughout the process and will provide a comprehensive resource for research and customer access to development information. The Bonds and Agreements component within PAWS will provide the capability to track the implementation of specific proffered improvements and monetary contributions. This project will enable staff to administer the bonding process more efficiently and with greater accuracy. By eliminating the need to maintain four separate databases (PAMS, PAWS, MS-Access and MS-Excel) currently used in performing this activity, the productivity of staff will be significantly enhanced.

The replacement system will also allow funds posted in escrow accounts to be more efficiently maintained and distributed. Implementation of the Grading Plan component will similarly allow staff to process grading plans more efficiently and with greater accuracy, and will allow customers the ability to query the status of individual grading plans through LDSNet 24 hours a day, 7 days a week, rather than relying on direct communication with County staff during normal business hours.

**Return on Investment (ROI):** The completion of the replacement of the PAMS system will provide cost savings and benefits to staff and customers, conserve the resources currently required to support the antiquated and failing legacy system, and provide the County with an efficient means of monitoring proffered commitments and funds held in escrow. The costs associated with the duplicative effort of maintaining two parallel systems (PAWS and PAMS) will be eliminated as a result of completing the PAWS system.

The completed PAWS system will provide customers easy access to vital bonding information as well as the ability to track and monitor proffered commitments. By integrating the remaining functions of PAMS into the PAWS system, staff and customers will also benefit from:

- Improved information search and retrieval capability to better respond to customer and County inquiries;
- Improved consistency among data currently stored on a variety of stand-alone systems;
- Improved accuracy in the handling and administration of bond related documents;
- Consolidation of all plan types within a single database system;
- Improved access for the land development community to vital bonding and grading plan information;
- Providing customers access to information never before available, due to expanded data gathered for individual grading plans; and
- Enhanced reporting capability for evaluating productivity and workload distribution.

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| IT0004  | Geographic Information System (GIS) |                      |                             |                             |              |
|---|-------------------------------------|----------------------|-----------------------------|-----------------------------|--------------|
| Total Project Estimate  | Prior Year Expenditures             | FY 2002 Expenditures | FY 2003 Revised Budget Plan | FY 2004 Adopted Budget Plan | Future Years |
| TBD   | \$9,509,508                         | \$276,173            | \$1,159,525                 | <b>\$327,880</b>            | TBD          |
| <p>This project provides continued funding for the County's planned multi-year implementation of a Geographic Information System (GIS), as well as related projects that build off of GIS data. GIS provides County staff and citizens the means to electronically access, analyze, and display land related data. FY 2004 funding of \$180,000 is included to continue the process of updating the aerial imagery and orthophotography (spatially corrected aerial imagery) data for the entire 399 square miles of the County. Each year, about a quarter of the County's imagery is updated. Having a regular update process in place helps guarantee both the continued and expanded use of GIS by County agencies and the public. FY 2004 is the fourth year of the current four year update cycle.</p> <p>In addition, FY 2004 funding of \$147,880 is provided to purchase and install a GIS application to provide 3-dimensional imagery to the County. This imagery will enable agencies, such as the Department of Tax Administration and Public Safety agencies, to view County land in a 3-dimensional capacity at their desktop.</p> <p><b>Return on Investment (ROI):</b> Three dimensional images will reduce field time in assessing and planning, as the images of County land will be available at staff desktops. In addition it will enable staff to conduct further analyses of buildings that are currently not possible. The 3-dimensional imagery will augment the spatial data in the GIS data warehouse, providing County staff a wider range of information about the County to assist them in their business processes.</p> |                                     |                      |                             |                             |              |

# FUND 104 INFORMATION TECHNOLOGY

| IT0006                 | Tax/Revenue Administration |                      |                             |                             |              |
|------------------------|----------------------------|----------------------|-----------------------------|-----------------------------|--------------|
| Total Project Estimate | Prior Year Expenditures    | FY 2002 Expenditures | FY 2003 Revised Budget Plan | FY 2004 Adopted Budget Plan | Future Years |
| TBD                    | \$15,240,224               | \$1,264,413          | \$2,977,613                 | <b>\$1,155,000</b>          | TBD          |

This project provides for the information systems development and technology infrastructure required to redesign the County's tax and revenue administration functions. The Tax/Revenue project seeks to make it as easy as possible for citizens to fulfill their tax obligations and pay for services by modernizing the internal processes used for assessing, billing, and collecting County taxes and other revenues.

FY 2004 funding of \$1,055,000 is required to complete the Real Estate Modernization project, which will replace the technical architecture that supports the Department of Tax Administration's annual appraisal and billing processes. The current system uses computer-programming languages that are no longer supported by the vendor, or for which in-house and contract programmer expertise is not available. The outdated languages limit integration of the current system to GIS and other relational County databases, and cannot be enhanced to add data characteristics used during property valuation. The existing mainframe system will be replaced with a commercial off the shelf (COTS) software package that supports a full range of functions associated with the administration and assessment of real property including: real estate administration; account maintenance; assessment; exemptions and adjustments; and mass appraisal. A selected vendor has been awarded the contract and began working with County staff during FY 2002.

Funding of \$100,000 is included in FY 2004 to integrate the new real estate system with, and complete the implementation of, a proprietary cashiering system. The system, Revenue Collector, provides efficiencies in the receipt and depositing of taxes and fees, is technically capable of accommodating future legislative changes and future business operations, and is capable of being interfaced with multiple architectural platforms. Currently, the real estate and cashiering functions in the Department of Tax Administration are supported using a mainframe system that was designed in 1990 and is no longer capable of supporting the current business process without major enhancements. In addition to permitting receipt of all tax type payments, it is anticipated that Revenue Collector will also be employed by other County agencies seeking a cashiering solution.

**Return on Investment (ROI):** Modernization of the real estate systems will achieve increased efficiencies in valuation, and increased availability of information permitting enhanced customer service by affording timely responses to citizen inquiries. These savings will be most dramatic for the 45,000 parcels of land that cannot be assessed via the computerized assessment system, in large part because all their property characteristics cannot be entered and used in automated valuation due to lack of space on the files. Additionally, the product technology will be capable of accommodating mandated legislative and functional enhancements.

The cashiering COTS product solution provides the functionality to collect and store payments under a central database; streamline payment processing through customized interfaces; and provides for centralized and decentralized processing, audit, and correction. Additionally, it provides safeguards against deposit fraud. Many of the current deposit procedures are manual; the COTS product will fully automate those processes.

# FUND 104 INFORMATION TECHNOLOGY

| IT0010  | Information Technology Training |                      |                             |                             |              |
|---|---------------------------------|----------------------|-----------------------------|-----------------------------|--------------|
| Total Project Estimate  | Prior Year Expenditures         | FY 2002 Expenditures | FY 2003 Revised Budget Plan | FY 2004 Adopted Budget Plan | Future Years |
| Continuing  | \$1,743,976                     | \$412,731            | \$301,917                   | <b>\$300,000</b>            | Continuing   |
| <p>This project provides funding for information technology training in recognition of the challenges associated with maintaining skills at the same pace as technology changes. The rate of change in information technology has outpaced the County's ability to maintain proficiency. As the County's workforce becomes increasingly dependent on information technology, training support has become more essential.</p> <p>As part of the Information Technology training program, a project management certification and training program has been developed for County staff that are project managers for funded Information Technology projects. This provides for consistency and enhanced communication between agencies.</p> <p>FY 2004 funding of \$300,000 will provide for the continued training required for Department of Information Technology staff, including the 28 positions moved into the Department as part of the Human Services Information Technology Reorganization initiative.</p> <p><b>Return on Investment (ROI):</b> Continued funding will address instruction in new technologies, network management, computer operations, and software applications development and maintenance to assist County staff and systems.</p> |                                 |                      |                             |                             |              |

# FUND 104

## INFORMATION TECHNOLOGY

| IT0015   | Health Management Information System (HMIS) |                      |                             |                             |              |
|--|---|----------------------|-----------------------------|-----------------------------|--------------|
| Total Project Estimate   | Prior Year Expenditures                     | FY 2002 Expenditures | FY 2003 Revised Budget Plan | FY 2004 Adopted Budget Plan | Future Years |
| \$1,224,725  | \$414,596                                   | \$108,950            | \$382,179                   | <b>\$319,000</b>            | \$0          |
| <p>This project provides funding for the replacement of the fifteen-year-old Fairfax County Health Department's Health Management Information System. The original system operated on an unsupported version of a MUMPS (M 4.4.0A – MSM Unix 4.3.2) application which provided the Health Department with the functionality necessary for intake, fee setting, assessment, appointment scheduling, service delivery, and billing/reimbursement for the Community Health Care Clinics, Primary Health Care Services, and Consumer Services. The new system, AVATAR, will provide demographic, diagnostic, and case data about its client population and interface basic client data with applications such as the laboratory system, pharmacy system, the State environmental information system "HealthSpace", and Adult Day Health Care systems.</p> <p>FY 2004 funding of \$319,000 is included to complete the replacement of the existing Health Management Information System (HMIS) with the AVATAR System, This final phase is required to establish the links to other health systems used by Health Department staff to provide a comprehensive set of services to the public. These systems include:</p> <ul style="list-style-type: none"> <li>◆ CAP (Community Access Program) Grant system - The CAP interface is a process where the Health Department will receive a new file each day that contains eligibility information, family and financial data to be either added or updated into the AVATAR system.</li> <li>◆ Laboratory systems – The interface between AVATAR and the Laboratory Systems (SoftLab) will transfer the demographic data from AVATAR to the SoftLab and transfer lab results to AVATAR patient data files.</li> <li>◆ Pharmacy system – The interface between AVATAR and the Pharmacy System (QS/1) will allow the transfer of demographic data from AVATAR to QS/1, which includes the names of medications, amount of dosage, and date filled.</li> <li>◆ Environmental Health System - HealthSpace is a comprehensive database management system purchased and maintained by the State Health Department at no cost to the County. HealthSpace provides a statewide-integrated database management system that supports the Governor's goal of automation. Fairfax County is required by the State to use this system. The Environmental Health HealthSpace system interface will enable the transfer of billing information into the AVATAR billing module.</li> <li>◆ Adult Day Health Care system - The Adult Day Health Care interface will enable the transfer of patient demographic information into AVATAR, which is currently processed by duplicating data entry.</li> </ul> |   |                      |                             |                             |              |

# FUND 104 INFORMATION TECHNOLOGY

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| IT0015  | Health Management Information System (HMIS) |
|---|---|
| <ul style="list-style-type: none"><li>◆ WICNET State system - WICNET is the State of Virginia's real-time client services system which provides registration, eligibility, tracking and payment issuance and reconciliation of benefits for low income families. An interface with the State WICNET system will protect against fraud and abuse by identifying possible dual participation and allow for on-demand check printing.</li><br/><li>◆ Vision system - An interface with AVATAR from Vision is required. Vision is the State Health Department's management information system that the County is required to use so that the central office has complete statewide data. This includes client demographic data and service data such as immunizations and communicable disease information.</li></ul> <p><b>Return on Investment (ROI):</b> This completed project will maximize the collection of client fees, reduce errors in patient/client billing, eliminate duplicate entry into various systems and enable staff to view lab results and prescription dates, eliminating the risk of error in transcribing such data.</p> |   |

# FUND 104 INFORMATION TECHNOLOGY

| IT0022                 | Tactical Initiatives    |                      |                             |                             |              |
|------------------------|-------------------------|----------------------|-----------------------------|-----------------------------|--------------|
| Total Project Estimate | Prior Year Expenditures | FY 2002 Expenditures | FY 2003 Revised Budget Plan | FY 2004 Adopted Budget Plan | Future Years |
| Continuing             | \$4,426,916             | \$794,139            | \$1,541,789                 | <b>\$207,920</b>            | Continuing   |

This project provides funding for tactical initiatives which focus on immediate improvements to information technology functions performed in a limited capacity across the County.

FY 2004 funding of \$207,920 is included to purchase additional licenses to expand the use of a Citizen Relationship Management (CRM) system to all County agencies. The system has been used successfully in various agencies and divisions, including the Board of Supervisors, Office of the County Executive, Clerk to the Board, and the Consumer Protection Division. This will provide an enterprise wide, automated approach to track contacts, events, and complaints. The commercial off the shelf (COTS) application is supported by the County's information technology architecture and provides the ability to link with other areas within the database, as well as link to areas outside the system such as scanned images, e-mail, fax, and incoming and outgoing U.S. mail.

This will establish an environment for all County agencies to enhance the response time and accuracy of information necessary to manage and respond to citizen requests; increase the ability to track all participants and activities created by citizen contacts – no matter which agency received the original contact; utilize web-based technology to accept e-mail (raw or in a structured format) to track its progress with the CRM system and respond to the citizen's concern; create and upload reports of County activities or services to the Web for citizen access; and replace old database applications or applications that no longer meet the agencies needs or County standards.

**Return on Investment (ROI):** By implementing a proven CRM product, agencies will forego the expense and effort of researching and evaluating other commercial CRM solutions and/or developing and maintaining in-house tracking systems. In addition, this enterprise solution precludes installations of applications that are not supported by existing County IT architecture, and unable to interact with other agency CRM applications. Additionally, the CRM will:

- ◆ Enhance communications between County agencies. Staff will be able to share and monitor the status of issues, projects, responses, and events as those items progress through the multiple County agencies;
- ◆ Require agencies to analyze the processes in place, evaluating and documenting the validity of existing business practices;
- ◆ Automate agency business processes. Reduce duplication of information and efforts by enabling the sharing the information between agencies using present e-mail methods; and
- ◆ Create a seamless constituent interface and enhanced customer service.

## FUND 104 INFORMATION TECHNOLOGY

| IT0024   | Public Access to Information |                      |                             |                             |              |
|--|------------------------------|----------------------|-----------------------------|-----------------------------|--------------|
| Total Project Estimate   | Prior Year Expenditures      | FY 2002 Expenditures | FY 2003 Revised Budget Plan | FY 2004 Adopted Budget Plan | Future Years |
| Continuing   | \$1,913,215                  | \$1,077,935          | \$3,583,411                 | <b>\$1,110,000</b>          | Continuing   |
| <p>This project provides funding for initiatives that improve public accessibility to government information and services. A comprehensive approach is employed to ensure efficient infrastructure capable of supporting multiple business solutions. In addition to enhancing customer service via their convenience and versatility, public access technologies are capable of limiting staff involvement in providing basic information, thereby allowing staff to perform more complex tasks and respond to requests for more detailed or specialized information.</p> <p>During FY 2003, this project will have successfully implemented the foundation for a single information and infrastructure architecture for e-government initiatives. This effort will continue in FY 2004 with funding to provide further e-government services and information on multiple delivery platforms in a timely manner.</p> <p>FY 2004 funding of \$425,000 will provide the necessary contractor, consulting, maintenance and licensing support to continue to provide information and e-services on multiple delivery platforms (IVR, Kiosk, Web, InfoWeb, and Wireless) in a timely manner. It will continue to generate economies of scale by providing the needed support for the ever increasing demand for e-commerce/e-government activities.</p> <p>In addition, funding of \$225,000 will support the maintenance of and expand the capabilities of the newly implemented content management system - allowing for improved workflow, revision control, indexing, search, and retrieval for data within the enterprise system. Areas targeted in FY 2004 include pay for performance, agency phone directories, and document control and records management for selected agencies. This will broaden the County's taxonomy of information and services in these areas and will further improve the search capability for citizens and constituents. In addition, staff will develop a combined calendar of events in which citizens can make one stop to find information on public meeting notices, park activities, and library events at either the public website, InfoWeb, or Kiosk.</p> <p>Funding of \$150,000 will continue electronic payment enhancements throughout the County. This will allow for additional payment transactions by the contracted vendor across the IVR, Kiosk and Web for selected Library, Office for Children, Department of Public Works and Solid Waste and Recovery and Senior Citizen Transportation services.</p> |                              |                      |                             |                             |              |

# FUND 104 INFORMATION TECHNOLOGY

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| IT0024   | Public Access to Information |
|--|------------------------------|
| <p>FY 2004 funding of \$310,000 will provide an Alert and Notification system to support County communication efforts in both emergency management and citizen notification situations for up to 12,000 Fairfax County employees, 1,500 emergency management personnel and more than 200,000 citizens. The Emergency Management function, public safety agency responders, Health Department, Public Affairs Office, and Department of Family Services are several agencies anticipated to use the system the first year. The system will strengthen the County's communication capabilities by disbursing the emergency information to essential personnel and citizens on a variety of platforms and devices such as e-mail, pagers, cell phones and PDAs. It will enable authorized personnel to deliver critical information in a more efficient and fast manner to the necessary people at the appropriate time. Emergency notification has become a critical need in our dynamic, global society particularly as a means of enhancing communications for first responders and associated support groups for fast mobilization and targeted communications to affected groups consequent to the heightened state of alert and emergency situations. Newer Alert and Notification systems offer several advantages over traditional notification systems, including a diversified means of communication (i.e., the ability for an individual to be notified on their preferred device; pager, cell phone, e-mail, etc.)</p> <p>This expands the means of reaching all needed participants while minimizing the risks associated with reliance on a single carrier means of communication and the resulting possibility of communication breakdown or complete failure.</p> <p><b>Return on Investment (ROI):</b> The e-government architecture initiative allows the County to enhance both the information and infrastructure architectures supporting e-government initiatives in order to facilitate delivery of integrated and accurate information to citizens via multiple platforms. Internally, this will generate economies of scale in providing the needed support for the ever-increasing demand for e-commerce/e-government services. This will be accomplished by allowing business support personnel to contribute Web content without acquiring any additional technical expertise. Collaborative initiatives between agencies, other governments and business will allow the sharing of information and services across jurisdictional lines; thereby increasing both the scope and value of information and services we provide to citizens. This project implements full scale electronic government for Fairfax County, moves Fairfax County toward the vision of government without "walls, doors and clocks", and will allow the citizens of Fairfax County access to their government 24 hours a day, 7 days a week.</p> |                              |

# FUND 104

## INFORMATION TECHNOLOGY

| IT0048                 | Incident Reporting and Training System |                      |                             |                             |              |
|------------------------|--|----------------------|-----------------------------|-----------------------------|--------------|
| Total Project Estimate | Prior Year Expenditures                | FY 2002 Expenditures | FY 2003 Revised Budget Plan | FY 2004 Adopted Budget Plan | Future Years |
| TBD                    | \$0                                    | \$207,122            | \$553,776                   | <b>\$50,000</b>             | TBD          |

This project was established to provide for a web-based records management system for field incident reporting and training records. Funding has already been provided for creating, updating, deleting, retrieving and reporting incident records, as well as the training records at all County Fire and Rescue Department sites. Additionally, funding has been made available to allow the County's Computer Aided Dispatch (CAD) system to interface with the new incident reporting system.

FY 2004 funding of \$50,000 will complete the integration of hand-held mobile computers (mobile clients) into the Emergency Medical Services (EMS) patient care reporting process. By having a single point of entry for EMS incident information, data reliability and validity are enhanced, legal liability is reduced, staff time spent archiving and retrieving reports to accommodate state archive requirements and Freedom of Information Act (FOIA) requests is lessened, and time spent in completing duplicative reports is eliminated. The goals of this project are the successful integration of mobile computers in the field for the completion of EMS reports and the ability to manage potential/real EMS incidents that can result from a terrorist attack, or other serious crisis. The business purposes are to enhance the continuum of patient care for the citizens and guests of Fairfax County, to improve the quality of data which forms the basis for management and policy decisions within the agency, and to increase agency efficiency by reducing staff workload.

With the use of a mobile client, EMS providers in the field can enter patient care and condition information at the patient's side or in the transport unit. This information can be downloaded at the hospital or the fire station, thus eliminating the need to complete a second report and the resulting possibility of creating discrepancies between the two separate reports, which also exposes the County to significant legal liability. A mobile client also allows for the collection of more detailed patient information than the paper forms, thus providing better care to the patient as well as hospital personnel who continue the patient's treatment. The patient refusal form can also be generated at the patient's side in multiple languages and can better serve the large diversity of County citizens and guests.

Other resource information can be made available to the EMS providers on the mobile client, such as a medical dictionary, treatment protocols and medication information, which will improve patient care and the quality of the report documents. Legibility problems, such as those caused by poor handwriting, blurred quality from photocopying or faxing, or trying to reproduce an old archived form, will be eliminated. This will enable the County to provide better legal documentation.

In future years, as wireless technologies become a more secure form of electronic transmission, this system can be easily modified for direct connectivity from anywhere in the County for direct sharing of data.

# FUND 104 INFORMATION TECHNOLOGY

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| IT0048  | Incident Reporting and Training System |
|---|--|
| <p><b>Return on Investment (ROI):</b> Funding this project allows the Fire and Rescue Department to achieve many Agency objectives, realize a cost savings and provide benefits to the continuum of patient care for the citizens and guests of Fairfax County. By having a single point of entry for EMS incident information, data reliability and validity are enhanced, and legal liability is reduced. Staff time spent archiving and retrieving reports to accommodate State archive requirements and FOIA requests is lessened, and time spent in completing duplicative reports is eliminated. In addition to supporting Virginia Office of Emergency Medical Services (OEMS) reporting requirements, Federal Health Insurance Portability and Accountability Act (HIPAA) standards regarding security and privacy in the transmission and storage of patient health information are also addressed by this technology.</p> |  |

# FUND 104

## INFORMATION TECHNOLOGY

| IT0050                 | Public Service Communications Replacements |                      |                             |                             |              |
|------------------------|--|----------------------|-----------------------------|-----------------------------|--------------|
| Total Project Estimate | Prior Year Expenditures                    | FY 2002 Expenditures | FY 2003 Revised Budget Plan | FY 2004 Adopted Budget Plan | Future Years |
| \$19,266,470           | \$0  | \$52,883             | \$2,464,252                 | <b>\$2,552,844</b>          | \$14,196,491 |

This project will replace the Public Service Communications System, which provides two-way radio communications for all County non-public safety agencies, as well as the Fairfax County Public School Transportation Department (school buses), FASTRAN, and the Fairfax County Water Authority, with updated technology that meets the needs of the user agencies. The completed system will provide adequate call processing capacity and area coverage to more than 90 percent of the area within the jurisdictional boundaries of Fairfax County.

The current twenty-year old Public Service Communications System is based on a design that uses two transmitter tower locations and twenty radio channels, with ten channels at each tower. The transmitter tower sites are located in Lorton, on the Resource Recovery Facility smokestack, and in Fairfax City, on the rooftop of the Massey Building. The current system only provides geographical coverage for approximately 60 percent of the County and has limited call processing capacity, frequently resulting in unavailability for users. In addition, the current design requires users to manually select the correct radio channel based on their location within the County, requiring knowledge of the coverage each channel provides to the different parts of the County. There are large geographic areas where radio communications are not possible and many of these locations are in heavily populated areas of the County. The current network does not meet the user needs for additional coverage nor provide for future growth or for advanced features, such as mobile data communications.

The FY 2004 project cost is estimated at \$5,321,739, which includes both infrastructure costs and, based on a staggered implementation schedule, the purchase of half of the required radios. Funding of \$1,702,029 will continue to support the seven year lease-purchase replacement of the current radio system infrastructure, including the increase of radio repeater locations from two to six sites, to ensure greater than ninety percent call coverage. In addition, this will eliminate the two 'zones' within the County and provide for seamless coverage on one system regardless of location, as well as provide ample reserve capacity for peak use periods and future fleet expansion. The remaining \$3,619,710 will be used to replace half of more than 3,000 mobile and portable radios in FY 2004. The remaining radios, those for the Fairfax County Public Schools, will be purchased and installed in early FY 2005 (summer of 2004). Based on a portion of project costs, derived from the number of radios users will have operating on the system as a percent of the total number of radios, \$2,768,895 will be recovered from Non-General Fund Supported agencies, the Fairfax County Public Schools, and the Fairfax County Water Authority in FY 2004.

# FUND 104 INFORMATION TECHNOLOGY

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| IT0050  | Public Service Communications Replacements |
|---|--|
| <p><b>Return on Investment (ROI):</b> The return on investment for this system upgrade will result from the enhanced reliability and coverage that will be obtained. The replacement system will provide reliable radio coverage to many areas of the County that are not covered by the current radio system. This will provide the necessary protection and safety for bus drivers and other staff that depend on reliable communications, improve customer service to County citizens and other County agencies, and reduce reliance on commercial wireless networks in addition to future cost avoidance and other non-quantifiable benefits. In addition, the completed system will be fully compatible with the mobile and portable radios used by the County's public safety radio system. This will allow for direct communication between public safety and public service users for incident or disaster management, as well as provide a separate back-up system for the Public Safety system, should that system fail. Also, the County will realize a cost avoidance of over \$3 million by using the public service system to serve as the back up to the public safety system, rather than modifying the public safety system.</p> |  |

# FUND 104 INFORMATION TECHNOLOGY

| IT0053                 | Telework Expansion      |                      |                             |                             |              |
|------------------------|-------------------------|----------------------|-----------------------------|-----------------------------|--------------|
| Total Project Estimate | Prior Year Expenditures | FY 2002 Expenditures | FY 2003 Revised Budget Plan | FY 2004 Adopted Budget Plan | Future Years |
| Continuing             | \$159,528               | \$0                  | \$110,472                   | <b>\$30,000</b>             | Continuing   |

The Telework Expansion project was developed in response to the Board of Supervisor's and County Executive's endorsement of 20 percent of the region's workforce teleworking one or more days a week by 2005. It is estimated that 5,000 County positions are suitable for teleworking; the goal of this project is to have 1,000 County teleworkers by 2005.

FY 2004 funding of \$30,000 will be used to continue the training efforts implemented in FY 2002, as well as support information sharing about the program, to educate non-teleworkers about the program and its benefits. It is anticipated that an additional 100 employees will begin to telework in FY 2004.

This project provides competency-based training for managers of teleworkers and for teleworkers themselves. The training optimizes the success and longevity of telework arrangements with information on technology and best practices. In addition, the project provides loaner PCs for employees who need them, thus eliminating a "technology gap" between employees with their own PCs and those without. The project also provides security devices to assure only authorized users have access to the County's network.

**Return on Investment (ROI):** Funding this project allows the County to support a regional strategic objective of reducing traffic and increasing air quality. Each County government employee teleworking one day a week saves an average of 2,000 commuting miles per year.

In addition to the advantages of reduced traffic and improved air quality, the return on investment is realized in the value of increased employee productivity. For example:

- ◆ The average teleworker earns \$49,000 and telecommutes 50 days a year.
- ◆ A 20 percent productivity increase on telecommuting days is equivalent to an additional 1.6 hours per telecommuting day or 80 additional work hours per year.
- ◆ The value of the additional hours is \$1,884 if paid at straight time overtime or \$2,826 if paid at time and one half.

Using the value added model, the return on investment related to productivity for the 100 additional telecommuters in FY 2004 is \$188,400 (\$1,808 added value/telecommuter/year X 100 telecommuters = \$188,400).

# FUND 104 INFORMATION TECHNOLOGY

| IT0055                 | ISIS Replacement / DPZ Complaint Tracking |                      |                             |                             |              |
|------------------------|---|----------------------|-----------------------------|-----------------------------|--------------|
| Total Project Estimate | Prior Year Expenditures                   | FY 2002 Expenditures | FY 2003 Revised Budget Plan | FY 2004 Adopted Budget Plan | Future Years |
| TBD                    | \$0                                       | \$49,566             | \$2,920,005                 | <b>\$874,000</b>            | TBD          |

This project will replace the legacy Inspection Services Information System (ISIS) in the Office of Building Code Services (OBCS) of the Department of Public Works and Environmental Services, multiple databases in Fire and Rescue Departments Fire Prevention Division, and the existing Paradox Complaints Tracking Management System used by the Zoning Enforcement Branch (ZEB) of the Department of Planning and Zoning (DPZ).

FY 2004 funding of \$874,000 will provide contracting and consulting support, as well as the necessary hardware required to continue the permitting system initiatives being implemented in FY 2003, and allow for the completion of the ZEB complaint tracking system. The replacement of ISIS and the Fire Prevention databases will provide a foundation for future e-government applications related to land development and building construction and are integral to the County's effort to re-automate the land development systems. The new system will significantly simplify the permitting process and improve timeliness of permit review by creating a virtual one-stop shop consisting of multiple review agencies; meeting the ever-increasing demands of customers by making the permitting process simpler to understand, more convenient to use, more efficient, and more predictable. The replacement system will also enable staff to develop a focus and orientation towards individual construction projects as opposed to maintaining a focus on the permit process itself.

The replacement of the legacy Inspection Services Information System (ISIS) will improve the operational efficiency of all the agencies involved in the review and issuance of plans and permits. The new web-enabled system will increase customer access to the permit process and related information by providing new e-government applications and services. This project will replace both the legacy system in the Office of Building Code Services (OBCS) of the Department of Public Works and Environmental Services, and multiple stand-alone databases in other agencies, including the Fire and Rescue Department and the existing Complaints Tracking Management System used by the Zoning Enforcement Branch of the Department of Planning and Zoning (DPZ).

**Return on Investment (ROI):** Funding the permitting system replacement portion of this project allows the County to achieve a return on investment in several areas. Cost savings will be realized through a streamlined system that will enable the development industry to work more productively within the County and in turn enhance the tax revenue base. The development industry will recognize significant savings from costs presently incurred due to delays in construction and occupancy or use of buildings. The County's revenue stream is enhanced by increasing the speed in which buildings are processed through the system and brought to completion – the sooner projects are completed, the sooner they become a source of revenue for the County. A streamlined web-enabled system will help OBCS become less susceptible to costs associated with changes to staffing levels required by swings in the economy and will enhance management's ability to absorb the fluctuations that have historically plagued the industry. The need to hire staff to train new permit technicians will diminish as the time required for training is reduced. The new web-enabled system will reduce costs associated with printing, storing, and archiving of paper applications, forms, and plans.

The replacement of the existing permitting methods is also necessary to create a platform for future e-permitting initiatives that may more directly enhance revenue (e.g. charges for access to data, charges for enhanced optional services, etc.) Additionally, the e-permitting portion of this project has garnered national attention and may result in the availability of national funds and grants for future applications if the County has a permitting platform on which new technology can be implemented.

# FUND 104 INFORMATION TECHNOLOGY

| IT0055   | ISIS Replacement / DPZ Complaint Tracking |
|--|---|
| <p>Increased efficiencies in the process will result in many indirect and non-quantifiable revenue enhancements as well:</p> <ul style="list-style-type: none"> <li>◆ Permit process customers will have more access to, and control of, the permit review process;</li> <li>◆ Construction process will be perceived as being more business friendly and will attract additional businesses to bolster the tax base;</li> <li>◆ An improved and simplified process will encourage people to obtain the required permits and will increase code compliance and the safety of structures, resulting in fewer illegal unpermitted activities requiring enforcement action;</li> <li>◆ Information given to permit process customers will be more complete, accurate and timely, thus reducing or eliminating the need for multiple resubmissions of plans and applications;</li> <li>◆ Implementation of State-mandated code changes will be more timely and efficient;</li> <li>◆ Reduction of paper forms and improved legibility of recorded comments will reduce costly errors;</li> <li>◆ Communication between plan reviewers and private sector clients will significantly improve;</li> <li>◆ Supervisors will have greater flexibility in re-distributing workload on any given day due to absences or other unforeseen events.</li> <li>◆ The new system will provide flexibility to implement a single permit process for projects (combining issuance of building and trade permits);</li> <li>◆ Access to permit information and the process will be available 7 days a week, 24 hours a day;</li> <li>◆ Reduced need to travel to the government center has several cost and environmental benefits;</li> <li>◆ Eliminate duplicate data entry and storage in separate systems; and</li> <li>◆ Allow access to pertinent information by all functional areas.</li> </ul> <p>The complaint tracking aspect of this project will enable DPZ to continue to manage zoning enforcement caseloads with greater accuracy and reporting capability. The new system will streamline the process and result in improved customer service. The new system will also increase the flow of information to other agencies, thereby improving the County's responsiveness to citizens' complaints. The system will also facilitate continued efficient and effective zoning enforcement.</p> |   |

# FUND 104 INFORMATION TECHNOLOGY

## FUND STATEMENT

Fund Type G10, Special Revenue Funds

Fund 104, Information Technology

|                             | FY 2002<br>Actual   | FY 2003<br>Adopted<br>Budget Plan | FY 2003<br>Revised<br>Budget Plan | FY 2004<br>Advertised<br>Budget Plan | FY 2004<br>Adopted<br>Budget Plan |
|-----------------------------|---------------------|-----------------------------------|-----------------------------------|--------------------------------------|-----------------------------------|
| <b>Beginning Balance</b>    | <b>\$25,743,099</b> | <b>\$1,039,577</b>                | <b>\$23,977,647</b>               | <b>\$0</b>                           | <b>\$0</b>                        |
| Revenue:                    |                     |                                   |                                   |                                      |                                   |
| Interest                    | \$861,663           | \$622,000                         | \$487,284                         | \$200,000                            | \$200,000                         |
| State Technology Trust Fund | 567,674             | 540,000                           | 540,000                           | 0                                    | 0                                 |
| <b>Total Revenue</b>        | <b>\$1,429,337</b>  | <b>\$1,162,000</b>                | <b>\$1,027,284</b>                | <b>\$200,000</b>                     | <b>\$200,000</b>                  |
| Transfers In:               |                     |                                   |                                   |                                      |                                   |
| General Fund (001)          | \$12,788,178        | \$5,921,626                       | \$5,921,626                       | \$9,449,844                          | \$9,449,844                       |
| <b>Total Transfers In</b>   | <b>\$12,788,178</b> | <b>\$5,921,626</b>                | <b>\$5,921,626</b>                | <b>\$9,449,844</b>                   | <b>\$9,449,844</b>                |
| <b>Total Available</b>      | <b>\$39,960,614</b> | <b>\$8,123,203</b>                | <b>\$30,926,557</b>               | <b>\$9,649,844</b>                   | <b>\$9,649,844</b>                |
| Expenditures:               |                     |                                   |                                   |                                      |                                   |
| IT Projects                 | \$15,982,967        | \$8,123,203                       | \$30,926,557                      | \$9,649,844                          | \$9,649,844                       |
| <b>Total Expenditures</b>   | <b>\$15,982,967</b> | <b>\$8,123,203</b>                | <b>\$30,926,557</b>               | <b>\$9,649,844</b>                   | <b>\$9,649,844</b>                |
| <b>Total Disbursements</b>  | <b>\$15,982,967</b> | <b>\$8,123,203</b>                | <b>\$30,926,557</b>               | <b>\$9,649,844</b>                   | <b>\$9,649,844</b>                |
| <b>Ending Balance</b>       | <b>\$23,977,647</b> | <b>\$0</b>                        | <b>\$0</b>                        | <b>\$0</b>                           | <b>\$0</b>                        |