

**Five Year Technology Plan
Fiscal Year 2004-2005 through Fiscal Year 2009-2010**

Statement of Purpose

A five-year technology plan is developed and reviewed annually and used to provide a comprehensive approach to the implementation of technology for College Station. The projects are reviewed annually to determine if each project is still needed or feasible. This plan is used to in preparing Service Level Adjustments (SLA) and Capital Improvement Projects (CIP) during the budget process. City Council may approve or disapprove of any SLA or CIP submitted.

The goals of this plan are to:

- Maintain the technology infrastructure
- Push data entry to the point of data gathering
- Provide information at the point needed by citizens and employees
- Reduce redundancy by integrating systems

The citizens of College Station benefit by the maintenance and improvement of services, by having information available to them, and by the cost effectiveness of the delivery of services.

The following provides a brief summary of each element of the plan.

1. Fiber optic loop

Electric Fund - \$1,100,000

began FY97

All Funds - \$400,000

to be completed in FY05

Total Project Budget \$1,500,000

This is a multi-year project that provides the City of College Station with a looped fiber network supporting telecommunications, phone, traffic and computer networks throughout the city. Some of the network's capacity is shared with Texas A& M University, College Station Independent School District, Texas Transportation Institute, and the Brazos Valley Community Network Organization. The final build out of fiber to reach specific traffic lights and remote city facilities should be completed in FY05.

The project included the first phase of short distance wireless which will provide the "last mile" infrastructure for the use of personal digital assistants (PDA) and tablet style personal computers while connecting to the network. See attached Wireless Plan Summary, full copy available in the City Secretary's office and number ## the follow on project for completing short distance wireless.

2. Records storage

All Funds -\$326,000

FY00

Ongoing estimated at \$40,000

This project provides records imaging throughout the city and allows departments to move from a paper form of record storage and retrieval to electronic. Documents stored in this system are available over the Internet to the general public as appropriate. The project was implemented in phases. The final phase will be completed when the

Sungard H.T.E. interface is available, purchased and installed in FY05.

3. Topographic/aerial maps

All Funds - \$100,000 **FY04**

Electric Fund - \$265,000

Total Project Budget \$365,000

This project will update the layer of topology data in the GIS. This is important as the city's topology has been altered by development in the years since the last aerial data was gathered. It is also necessary in order to gather the topological data in the newly annexed areas and areas that may be annexed in the next five years.

4. Browser based interface to AS400 applications (HTE browser front end)

All Funds - \$150,000 **FY05**

Ongoing savings of \$18,000 (reduction in maintenance fees on all Sungard H.T.E. applications)

The software vendor for the financial, utility customer service, fleet maintenance, and planning and zoning applications has declared that all updates to their software will be in this new interface and will not be available on the current screens. They are lowering maintenance fees as an encouragement to their customers to move to this browser based version. The new version is easier to learn and easier for the occasional user.

5. AS400 upgrade (AS400 enhancement)

\$200,000 **All Funds** **FY05**

\$200,000 **All Funds** **FY08**

The AS400 is the computer system that runs several of the city's key operational databases and software. Some of these include, Utility Billing and Collection, Finance, Budget and Accounting, Fleet Management and Development Services. An upgrade to the hardware is anticipated every three to four years to insure that the system is performing at the level of efficiency required for its daily use. The project will provide for the funding to make such changes, which will be determined for the particular year of implementation.

6. Network backup systems replacement

All Funds - \$53,100 **FY05**

Ongoing costs - \$6,100

Due to the growth in storage on the network the current backup system cannot complete the backup of the files in a timely manner. The backup of office type documents and email now takes twenty hours and impacts daily office productivity. This project will speed the process of backing up office files so that the backups are complete before the normal work day begins.

7. ATM network replacement

All Funds - \$500,000

FY05

This project will provide the hardware needed to replace the fiber network switching equipment used for both voice and data transmission throughout the city. The present equipment will reach its life expectancy in FY05.

8. Citizen request management

All Funds - \$50,000

FY05

Ongoing costs estimated at \$5,000

This system or service will allow citizens to enter requests either over the phone or the Internet. It will also allow for the tracking of all contacts with citizens as well as tracking all requests to the point of resolution.

9. Wireless infrastructure

All Funds - \$200,000

FY06

Ongoing costs estimated at \$20,000

This project will allow the use WiFi enabled devices by city employees in most areas of the city. Antennas of this type were placed on three major towers as a part of the Fiber Loop project (see #3 above). In order to adequately cover major areas of the city antennas and repeating devices must be strategically placed throughout the city. This will allow the use of personal digital assistants (PDAs such as Palm Pilots) and notebook PCs to be used by city staff to receive information and enter data. A summary of the Wireless Report is attached and a copy of the full report is available in the City Secretary's office.

10. Vehicle tracking - GPS batch devices

All Funds - \$20,000

FY06

Ongoing costs estimated at \$2,000

This project allows the tracking of a vehicles location and the speed of the vehicle. Supervisors then use reports to determine that city vehicles were in the proper locations and whether exceeding speed limits has occurred. In other organizations this has resulted in fewer accidents and other vehicle related incidents.

11. Network area storage

All Funds - \$55,000

FY07

Ongoing costs estimated at \$5,000

This project provides for equipment that will allow for consolidation of network storage into a central location. Storage and servers were distributed throughout the city prior to having a fiber loop providing redundancy of communications. There are efficiencies to be gained by centralizing the servers and the network storage now that the fiber loop is complete.

12. Instant messaging (Blackberry)

All Funds - \$28,000

FY06

Ongoing costs estimated at \$3,500

This would allow users of personal digital assistants (PDAs) to carry a single unit having cell phone, camera, PDA functions, and connection to the Internet. The user's email and

calendar on the network will be instantly available. This will give managers the ability to respond to email from any location in the cellular network.

13. Cluster servers/server consolidation

All Funds - \$200,000

FY07

The number of servers storing office files and email has grown over time. These servers were spread throughout the city when the network was new, less reliable and much slower than it is today. This project will allow moving the services to a cluster of servers in a single location using a network based storage instead of server based storage. This will be more cost effective in the long run.

14. Long distance learning /video conferencing

All Funds - \$100,000

FY07

Ongoing costs estimated at \$15,000

This project will provide the equipment and communication media necessary for training city staff in several locations from another location. This is targeted specifically for Fire to remotely train personnel in the Fire Stations from a single location. This will keep Fire and EMS crews in the areas they are serving while providing required training.

15. Microsoft office upgrade

All Funds - \$140,000

FY07

This project provides for the upgrade of the word processing, spreadsheet and presentation products used throughout the city. This is needed every three to five years for the city to remain compatible with products in common use.

City staff time is spent trying to make files in older versions of the most commonly used office softwares work with newer versions in use outside the city.

16. Timekeeping

All Funds - \$250,000

FY07

Ongoing costs estimated at \$30,000

This project will allow city staff to enter the hours worked as appropriate for the job. This pushes data entry to the individual staff members. This should reduce workload on the administrative staff.

17. Radio system replacement

Equipment Replacement Fund - \$3,400,000

FY08

All Funds - \$1,500,000

Ongoing costs estimated at \$150,000

Total Project Budget \$4,900,000

This project provides for the replacement and enhancement of the voice radio infrastructure. The radio system will be ten years old and there will be a need to review the technology in use to determine the type of new system required. Replacing the current system is necessary due to the age of the equipment. The area of coverage should be increased to the areas of annexation expected over the next ten years. As the density of buildings and the height of buildings increase signal strength must increase to

overcome these obstacles. Either a taller tower or multiple towers will be required in order to continue providing today's level of service.

18. Internet use monitoring system

All Funds - \$110,000

FY08

Ongoing costs estimated at \$10,000

This project will allow better management of how and when city staff is using access to the Internet. Currently supervisors have no way to quickly see how much time employees spend on the Internet and the type of use being made of the Internet during work hours.

19. e-Signature city wide

All Funds - \$225,000

FY08

Ongoing costs estimated at \$33,750

This project will provide electronic signature capability for all employees using desktop computers. Currently only those involved in the Council Agenda packet process have electronic signature capability. This should reduce the flow of paper documents requiring signatures citywide.

20. Identification system - ID making and using

All Funds - \$200,000

FY09

Ongoing costs estimated at \$20,000

This project may have several subordinate projects. The idea is to have employee IDs with built in data that allows them to be used with the Incident Accountability system, as keys into buildings and offices and as identifiers for access to networks and computer systems. The IDs may have printed characters that are machine readable, magnetic strips and imbedded programmable chips.

21. Public safety system

General Fund - \$679,000

FY00

Ongoing estimated at \$54,000

General Fund

This project updated the information systems that automate the Police and Fire Departments operations and dispatch. A new Fire records management system was implemented in the first quarter of FY03. The computer aided dispatch system was implemented the fourth quarter of FY03 with Police records management system following the first quarter of FY04. This project will be considered complete when the vendor has completed work on the punch list items and the GIS portion is in use in the Communications center.

22. Police electronic booking and live scan fingerprint system

General Fund - \$141,000

FY04

Ongoing cost estimated at \$21,000

This project will provide electronic booking and fingerprinting software to support the operation of the holding jail. This will speed up the booking of detainees, allow immediate filing of electronic fingerprints and provide electronic mug shots.

23. Police field reporting system

General Fund - \$230,000

FY04

Ongoing costs estimated at \$35,000

This project will provide the software necessary for electronic entry of Police reports by officers in the field. This will reduce the amount of time officers spend in the office.

24. Fire tone out system upgrade

General Fund - \$50,000

FY04

This is a replacement of the existing tone-out system which is more than ten years old. Repair parts for the existing system are scarce and expensive. The new system will integrate with the upgraded Computer Aided Dispatch system so that the tone is generated electronically as the unit/station is assigned to a call. This will maintain the ability to tone-out Fire units, which is important in maintaining response time criteria.

25. Incident accountability system

General Fund (grant) - \$42,600

FY04

Ongoing cost - \$1,600

This project provides a system whereby all items and personnel involved in an incident of any type are tracked for on-site decision making and future reporting. The reporting of all personnel and resources involved in emergency situations is mandated by both federal and state regulatory agencies.

26. PARD automation

General Fund - \$113,000

FY04

Ongoing costs are \$11,300

This system was purchased, installed and placed in production in FY04. It includes class and team registration, facility reservations, field maintenance and much more. The next phase will be to activate the Internet interactive portion of the system.

27. Televising equipment and studio

General Fund (EG fees) - \$232,000

FY04

This project allowed the installation of cameras in the Council chambers and the basic mixing equipment for the filming of City Council meetings by City staff. It will provide the equipment for mobile taping of events which can be aired later on the City's cable channel. An educational and governmental fee (EG fee) is collected by the local cable company and the City can only use the income from these fees for equipment related to televising.

28. Automated citations

General Fund - \$228,000

FY05

Municipal Court Technology Fund - \$100,000

Ongoing costs estimated at \$30,000

Total Project Budget \$328,000

This project will automate ticket writing in the patrol divisions of the Police Department. It will provide for the entry of the ticket information at the time that the citation is written, and will eliminate the need for the records division to re-enter the information from a paper ticket and the need for Municipal court staff to add additional information from the ticket.

29. P&Z status of requests on website

General Fund - \$15,700

FY05

Ongoing costs estimated at \$2,400

This will allow the public to quickly see where planning and zoning requests are in the Development Services review process. This project was identified in the e-Government Plan dated March 8, 2001

30. Fire/EMS field reporting

General Funds - \$55,000

FY06

Ongoing costs estimated at \$5,000

This will allow the collection of data directly into the electronic records system by Fire/EMS personnel while in the field. This will greatly speed up the entry of EMS records while increasing accuracy.

31. PD scheduling system

General Funds - 71,300

FY06

Ongoing costs estimated at \$9,300

This will provide the Police Department the same type of scheduling used in the Fire Department. This system will expedite the creation of work schedules, rosters, back-fill for absentees and entry of work hours in the payroll system.

32. PD bar-coding of evidence & property inventory

General Funds - \$23,000

FY06

Ongoing costs estimated at \$3,000

This project will allow the Evidence Technician at the Police Department to quickly track the in and out status of specific evidence pertaining to police cases. Each item of evidence must be carefully tracked through a chain of custody each time an investigator or appropriate prosecutor must check out or review the evidence. Major cases may have hundreds of items of evidence per case and some items must be checked in and out several times prior to trial.

33. Agenda system

General Funds - \$18,000

FY06

Ongoing costs estimated at \$3,000

This project is to move the agenda process to a truly automated level. The steps of typing agendas and linking files will be replaced by this system. It will also track items in the agenda process and allow easier posting to the Internet.

34. PBX (phone system) replacement

Equipment Replacement Fund - \$917,000 **FY04**

This project provides for the scheduled replacement of the city's PBX phone system, which is the system that handles phone service in all departments of the city. In FY04 this system was 10 years old and reached the end of its expected life. Newer phone technology is needed to meet the needs of the departments. A consultant was retained and an RFP for a new phone system was put out in FY04.

The life of the current phone system was extended by adding some additional hardware four years ago.

35. Mobile data terminal replacements

Equipment Replacement Fund - \$227,000 **FY05**

This project provides for the replacement of the equipment in Police and Fire vehicles. The computers will not run the software required for other projects such as Police Field Reporting and Automated Citations and therefore must be replaced in order to continue with those projects. The current equipment will be seven years old in FY05 and has a seven year life expectancy.

36. MDT radio infrastructure replacement

Equipment Replacement Fund - \$100,000 **FY09**

The infrastructure to support the public safety mobile computing will be ten years old in FY2008 which is the expected life of this type of equipment.

37. Kiosks

Municipal court Technology Fund - \$40,000 **FY05**

Utility Customer Service Fund - \$40,000

Total Project Budget \$80,000

Ongoing costs estimated at \$13,000 (includes replacement funding)

This project will place kiosks in three areas. The kiosks will be available 24 hours a day, 7 days a week (if housed in a building the hours the building is open will determine hours of availability). Kiosks will accept utility bill and citation payments by credit card, cash, check and electronic bank draft.

38. Remote arraignment

Municipal Court Technology Fund - \$20,000 **FY05**

Ongoing costs estimated at \$2,000

This project will allow the Municipal Judge to arraign detainees without the need to transport the detained persons physically to the Municipal Court. The equipment in the holding jail will also be used to allow the arraignment of detained persons by County judges. The City's partnership in the BVCnet makes this possible.

39. Handheld meter reading equipment replacement

Utility Customer Service Fund - \$57,000 **FY05**

The equipment currently in use is 5 years old and will no longer be supported by the provider. It is not possible to mix the devices because they interface through different software.

40. Automated customer service

Electric Fund - \$207,000

FY02

Ongoing costs estimated at \$38,000

This project enabled the first basic steps in providing citizens with online services. It provides for the purchase of software, hardware and the integration of existing databases to allow for payment of city services and citations via the Internet and the phone. The payment of utility bills via Internet and phone was successfully implemented in FY02. The payment of citation fees is anticipated in early FY05. Access to Parks and Recreation data will follow.

41. Additional mobile data units for utility crews

Electric, Water and Wastewater Funds

FY05

Not detailed here as this involves electric competitive matters.

42. Automated Meter Reading

Electric, Water and Wastewater Funds

FY06

Not detailed here as this involves electric competitive matters.

43. Topological global positioning systems

Water and Wastewater Funds - \$85,000

FY07

Ongoing estimated at \$13,000

This project will provide Global Positioning Systems (GPS) equipment which not only captures the position on earth but the depth or height as well. This equipment will be used to gather static data to measure the depth of pipe for the water and wastewater utilities.

44. Mobile computing in sanitation vehicles

Sanitation Fund - \$94,000

FY05

Ongoing costs estimated at \$12,000

This project will provide for the equipment and software for Sanitation crews to view and complete work orders in the field. This will also allow the use of GIS in the vehicles.

45. Computer aided earthmoving system

BVSWMA Fund - \$300,000

FY05

Ongoing costs are \$43,310

This is a part of a much larger Landfill project that requires some discussion in this Technology Plan. This project will allow more efficient use of both the landfill air space (capacity) and the available dirt. The system constantly monitors the location of dirt moving and compacting equipment and creates records required by state and federal regulations. Using this system will significantly reduce or eliminate surveying in the landfill.