

CITY OF PLEASANT HILL



INFORMATION TECHNOLOGY PLAN

FOR FISCAL YEARS 2018/19 – 2019/20



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1 CITY PROFILE

The City of Pleasant Hill, incorporated in 1961, is located in the East Bay of the San Francisco Bay Area in Contra Costa County, California. The City covers 8.1 square miles where an estimated 34,853 people reside.

Approximately 120 employees and officials serve the community within the following departments/divisions:

- Building
- City Attorney
- City Clerk
- City Council
- City Manager
- City Treasurer
- Economic Development
- Engineering
- Finance
- Human Resources
- Information Technology
- Maintenance
- Planning/Code Enforcement
- Police

The City of Pleasant Hill operates on a two-year (biennial) budget. In June of 2018, the City Council will be adopting the biennial budget for fiscal years (FY) 2018/19 – 2019/20.

2 TECHNOLOGY PROFILE

The Information Technology (IT) Division is responsible for the hardware, software, and technology infrastructure that supports the City's operations at its three sites, City Hall, the Police Department, and the Public Services Center. Specifically, these technologies include data information systems, network infrastructure, cybersecurity, phone system and other communication systems (e.g., mobile devices, radios, email, etc.), audio/visual equipment, body-worn cameras, printing and duplication, workflow and document management, physical access control systems, and video surveillance.

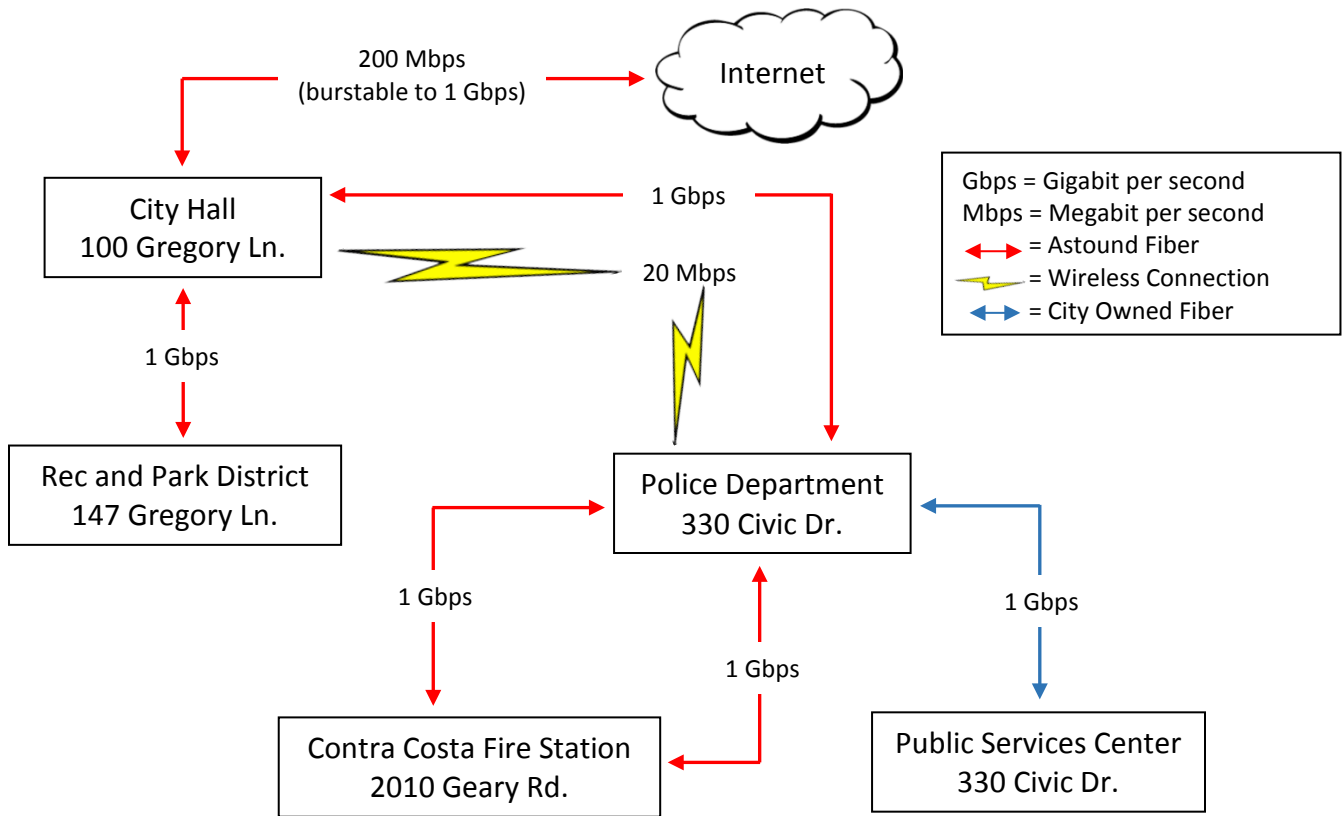
2.1 Staff

The IT Division is currently comprised of two filled full time positions, a Chief Technology Officer (CTO) and an Information Systems Coordinator (support technician). The Chief Technology Officer reports to the Assistant City Manager and the City Manager. Historically, the City has employed a CTO and two full-time support technicians, one that was dedicated to the Police Department and the other to City Hall. One support technician position had been frozen but will now be filled, in July 2018. When filled, the IT Division will return to three full-time staff members including a CTO, a technician dedicated to the Police Department, and an IT Specialist that will be responsible for the maintenance of the network and servers, provide GIS support, and assist with the needs of the Police Department as necessary.

Ontai Solutions, LLC is currently contracted by the City to maintain and administer its network and servers. With the hiring of the IT Specialist, the role of Ontai will be reduced. However, Ontai will continue assisting the City with improvement projects on an as-needed basis.

2.2 Network Infrastructure

City operations are based at three separate sites throughout Pleasant Hill (City Hall, Police Department, and Public Services Center). Fiber connections provided by Astound Broadband, LLC link all three sites to create a Wide Area Network. The diagram below illustrates the fiber and wireless connections along with the respective speeds of each connection.



City Hall is the central hub from which all other locations access the 200 Mbps (megabit per second) connection to the Internet. However, data between sites is transferred at a much faster rate, 1 Gbps (gigabit per second). Redundancy is built into critical points in the network to prevent or reduce downtime. For instance, there is a primary and backup fiber connection directly from the Police Department to Contra Costa Fire to preserve access to the East Bay Regional Communications System (EBRCS) in the event that the primary connection is disrupted. In addition, a backup wireless connection from City Hall to the Police Department further increases the reliability of the network should there be an interruption to the 1 Gbps Astound fiber.

2.3 Hardware

The City of Pleasant Hill houses two main server rooms, one at City Hall and the other at the Police Department. Virtual technology (VMWare) is used to run the majority of the servers for the City. The server room at City Hall houses four physical servers that host 47 virtual servers that provide the majority of the functions for the entire City. Eight of the 47 virtual servers are dedicated for the Recreation and Park District, which the City has agreed to house but does not support or maintain. The Recreation and Park District compensates the City \$2,000 per month for hosting their servers. Two additional physical servers at City Hall function as the backup server and the video surveillance recorder. Beyond City Hall, four physical servers reside within

the datacenter at the Police Department to support video surveillance, Computer-Aided Dispatch (CAD), and the dispatch call recording system. The breakdown of the various server operating systems currently used by the City (excluding the Recreation and Park District) is as follows:

Operating System	Number of Servers
Windows Server 2003	8
Windows Server 2008	6
Windows Server 2012	25
Other	6
Totals	45

There are approximately 100 end-user workstations across all City staffed sites. The table below lists the locations and types of operating systems currently used by the City.

Workstations	City Hall / Corp Yard	Police Dept.	Total
Windows 7	59	40	99
Windows Vista	1	0	1
Totals	60	40	100

2.4 Software

The City of Pleasant Hill has standardized Microsoft (MS) Office as the default office suite for word processing, spreadsheets, presentations, and email. All staff members are running MS Office 2013 and will be upgraded to Office 2016 in FY 2018/19 – 2019/20.

All emails are processed through MS Exchange 2010 and accessed by staff using MS Outlook. Spam filtering is provided by AppRiver, an online vendor that removes 99% of spam, malware, and viruses before passing the legitimate emails onto the City’s Exchange Mail Server for distribution to staff.

Content filtering of the internet is performed by Websense. All websites identified as possibly containing viruses, phishing, inappropriate content, or malicious intent are blocked. Symantec Corporate Edition is deployed in conjunction with MS Security Essentials to further provide antivirus and malware detection on all workstations.

The following are some of the other major applications used by City Hall.

Application	Description
Accela Automation	Building Permits, Inspection, and Code Enforcement Workflow
Cisco WiFi System	City Hall Wireless Network
Civic Plus	Website Design and Hosting
Granicus MinuteTraq	Agenda and Meeting Automation
Laserfiche Avanti	Document Archiving and Management
Metroscan Online	Real Estate Database
MOMS	Financial Software
PublicStuff	City's Mobile Service App
Shoretel System	Voice Over Internet Protocol Phone System
VMware Horizon	Remote Access Software

The following are some of the critical applications used by the Police Department.

Application	Description
Automated Regional Information Exchange System (ARIES)	Contra Costa Online Criminal Justice Information System
Automated Vehicle Location (AVL)	GPS Mapping of Police Vehicles
CABS	Computer Aided Booking System
Cogent	Booking System
Cal-Photo	DMV Database of Images
Case Cracker	Interrogation Recording
Coplogic	Online Citizen Reporting
Crywolf	False Alarm Management Solution to Reduce, Track, and Charge for False Alarms

Application	Description
Data911	Computer-Aided Dispatch, Report Writer, Record Management System
East Bay Regional Communications System (EBRCS)	911 Radio System
Emergency CallWorks	911 Phone System
File On Q	Evidence Logging
NICE Engage Platform	Call Center Recording System
Nixle	Community Alert System
Vigilant Solutions	Automated License Plate Recognition System

3 PRINCIPLES AND MISSION

3.1 Principles

The use of technology by city government has increased dramatically over the past 20 years, from simply supporting desktop computers and network servers to being a tool for productivity, reaching virtually every operation. As demand for technology applications has increased, the need to develop integrated plans has become critical for success. Proper implementation of technology can result in cost reductions, increased staff efficiency, and improved transparency. The IT Division works as a catalyst within each branch of City government to enhance such results across all divisions.

The IT Division operates on three guiding principles. These principles are the foundation upon which the Division achieves its success.

- 1) Purpose Driven: All technology projects and implementations should be purpose driven to improve a process, increase efficiency, and/or reduce cost. Technology should not be implemented for the sake of implementing technology. In order to adhere to this principle, major technology projects and implementations should have the support and input of stakeholders, which results in a higher rate of end-user adoption.
- 2) Based on Value: The solution chosen should be based on value instead of price alone. Best value is based on neither the highest nor lowest price, but a combination of price and performance that provides the greatest overall benefit in response to the specified requirements. As a prerequisite, adequate funding for all technology initiatives should be defined and encumbered before implementation.
- 3) Standardization, Integration, Consolidation, and Scalability: These are all critical considerations of any technology initiative. Standardization is the process of defining, procuring, and implementing consistent technologies whether by brand or type in order to achieve lower cost of procurement, minimize complexity of support, and maximize compatibility and interoperability. Integration is the ability for two or more separate systems or solutions to interoperate and communicate together. Consolidation is minimizing the use or maintenance of similar solutions or devices that perform the same function. Scalability is the ability for the solution or system to grow or consolidate along with the needs of the organization with minimal additional investment.

3.2 Mission

Whereas the principles are the guidelines under which the IT Division operates, the mission defines the daily operation of the Division and directs which projects are undertaken. All of the projects proposed in the Information Technology Plan are founded on the mission that the Technology Division strives to achieve.

The mission of the IT Division can be categorized into five main objectives.

- 1) High Level of Support: Maintain a high level of support to all City staff by reducing response times and increasing effectiveness in resolving issues. Providing quality support to City staff is the core function of the IT Division.
- 2) Efficiency in Operation: Implement solutions to increase efficiencies in processes, systems, and operations. Projects could include methods of implementing technology to automate tasks and save staff time. Efficiencies could also take the form of equipment and software consolidation wherever applicable.
- 3) Growth in Function: Implement innovative solutions to provide new features and functions to expand the value of City services for its residents.
- 4) Reliability in the System: Technology can only be effective when it's reliable. The IT Division is responsible for maintaining the functionality of the workstations, network infrastructure, and servers. In order to achieve greater reliability, redundancy must be built into the critical failure points throughout the system. This would include backup solutions for power, data, and equipment.
- 5) Cost Reductions: Reducing cost in operations and ongoing maintenance is always a top priority. Cost saving measures could include more aggressive negotiations to lower recurring support and service contracts and replacing high priced solutions with more value driven ones that are better suited for the City. Elimination of underutilized or obsolete systems can also result in significant cost savings. The IT Division will be creative and assertive in finding reductions wherever possible. Opportunities to reduce costs must be weighed in consideration of the Division's other principles and objectives.

4 STATUS OF INFORMATION TECHNOLOGY PLAN FOR FISCAL YEARS 2016 - 2018 PROJECTS

The primary function and responsibility of the IT Division is to provide professional, timely, and effective technical support to the staff of the City. For the past two years, the IT Division has not only kept that standard, it has also maintained a 99.99% network and server reliability.

Moreover, the IT Division launched a new work order system in January 2017. Since its inception, the division has successfully resolved 291 trouble tickets. 200 of the tickets were generated by the Police Department while 91 were generated by the staff at City Hall and the Public Services Center. It should be noted that the 291 tickets are only a subset of the total number of issues the IT Division resolved during that time period. There were many issues that were either verbally communicated or by way of email rather than through the work order system. While staff is continually reminded to utilize the work order system, the IT Division is also accommodating when being notified of issues by other means. Thus there will always be a fraction of issues resolved that is not formally reported.

In addition to providing support services and maintaining the network, the IT Division also has made significant technological strides within every department and division across the City. In June 2016, the Chief Technology Officer presented a two-year technology plan to City Council that coincided with the City's biennial budget for FY 2016/17 – 2017/18.

The contents of the plan included an ambitious list of 29 technology-related improvement projects to be completed within the two-year time period. The 29 projects ranged from building and expanding upon some of the projects initiated in FY 2014/15 – 2015/16 to advancing the City's technological innovations to achieve increased efficiency and function.

For example, in FY 2016/17 – 2017/18, the IT Division continued efforts started in FY 2014/15 – 2015/16 to work with the City's Clerk Office, Engineering, and the Planning Division in digitizing and organizing the City's document archives using Laserfiche. In collaboration with the Police Department, the IT Division also expanded upon the body-worn camera (BWC) pilot program to now having equipped every officer with a BWC.

Innovative projects that increased efficiency included issuing smartphones to every officer and implementing new crime analysis software. The smartphones not only allowed the officers to gather interviews and photo evidence out in the field but also gave them access to apps such as the Legal Sourcebook, Hazmat Reference and Emergency Response Guide, and language translation tools. The crime analysis software geologically maps hot spots throughout the city and provides predictive analysis that can be used by the Police Department to prevent crime.

Overall, in FY 2016/17 – 2017/18, the IT Division was able to make a significant impact on the state of the City's technology completing 27 improvement projects. 21 of the projects were

part of the originally proposed 29 in the FY 2016/17 – 2017/18 Technology Plan, and six were impromptu projects added as a result of special circumstances that were unforeseen and required immediate action. Due to the impromptu projects, some of the proposed projects for FY 2016/17 – 2017/18 have been deferred to FY 2018/19 – 2019/20.

The following tables illustrate the status of all projects undertaken and the departments/divisions that benefited from them.

Completed FY 2016/17 – 2017/18 Technology Plan Projects		
Project Name	Project Description	Divisions Benefited
Remote Access Solution	Virtual Desktop Infrastructure (VDI) to enable seamless remote access of staff files from any workstation or location	All
Agenda Management Solution	Seek an agenda management solution that better suits the City's needs and can be used for meetings that do not require video or audio recording	All
Install Write Once, Read Many (WORM) Device	Laserfiche Add-On to replace paper records with electronic originals once scanned into Laserfiche	All
Evaluate MS Sharepoint	Evaluate and implement a solution to foster collaboration and information sharing including file sharing, storage, and simultaneous file edits	All
Renew Copier Lease	Current copier lease with Caltronics will expire in April 2017	All
Implement IT Work Order System	Implement an IT work order system to track issue submissions and provide staff with progress updates	All
Evaluate MS Exchange 365	Consider migrating the email server to the cloud to increase reliability and accessibility while decreasing maintenance requirements	All
Server Replacement	Replace two aging VMWare host servers with four new servers to increase capacity and storage	All
Build a Disaster Recovery (DR) site at PHPD	Establish a failover server infrastructure at PHPD should the datacenter at city hall ever fail	All
Document Scanning	Contract with a service to digitize Clerk's Office and Human Resources documents into Laserfiche	Clerk's Office, HR

Completed FY 2016/17 – 2017/18 Technology Plan Projects

Project Name	Project Description	Divisions Benefited
Research Geographic Information System (GIS)	Determine the most efficient and cost-effective way to revitalize GIS functionality for the City	Engineering, Planning, Public Works
Evaluate Replacement Financial System	Work with Finance Department to evaluate financial systems that may be more suitable for the City	Finance
Research and Implement Human Resource Information System	Work with Human Resources to implement a system to manage staff information, training, recruiting, and compliance	HR
Update Technology Plan	Update the FY 2016 – 2018 Technology Plan for FY 2018 – 2020	IT
Organize and Discard Old Equipment	Organize and discard surplus, obsolete, or damaged equipment in datacenters and technology work area	IT
Issue Smartphones to Patrol	Purchase and issue smartphones to all patrol officers on staff at the police department	Police Dept.
Modernizing the Emergency Operations Center (EOC)	Install additional displays and wire for data and communications	Police Dept.
Mobile Device Management Solution (MDM)	Implement a MDM solution to track, secure and remotely wipe City issued smartphones and tablets	Police Dept.
Implement Bair Analytics	Implement a crime analysis application to assist PHPD in charting, predicting, and preventing crime	Police Dept.
Issue Body Cameras	Further expand the body camera pilot program to include additional officers	Police Dept.
New Computer-Aided Dispatch (CAD) System in 2021	Reserve budget for the eventual replacement of the PHPD's CAD and Report Management System (RMS) in 2021	Police Dept.

Completed FY 2016/17 – 2017/18 Impromptu Projects

Project Name	Description	Divisions Benefited
Pilot Customer Relationship Management (CRM) Solution	Researched and implemented a pilot CRM program to assist Code Enforcement in scheduling inspections and tracking pending cases	Code Enforcement

Completed FY 2016/17 – 2017/18 Impromptu Projects

Project Name	Description	Divisions Benefited
WiFi & Radio Antenna Removal	Removed and disposed of obsolete City WiFi and police radio equipment from five locations throughout the city	City Manager, Police Dept.
Police Department Telecommunications Audit	Performed an audit on the phone and data lines at the PHPD to reduce extraneous costs	Police Dept.
New Domain for PHPD	Registered and implemented PHPD their own domain for email and website use	Police Dept.
Digital Document Management System for PHPD	Expanded the Laserfiche Document Management Solution used at City Hall to PHPD and imported data from obsolete PHPD document system into Laserfiche	Police Dept.
Installed Fixed Automatic License Plate Readers (ALPR)	Worked with Vigilant Solutions to install fixed ALPR cameras at three locations within the City	Police Dept.

FY 2016/17 – 2017/18 Technology Plan Projects Deferred

Project Name	Description	Divisions Benefited
Accela Training	Accela Admin training for IT Staff	All
New Content Filter	Replace existing obsolete content filter with one that is more intuitive and offers the latest features	All
Install Solarwinds	Install a solution to monitor network and server health and be proactive in preventing outages	All
Centralized Workstation Management System	Research and implement a centralized computer management system to automate the update and maintenance of workstations	All
Cloud Backup Service	Sign up with a cloud backup solution for recovery of our data and enable us access to critical applications should our datacenter suffer catastrophic failure	All
Network Security Evaluation	Perform a security audit on the City's network to assess vulnerability to hacks and malware	All

FY 2016/17 – 2017/18 Technology Plan Projects Deferred

Project Name	Description	Divisions Benefited
Expand CRM Solution	Expand the CRM solution used by code enforcement to help economic development track and stay in touch with local businesses	Economic Development, Planning
Single Sign-on for MDTs	Install single sign-on solution in the Mobile Data Terminals (MDTs) of police vehicles	Police Dept.
Reverse 911 System	Emergency notification system to deliver messages to staff and/or a geo area via phone, text, and email	Police Dept.
Two-Factor Authentication on MDTs	Install two-factor authentication in the Mobile Data Terminals of police vehicles	Police Dept.

Beyond supporting staff and modernizing the City, the IT Division has also successfully worked to reduce operational and maintenance costs. For example, the division has renegotiated the City’s copier contract with Caltronics changing from a 36 month lease to a 60 month lease. Moreover, the cost per copy was negotiated down on black and white prints from \$0.005 to \$0.0045 and on color prints from \$0.05 to \$0.0425. Overall the City will save approximately \$84,653 in paper reproduction costs over the next 60 months.

The IT Division also performed a telecommunications audit of the Police Department’s monthly phone and data charges. Many of the surplus phone lines and unused data lines were disconnected. Other phone line accounts which were on general commercial contracts were switched to state-government negotiated contracts with reduced pricing. The audit will result in savings to the City of approximately \$28,278 annually.

All in all, in FY 2016/17 – 2017/18, the IT Division successfully reduced the operational and maintenance costs to the City by more than \$226,042 over the next five years and beyond.

Expenditures for FY 2016/17 – 2017/18 totaled approximately \$1.7M, which left a positive fund balance of \$573,906. The following tables summarize the budgeted and actual expenditures for FY 2016/17 – 2017/18.

Police Department Technology Budget for FY 2016/17 – 2017/18	Budget	Actuals
Revenue	\$1,334,110	\$1,327,294
Expenditures		
General Expenses	\$65,878	\$63,849

Professional and Contractual Services	\$60,900	\$89,490
Conferences and Training	\$3,017	\$2,656
Maintenance and Repair	\$597,285	\$311,091
Supplies and Materials	\$130,614	\$89,168
Fixed Assets	\$371,474	\$250,694
Total Expenditures	\$1,229,168	\$806,948
Ending Balance	\$104,942	\$520,346

All Other Departments Technology Budget for FY 2016/17 – 2017/18	Budget	Actuals
Revenue	\$936,653	\$960,240
Expenditures		
General Expenses	\$49,197	\$55,998
Professional and Contractual Services	\$140,012	\$147,522
Conferences and Training	\$5,527	\$4,183
Maintenance and Repair	\$282,183	\$278,252
Supplies and Materials	\$111,009	\$103,887
Utilities	\$32,196	\$42,347
Fixed Assets	\$225,861	\$274,491
Total Expenditures	\$845,985	\$906,680
Ending Balance	\$90,668	\$53,560

5 THE INFORMATION TECHNOLOGY PLAN FOR FISCAL YEARS 2018/19 – 2019/20

The Information Technology Plan for Fiscal Years 2016 – 2018 focused on expanding the adoption of the technology implemented in previous years, continuing to improve City operations through the use of technology, and prioritizing the IT Division's internal needs of updating infrastructure and improving level of service.

For FY 2018/19 – 2019/20, the IT Division plans to continue integrating and further utilizing the technologies that have been implemented in FY 2016/17 – 2017/18. Specifically in collaboration with the Clerk's Office, the IT Division has completed digitizing and organizing the City's historical meeting agenda packets, minutes, resolutions, and ordinances. In addition, most of the maps within Engineering have also been digitized into the City's document management system, Laserfiche. For FY 2018/19 – 2019/20, continued efforts in digitizing document archives will be made for the Planning Division and the Police Department.

Also in FY 2016/17 – 2017/18, the IT Division revitalized the City's Geographical Information System (GIS) program for the Planning Division. In FY 2018/19 – 2019/20, the GIS program will be expanded to include data from Engineering and Public Works. In support of this effort, the IT Division will hire an additional staff member, the IT Specialist, to ensure the sustainability of the City's GIS program.

Not only will the IT Specialist be responsible for keeping the GIS data updated and relevant, but the position will also be tasked with a number of other duties, including desktop support, monitoring the health of the City's servers and network, and supporting the needs of the Police Department when needed. Many of the projects deferred from the FY 2016/17 – 2017/18 Information Technology Plan to the current plan were postponed deliberately in anticipation for the IT Specialist to spearhead those projects. These projects include the network security evaluation, installation of the Solarwinds network monitoring solution, procurement of the new content filter, and implementation of a centralized workstation management system.

Beyond completing the projects deferred from the FY 2016/17 – 2017/18 Information Technology Plan, the bulk of the IT Division's time and energy will be devoted to two major projects in FY 2018/19 – 2019/20. One is the replacement of Police Department's Computer-Aided Dispatch and Records Management System (CAD/RMS) and the second is the selection and implementation of the City's new Enterprise Resource Planning (ERP) system to replace the existing financial system. Both of these systems are the heart of operations in their respective departments and thus require extra care in planning and attention to detail during implementation. Typical timeframes for deploying a new CAD/RMS system is approximately eight months and for an ERP system is two years.

Lastly, an ongoing priority for the IT Division is to continue to improve City operations through the use of technology. The Chief Technology Officer regularly meets with department and

division leaders to seek their input and technological requests. The resulting input is also factored into the Information Technology Plan.

One such request is to convert the City’s hardcopy forms and PDF’s into fillable forms that can be posted online and accessible to the public. Another request is to utilize technology to improve collaboration capabilities on projects between staff members and divisions or departments. Included in the IT Plan for FY 2018/19 – 2019/20 is to possibly implement Microsoft Office 365 to address this very issue.

The following table lists the IT Division’s projects slated for the FY 2018/19 – 2019/20. Each proposed project has been classified according to the IT Division’s mission objectives addressed in Section 3.2 of this plan. The departments and divisions that they benefit are also listed.

OBJECTIVE #1: High Level of Support		
Project Name	Description	Divisions Benefited
New Content Filter	Replace existing obsolete content filter with one that is more intuitive and offers the latest features	All
Accela Training	Accela Admin training for IT Staff	All
OBJECTIVE #2: Efficiency		
Project Name	Description	Divisions Benefited
Increase Code Enforcement Efficiency	Research and implement a solution to provide Code Enforcement with an efficient means of tracking and resolving code violations within the City	Code Enforcement
Single Sign-on for MDTs	Install single sign-on solution in the Mobile Data Terminals (MDTs) of police vehicles	Police Dept.
Reverse 911 System	Emergency notification system to deliver messages to staff and/or a geo area via phone, text, and email	Police Dept.
Expand WiFi Coverage at PHPD	Ensure WiFi is accessible throughout PHPD	Police Dept.
Implement Office 365	Evaluate and implement a solution to foster collaboration and information sharing including file sharing, storage, and simultaneous file edits	All
Convert Forms to Online	Convert hardcopy and PDF forms to fillable versions and be accessible online	All
Centralized Workstation Management System	Research and implement a centralized computer management system to automate the update and maintenance of workstations	All

OBJECTIVE #2: Efficiency

Project Name	Description	Divisions Benefited
Document Scanning	Continue digitizing documents from Planning and Police Department into Laserfiche	Planning, Police Dept.

OBJECTIVE #3: Growth

Project Name	Description	Divisions Benefited
Two-Factor Authentication on MDT's	Install two-factor authentication in the Mobile Data Terminals of patrol vehicles	Police Dept.
Further Develop Geographic Information System (GIS)	Continue to develop the City's GIS to aid staff in tracking, documenting, and analyzing the City's assets and infrastructure	Engineering, Planning, Public Works

OBJECTIVE #4: Reliability

Project Name	Description	Divisions Benefited
Update Video Surveillance System at PHPD	Update video surveillance system at PHPD to improve reliability and increase functionality	Police Dept.
Install Netmotion in PHPD Vehicles	Improve reliability to data communications within police vehicles	Police Dept.
Network Security Evaluation	Perform penetration testing on the City's network to assess vulnerability to hacks and malware	All
Install Solarwinds Network Monitoring	Install a solution to monitor network and server health and be proactive in preventing outages	All
Cloud Backup Service	Seek cloud backup solutions for data recovery and enable accessibility to critical applications should the datacenter suffer catastrophic failure	All
Implement Exchange Online	Migrate email server to the cloud to increase reliability and accessibility	All
Update A/V in Conference Rooms	Update audio/video equipment in the conference rooms to improve effectiveness and ease of use	All
Upgrade Workstations to Windows 10 and Office 2016	Upgrade workstations to Windows 10 and Office 2016 in keeping with Microsoft recommendations of best practices to ensure reliability and security	All

OBJECTIVE: Multiple

Project Name	Description	Objectives	Divisions Benefited
Council Chambers A/V Upgrade	Upgrade audio/video equipment in the Council Chambers to improve reliability and offer the latest features	Efficiency, Reliability, Growth	All
Replace PHPD's CAD/RMS System	Replace existing CAD/RMS system at PHPD to improve reliability and increase functionality	All	Police Dept.
Update Technology Plan	Update the FY 2018 – 2020 Technology Plan for FY 2020 – 2022	All	IT
Procure and Implement ERP System	Replace existing financial system with an enterprise level solution that offers robust features and connects multiple divisions/departments	All	All

6 TIMELINE FORECAST

The table below illustrates the forecasted timeline for completion of each project.

Objective #1: High Level of Support	Fiscal Year 2018 - 2019				Fiscal Year 2019 - 2020			
Project Name	QTR 1	QTR 2	QTR 3	QTR 4	QTR 1	QTR 2	QTR 3	QTR 4
New Content Filter	█							
Accela Training		█						

Objective #2: Efficiency	Fiscal Year 2018 - 2019				Fiscal Year 2019 - 2020			
Project Name	QTR 1	QTR 2	QTR 3	QTR 4	QTR 1	QTR 2	QTR 3	QTR 4
Increase Code Enforcement Efficiency	█							
Single Sign-on for MDTs		█						
Reverse 911 System			█					
Expand WiFi Coverage at PHPD				█				
Implement Office 365						█	█	
Convert Forms to Online							█	█
Centralized Workstation Management System								█
Document Scanning	█	█	█	█	█	█	█	█

Objective #3: Growth	Fiscal Year 2018 - 2019				Fiscal Year 2019 - 2020			
Project Name	QTR 1	QTR 2	QTR 3	QTR 4	QTR 1	QTR 2	QTR 3	QTR 4
Two-Factor Authentication on MDT's		█						
Further Develop Geographic Information System (GIS)	█	█	█	█	█	█	█	█

Objective #4: Reliability	Fiscal Year 2018 - 2019				Fiscal Year 2019 - 2020			
Project Name	QTR 1	QTR 2	QTR 3	QTR 4	QTR 1	QTR 2	QTR 3	QTR 4
Update Video Surveillance System at PHPD	█							

Objective #4: Reliability	Fiscal Year 2018 - 2019				Fiscal Year 2019 - 2020			
Project Name	QTR 1	QTR 2	QTR 3	QTR 4	QTR 1	QTR 2	QTR 3	QTR 4
Install PHPD Vehicles with Netmotion								
Network Security Evaluation								
Install Solarwinds Network Monitoring								
Cloud Backup Service								
Implement Exchange Online								
Update A/V in Conference Rooms								
Upgrade Workstations to Windows 10 and Office 2016								

Multiple Objectives	Fiscal Year 2018 - 2019				Fiscal Year 2019 - 2020			
Project Name	QTR 1	QTR 2	QTR 3	QTR 4	QTR 1	QTR 2	QTR 3	QTR 4
Council Chambers A/V Upgrade								
Replace PHPD's CAD/RMS System								
Update Technology Plan								
Procure and Implement ERP System								

7 BUDGET

The following table illustrates the revenues allocated to the IT Division for Police Department and all other information technology needs in FY 2018/19 – 2019/20. The budget was created based on the City’s information technology annual ongoing operational expenditures and estimates of the proposed FY 2018/19 – 2019/20 improvement projects.

Budget	Fiscal Year 2018/2019		Fiscal Year 2019/2020	Totals
	Beginning Bal	Revenue	Revenue	
Police Department	\$520,346	\$375,000	\$393,000	\$1,188,346
All Other	\$53,560	\$625,000	\$637,000	\$1,415,560
Totals	\$573,906	\$1,000,000	\$1,030,000	\$2,603,906

Below are the estimated expenditures required in FY 2018/19 – 2019/20 to implement the technology projects identified in this Information Technology Plan.

Project Name	Approximate Cost
Objective #1: High Level of Support	
New Content Filter	\$30,000
Accela Training	\$3,000
Objective #2: Efficiency	
Increase Code Enforcement Efficiency	\$20,000
Single Sign-on for MDTs	\$3,000
Reverse 911 System	\$6,000
Expand WiFi Coverage at PHPD	\$20,000
Implement Office 365	\$75,000
Convert Forms to Online	\$30,000
Centralized Workstation Management System	\$20,000
Document Scanning	\$50,000
Objective #3: Growth	
Two-Factor Authentication on MDTs	\$10,000

Further Develop Geographic Information System (GIS)	\$46,000
Objective #4: Reliability	
Update Video Surveillance System at PHPD	\$38,000
Install PHPD Vehicles with Netmotion	\$15,000
Network Security Evaluation	\$20,000
Install Solarwinds Network Monitoring	\$80,000
Cloud Backup Service	\$10,000
Implement Exchange Online	See Cost Above for Office 365
Update A/V in Conference Rooms	\$30,000
Upgrade Workstations to Windows 10 and Office 2016	\$50,000
Multiple Objectives	
Council Chambers A/V Upgrade	\$150,000 ¹
Replace PHPD's CAD/RMS System	\$250,000 ²
Install Customer Relationship Management (CRM) Solution	\$50,000
Update Technology Plan	\$0
Procure and Implement Enterprise Resource Planning (ERP) System	\$550,000 ³
Total Estimated Project Expenditures For Fiscal Years 2018 - 2020	\$1,556,000

¹ The Council Chambers A/V Upgrade will be funded by federal Public, Educational, or Governmental (PEG) funds and is not included in the IT Division fiscal year budget calculations.

²The total replacement cost for the CAD/RMS system is estimated to be approximately \$450,000. \$200,000 out of the \$450,000 was reserved in the FY 2016 – 2018 IT Division budget and the remaining amount of \$250,000 is divided evenly between FY 2018/19 and 2019/20 budgets.

³\$550,000 for the ERP System is a rough estimate of the actual cost based on the City's size and typical needs. A more accurate cost estimate will be determined based on the results of a future needs assessment and Request for Proposals. Typically, the implementation of an ERP System would be two years. Thus, the \$550,000 is divided evenly between the FY 2018/19 and 2019/20 budget years.

The table below summarizes the forecasted revenues and projected expenditures for FY 2018/19 – 2019/20 based on the specific projects identified in this Information Technology Plan.

Police Department Technology Budget	Fiscal Years 2018 – 2020
Revenue	\$1,188,346
Expenditures	
General Expenses	\$56,351
Professional and Contractual Services	\$141,336
Conference and Training	\$3,201
Maintenance and Repair	\$569,888
Supplies and Materials	\$165,818
Fixed Assets	\$250,000
Total Expenditures	\$1,186,594
Ending Balance	\$1,752

All Other Technology Budget	Fiscal Years 2018 – 2020
Revenue	\$1,415,560
Expenditures	
General Expenses	\$62,548
Professional and Contractual Services	\$178,640
Conference and Training	\$24,333
Maintenance and Repair	\$340,161
Supplies and Materials	\$162,489
Fixed Assets	\$705,000
Total Expenditures	\$1,536,445
Ending Balance	(\$120,885)

Although the total projected end balance for the IT Division budget for FY 2018/19 – 2019/20 estimates a shortfall of \$119,133 when combining the PHPD and all other budgets, the actual ending balance will be more favorable as most of the project estimates include a contingency reserve and the technology plan is intentionally ambitious so not all projects may be completed within the next two fiscal years.

8 FUTURE PROJECTS

The IT Division will update this Information Technology Plan on a schedule that coincides with the City's Biennial Budget. The Division has already identified a number of projects requiring attention in FY 2020/21 – 2021/22 and beyond. For example, the datacenters at both City Hall and the Police Department will need to be evaluated for redesign in order to maximize space utilization and minimize potential factors that would cause equipment failure. Minimally, new network firewalls will be needed by then to replace the existing ones, which will be obsolete.

At the Police Department, the mobile data terminals (MDT's) in the police vehicles will be eight years old by 2021 and will possibly need replacement.

In addition, the IT Division will continue to work with department and division leaders and their staff to identify areas where the injection of technology can increase staff efficiencies resulting in higher productivity, cost reduction, and/or added functionality.

Technology is ever changing, constantly improving to make processes and devices more efficient and less costly. The IT Division is dedicated to seeking out those solutions that best adhere to our guiding principles while achieving our objectives to support City staff and better serve the City's residents.