



PLANO FIRE-RESCUE

STRATEGIC PLAN

2016-2020





Plano

City of Excellence

CITY OF EXCELLENCE



From the Fire Chief:

I would like to start by saying how appreciative and proud I am to be part of one of the finest fire service organizations in the country. It is a well-known fact that Plano Fire-Rescue (PFR) has a strong reputation, and I have certainly seen why during my first year with the department. The men and women of PFR take great pride in the service they provide the citizens, and being part of making Plano one of the safest cities in the nation. Our response is rapid, professional, and courteous. One would be hard-pressed to find a better EMS provider in the world. An individual experiencing cardiac arrest in Plano has one of the highest rates of survival in the nation. Heart attack and stroke patients in Plano benefit from some of the fastest call-to-definitive treatment times anywhere. On the fire side, PFR's Fire Prevention Section and Community Outreach group do a tremendous job of preventing incidents before they occur. When our best efforts cannot prevent a fire, our members respond quickly and in expert fashion. PFR maintains a Class 1 rating with the Insurance Services Office (ISO), and accreditation with both the Commission on Fire Accreditation International (CFAI) and the Commission on Accreditation of Ambulance Services (CAAS). PFR is one of only three fire departments in the nation to achieve recognition from all three agencies.



Even though we are well recognized and provide a very high level of service, the men and women of PFR are constantly seeking ways to improve and this plan is the culmination of that effort. The needs identified in this plan are based on both quantitative and qualitative data with a focus on maintaining, or improving, the levels of service and safety provided to the citizens of this great city.

My wife, Rosemary, and I have been treated like family since moving to Plano this summer by both the citizens and members of the department. We have both greatly appreciated the support and thank you for welcoming us to our new home. I am excited about seeing this strategic plan unfold over the next four to five years and watching the department continue to serve and excel.

Sincerely,


Sam Greif, Fire Chief

Acknowledgement

The FY 2016-2020 Strategic Master Plan is a product of the hard work and diligence of the men and women of Plano Fire-Rescue. By design it will ensure the future success of the Department by strategically mapping to key resource allocations and personnel acquisitions. The goal of the Strategic Master Plan is to provide the necessary medium to display the vision, development, and implementation of programs needed to meet and exceed the expectation of Plano's citizens, City Council and the members of Plano Fire-Rescue.

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2016-2020 Plano Fire-Rescue Strategic Plan Introduction

Introduction

Plano Fire-Rescue (PFR) has developed formal strategic plans/needs assessments since the late 1980's. Development of the plan was largely a function of the department's executive staff for over two decades. In 2013, Fire Chief Brian Crawford implemented a more inclusive planning process in which 31 members participated. The committee members came from a variety of ranks, divisions, sections, and areas of specialty. Representatives from stakeholders outside PFR (Medical Control, Public Safety Communications, etc.) were also included. Their combined effort resulted in the 2014-2018 Strategic Master Plan.

Accomplishments from the 2014-2018 Strategic Plan

Administrative Realignment

In 2012, a reorganization of PFR Administration was initiated over a two-year period. The goal of this plan was to reduce the span of control for both the Fire Chief and Assistant Chiefs, along with creating the additional rank of Deputy Chief to stop the rotation of personnel out of key management positions. The final pieces of the re-alignment were put in place with the appointment of two new Assistant Chiefs, one in charge of the Emergency Services Division and one in charge of the Support Services Division, in October 2014. The final Deputy Chief position was created in January of 2015 completing the Administrative re-alignment. Fire Chief Sam Greif created one additional Deputy Chief position in 2015, which alleviated the final rotating Battalion Chief position from Administration

ensuring that all management positions were permanent assignments. This allows PFR to maintain and build on critical knowledge in these positions and creates a more manageable administrative structure ensuring Plano Fire-Rescue is poised to provide the best emergency and community services moving forward.

Continuous Data Analysis (PFR Stat)

Plano Fire-Rescue implemented the PFR Stat program in January 2014 to monitor performance-related statistics including:

- Turnout times
- Travel times
- Response times
- Transports per month
- Medical unit overload (MUO) activations
- Call volume and call types
- Cardiac etiology survival rates
- Fire prevention services

The program has helped PFR reduce total response times by approximately 38 seconds, and improve best practice and benchmark time target compliance by 3.75% and 4.9% respectively. By monitoring several metrics, PFR Stat has helped identify the most frequent issues resulting in extended travel times such as, travelling out of district, travelling to the far end of the district, or malfunction with the apparatus computers. By monitoring several key metrics, PFR is able to

2016-2020 Plano Fire-Rescue Strategic Plan Introduction

identify trends in the data and recognize outliers that need to be addressed. PFR Stat also plays an important role in PFR's CFAI reaccreditation process. Additionally, statistics are made available monthly to the public on the planofire.org website.

Fire Station Remodels (Stations 2 and 6)

The remodels at Stations 2 and 6 started on October 1, 2015. They are both on schedule to be completed in July of 2016. Both facilities are expanding to include a new physical fitness area, officers' quarters, and increased bunker gear storage protection. Station 6 is also expanding to include a third drive-thru bay for the Battalion Chief.

Station 2 Remodel Cost: \$1.5 million

Station 6 Remodel Cost: \$1.5 million

Funding for the remodels was established through the Citizens of Plano Bond Election of 2009.

Community Outreach & Education

The fire service has long recommended that fire and life safety education be recognized and supported as a vital component of keeping our communities safe from fire and injury. PFR, through the Community Outreach & Education Office, has coordinated efforts to deliver a varied list of programs and information to the citizens of Plano to ensure they have the resources to live as safely as possible. Public fire and life safety education is the department's major vehicle for increasing community awareness and the department's visibility within

the community through the administration of programs, classes and direct participation in community events.

Recent programs such as the LAFS (Life and Fire Safety) Clowns and Characters programs, Citizens Fire Academy, Hands-Only CPR and AED use training, and outreach at special events show a commitment to providing the Plano community with the knowledge and resources to prevent injuries, death, and monetary loss from fire and other hazardous risks.

Community Risk Reduction Same Day Services

As part of the FY 2014-2015 budget, a Lieutenant position was added to Fire Prevention to provide expedited plan review and same-day inspections for construction projects. The position was partially funded by fees paid by the requesting contractor.

PFR completed new construction inspections at 2789 new construction sites and reviewed 1485 new construction plans in 2014-2015.

The expedited plan review and same-day systems inspection services for new construction remains popular with contractors. During our first year the expedited plan review service was used more than 100 times with more than 150 same day inspection requests. The total revenue generated by the service was over \$39,000.00.

Light Response Vehicle (Squad Program)

The Rescue Squad Program went online and in-service on October 7, 2013. The Program consisted of two SUV-type EMS

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vehicles, each staffed with a Firefighter Paramedic and a Lieutenant Paramedic.

Initially, these Rescue Squads were responsible for the following:

- Responding to all EMS calls within their district
- Responding to all CPRs in the City of Plano
- Responding to all structure fires
- Acting as a liaison between the Medical Director and field personnel

In August of 2015, the Rescue Squad Program was evaluated and revised; one of them was removed from service, and the personnel were used to place an additional ambulance in service. The remaining Rescue Squad's duties were then changed based upon qualitative and quantitative data gathered from October 2013 – August 2015.

The Rescue Squad is now responsible for the following:

- Responding to all CPRs and high acuity calls
- Providing training for field personnel
- Providing medical care at all structure fires
- Providing training and assessment for new paramedics
- Working directly with the Medical Director to address EMS issues

Fireground Communications

Fireground communications may well be the single most critical factor in contributing to the successful outcome of any

emergency operation. Poor communications have been cited as a major contributing factor in fires and other emergency incidents where firefighters were killed or injured. According to the United States Fire Administration, “despite the obvious importance of effective communications on the emergency scene, only a limited amount of published research exists dealing specifically with this topic.”

In addition to forming a Communications Committee to conduct in-house research and to provide expert recommendations, PFR has worked with on-shift Battalion Chiefs, the Radio Shop, Dispatch, Motorola, and other agencies to provide solutions. Since 2014, PFR has conducted noise suppression testing, created a new radio template, reprogrammed all department radios, tested and introduced new extreme microphones for all users, developed and presented a Communications Best Practice class, conducted MAYDAY training drills, and updated department procedures and field guides. Going forward, PFR will continue to look for new and innovative ways to improve our fireground communication to safely and effectively accomplish our mission.

Incident Command Engineers

In 2014, PFR identified the need to add six Incident Command Engineers (ICEs) to the Strategic Plan. This position would provide the on-shift Battalion Chiefs daily administrative assistance, along with emergency incident support.

2016-2020 Plano Fire-Rescue Strategic Plan Introduction

Examples of administrative support include:

- Preparing, analyzing and tracking statistical data for the PFR Stat program
- Processing daily leave requests and conducting daily staffing
- Resolving payroll issues
- Coordinating schedules
- Preparing, collecting, and submitting required administrative documents
- Assisting with training exercises
- Identifying and implementing new programs

Examples of emergency response support include:

- Documentation of emergency incidents to include tracking and accountability of personnel
- Emergency and non-emergency driving to and from incident scenes
- Tactical and strategic assistance to Incident Command
- On-scene customer service

Since implementing the plan, two ICEs have been assigned to each of the three shifts. The valuable support provided by this position has allowed the on-shift Battalion Chiefs to manage their personnel and emergency scenes more effectively. In addition, the ICE position has provided greater efficiency by allowing the Battalion Chiefs to safely conduct business while riding as a passenger in the Battalion vehicle.

Thermal Imaging Cameras (TIC)

Funding was secured in FY 2015-2016 for the replacement of half of the department's Thermal Imaging Cameras (TIC). The camera's specification has been developed and submitted to the City's Purchasing Department. Purchasing is currently working through our cooperative contracts for best pricing.

Once the contract process is complete, PFR will request City Council approval for the \$135,000 purchase. This initial purchase will complete the replacement of half of the department's TICs. It is expected that PFR will receive the cameras in the first half of the summer.

In addition, PFR is working through the budget process to secure the second funded supplement for FY 2016-2017 to complete the second half of the replacement process. Purchase of the remaining cameras is expected in October 2016.

Uniform Clothing Allowance Project

In late December 2015, the department went live with the computer version of the uniform clothing online catalog and ordering system with Red the Uniform Tailor. Each member of the department was given a \$400 virtual allowance and parameters were explained. During that two-week open ordering timeline \$86,650 was spent. This accounts for approximately 62% of the entire budget for uniform clothing for this fiscal year. Some minor issues were encountered during the first ordering process and corrections are in the process of

2016-2020 Plano Fire-Rescue Strategic Plan Introduction

being made. Additional online uniform items will be made available to PFR members in 2016.

Medical Transportation Enhancements

In January 2014, PFR placed in service a Demand Ambulance. The Demand Ambulance is staffed by two overtime personnel five day per week, eight hours per day. The purpose of the Demand Ambulance is to assist PFR's seven full-time ambulances during peak times. PFR was successful in placing the eighth full-time ambulance in service in October 2015 and was able to keep the Demand Ambulance in service. PFR was able to do this without any additional costs by utilizing a reserve ambulance and removing one Rescue Squad unit from service. The personnel from the Rescue Squad were able to staff the eighth ambulance.

In 2015, the Department purchased 11 new ambulances to replace our current fleet. The new ambulances come with a hydraulic suspension system called Liquid Springs. This suspension system provides a smooth, comfortable ride for patients and department personnel. In addition, the new ambulances come with enhanced safety systems in the patient

compartment. This includes airbags and an alarm that alerts the driver when someone is seated unbelted. One additional safety feature worth noting is the automatic cot loading system. This automated system provides safety for crew members and the patient while loading and unloading the cot. These and other features assure our new units will be in compliance with the NFPA (National Fire Protection Association) 1917 Standard for Automotive Ambulance. PFR is the first fire-based EMS agency in the country to provide this level of compliance in our medical transport vehicles.

2016-2020 Strategic Plan

The 2016-2020 Strategic Plan is a hybrid of the PFR's previous planning efforts. In early 2015 Interim Fire Chief Marty Wade assembled a new strategic planning team comprised of PFR employees and other city stakeholders for a one-day meeting. The group's efforts resulted in an extensive list of PFR priority needs. In late 2015, Fire Chief Sam Greif charged the Deputy Chief of each of the Department's Sections with developing a strategic plan for their area. The 2016-2020 Plano Fire-Rescue Strategic Plan is the combined result of these most recent efforts.

2015-2016 UPDATE



Fire Training Facility

Background

Plano Fire-Rescue (PFR) has a long tradition of being one of the most highly trained and well equipped departments in the world. Over the past 30 years, the department has seen a substantial growth in both fire stations and personnel. The department now has 351 uniformed personnel who must be trained continuously to maintain the high standards that the citizens of Plano deserve and have come to expect.

In the most recent years, the City of Plano has contracted with Collin College to utilize its training field in the City of McKinney. This arrangement was originally made when PFR had ten stations staffed with 11 engine companies and four ladder companies. This resulted in half of all stations having two major pieces of apparatus that were able to respond to emergencies. Today, the department operates out of 13 stations with 12 engine companies and four ladder companies, resulting in only 25 percent



of the stations having two major apparatus in the station. The city's population was 220,000 in 2000, and the department answered 15,898 emergency calls. In 2015 the estimated population was 271,140, and the department responded to 24,972 emergency calls which is a 64 percent increase from the year 2000 when the Collin College (McKinney) plan was

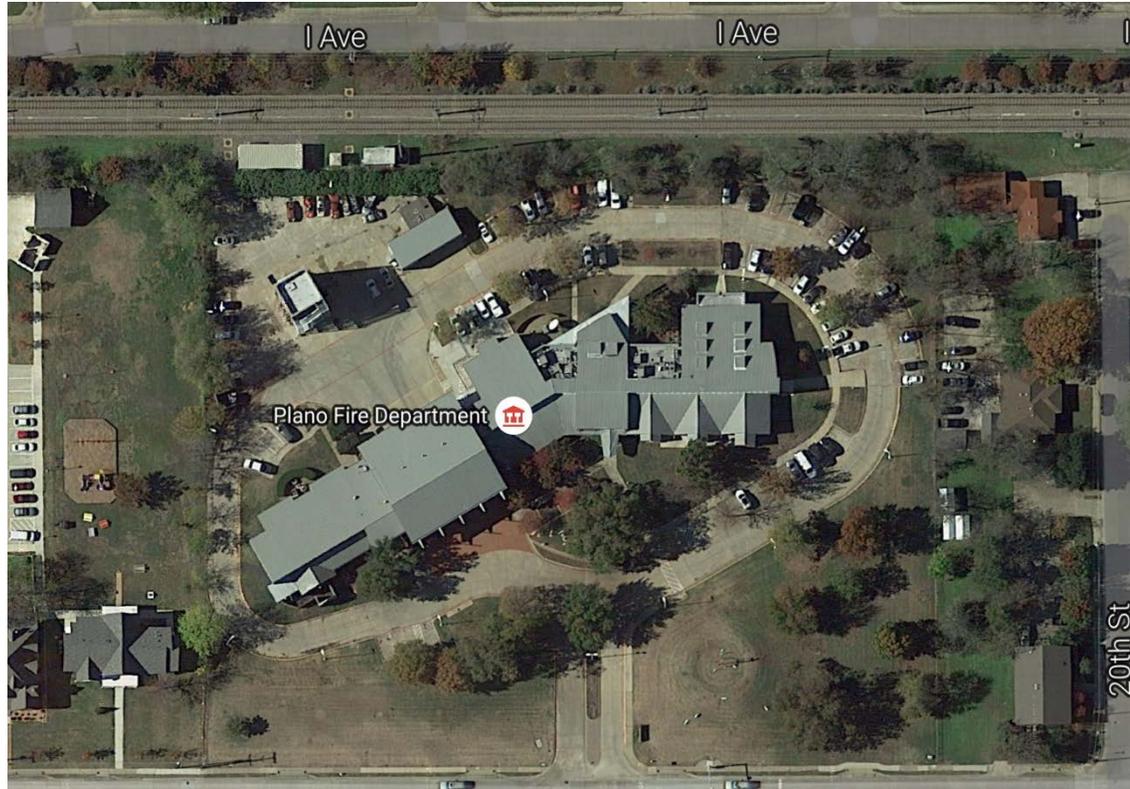
implemented. The significant increase in citywide call volume (64 percent), combined with a decrease in available fill-in companies (50 percent), results in out-of-city company training negatively affecting response times.

In 2014, Collin College closed and demolished its training facility leaving PFR the need to fill the void for training assignments. As a stop gap measure

Fire Training Facility

until a permanent solution can be reached, PFR is leasing training time at neighboring communities' training facilities. PFR must compete with other agencies for time at these facilities and availability is not guaranteed. In addition, remote training results in critical resources being unavailable, or having significantly delayed response times, in the event of a major event or large increase in call volume.

ISO requires that all members assigned to Operations have at least 18 hours on the fire-training field. Prior to 2015, ISO looked at company (an engine or a truck and the crew who staffs it) training - not at individual training. The 2015 ISO standards now require departments to track individual training hours. While a specific company is always in service, the individual personnel staffing it can be different on a day-to-day and shift-to-shift basis. ISO last evaluated PFR in 2010, and we received 96 percent of the credit for the company level section. While PFR does its best to meet this requirement by using surrounding cities' training facilities, it



is difficult to provide make-up training for those who, for whatever reason, were unable to attend on their Company's assigned day. It will become increasingly difficult to meet the minimum training requirements for ISO without a dedicated training facility. Plano is the largest municipality in Texas without a dedicated training

center, which highlights the importance that major metropolitan fire departments place on such a facility. The PFR training facility will allow the department to provide more frequent training, at a higher level, to its members which will result in increased levels of service to the citizens of Plano.

Fire Training Facility

Program Description

PFR has been looking for a proper location that works well within the community's master plan, while also remaining cognizant of the potential concerns of neighbors in the area. Due to the very limited amount of land in the city, it was decided that the southeastern commercial district would be the most suitable. A search of real estate records on the Multiple Listing Server (MLS) found that most commercial property is sold through exclusive real estate firms that specialize in commercial sales. PFR was able to locate a recent sale of commercial land (5 acres) in east Plano that sold for \$13.00 per square foot. This converts to \$566,000 per acre. Our research discovered that the smallest feasible piece of unimproved land that could be located in the technology/commercial district was 8 acres. This will cost approximately \$4,528,000. Additionally, the City would experience a reduction in



revenue as the land is removed from the tax rolls.

Additional options include existing parkland. PFR has been in discussions with the city on this option for other projects and it is the least desirable, and prohibited in other situations. In addition to these restrictions, the likelihood that the training facility would not be synergistic with park developments in the area makes this option very unlikely.

PFR believes that the best option resides at 1901 K Avenue, the current location of Fire Station 1 and Fire Administration. This site is 5.0 acres in size. It also has no single-family residential property that borders it. The property is bordered by the DART Rail line to the West, commercial businesses to the North, commercial businesses to the East and Emily's Place to the South. In an effort to be a good neighbor to all of these entities, the department proposes to build a modern all hazards training facility that uses artificial, non-toxic smoke and

Fire Training Facility



natural gas burn props that will simulate real fire situations without the high pollution rates of burning Class A materials.

The current building at this site was built in 1994 and has already undergone extensive foundation repair. Additional repair is still needed. The estimate for repairs and remodeling of the existing building is nearing \$5,000,000. A new four bay, two-story, fire station can be built for this same cost on the northeast corner of the lot. On the southeast corner of the lot, the department will build a three-story fire administration building. Training classrooms and meeting rooms will extend to the west from this building. This will leave enough room at the rear of the lot to build the necessary training

props. This facility will ensure that the department can provide the appropriate level of training for the needs of Plano for the foreseeable future.

PFR currently requires applicants be certified as both firefighters and paramedics prior to being hired. The primary reason for this is the expense of hiring uncertified individuals and sending them through an Emergency Medical Technician (EMT) program, fire academy, and paramedic school. It takes an individual 12-24 months to complete all three programs. There are a few disadvantages to our current hiring method. The diversity of the applicant pool is limited due to the current certification requirement. Many metropolitan departments

facilitate their own training academies and only require applicants to have their high school diploma, or equivalent, and meet age requirements. A deeper applicant pool allows these departments to more closely match the diversity of the communities they protect. Another disadvantage of outside certification courses is they do not necessarily match PFR's procedures, methods, and protocols. A dedicated training center will allow PFR to offer its own in-house fire academy and EMT/paramedic schools. Candidates will be trained the "PFR way" and be able to provide a higher level of service to the citizens immediately following graduation. The cost of such an academy could be partially offset by opening the classes to neighboring jurisdictions. PFR will control the scheduling of the program and have candidates field-ready more quickly than if outside academies are utilized.

Another benefit of the training facility will be joint usage. The Plano Police Department (PPD) will also be able to

Fire Training Facility

use the facility to fill some of their training needs. PFR and PPD could train jointly for active shooter, barricaded person, and multi-casualty events without disrupting area businesses or alarming citizens.

Relocation of Station 1

The department believes that the best solution moving forward is to rebuild

Fire Station 1. It is anticipated that the new fire station will be located approximately 50 feet off K Avenue in the far northeastern corner of the lot. This places the fire station further away from Emily's place and allows the station to be bordered by retail and commercial properties. The department envisions a two-story, four bay station. This would be similar in

design to McKinney Fire Station 1 located at 301 North McDonald Street. The new fire station will cost approximately the same as the planned renovation of the current facility (\$5,000,000).

By building a two-story station, the department anticipates a decrease in turnout times and a higher utilization of the available land. This station can be constructed without disruption of service being provided in the current building, also allowing for better coverage in the busiest district in the city.

The New Fire Administration and Training Classrooms

Once Fire Station 1 is built in the Northeastern corner (directly in front of the current Fire Administration) then the new fire administration building and training classrooms can be built. Demolition of the current fire station will make way for the training classrooms. By building the new Fire Administration towards the eastern front of the lot, it will allow for greater



Fire Training Facility



land use for the training center. The department anticipates a three-story building. The first floor is expected to house Fire Prevention and Community Outreach. The second floor will largely consist of training rooms and the third floor will be home to administration. In total, this building will house more than 40 personnel. With a proper training facility and ample classroom space, the

department can expand its training program to include both state certification training and specialized training that is currently not available on this side of the Metroplex. These programs include specialized officer and chief officer academies to develop tomorrow's leaders today. The training classrooms will all be in a one-story wing.

The Training Facility

Once both the new fire station and new Fire Administration building become operational, construction on the dedicated fire and special rescue training facility can begin. Across the back of the property, the department will build three props, a six-story training tower, a technical-rescue training prop, and a residential training prop. The six-story training tower will be designed to maximize the training that can be conducted in the available space. The design will include different configurations across each floor. These configurations will be specified with the hazards associated with what is currently in Plano and what is being built. Examples may include a floor that is set-up as a multiple family interior access apartment complex, while the next floor could be a large call center or office floor with cubicles. One floor will be transformable with movable walls so that the department can train to any specific layout. The department currently is limited to the design other

Fire Training Facility

agencies have placed into their training facilities.

The next prop will be the Technical Rescue Training (TRT) Village. This will simulate the collapse of trenches and buildings. This prop is designed to train for specialized rescues including: building collapse, trench collapse, confined space, and other entanglement or below-grade training.

Currently, there is not a location in either Collin or Dallas County to train in concrete breachment. This facility will not only ensure that PFR is trained to its fullest capabilities in the event of a building collapse, but also ensure that neighboring departments have somewhere to train on this critical skill thereby expanding the pool of potential responders to Plano in the event of a major collapse.

The last prop will be a two-story house with an open entry and great room to mimic the design of the modern home in Plano. While the residential house fire is the most common type of fire PFR personnel respond to, there are still fewer residential fires in Plano than in many jurisdictions. Once again, the department must rely on training its personnel to maintain their critical knowledge, skills, and abilities. This facility will have construction, furnishing, and vehicle props included in the design. The construction props such as kitchen cabinets, furnishing props such as beds or dressers, and vehicle props located inside the garage of the simulated structure, will allow for realistic training that can build the experience that is being lost due to the lack of fires in the city. More importantly, it will reinforce PFR staff's readiness to respond based on the best possible classroom, tactical, and simulation training. The requested budget for this project is \$17,000,000.00. The current estimate for the project is \$15,000,000 based on



Fire Training Facility

current construction costs. The \$2,000,000 difference is based on an abundance of caution, accounting for potential construction increases and inflation due to the fact the project is unlikely to start before 2018.

Implementation

The remainder of FY 2015-16 will be dedicated to preparing the bond packet that will be presented to voters in 2017 to secure funding for the facility.

In FY 2017-18 the Training Section will begin to obtain props that will assist in on-going training and help preserve water. The Training Section will obtain a pump simulator. A pump simulator was leased in 2015 and over two million gallons of water were “pumped” in

simulations. Only 2000-3000 gallons of water were actually used due to the recycling capabilities of the simulator.

The Training Section is currently understaffed with a deputy chief, captain, and lieutenant. PFR plans to add one position in FY 2017-2018 who will assist in day to day training allowing for the lieutenant to develop and begin the state approval process for holding certification classes in house. Currently, PFR members have to travel as far away as Fort Worth to complete two-week certification courses. The new position that is be requested is a firefighter (detailed in 2017-18 section of plan).

In FY 2018-19 construction would begin on the facility. With the training facility



being built the training section would begin to focus on curriculum, policies and procedures for hosting a basic firefighting school. The Training Section would need one additional lieutenant (detailed in 2018-19 section of plan).

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-2020
One Time Costs			\$17,000,000	
Recurring Costs				

HIPAA/Compliance Program

Background

In 1996, President Bill Clinton signed into law the Health Insurance Portability and Accountability Act (HIPAA). Title I of HIPAA protects health insurance coverage for workers and their families when they change or lose their jobs. Title II of HIPAA, known as the Administrative Simplification (AS) provisions, requires the establishment of national standards for electronic health care transactions and national identifiers for providers, health insurance plans, and employers. The most important parts of HIPAA that EMS providers must adhere to are the Privacy Rule and the Security Rule. The Privacy Rule requires “Covered Entities” (CE) to designate a “Privacy Officer.” Plano Fire-Rescue (PFR) is a Covered Entity. The effective compliance date of the Privacy Rule was April 14, 2003. The Security Rule compliments the Privacy Rule. While the Privacy Rule pertains to all Protected Health Information (PHI) including paper and electronic, the Security Rule deals specifically with



Electronic Protected Health Information (ePHI). The effective compliance date for the Security Rule was April 21, 2005. Up until 2009, the federal government hasn't enforced CEs to be compliant. That is changing. In recent years, some CEs have had to pay millions in fines and penalties for non-compliance.

Program Description

In order for PFR to be HIPAA compliant and avoid fines and penalties, changes

are needed. For example, the Department will focus on the following:

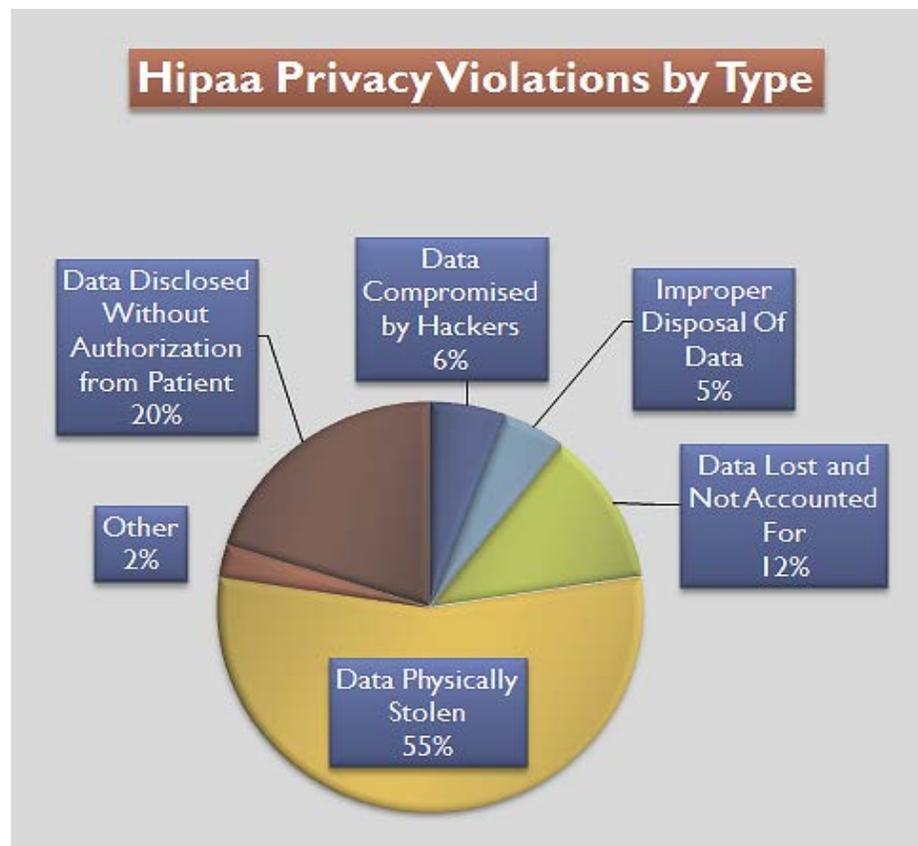
- *Designation of a Privacy Officer*
- *Completion of a Risk Analysis for PHI*
- *Creation of Business Associate Agreements with every agency that has access to our PHI*
- *Creation of numerous policies and procedures to ensure compliance*
- *HIPAA training for all personnel*
- *Training and continuing education for Certified Ambulance Privacy Officer (CAPO) and Certified Ambulance Compliance Officer (CACO)*

Listed above are some of the items that need immediate attention. There is much detail to HIPAA and PFR is committed to compliance and the necessary training for a CAPO, CACO and Certified Ambulance Coder (CAC). PFR has recognized these necessary and important positions and has designated the Deputy Chief of EMS as the Privacy Officer and has provided training for him to become a CAPO.

HIPAA/Compliance Program

Implementation

The department has taken steps to ensure continued HIPAA compliance. However, additional funds are needed for training and continuing education. For the remainder of FY 2015-16, the department will continue certification training for the EMS Deputy Chief. Going forward, the department will ensure funds are available for the CAPO, CACO and CAC to receive the required continuing education to maintain their certifications. Currently, the certifications are only available through NAAC, National Academy of Ambulance Compliance. NAAC provides training and conferences throughout the year making it somewhat easier to maintain the required hours for certification.



	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-2020
One Time Costs				
Recurring Costs	\$5500			

2016-2017 PLAN-BUDGETARY REQUESTS



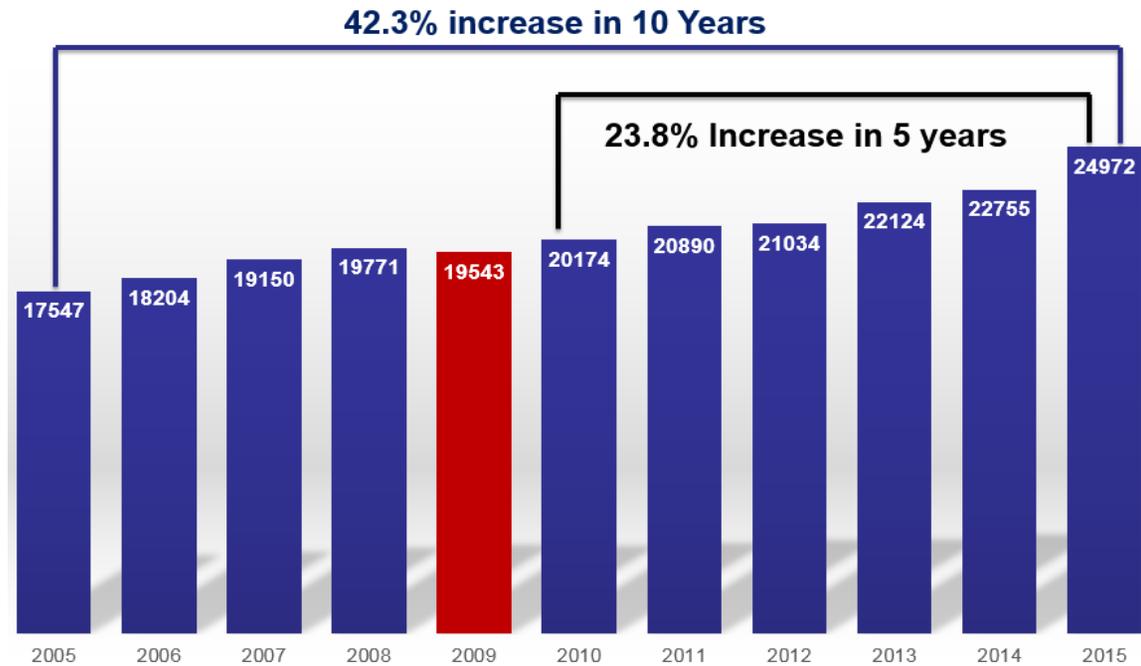
Engine 8 and the 5th Truck Company

Background

In 2011, Plano Fire-Rescue opened Station 13 at 6901 Corporate Dr. to serve the far northwest corner of the city. Due to the economic downturn of 2008, Plano Fire-Rescue was forced to abandon plans to hire an additional company to staff Station 13. The decision was made to split an existing double company house (Station 8, 4555 Hedgcoxe Dr.). Engine 8 was moved to Station 13 and Truck 8 became the first-up apparatus at Station 8. The decision to staff Station 13 with existing resources was not intended to be a long-term solution. Chief Esparza's 2011 End-of-Year report highlighted the fact that an additional engine company would be required to maintain PFR response and service levels. The need for additional resources has become more critical since 2011 due to the following factors:

- Rapidly increasing call volume
- Operational issues
- Ability to maintain ISO 1 and CFAI Accreditation

Historic Call Volume



Call Volume and Response Times

Current

Call processing/dispatch time, turnout time (the time it takes firefighters to bunk out and get in the apparatus), and travel time (the time it takes the apparatus to get from its starting

location to the emergency scene) are added together to determine overall response time. There has been a steady increase in PFR apparatus travel times, and overall response times, since the opening of Station 13 in 2011. PFR's 2010 travel time was 5 minutes 48 seconds. PFR's travel time increased 27 seconds between 2010 and 2015 to its

Engine 8 and the 5th Truck Company

current level of 6 minutes and 15 seconds. PFR’s overall response time increased by an almost identical 26 seconds between 2010 and 2015.

	Travel Time (seconds)	Response Time (seconds)
2010	348	457
2015	375	483

The fact that call processing/dispatch and turnout times have remained stable, or improved over the same time period, singles out travel time as the reason for the overall response time increase. A growing call volume, and the current concentration and distribution of PFR apparatus, are the primary contributors to PFR’s increasing travel and response times.

PFR responded to 24,976 emergency calls in 2015, an increase of 2,221 calls (9.76 percent) from 2014. To put this increase in perspective, PFR’s busiest major apparatus, Engine 1, responded to 2,280 calls in 2015.

Projected

EMS calls and transports increased by 7.11 percent and 9.46 percent respectively in 2015. Currently, 39.4 percent of the patients we transport to the hospital are 65 of age and over. Census projections show the population of citizens 65 years of age and over to more than double from 8.9 percent in 2010 to 19.3 percent in 2025. By the year 2025, PFR is projecting an increase of 7240 EMS calls, and 5,358 patient transports, as a result of the increasing 65 and over demographic.

Distribution and Concentration

Staffing Station 13 with existing resources, by splitting up the double company at Station 8, has contributed to the increase in travel and response times. There are two primary ways fire departments assess response coverage:

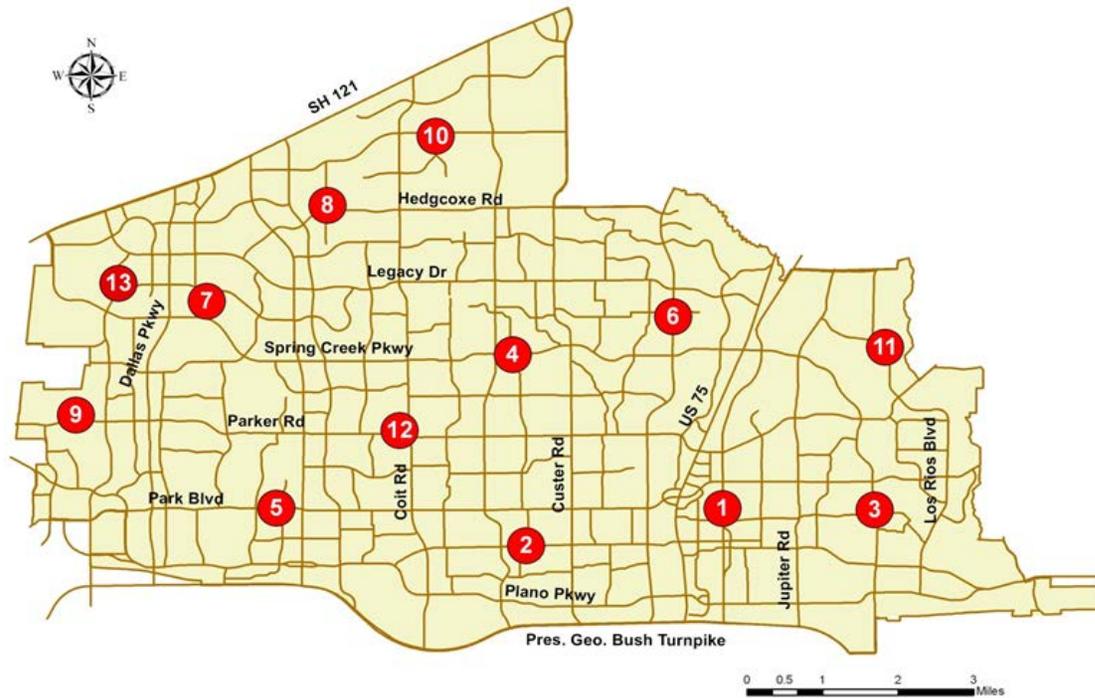
Distribution- Resource distribution is associated with geography of the community and travel time to emergencies. Distribution is typically measured by the percent of the

jurisdiction covered by the first-due units (Metropolitan).

Concentration- Concentration is also about geography and the arranging of multiple resources, spacing them so that an initial “effective response force” can arrive on scene within the time frames established by community expectation and fire service leadership (Metropolitan).

Staffing Station 13 with Engine 8 provided a better distribution of resources while at the same time having a negative impact on concentration. In simpler terms, the engine provided needed coverage to the Northwest corner of the city but reduced its ability to provide secondary coverage into other districts due to it being located less centrally. Double company stations provide the benefit of having a second major apparatus in the station available to respond if two calls are received for service in the assigned district, allowing companies from neighboring districts to remain available for calls. Double company

Engine 8 and the 5th Truck Company



houses are also able to provide fill-in coverage for other stations when they are on extended calls or attending training.

Operational Issues

There are significant differences between engine and truck companies, including the apparatus to which they are assigned and their operational role

within the department. Engine companies operate from smaller apparatus designed primarily for fire suppression. Engines are equipped with more small and large diameter hose, and a larger supply of water. Trucks are typically assigned to perform ventilation, forcible entry, rescue, and extrication duties. Trucks are generally much larger apparatus that are more

costly to purchase and operate. Trucks are equipped with an aerial ladder designed for rescue or providing an elevated fire stream, a larger complement of vehicle extrication/stabilization tools and specialized firefighter rescue equipment (Rapid Intervention Team packs). Trucks are designed with smaller water tanks and less hose than engines, meaning they are less equipped to handle initial fire attack responsibilities. Truck companies are dispatched on freeway incidents to provide blocking due to their larger size. There have been countless citizens and first responders across the country injured or killed in secondary collisions at accident scenes and trucks provide a greater level of protection than other apparatus can provide. Engine and truck companies function similarly on emergency medical calls. Currently, PFR has 12 engine companies and four truck companies assigned to the city's 13 fire stations.

With only four truck companies assigned to cover the 71.6 square miles

Engine 8 and the 5th Truck Company

the City of Plano encompasses, it is less than ideal to have one of those companies (Truck 8) responding as a first-up apparatus for the operational reasons noted above. In addition, Truck 8 is currently assigned with protecting the northern tip of the city including much of the Sam Rayburn Tollway/121 area, and the northwest corner of the city which is experiencing unprecedented commercial and high-rise growth.

ISO Class 1 and CFAI Accreditation

In the late summer of 2015, Mike Pietsch of P.E. Consulting was hired to give recommendations for PFR's next Insurance Services Office (ISO) reaccreditation. Pietsch stated, "The key item to sustaining the City of Plano's ISO rating of Class 1 is by deploying an Engine company (apparatus and staffing) at Fire Station #8." PFR is one of only three fire departments in the nation to hold an ISO Class 1 rating and be accredited by the Commission on Fire Accreditation



International (CFAI) Accreditation and Commission on Accreditation of

Ambulance Services (CAAS). The Public Protection Classification (PPC) program recognizes the efforts of communities to provide fire protection services. Some insurance companies use the PPC information to help establish fair premiums for insurance. By offering economic benefits for communities that invest in their firefighting services, the PPC program provides additional incentives for improving and

maintaining public fire protection. The most significant benefit of the PPC program is its effect on fire losses. The better the fire protection, the lower the fire losses. This results in lower insurance rates (Texas Department of Insurance).

CFAI accreditation is reevaluated every five years and PFR was last accredited in 2012. PFR will begin the reaccreditation process in late 2016. An accredited organization must establish internal processes designed

Engine 8 and the 5th Truck Company

towards achieving industry standard response benchmark times. If an agency cannot meet the benchmark then industry “best practice” times (90th percentile combined turnout and travel time in 6:42 or less) are utilized as the upper allowable response time limit to maintain accreditation. The benchmark response times are extremely difficult, if not impossible, for most metropolitan fire departments to meet and PFR is no exception. However, PFR EMS response times (90th percentile combined turnout and travel time in 6:42 or less) have risen above the upper acceptable level of “best practice”. If measures are not taken to address PFR’s response time increases, CFAI reaccreditation is uncertain in 2017.

Program Description

Engine 8

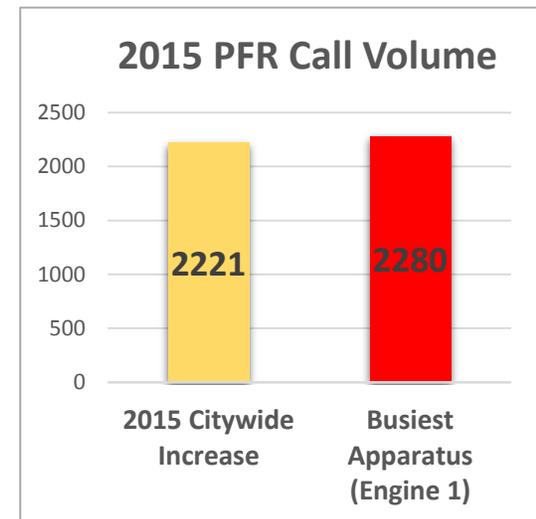
PFR plans to add two additional companies in FY 2016-2017. Engine 8 will be placed in service as the first-up apparatus at Station 8. Adding Engine 8

is necessary to help PFR slow the upward trend in response and travel times resulting from significant increases in call volume. Based on analysis, it is anticipated that Engine 8 will reduce citywide travel times by five seconds and travel times in the Northwest portion of the city by 17 seconds. The addition of Engine 8 will also allow Truck 8 to be reassigned as the secondary apparatus at Station 7, 8, or 13 forming a double company. The previously discussed benefits of a double company station are additional district coverage, and an additional apparatus available for fill-ins, both of which result in additional response time reductions. The addition of Engine 8 will also allow Truck 8 to resume functioning as a dedicated truck company.

Additional Truck Company

PFR has opened two stations (12 and 13) since 2009 without adding additional companies. Both times this was accomplished by splitting up an existing double company station

(Station 2 and Station 8) improving distribution and negatively affecting concentration. PFR call volume is projected to steadily increase over the next decade. The City’s aging population, combined with continued growth and increased density, will factor heavily into the increase. PFR is projecting 28,565 calls for service in 2020 which is an increase of 3,589 calls, or 14 percent, from 2015. As previously mentioned, our busiest company currently responds to 2,280 calls annually.



Engine 8 and the 5th Truck Company



would be improved truck coverage for the North and Northwest portions of the city. The rapid high-rise and commercial development in the Northwest corner of the city, such as Toyota and the Legacy West area, will require the previously described specialized

capabilities a truck company provides. Placing Truck 10 in service at Station 10 would allow Truck 8 to be moved to Station 7 or 13 providing necessary truck coverage to both areas.

The primary advantage of adding a truck company to Station 2 would be increased concentration in a centrally located, high call volume area. The Coit/Mapleshade area in the south central portion of the city is growing rapidly. Station 2's district is currently one of the most challenging areas for

PFR to consistently meet desired response times. Additionally, Station 2's district requires the greatest number of responses by apparatus from other stations.

Implementation

Each additional company will require (3) Lieutenants, (3) Engineers, and (9) Firefighters for staffing.

PFR currently has a reserve engine available to place in service as a front line apparatus. E8 will be placed in service in late 2016 after the 15 personnel are hired to staff it.

The additional truck will be ordered in mid-to-late 2016 with delivery expected in late 2017. Hiring for the additional company will begin in late 2016 or early 2017. The expected in-service date for the company would be early 2017 utilizing an existing reserve truck until the ordered truck arrives.

There are multiple options being considered for the placement of the second truck company PFR is requesting in the FY 2016-2017. Options include:

- Adding an additional truck company at Station 10 and moving Truck 8 to the Northwest corner of the city (Station 7 or 13)
- Adding an additional truck company at Station 2

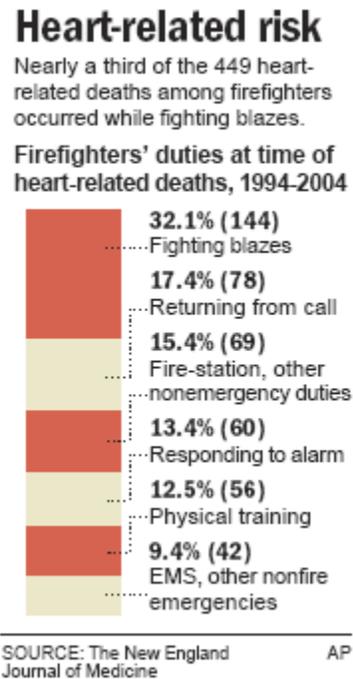
The primary advantage of adding an additional truck company at Station 10

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-2020
One Time Costs	\$1,200,000			
Recurring Costs	\$3,500,000			

Wellness Screening Program

Background

More than 100 firefighters lose their lives in the line of duty each year and historically almost 50 percent of those deaths are caused by cardiovascular events. When the alarm sounds, firefighters must respond immediately, often with little if any warmup, wearing 75-100lbs of equipment and are tasked with performing highly strenuous activity. Specific work duties that involve physical exertion, including not only fire suppression but also alarm response, alarm return, and physical training, are associated with a risk of death from sudden cardiac events (Dallas Report). Deaths from sudden cardiac events were associated with suppressing a fire (32.1% of all such deaths), responding to an alarm (13.4%), returning from an alarm (17.4%), engaging in physical training (12.5%), responding to non-fire emergencies (9.4%), and performing nonemergency duties (15.4%) (Dallas). A recent Harvard study, published in the New England Journal of Medicine,



concluded that the risk of cardiac related death was markedly higher for firefighters engaged in firefighting duties than in non-emergency duties. Fire suppression duties placed firefighters at a 10 to 100x greater risk than nonemergency duties (Harvard). Heart attacks are the cause of 45 percent of firefighter on-the-job deaths which is markedly higher than the percentage (15 percent) for overall

workplace cardiac related death (Harvard).

While cardiac events have long been thought to be the primary cause of firefighter line of duty death, cancer is rapidly becoming the greatest health concern for firefighters.

Consumer materials today are not produced in the same manner they were 50 years ago. Wood, cloth, metal and glass are being replaced by plastics, foams, and other synthetic coatings which burn more quickly and produce exponentially more toxic gases. Examples of some of the gases produced by the combustion of modern household items:

- Benzene
- Formaldehyde
- Hydrogen cyanide
- Arsenic
- Mercury

Ironically, the flame retardants added to many items contribute to the toxic problem. The use of self-contained breathing apparatus (SCBA) on all

Wellness Screening Program

structure fires is now standard practice but this has not always been the case. Even when a SCBA is properly worn toxic gases are often inhaled before and after firefighting operations. Toxic materials cling to firefighters' protective clothing, often soak through wet bunker gear, and also reach exposed areas. With every 5 degrees that body temperature rises, skin absorption rates increase by as much 400 percent (Atlantic). A firefighter's bunker gear can "off-gas" fumes for a significant time after a fire.



A recent study conducted by the National Institute of Occupational Safety and Health (OSHA), the United States Fire Administration, and the National Cancer Institute concluded:

- Fire fighters had more cancer deaths and cancer cases than expected.
- This increase in cancer was primarily due to digestive, oral, respiratory, and urinary/bladder cancers.
- There were about twice as many malignant mesothelioma cases than expected. Asbestos exposure is likely in firefighting and is the primary cause of this disease.
- Some cancers occurred at a higher-than-expected rate among younger fighters. For example, fire fighters who were less than 65 years of age had more bladder and prostate cancers than expected

Almost 30,000 firefighters from Chicago, Philadelphia, and San Francisco were included in the National Institute of Occupational Safety and

Health (NIOSH) study with careers spanning from 1950-2010. Numerous other studies have linked firefighting to increased rates of various cancers. A 2005 University of Cincinnati study concluded firefighters experienced a:

- 102 percent greater chance of testicular cancer
- 53 percent greater chance of multiple myeloma
- 51 percent greater chance of non-Hodgkin lymphoma

Many researchers believe that cancer rates among firefighters would be even higher if it was not for the "healthy-worker effect." Firefighters are expected to have a lower rate of cancer than the general population because the job requires an above average level of physical fitness and applicants are given thorough medical and physical evaluations during the hiring process.

The job activities, and environment they work in, expose firefighters to health risks unique to their profession. The obvious way to deal with any risk is to avoid it and PFR has taken proactive

Wellness Screening Program

measures such as requiring SCBA's be worn in Immediately Dangerous to Life or Health (IDLH) environments, providing additional hoods, mandating clean gear through more frequent washing and professional cleaning, and requiring a minimum level of operational fitness for members through annual testing. PFR will have bunker gear extractors installed at seven stations by the end of 2016 with plans to have them in place at all thirteen stations by the end of 2018. No matter what preventative measures are taken, firefighting will always have some inherent risks including being placed in rapid strenuous situations and some level of exposure to hazardous materials.

Firefighter-specific annual wellness screening is the next step in protecting the short and long term health of PFR members. The job specific health risks for firefighters are significantly different than the typical city employee encounters. The annual physical offered to all city employees is a

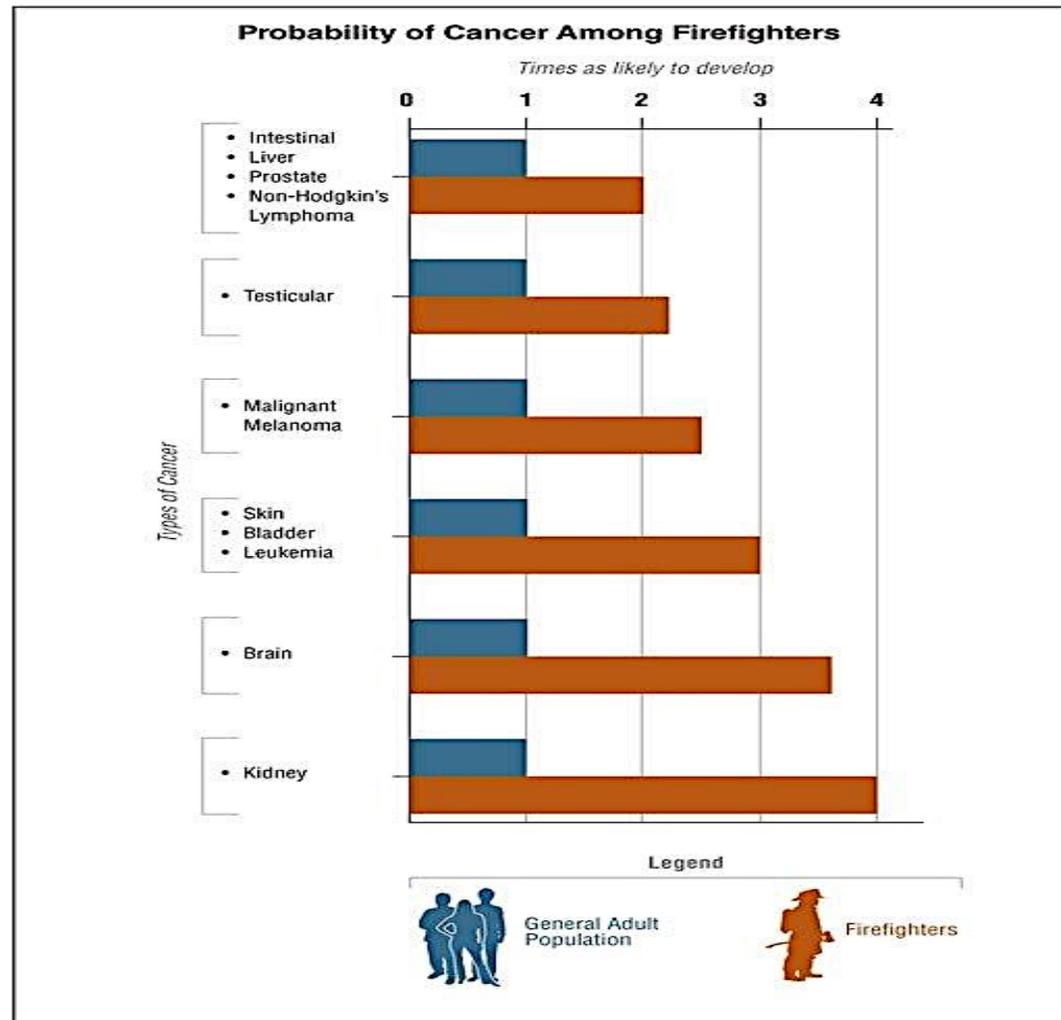


Figure 6.1 Firefighters are exposed to a greater range and concentration of hazards than the general public, and they have a higher likelihood of several types of cancers because of that exposure.

Source: IFSTA Essentials of Firefighting 6th

Wellness Screening Program

tremendous benefit, but additional testing targeting known firefighter specific illnesses is needed for PFR members. Testing would include a Stress EKG with Vo2, vision tests, pulmonary (spirogram) tests, chest x-ray, or firefighter-specific cancer related tests (Prostate Specific Antigen, Urine Cytology, Fecal Occult Blood Testing, Skin Exam, Digital Rectal Exam, Testicular Exam, Clinical Breast Examination, or Pap Smear).

As previously noted firefighters are at increased risk for urinary cancers, specifically bladder cancer which they are twice as likely to experience compared to the general population. Bladder cancer is one of the deadliest forms of cancer if not detected early. If diagnosed in the early stages bladder cancer has a five-year survival rate of 95 percent. If diagnosed at an advanced stage the five-year survival rate is less than 10 percent. Bladder cancer in its early stages can now be detected using inexpensive, non-invasive urine screening. Urologist Barry Stein M.D.

	Implementing WFI				Not Implementing WFI				
	Claim Date	WFI Claims	Days Lost	Total Incurred Cost*	Average Cost Per Claim	Non-WFI Claims	Days Lost	Total Incurred Cost*	Average Cost Per Claim
PRE	1991	401	4213	\$1,582,424	\$7,645	344	3689	\$2,243,993	\$6,699
	1992	407	4753	\$1,951,752	\$7,571	339	3899	\$2,155,654	\$6,553
	1993	429	5759	\$2,418,216	\$7,626	347	3431	\$2,402,384	\$6,900
	1994	436	6085	\$3,576,916	\$8,146	359	3220	\$2,385,562	\$6,697
	1995	438	6326	\$3,600,762	8,247	342	4441	\$2,702,118	\$7,279
	1996	434	6895	\$4,236,084	\$8,321	372	4189	\$2,764,044	\$6,724
	1997	488	6580	\$4,329,490	\$9,299	356	3878	\$2,401,968	\$7,060
	Totals	3033	40,611	\$21,695,644	\$56,845	2,459	26747	\$17,055,723	\$47,912
POST	1998	386	3351	\$2,458,116	\$6,233	371	3515	\$2,536,780	\$7,278
	1999	400	3834	\$2,627,379	\$6,177	387	4672	\$3,104,697	\$8,167
	2000	435	4716	\$2,891,569	\$6,391	442	5823	\$3,476,799	\$8,517
	2001	452	4847	\$3,075,236	\$6,115	464	6404	\$3,806,243	\$8,856
	2002	498	4725	\$3,688,405	\$7,175	428	6335	\$4,080,519	\$10,054
	2003	531	4702	\$3,871,945	\$7,061	449	7208	\$4,919,355	\$11,146
	2004	508	5496	\$3,663,493	\$7,073	482	7431	\$5,067,383	\$10,590
	Totals	3210	31671	\$22,276,143	\$46,225	3,023	41388	\$26,991,766	\$64,608
Percent Change	5%*	-28%	3%*	-23%	22%	55%	58%	35%	

* p<.05

**All Costs are adjusted in 2001 dollars

notes that it costs more to treat one advanced stage bladder cancer than it does to urine screen thousands of firefighters.

A secondary benefit to implementing wellness testing that has been demonstrated in other departments is cost savings that offset wellness program costs and in some cases even

exceed them when combined with department fitness initiatives. The four Wellness Fitness Initiative department pilot sites, Fairfax County, VA, Indianapolis, IA, Los Angeles County, CA, and Phoenix, AZ demonstrated savings of \$1,336,535 the first year of implementation per site (due to start-

Wellness Screening Program

up costs) and \$1,952,000 annually per site thereafter (IAFC).

This appears to be a positive return on investment with getting most of the initial costs back the first year and then getting a positive ROI of at least 1:2 for year two.

Therefore, every one dollar spent on firefighter wellness, via implementation of WFI, results in an almost immediate return of over two dollars in occupational injury/illness costs (IAFC).

Another positive consideration is that these numbers underestimate the true cost savings since this does not take into account non-occupational injuries and the long-term medical costs of premature morbidity and mortality. Substantial long-term cost savings are expected from preventing cardiovascular disease, certain cancers

and reducing early disability from musculoskeletal and back injury (IAFC).

Program Description

PFR will implement an annual wellness testing program based on NFPA 1582 Standard on Comprehensive Occupational Medical Program for Fire Departments Chapter 7. The test will include:

- A medical history (including exposure history)
- Physical examination
- Blood tests
- Urinalysis
- Vision tests
- Audiograms
- Spirometry
- Chest x-ray (as indicated)
- ECG

- Immunizations and infectious disease screening
- Cancer screening (Prostate Specific Antigen, Urine Cytology, Fecal Occult Blood Testing, Skin Exam, Digital Rectal Exam, Testicular Exam, Clinical Breast Examination, or Pap Smear)

Implementation

The remainder of FY 2015-2016 will be dedicated to further program research and developing internal screening procedure. Research will include meeting with neighboring departments who have already implemented successful screening programs. After approval in the FY 2016-2017 budget, PFR will work with Purchasing to develop the Request for Proposal. The goal is to have a vendor selected by late 2016/early 2017 and implement the screening process soon after. The cost estimate is approximately \$800.00-900.00 per member annually.

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-2020
One Time Costs				
Recurring Costs	\$300,000			

Station Exhaust Capture Systems

Background

Plano Fire-Rescue (PFR) apparatus are almost exclusively powered by diesel engines. Diesel exhaust has been classified as a Group 1 carcinogen by the World Health Organization (WHO). Group 1 is the highest classification for a substance which means the known health effects are well documented and scientifically proven. The International Agency for Research on Cancer (IARC), part of the WHO, notes that “diesel exhaust is a cause of lung cancer and also noted a positive association with an increased risk of bladder cancer (Group 1).” Lung and bladder cancer are two of the most prevalent cancers that have been linked to careers in firefighting. The NFPA 1500 Standard for Fire Service Occupational Safety and Health A.9.1.5 reads:

The operation of a fire department requires the storage and indoor operation of fire apparatus that are generally housed in an enclosed building. The need to keep the apparatus and other vehicles ready for



immediate service and in good operating condition, which requires the indoor running of vehicles for response and routine service/pump checks, makes storage in an enclosed area, such as an apparatus bay, necessary. The exhaust from all internal combustion engines, including diesel and gasoline-powered engines, contains over 100 individual hazardous chemical components that, when combined, can result in as many as 10,000 chemical compounds.

A large majority of these compounds are today listed by state and federal

regulatory agencies as being cancer causing or suspected carcinogens. The target components listed by NIOSH/OSHA consist of both hydrocarbon carbon components and compounds, which are produced as both gas-phase and particulate-phase compounds. The gases and particulates, which are viewed by NIOSH and OSHA as life threatening, consist of a cancer-causing substance known as poly-nuclear aromatic hydrocarbons (PAHs). Gases in diesel exhaust, such as nitrous oxide, nitrogen dioxide, formaldehyde, benzene, sulfur dioxide, hydrogen sulfide, carbon

Station Exhaust Capture Systems



dioxide, and carbon monoxide, can create health problems. According to NIOSH, human and animal studies show that diesel exhaust should be treated as a human carcinogen (cancer causing substance). In accordance with NIOSH Pocket Guide to Chemical Hazards, as it pertains to diesel exhaust, NIOSH recommends that occupational exposure to carcinogens be limited to lowest feasible concentration. (NFPA, 2013)

Each time an apparatus is started, diesel exhaust containing gases and particulates is released into the bay and station atmosphere. A fine layer of diesel soot can often be found on

firefighters' bunker gear, tools, and other items in the station bay. Current procedures outline steps designed to prevent exposure such as checking out apparatus on the front ramp outside the bay, ensuring bay doors are open when the apparatus is initially started, etc. However, there are situations where operating an apparatus outside the station bay is not practical such as extreme weather. Steps such as the ones mentioned simply minimize exposure and do not eliminate it.

The NFPA has previously determined "the most effective means is to connect a hose (to the exhaust pipes of all vehicles) that ventilates exhaust to the outside." Exhaust capture devices, especially those that utilize hoses to exhaust fumes to the exterior of the station, are proven to be 99.9-100% effective at removing diesel gases and particulates. Exhaust systems not only prevent the initial exposure from the exhaust as it exits the apparatus, but

also prevent the secondary contamination from soot settling on gear and work surfaces.

Program Description

PFR plans to install exhaust capture systems at all 13 Plano fire stations. The systems will comply with NFPA 1500 and OSHA requirements. The primary benefits will be increased workplace safety for PFR and other city employees and a healthier environment for citizens entering and visiting the station. The devices can be installed in all existing stations with little to no interruption in services.

Implementation

After approval, PFR will begin the purchasing process and start researching systems and vendors. It is anticipated that systems can be installed in all 13 stations by the end of FY 2016-2017. System costs are estimates based on preliminary research.

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-2020
One Time Costs	\$500,000			
Recurring Costs				

Additional Fire Prevention New Construction Inspector

Background

The Fire Prevention Section of Plano Fire-Rescue (PFR) is responsible for enforcing the construction requirements of the International Fire Code. The division does this by witnessing commissioning tests of fire safety systems during construction. In addition, they witness tests of fire alarm, fire sprinkler, fuel tank, kitchen hood, smoke control, fire pumps, and other fire safety features of buildings.

Program Description

An additional fire inspector is needed today to cover the heavy amount of new commercial construction within the City of Plano. Since 2010, there have been a total of 284 commercial buildings added to the city (stat from June 30, 2015). Sixty-six new buildings were added in 2014. Approximately 70



were constructed in 2015. Insurance Services Office (ISO) recommends 480 buildings per inspector. At the current construction pace of 60-70 new buildings per year Fire Prevention will exceed the recommended number of occupancies per inspector within 1-2 years. A fifth inspector is needed

immediately to assist with construction inspections. It takes approximately six months to get a new inspector trained and field ready. This inspector will eventually transition over to existing building inspections when the bulk of the current new construction, including Legacy West, is completed.

Implementation

It is anticipated this new inspector position will be filled in October 2016. The funding for the position would include:

- One time cost of \$35,000 includes office equipment, radio, and computer
- Recurring cost of \$135,000 the ongoing salary and benefits

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-2020
One Time Costs	\$35,000			
Recurring Costs	\$135,000			

Hazmat Response Vehicle

Background

The Plano Fire-Rescue (PFR) Hazmat Team has been in service since the mid-1980s. The team is made up of certified hazmat technicians that are located at Station 5. A minimum of six hazmat technicians are on duty each day. Station 5 has an engine, ladder truck, and Hazmat Response Vehicle, each of which carry special equipment for hazmat and confined space. The Hazmat Team responds to all hazmat, confined space, and weapon of mass destruction incidents within the City of Plano. The team also makes mutual aid calls throughout Collin County, and they are the primary back up for the Dallas Fire Department Hazmat Team. The Hazmat Team responded to 71 hazmat calls in 2015.



Program Description

PFR would like to increase the organization’s hazmat response capabilities by replacing the current Hazmat Response Vehicle with an updated model that is better equipped to respond to present day hazmat events. The current Hazmat Response Vehicle is 20 years old, and does not provide adequate seating or storage space for the personnel and equipment

the Hazmat Team requires. The new Hazmat Response Vehicle will provide a place to store all of the required equipment, as well as a place for the hazmat technicians to ride during response. Currently, the team is limited in the equipment and personnel that can be carried to a hazmat call because of the design of the existing unit. The existing unit will only transport two personnel safely; because of this the team has to take an extra apparatus to transport the required personnel.

Implementation

FY 2017-18: Replace Hazmat 5 with a new Hazmat Response Vehicle that will be designed by the Hazmat Team, the PFR Logistics Section, and Fleet Management.

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-2020
One Time Costs	\$400,000			
Recurring Costs				

2016-2017 PLAN-EXISTING BUDGET



Pre-Hospital Ultrasound Program

Background

As Emergency Medical Services in our and other communities evolve, so does the need to expand the capabilities of medical first responders. The introduction of pre-hospital ultrasound imaging is a logical step in that evolution. Emergency Department physicians have long been using sonography as a means to rapidly and more accurately identify and diagnose occult trauma, thus

leading to earlier discovery of potentially devastating blood loss and/or organ damage. This translates into better patient outcomes, as interventions can be initiated long before other more traditional symptoms signal the presence and extent of injury. It goes without saying that the earlier these conditions are identified, the better; hence, availability and utilization of pre-hospital ultrasound imaging should result in better and higher quality patient outcomes.

Other benefits of Point of Care (POC) sonography include 1) location of suitable vessels for cannulation in patients with compromised or difficult vasculature, 2) confirmation or reaffirmation of endotracheal tube placement, fetal position and/or activity in a pregnant patient, and 3) verification of heart beat status in patients with no palpable pulse.

Until recently, the plausibility of EMS ultrasound imaging was problematic due to equipment size and expense. Newer technology is now providing more affordable and portable devices suitable for use in the pre-hospital environment. Imaging equipment that previously consisted of large console type monitors and keyboards has been relegated to devices the size of laptop computers or smaller - some with wireless transmission capabilities. Prices on these devices are in the \$5,000 to \$10,000 range, depending on size and features.

Program Description

At the recommendation and full support of our EMS Medical Director, PFR proposes to acquire and place in service a portable



Pre-Hospital Ultrasound Program

ultrasound imaging device to evaluate the feasibility and effectiveness of utilizing pre-hospital sonography as a component of our Emergency Medical Services. The intent is to place it on Squad 1 to maximize the potential for use, as that unit attends the majority of PFR's high-acuity EMS events.

Implementation

The Medical Director, along with representatives from our EMS, Logistics and IT divisions, will select a device for procurement. The Medical Director and TMCP ultrasound experts will then provide

training for Squad personnel. Following credentialing, Squad 1 will initiate ultrasound imaging as per approval and protocol established by the Medical Director.

Periodic review and evaluation of incidents utilizing pre-hospital sonography will help in determining the effectiveness and impact on patient outcomes. It will also provide an opportunity to assess the potential benefit of a more widespread deployment of ultrasound imaging across the medical fleet.



	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-2020
One Time Costs	\$10,000			
Recurring Costs				

Fortuna Boat

Background

PFR has a long history of providing technical rescue as part of the “comprehensive program of services to protect and enhance the quality of life in Plano.” Years ago, Special Rescue Team (SRT) disciplines were divided among the three stations with truck companies assigned to them, with Station 4 being responsible for rope rescue. In the late 1990’s, PFR combined all technical rescue disciplines and assigned them to Station 4 and designated the crews at Station 4 as the SRT Team. All personnel assigned to Station 4 initially received Technician Level certification training in the disciplines of Trench Collapse, Rope Rescue, and Swift Water Rescue.



Program Description

PFR’s Special Rescue Team would like to add a Fortuna Boat to the swift water team.

The Fortuna Rescue Boat is specially designed for water rescue. The boat does not have a motor and is controlled by paddles or ropes. It has an open end that allows the victim to be placed in the boat without lifting them over the sides. The boat can be stored uninflated and can be inflated using an SCBA bottle. Currently, the Special

Rescue Team is using a Zodiac Rescue Boat with a 40 horsepower Yamaha Motor. This boat is great for open water operations, but is difficult to use in the creeks that flood in Plano. The weight of the boat makes it difficult to deploy. The addition of a Fortuna Rescue Boat would expand the types of rescues the team would be able to make.

Implementation

In FY 2016-2017, PFR will purchase one Fortuna Rescue Boat. The addition of the boat will allow the special rescue team to access areas for rescue that they currently cannot access. The Fortuna Rescue Boat will be more effective in the creeks and areas that are found in Plano.

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
One Time Costs	\$4500			
Recurring Costs				

2017-2018 PLAN



Fire Dispatch Technology Upgrades

Background

Plano Fire-Rescue (PFR) has long been known as a progressive fire department constantly pursuing ways to improve. The members of the department are consistently supplied with well maintained, quality equipment that makes providing excellent service possible. However, PFR has at times lagged behind other fire and public safety departments in utilizing newer technology. PFR members make a continual effort to improve response times by working collaboratively with Public Safety Communications to streamline the call taking process, identifying reasons for delays through analysis programs such as PFR Stat, and increasing apparatus availability by priority dispatching. PFR has reached the point that further significant improvements in response time will require additional resources and substantial technological upgrades.



Turn-By-Turn Navigation

Departments such as Dallas Fire-Rescue have successfully used turn-by-turn navigation for over a decade. There are numerous software and hardware options available that automatically download turn-by-turn navigation instructions into the Mobile Data Terminals (MDT), or other devices, on public safety vehicles. The use of GPS navigation is taken for granted by almost everyone using a smartphone

today, but the feature is not currently utilized for routing PFR apparatus. The combination of continuing rapid construction throughout the city, and more frequent retirement and movement of PFR personnel than in previous years, leads to reduced district familiarity and increased map book usage. Turn-by-turn directions provide a backup for even the most tenured and knowledgeable personnel in a district. Seconds count in the public safety arena, and GPS

navigation has been proven to reduce overall response times.

Real Time Move Up

There are computer aided dispatch (CAD) upgrades available that can improve response times by reallocating resources (fill-ins) to areas in need of coverage. Add-on modules are available for our current CAD system. Such hardware/software constantly monitors unit availability by instantly

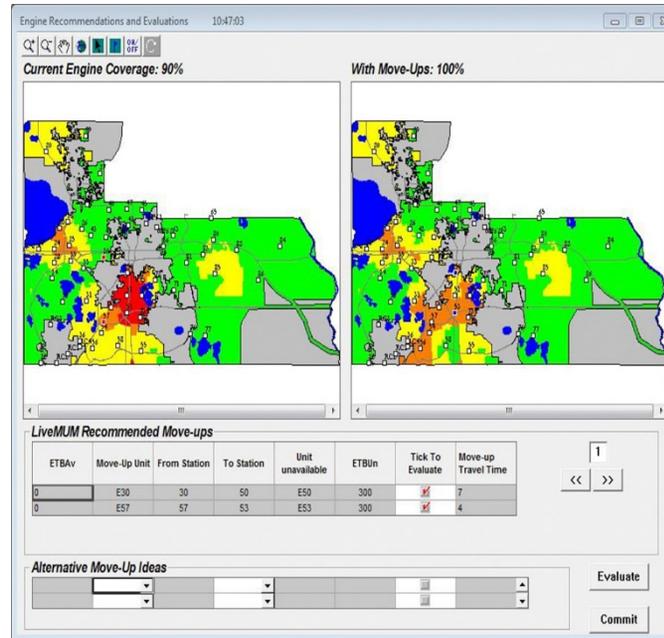
Fire Dispatch Technology Upgrades

recommending fill-in assignments while also reducing the workload on busy dispatchers.

Intelligent Traffic Management

PFR currently utilizes Opticom infrared vehicle preemption devices. Preemption devices change red lights to green allowing emergency apparatus to pass through intersections. Newer, more intelligent, GPS-based technology is available. Some of the potential benefits are:

- Faster, more reliable preemption
- Preemption around corners and obstructed view intersections
- Quicker resumption of normal traffic patterns
- The ability to account for multiple apparatus having to pass through an intersection



Program Description

PFR plans to add turn-by-turn capability in FY 2017-2018. It is anticipated the addition of this technology would result in an immediate response time improvement. GPS turn-by-turn navigation is also safer since it allows

officers and drivers more time to focus on potential hazards around them by reducing the amount of time spent looking at maps.

After turn-by-turn navigation the next priority would be the addition of automated move up software. It is anticipated the traffic management system is a longer range item since it involves more potential stakeholders.

Implementation

After approval in the FY 2017-2018 budget PFR will enter the purchasing process and look for potential vendor for each of the requested upgrades in collaboration with Public Safety Communications and Technology Services. The cost projection is an estimate based on contracts for like-sized departments located online.

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
One Time Costs		\$115,000		
Recurring Costs		\$21,000		

Pumping Simulator

Background

Plano Fire-Rescue (PFR) considers itself an elite metropolitan fire department that provides premiere service to the citizens of Plano in the areas of Fire Suppression, Fire Prevention, EMS Services, and Public Education. The key to success for PFR's service branches is training. Frequent, realistic training helps the department's members continue to improve and expand their knowledge, skills, and abilities (KSA's) to meet the changing needs of our citizens. The task to maintain these KSA's falls largely to the Training Section to ensure that training requirements are met to maintain PFR's accreditations. PFR is currently pursuing approval to construct a dedicated training facility. Until this project is approved and constructed, PFR will continue to train personnel using portable resources.

Portable props have proven to be a success by providing convenient and quality training to department members. PFR recently acquired a



forcible entry prop that has received positive feedback due to its ease of use and the realistic training it allows. The prop provides realistic forcible entry training at a fraction of the cost that using real construction materials or acquired (soon to be demolished) structures would.

Similarly, PFR plans to acquire a portable pumping simulator. This training tool would allow PFR personnel to sharpen their skills when operating a pumper at a structure fire. The simulator would also assist the department with preparing firefighters

Pumping Simulator

to perform as “move-up” engineers when situations require them to do so.

Program Description

Over the past 7-8 years, PFR has trained its personnel using a pumping simulator that was developed and manufactured by FD Training, Inc. in Ft. Worth. The simulator consists of a water reservoir with approximately 1000-gallon capacity. The reservoir has four “discharge” pipes that fire attack lines are attached to and flow water back into the tank as it is being drafted out. The simulator is equipped with electronic valves that are controlled via laptop computer. The simulator comes with a software program that allows the instructor to simulate “problems” that typically could be encountered while operating the pump at a fire. The problems presented to the student range from a kink developing in an attack line, a simulated attack line rupture, all the way to the operator losing their water supply completely. Creating these situations with the simulator allows the operator to use

critical thinking skills to determine what the problem is based on gauge readings at the pump panel and the actions necessary to correct them. The Department has leased this simulator for four weeks a year to train our personnel. The feedback received from PFR personnel indicates that this is some of the best training conducted each year. The cost to lease this simulator was \$8000.00 in FY 2014-2015 and will be in excess of \$10,000.00

in FY 2015-2016. The money used to rent the simulator uses in excess of 20 percent of the Training Section’s annual operating budget. In addition, due to the limited time we have access to the pump simulator, training time is restricted to around 1.5 hours per fire company annually.

The long-range plan of the Training Section is to develop Texas Commission on Fire Protection (TCPF) approved



Pumping Simulator

certification courses as part of a career development program designed to prepare personnel for the next promotional level. One of these courses is the Driver/Operator certification course. Part of this course has students pumping large amounts of water through multiple attack/supply lines to simulate pumping operations at large fires. This involves pumping thousands of gallons of water for just one class.

This region has experienced repeated droughts over the past 10-15 years and watering restrictions are frequent occurrences in most local municipalities.

The pumping simulator allows our personnel to flow an unlimited amount of water back into a drafting tank on the simulator. A pump simulator was



leased in 2015 and over 2 million gallons of water were “pumped” in simulations. Only 2000-3000 gallons of water were actually used due to the recycling capabilities of the simulator.

Almost 2 million gallons of water would have been lost if the pump simulator was not utilized.

The acquisition of the pumping simulator will allow the Department to conduct this training several times a year. This training will allow personnel to gain valuable experience operating the apparatus pump and improve their ability solve problems that typically arise when pumping to multiple lines at the fire scene.

Implementation

In FY 2017-2018, the Training Section will obtain the pump simulator. The pump simulator will have a one-time cost of \$80,000 with \$500 per year maintenance costs.

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-2020
One Time Costs		\$80,000		
Recurring Costs		\$500		

Additional Firefighter in the Training Section

Background

The training facilitated by the Training Section each year is designed to satisfy educational requirements mandated by the Texas Commission on Fire Protection. Plano Fire-Rescue (PFR) holds the distinction of being one of only three fire departments in country currently recognized by the three major fire service accreditation/rating agencies:

- Insurance Service Office (ISO) Class 1
- Center for Fire Accreditation International (CFAI)
- Commission on Accreditation of Ambulance Services (CAAS)

Each of these accreditation agencies have educational requirements that must be met to retain these accreditations. These requirements include company drills, driver training, and officer training, provided to insure personnel proficiency in their current positions as well as preparing them for advancement. In order to provide the



amount and type of training necessary to maintain the high level of service expected by its citizenry, PFR must look ahead to provide the necessary training to its personnel.

Program Description

The PFR Training Section facilitates an average of over 90,000 hours to over 351 uniformed personnel annually. Responsibilities tasked to the Training Section include:

- Recruit Training Program development/delivery
- Firefighter Training Program development/delivery
- Fire Engineer Training Program development/delivery
- Officer Training Program development/delivery
- Record Keeping
- Processing training requests
- Developing annual Departmental training plans/schedules

Additional Firefighter in the Training Section

- Ensuring that all training requirements set forth by the Texas Commission on Fire Protection (TCFP) and all accreditation agencies are met.

These responsibilities are currently being managed by a staff of four personnel:

- Deputy Chief of Training
- Training Captain
- Training Lieutenant
- Senior Administrative Assistant

Almost all of PFR’s career development training is conducted off-site with other agencies such as Collin College and Tarrant County Community College. While both of these institutions provide quality instruction to their students, the training is dependent on the schedule

that the school develops. There is also typically a fee involved with attending classes at these schools. The plan for the Training Section is to develop approved Texas Commission on Fire Protection (TCFP) certification courses and deliver these courses in-house. These courses, while following the curriculum set forth by TCFP, can be customized to better represent how PFR conducts business. This training can also be conducted while the personnel are on shift, thus significantly reducing the amount of extra-time pay that is currently being paid to personnel attending these classes off-duty.

A firefighter position is being requested to assist the Training Section in delivering in-house instruction. This position would assist the Training Captain and Training Lieutenant in the following ways:

- Assist in providing instruction
- Support logistical needs
- Assist with facilitating training drills/exercises
- Other duties assigned by the Training Captain or Lieutenant

Addition of this position would provide opportunity for the Training Captain and Lieutenant the additional time necessary to develop the aforementioned career development classes for the Department.

Implementation

In FY 2017-2018, the Training Section will have one firefighter position added to its current staff to assist in implementation of the strategic plan discussed in the Program Description. The cost for this firefighter position would be \$110,000 and would be a recurring cost.

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
One Time Costs		\$10,000		
Recurring Costs		\$110,000		

Community Outreach & Education – Lieutenant/Backup PIO

Background

Fire prevention, injury prevention, and public fire and life safety education have been strong priorities for Plano Fire-Rescue since the early 1980s. The Department's hiring of a second full-time educator in the mid-1990s to staff the Public Education Office (now Community Outreach & Education) demonstrated its commitment to prevention and the emphasis on safety education. The Community Outreach & Education (CO&E) staff works closely with the Prevention Section.

As part of the budget cuts in fiscal year FY 2008-2009, the CO&E Lieutenant position was eliminated. Several programs were cut due to the limited staff. For several years (2008 to 2014) the duties in CO&E and Public Information were handled by one Captain. In 2014, a Firefighter position was added to the CO&E Office. With this position, the Explorer Post was able to be rejuvenated and the Plano LAFS Clowns and Characters Program was also restarted. The duties of fire and



life safety education/outreach as well as public information are now the sole responsibility of the Fire Safety Education Captain and a Firefighter. These duties are broad and continue to expand with the increased growth of the city. In addition, the growing senior and multicultural populations add an increasing need for prevention outreach and

efforts. Currently, there are many programs "in the wings" in the CO&E Office; programs needed but unfortunately not able to be undertaken due to lack of staff and time.

Secondary to the duties of CO&E the tasks of public information dissemination and media requests are coordinated by the CO&E Captain. On-

Community Outreach & Education – Lieutenant/Backup PIO



scene Public Information Officer (PIO) presence requests are handled by this Captain as well as all-hours media contacts. An increased commitment to social media from the city's Mayor and Marketing and Community Engagement Department has also placed additional duties on this position. Important to note and compare – the Plano Police Department currently has two full-time PIO employees who work completely

separate from PD's Crime Prevention Division (equivalent to the CO&E Office) which is staffed with one Sergeant, three Officers, two Public Safety Officers, one Chinese Community Liaison and one Senior Administrative Assistant. At this time the CO&E Captain serves as the only PIO for Fire-Rescue with no trained back up.

The PIO is often the first, or only, contact the public may have with Plano Fire-Rescue. The PIO serves as the

department's "voice" and liaison to the community and works to provide appropriate, accurate, and timely information to the public and media. It is the responsibility of the PIO to build a strong and positive rapport with the news media and to portray a professional image at all times. The PIO fills the public information functions of the Command Staff in the Incident Management System (IMS) and acts as media liaison during all major incidents.

The following statements describe the primary functions of a PIO but should not be considered an all-inclusive listing of work requirements:

- Prepare and distribute news releases
- Maintaining the Plano Fire-Rescue Facebook page, Twitter account, and the Plano Fire-Rescue website
- Assist news media personnel at the scene of incidents
- Assist the news media on an on-call basis

Community Outreach & Education – Lieutenant/Backup PIO

- Arrange and coordinate press conferences
- Maintain positive community and media relations utilizing public relation skills through frequent contact with the community, business, and media personnel
- Prepare and distribute a monthly newsletter to all Plano Fire-Rescue personnel
- Communicate on behalf of Plano Fire-Rescue in public information matters including responding to highly sensitive matters, emergencies, disasters or other critical incidents
- Conduct live and taped interviews with local media representatives
- Compile guidelines and protocols for the drafting of news releases and informational reports for dissemination of department information to the public and the media
- Assist other City Department PIOs (Police, Emergency Management, Public Information, and the City Manager’s Office) in the



- dissemination of information to the public, news media, and other governmental entities during disaster events
- Compile statistical data and management information for use by City officials
- Establish methods and procedures for receiving, coordinating, and processing citizen requests for information, complaints, and suggestions in a timely manner.

Program Description

Fire-Rescue proposes the addition of one Lieutenant in CO&E to both assist

with the duties of fire and life safety education and to serve as the trained PIO backup. By providing full time support of public information and media requests, the Department will be able to provide a consistent life safety and public information message for the community. To be in line with the City Council and Mayor’s direction and vision for the city, a full-time PIO is needed to increase the Department’s exposure through the push of information via social media sites, information releases, and web updates. The addition of a Lieutenant to the CO&E would allow the Captain to take on the duties of the full-time PIO when needed while continuing the outreach and education work and supervising the Lieutenant and Firefighter in their outreach and education duties. A third person in the CO&E Office would provide the time for the Captain to dedicate to PIO duties and the workforce to tackle the needed programs that are currently “in the wings.” These additional programs include but are not limited to:

Community Outreach & Education – Lieutenant/Backup PIO

- A committed smoke alarm program to ensure working smoke alarms in as many homes as possible
- An increased presence at various community events
- Two dedicated Explorer Advisors on staff eliminating the need to pay overtime to advisors from the field
- Adopt-A-School program – mentoring and school lunch visits
- An increased basic fire safety and falls prevention program geared to seniors and our multicultural citizens
- Increased Fire Prevention Week/Month programs including Public Safety Saturday

- A home fire safety visit program much like one used in the UK now and shown to dramatically decrease home fires
- An “After the Fire” program geared to reach out to the residents in the neighborhood where a fire has occurred

In addition, a rank structure and succession planning would be in place in the CO&E Office with the addition of a Lieutenant.

Implementation

The one-time cost for the Lieutenant/Backup PIO will include a

computer, portable radio, camera, and office equipment. The recurring cost noted below includes salary and benefits for this vital position. This position will facilitate community interaction and assist with the training of the fire companies to deliver a wider variety of programs such as the ones noted previously. It is anticipated that this position will begin in FY 2017-2018.

One Time Costs = FY 2016-2017 = \$11,000

Recurring Costs = FY 2016-2017 = \$130,000

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
One Time Costs		\$11,000		
Recurring Costs		\$135,000		

Additional Fire Prevention Annual Inspector / Plans Reviewer

Background

The Fire Prevention Section of PFR is responsible for enforcing the construction requirements of the International Fire Code. The division does this by witnessing commissioning tests of fire safety systems during construction. In addition, they witness tests of fire alarm, fire sprinkler, fuel tank, kitchen hood, smoke control, fire pumps, and other fire safety features of buildings.

Program Description

Fire Prevention currently has 11 personnel with a significant amount of vacation, sick leave, and required training needs. The requested Lieutenant position will provide coverage for loss of personnel due to training, vacation, and sick leave. Community stakeholders rely on the Section to provide timely systems inspections and plans review, including recently implemented same-day

services. Personnel leave requires a significant amount of balancing and redistribution of personnel to cover critical customer service and safety needs.

- Vacation Usage- 11 personnel times 18 days equals up to 191 lost days annually
- Sick Usage- 11 personnel using on average 1 day per month equals 131 lost days annually
- Training- 11 personnel using on average 1 day per month for EMS, Fire, and Law Enforcement CE equals 131 lost days

The total number of lost days approaches 453 annually. Existing building inspections are significantly affected due to personnel being reassigned from this area to cover systems inspections and same-day services. Delayed inspections result in a reduced level of safety for the



community and lost inspection revenue for the Department.

Implementation

It is anticipated this new inspector position will be filled in October 2017. The funding for the position would include:

- One time cost of \$35,000 includes office equipment, radio, and computer
- Recurring cost of \$135,000 for ongoing salary and benefits

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-2020
One Time Costs		\$35,000		
Recurring Costs		\$135,000		

SCBA Mobile Compressor Trailer

Background

In FY 2014-2015, Plano Fire-Rescue (PFR) upgraded its Self-Contained Breathing Apparatus (SCBA) bottles from a 30-minute bottle to a 45-minute bottle. Firefighters only utilize a portion of a bottle's capacity in order to maintain a reserve for exiting the structure or an emergency situation. The upgrade allowed firefighters to remain on task longer while still maintaining the recommended amount of reserve air. The larger bottles have resulted in logistical issues including taking longer to refill and being more



difficult to transport in large quantities if a mobile compressor is not available on scene.

The department deploys a utility truck, Utility 12, to all working structure fires to provide lighting assistance, rehabilitation supplies, construction materials, and to refill SCBA bottles. There is currently only one mobile SCBA compressor in PFR's fleet.

Utility 12 goes in for periodic maintenance approximately four times each year, along with unscheduled service visits for any break downs which occur (last year the vehicle was sent to the shop 12-15 times for various levels of repair). When Utility 12 is out of service the "back up" vehicle, currently the Logistics pickup truck, goes into service in its place. The Logistics truck does not have a compressor and carries a limited supply of SCBA



bottles. If an emergency occurs when the backup vehicle is in service, engineers have to drop the cylinders on the ground at the scene, pick up those needing refilled, and proceed to a station that has a stationary compressor. The turn-around timeframe is dependent on where the fire, traffic conditions, and the location of the nearest available compressor.

There is a potential for delay in emergency operations if the air on scene runs out while the refilling process is taking place. Our current stationary fill stations are at Station 12 and Station 8 which are located in the

SCBA Mobile Compressor Trailer

central and northwest portions of the city respectively. The compressor at Station 8 is slated to be moved to Station 1 to provide easier access to the eastern portion of the city.

Program Description

PFR is planning on purchasing a compressor trailer to provide additional SCBA refill capabilities. A trailer is a more cost effective way of providing the additional capabilities than purchasing an additional Utility apparatus to keep in reserve. The trailer would be utilized at fire scenes when necessary, anytime Utility 12 is out of service or unavailable, and also by the Training Section during exercises in which SCBA bottle refills are necessary.

The mobile trailer has:

- a diesel powered air compressor with a SCBA cascade system in the trailer



- a fill station for the filling of SCBA bottles
- bottle rack for storage of bottles waiting to be filled
- four-cylinder cascade
- generator
- hose reels

Implementation

The trailer would be on the same periodic maintenance schedule as the existing trailers and the SCBA compressor would be on the same

quarterly air test schedule the other compressors are on.

The current backup vehicle would double as the pull vehicle for the trailer.

Our current SCBA technicians would be able to operate this SCBA system just as they do the one we currently have in service on the primary vehicle. The life span of the trailer would likely be 15 years, just as our other trailers are currently.

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
One Time Costs		\$100,000		
Recurring Costs				

Extractors for Remaining Fire Stations

Background

Firefighters are becoming increasingly aware of the long-term health effects, including cancer and other illnesses, that are linked to wearing dirty personal protective equipment (PPE) that exposes them to both known and unknown contaminants through skin absorption and off-gassing.

Contaminated protective gear exposes firefighters to potentially life-threatening chemicals, biological agents and particulate matter. If not dealt with properly, soiled protective gear can also pass on contaminants to the citizens we serve.

The key to limiting firefighter, and citizen, exposure to such hazards is proper decontamination of soiled gear. National Fire Protection Association (NFPA) Standard 1851, Standard on Selection, Care and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting,

states that soiled protective gear should be washed in a highly programmable front-load washer-extractor. A highly programmable washer allows fire departments to alter how they wash gear based on changing recommendations and fabric innovations.

Program Description

Plano Fire Rescue currently has five PPE extractors. With the completion of the current remodels at Stations 2 and 6, the total number of extractors will increase to seven.

Best practice would be for every station to have an extractor. This would make each station responsible for the cleaning of their own gear, allowing on-coming crews to ensure the PPE of off-going crews is cleaned following structure fires or other calls which lead to contamination with combustion products, hazardous materials, or biological hazards.

Our current process requires personnel to transport contaminated PPE in vehicles to remote locations, and allows for the possibility of the gear not being at the station when crews return to duty.



Implementation

PFR plans to purchase PPE Extractors for the six remaining fire stations in FY 2017-2018.

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
One Time Costs		\$120,000		
Recurring Costs				

2018-2019 PLAN



Additional Lieutenant in the Training Section

Background

Thirty years ago, Plano Fire-Rescue (PFR) hired individuals with no previous fire service experience. The new hires were then taught the profession in a recruit academy that was developed by Plano and approved by the Texas Commission on Fire Protection (TCFP). In recent years, PFR has adopted the practice of hiring individuals who have previously acquired TCFP Structural Firefighter certification, as well as Texas Department of State Health Services EMT or Paramedic certifications (TDSHS). While this reduces the amount of time from hire date to assignment to the fire station, it also reduces the resource pool available in the public sector. PFR is potentially missing out on quality candidates due to this practice. Implementation of an in-house fire recruit academy approved by TCFP would provide opportunities to individuals who would otherwise not have an opportunity because of economic and various other constraints. A larger applicant pool, made feasible by in-house fire and EMS



recruit training, will allow PFR to more accurately reflect the demographics of our diverse City.

The staff in the Training Section is currently providing over 90,000 hours of training to incumbent personnel annually and the addition of this needed program would exceed the capabilities of the existing personnel assigned to the Training Section.

Program Description

The PFR Training Section facilitates an average of over 90,000 hours to over

320 uniformed personnel annually. Responsibilities tasked to the Training Section include:

- Recruit Training Program development/delivery
- Firefighter Training Program development/delivery
- Fire Engineer Training Program development/delivery
- Officer Training Program development/delivery
- Record Keeping
- Processing training requests

Additional Lieutenant in the Training Section

- Developing annual Departmental training plans/schedules
- Ensuring that all training requirements set forth by the TCFP and all accreditation agencies are met.

These responsibilities are currently being managed by a staff of four personnel:

- Deputy Chief of Training
- Training Captain
- Training Lieutenant
- Senior Administrative Assistant

Part of the Department’s strategic plan for the Training Section will be the development of a TCFP-approved certified structural firefighting recruit academy.

Implementation of this recruit academy would require the addition of a second Lieutenant position within the Training Section. The primary function of this position will be assisting with the development of the recruit academy program. Once the program has been developed and approved by the State agencies, this position would be responsible for managing the program including class scheduling, class

delivery, student testing, and evaluation. This position will also assist with any other responsibilities assigned by the Training Captain or Deputy Chief of Training.

Implementation

In FY 2018-2019, the Training Section will have an additional Lieutenant position added to its staff to assist in implementation of the strategic plan discussed in the Program Description. The cost for this Lieutenant position would be \$135,000.00 and would be a recurring annual cost.

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2020-2021
One Time Cost			\$10,000	
Recurring Costs			\$135,000	

Additional Full Time Medic Unit (9th)

Background

Plano Fire-Rescue (PFR) saw a significant increase in both Emergency Medical Services (EMS) calls and patient transports in 2015. The EMS call volume was 15,689 (7.11 percent increase from 2014) and the total number of transports was 11,638 (9.46 percent increase from 2014).

Currently, 39.4 percent of the patients transported are 65 years of age and older. Census projections show the population of citizens 65 and over to more than double from 8.9 percent in 2010 to 19.3 percent in 2025. PFR is projecting an increase of 7240 EMS calls, and 5,358 patient transports, over this time period as a result of the increasing 65 and over demographic.

PFR responded to the increasing EMS and transport call volume in 2015 by removing Squad 2 (one of two Light Response Vehicles implemented in a pilot program in 2013) from service and utilizing the personnel to staff one of the reserve medic units. The primary drivers behind this decision were the



significant increases in patient transports and an upward trend in the number of times PFR was going into medic unit overload. Medic unit overload is the point in which one or fewer regular in-service medic units is available within City boundaries. The repurposed medic unit became the 8th full time medic unit and was placed in service at Station 9 to serve the western edge of the city. PFR still operates a demand med unit during peak periods utilizing extra-time personnel.

The previously discussed call volume and transport increases are projected to continue over the next decade. Plano's aging population, an abundance of renowned local hospitals and medical care facilities, and the City's current growth period are primary contributors to the call volume increases. Currently our medic units average approximately 1,900 EMS calls for service, and 1,400 patient transports annually. The number of

Additional Full Time Medic Unit (9th)

overall patient transports increased by 1,006 in 2015.

If similar increases are seen in 2016 and 2017, PFR will again be experiencing an increased frequency of medic unit overload activations resulting in increased response times to citizens' calls for service.

Program Description

PFR will need to add additional medic units to maintain current service levels. The first of the two additional medic units is currently slated to be placed in service in 2018-2019. The second additional unit will be added in 2019-2020.

Implementation

If approved in the 2018-2019 budget, an additional medic unit will be ordered in late 2018. The additional nine personnel to staff the units, including leave relief, will be hired during the same time period.

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-2020
One Time Costs			\$440,000	
Recurring Costs			\$990,000	

Command Post Technology Upgrade

Background

One of the critical issues at any large scale incident, disaster, mass casualty incident, or special event is coordination of resources on-scene. These types of events involve multi-agency responses including fire companies, law enforcement, emergency management, and other internal and external partners. The mobile command post provides the incident commander with the appropriate tools to achieve communications, coordination, and control of the incident.

NFPA 1951: Standard on Emergency Services Incident Management System and Command Safety identifies that an incident commander should consider the following:

- Locate a command post in a vehicle to establish presence and visibility
- Command post must include radio capability
- Incident commander should remain present at the command post
- Incident commander should

develop an incident action plan

- Incident commander should develop a command organization for the incident
- Incident commander should conduct planning meetings
- Authorize and coordinate release of information to the media

In 2006, Plano Fire-Rescue (PFR) purchased a Mobile Command Post for use during large scale incidents. The Mobile Command Post achieved the objectives as outlined in NFPA 1951. The Command Post was outfitted with

appropriate equipment and technology for the time period in which it was purchased.

Ten years have passed since the initial purchase of the Mobile Command Post. During that time, technology has advanced considerably. The technology equipment on the Mobile Command Post has exceeded its useful life.

Moving forward, a thorough needs analysis must be conducted between PFR, Technology Services, and Procurement – Project Management



Command Post Technology Upgrade



Departments to establish the true business necessity and critical needs that must be addressed in a mobile command environment. Once the needs assessment has been conducted, the departments may work collaboratively to develop a comprehensive strategy for technology implementation in the mobile command post, understanding that the equipment will be in place for

approximately five years, before the vehicle itself will be due for replacement.

At a minimum, the following considerations for technology equipment will be reviewed:

- radio / interoperability systems
- telephone/cell phone/VoIP
- on-scene video
- video transmission

- text communications
- encrypted data
- satellite communications
- television signals (satellite vs. computer based)
- microwave communications
- internet connectivity
- wireless networks
- dispatch/CAD connectivity
- laptop Computing
- weather monitoring
- printer/copier/scanner
- generator power

Additional considerations regarding training for equipment use, as well as support personnel familiar with the mobile command post will be determined at the time of equipment implementation.

Program Description

PFR will upgrade the existing technology within the mobile command post to improve connectivity, provide effective and stable field communications, and allow for use of

Command Post Technology Upgrade

alternative power sources when traditional power is unavailable. The upgrades will address:

- Satellite connectivity for data, voice and video
- Interoperability of mobile communications
- Appropriate bandwidth
- Video display
- Computer upgrades
- Cameras for situational awareness
- Generators

Implementation

During the remainder of FY 2016-2017, and into FY 2017-2018 research will be conducted between Technology Services, Procurement and Project



Management, and PFR to identify critical business requirements for the Mobile Command Post and existing technology gaps. Once the technology needs assessment has been completed, Technology Services and the Project Management Office will develop recommendations on appropriate equipment and services for

procurement given anticipated vehicle replacement in five to eight years. After approval in the FRY 2018-2019 budget, PFR will work with Purchasing and Technology Services on procurement of recommended equipment and services for installation on the Mobile Command Post.

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-2020
One Time Costs		Needs Assessment Conducted by Technology Services, PFR and Project Management Office	TBD by Technology Services & Project Management Office	
Recurring Costs			TBD by Technology Services & Project Management Office	

EMS Cart

Background

Currently, Plano Fire Rescue (PFR) uses the Special Event Medics (SEMs) at all events, both public and private, that require a different EMS response than our normal 911 system. The SEMs Team is made up of a group of firefighters, engineers and officers who volunteer to work at special events. This group operates under the medical control of Dr. Gamber and is able to provide different medications than standard PFR medics. These medics deliver this service by bicycles, carts, first aid stations and med units.

Program Description

The program description for the EMS Cart is to replace the current ATV Side by Side (EMS 9) with a new model.

A new EMS Cart would remain at Station 9 and be used for access to the Arbor Hills Nature Preserve. The new unit will also be used for the special events that require an EMS Cart. Currently, EMS 9 is an early 2000s model Kawasaki ATV. EMS 9 has some clearance problems when used at Arbor Hills and has been underpowered at times. A new EMS Cart would be more dependable and more versatile.



Implementation

FY 2018-2019: Replace EMS 9 with a new unit with more power and better clearance.

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
One Time Costs			\$25,000	
Recurring Costs				

EMS Equipment Vending Machines

Background

The rising cost of EMS supplies and the constant increase in EMS call volume have revealed a need for better control of inventoried supplies. Historically, Plano Fire-Rescue (PFR) has kept ambulance stations stocked to one level and the engine/truck houses to another level with each reporting their needs to the EMS purchasing coordinator.

A vending machine system would assist with developing easier access to EMS supplies after normal business hours and on weekends. Currently all the supplies are distributed from the Logistics Warehouse in the center of the city to all 13 stations once a week.

Collectively the 13 fire stations stock \$44,000 worth of expendable supplies including medications. Each week the station places an order with the Logistics Section for EMS supplies or medication replacement due to either use or expiration. Vendors no longer give credit for expired medication and supplies. The delivery occurs once a week by the Logistics Section. Narcotic

medication orders are placed through the EMS Captain and are delivered as needed.

Program Description

EMS supply vending machines placed in eight of the stations would reduce the overall amount of supplies needed at all the stations.

The vending machines assist in tracking the usage of the supplies, as well as the expiration dates of those supplies and medications.

Narcotic medications are also available to be dispensed along with specific programming that would require two personnel to check out the medication, which meets the needs for DEA requirements.

This type of machine would enable Logistics to create different types of report variations which would give the department information on specific product usage, type of products used by ambulance, by employee, and by machine for any date period etc.

The machine keeps track of inventory and will let the purchasing coordinator



know when certain supplies are critically low. This eliminates the risk of running out of essential items and having none on hand for an emergency.

Implementation

The implementation of vending machines will decrease the amount of duplicate EMS medications and supplies at the stations and decrease the amount of time fire units are out of

EMS Equipment Vending Machines

service restocking supplies. To accomplish this, we propose adding vending machines to the eight stations

where the ambulances are located. Engine companies can restock from the ambulances. The cost is \$12,000 per

unit. We propose implementing over a two year period doing four stations each year.

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
One Time Costs			\$48,000	\$48,000
Recurring Costs				

2019-2020 PLAN



Additional Full Time Medic Unit (10th)

Background

Plano Fire-Rescue (PFR) saw a significant increase in both Emergency Medical Services (EMS) calls and patient transports in 2015. The EMS call volume was 15,689 (7.11 percent increase from 2014) and the total number of transports was 11,638 (9.46 percent increase from 2014).

Currently, 39.4 percent of the patients transported are 65 years of age and older. Census projections show the population of citizens 65 and older to more than double from 8.9 percent in 2010 to 19.3 percent in 2025. PFR is projecting an increase of 7240 EMS calls, and 5,358 patient transports, over this time period as a result of the increasing 65 and older demographic.

PFR responded to the increasing EMS and transport call volume in 2015 by removing Squad 2 (one of two Light Response Vehicles implemented in a pilot program in 2013) from service and utilizing the personnel to staff one of the reserve medic units. The primary



drivers behind this decision were the significant increases in patient transports and an upward trend in the number of times PFR was going into medic unit overload. Medic unit overload is the point in which one or fewer regular in-service medic units is available within City boundaries. The repurposed medic unit became the 8th full time medic unit and was placed in service at Station 9 to serve the western edge of the city. PFR still operates a

demand med unit during peak periods utilizing extra-time personnel.

The previously discussed call volume and transport increases are projected to continue over the next decade. Plano's aging population, an abundance of renowned local hospitals and medical care facilities, and the City's current growth period are primary contributors to the call volume increases. Currently our medic units average approximately 1,900 EMS calls

Additional Full Time Medic Unit (10th)

for service, and 1,400 patient transports annually. The number of overall patient transports increased by 1,006 in 2015. If similar increases are seen in 2016 and 2017, PFR will again be experiencing an increased frequency of medic unit overload activations resulting in increased response times to citizen’s calls for service.

Program Description

PFR will need to add additional medic units to maintain current service levels. The first of the two additional medic units is currently slated to be placed in service in FY 2018-2019. The second additional unit will be added in FY 2019-2020.

Implementation

If approved in the 2019-2020 budget, an additional medic unit will be ordered in late 2019. The additional nine personnel to staff the units, including leave relief, will be hired during the same time period.

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-2020
One Time Costs				\$440,000
Recurring Costs				\$990,000

Additional Fire Prevention Annual Inspector

Background

The Fire Prevention Section of PFR is responsible for enforcing the construction requirements of the International Fire Code. The section does this by witnessing commissioning tests of fire safety systems during construction. In addition, they witness tests of fire alarm, fire sprinkler, fuel tank, kitchen hood, smoke control, fire pumps, and other fire safety features of buildings.

Program Description

Since 2010, there have been a total of 284 commercial buildings added to the city (stat from June 30, 2015). Sixty-six new buildings were added in 2014. Approximately 70 were constructed in



2015. Insurance Services Office (ISO) recommends 480 buildings per inspector. At the current construction pace of 60-70 new buildings per year Fire Prevention will exceed the recommended number of occupancies

per inspector within 1-2 years. Plans are to include a fifth inspector in FY 2016-2017. It is anticipated that a sixth inspector will be required to assist with construction and existing inspections in FY 2019-2020.

Implementation

It is anticipated this new inspector position will be filled in October 2016. The funding for the position would include:

- One time cost of \$35,000 includes office equipment, radio, and computer
- Recurring cost of \$135,000 the ongoing salary and benefits.

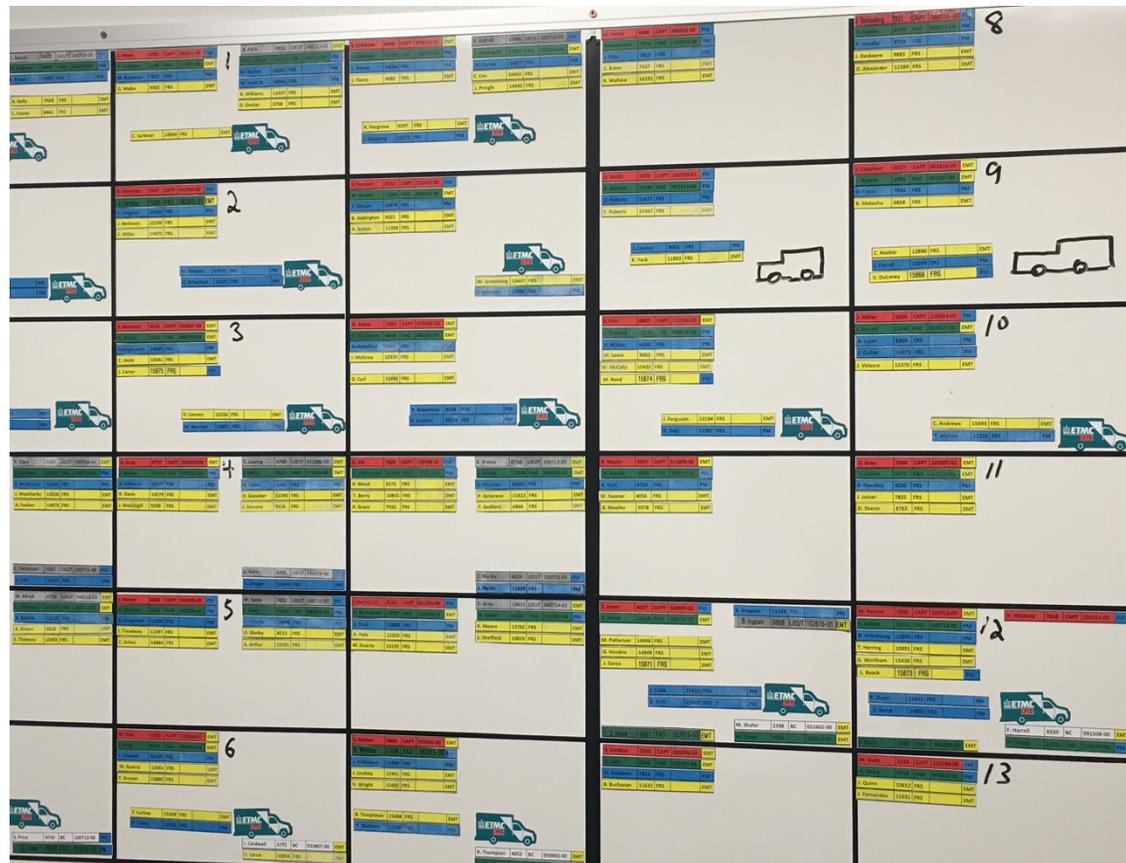
	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-2020
One Time Costs				\$35,000
Recurring Costs				\$135,000

Emergency Operations Section Captain

Background

Currently the Operations Section of Plano Fire-Rescue (PFR) is made up of one administrative Deputy Chief and 321 shift personnel. The Deputy Chief is responsible for administrative and operational functions for all persons assigned to his section. Duties include preparing for, mitigating and responding to emergency calls for service, as well as tending to the day-to-day operations. One person being responsible for so many functions results in an organizational bottleneck at times.

In 2014, PFR identified a strong need for administrative support in the Operations Section. As a result, the Special Operations Battalion Chief was assigned administrative duties under the Deputy Chief of Operations. Later that year, the Special Operations Chief was removed and reassigned under the Training Section. The void left in Operations became exceedingly evident in 2015, so the Special Operations Chief was once again



moved back under the Operations Section for the specific purpose of providing administrative support. Also in 2015, the Operations Section permanently lost the position, as it was reclassified to a Deputy Chief position reporting directly to the Fire Chief, and

the Station Assignment responsibility went with it.

Note: The Station Assignment process can be extremely time-consuming with a real likelihood of addressing issues at a moment's notice. As a result, consistent application by the same

Emergency Operations Section Captain

member is necessary to minimize potential personnel conflicts. Nevertheless, there is still a continuing need for Operations Section involvement.

Program Description

The Operations Section is once again in need of administrative support; therefore, the Department recommends adding a Captain position to the Operations Section. This position will provide long-needed support in the following areas:

- Resume duties and responsibilities for the Station Assignment process for 300+ shift personnel
- Assist with SOP review and revisions in accordance with CFAI requirements
- Liaison with Plano Dispatch
- Liaison with Plano Radio Shop

- Liaison with the Training Section
- Identify training opportunities to improve service delivery
- Manage after-fire paperwork, including Post Incident Analysis, customer service checklists, command forms and firefighter rehabilitation sheets.
- Manage special projects as assigned by the Deputy Chief of Operations
- Examples of previous projects include: updating operations field guides, conducting research, implementing new Station Assignment process.

Each of the above responsibilities allows the Deputy Chief of Operations to function from a more strategic position. Typical assignments given to shift personnel can create extended deadlines due to the traditional three-day schedule. Operations is the only

section not supported by a dedicated 40-hour week staff person. As can be seen below, the position being requested is in line with administrative support provided to other sections throughout PFR. The position of Operations Captain will provide added value to the citizens of Plano by increasing the efficiency and subsequent effectiveness of the overall delivery of emergency operations.

Implementation

Implementation will require the addition of an additional Captain position. The position will report directly to the Emergency Operations Section Deputy Chief and will operate on a 40-hour workweek schedule. The cost to fund the Operations Captain position is provided below.

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-2020
One Time Costs				\$10,000
Recurring Costs				\$145,000

Additional Firefighter in the Logistics Section

Background

The purpose of the Logistics Section is to provide effective, efficient, and sustainable fire logistics systems and processes that allow fire crews to expertly do their jobs and return home safely at the end of the day. The Logistics Section serves 351 uniformed personnel, 13 fire stations, and two administration buildings. The Logistics Section is in charge of personal protective equipment (PPE), uniforms, fleet and equipment management, Self-Contained Breathing Apparatus (SCBA) and air supply, EMS equipment and supplies, facilities supplies and repairs, delivery of supplies and equipment, contract management, and budget planning. The Logistics Section is staffed by a deputy chief, captain, three firefighters, and a senior administrative assistant. Additional support is provided by one engineer on each shift who is assigned to the light and air truck Utility 12 (U12). The U12 engineers

provide after-hours assistance due to the fact personnel assigned to a 40-hour workweek are charged with ensuring logistical support to personnel providing round-the-clock service. The three firefighters serve as coordinators for:

- PPE and Uniforms
- Fleet and Equipment
- EMS Supplies

Facilities supplies and repair requests, totaling over 1,000 items per year, are coordinated by the senior administrative assistant. The administrative assistant is not able to make deliveries or go to the stations to check on issues, which results in a reassignment of service request to other personnel.

Program Description

The increase in number of uniformed personnel and fire stations in the past five years, without an increase in Logistics Section staffing, has made

providing timely service increasingly difficult. PFR's increasing call volume has led to increased calls for service, supplies, and repairs. The addition of one firefighter will divide the work into more manageable divisions and promote expertise in each discipline. It will allow the duties of the administrative assistant to match their job description by placing facilities repairs and requests under the responsibility of the additional firefighter.

Implementation

To meet the current and future demands of Plano Fire Rescue, the addition of one firefighter is needed in the Logistics Section. This position will be the Facilities Service Coordinator who will coordinate all service request for the 13 fire stations and two administration buildings. They will also provide assistance in delivering supplies to the stations and coverage for time off and illnesses.

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
One Time Costs				\$10,000
Recurring Costs				\$110,000

STATISTICS & STATION MAP



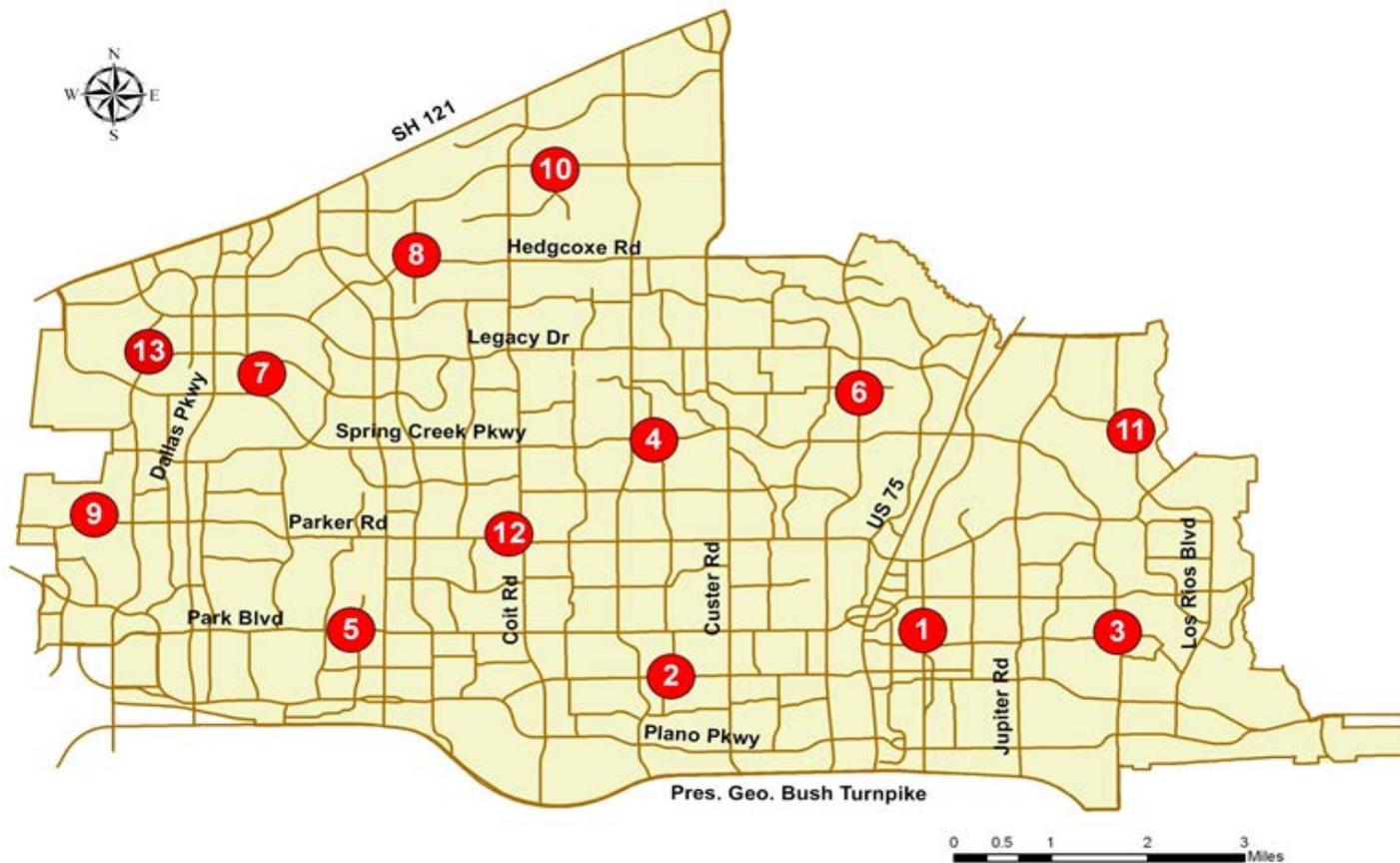
Cost Table

Programs	FY 2015-16		FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	Recurring	One Time	Recurring	One Time	Recurring	One Time	Recurring	One Time	Recurring	One Time
Fire Training Facility	-	-	-	-	-	-	-	\$17,000,000*	-	-
HIPAA/Compliance Program	\$5,500	-	-	-	-	-	-	-	-	-
Engine 8 and the 5th Truck Company	-	-	\$1,000,000	\$3,500,000	-	-	-	-	-	-
Wellness Screening Program	-	-	\$300,000	-	-	-	-	-	-	-
Station Exhaust Capture Systems	-	-	-	\$500,000	-	-	-	-	-	-
Fire Prevention New Construction Inspector	-	-	\$135,000	\$35,000	-	-	-	-	-	-
Hazmat Response Vehicle	-	-	-	\$400,000	-	-	-	-	-	-
Pre-Hospital Ultrasound	-	-	-	\$10,000	-	-	-	-	-	-
Fortuna Boat	-	-	-	\$4,500	-	-	-	-	-	-
Fire Dispatch Technology Upgrades	-	-	-	-	\$21,000	\$115,000	-	-	-	-
Pumping Simulator	-	-	-	-	\$500	\$80,000	-	-	-	-
Additional Firefighter in the Training Section	-	-	-	-	\$110,000	\$10,000	-	-	-	-
CO&E Lieutenant	-	-	-	-	\$135,000	\$11,000	-	-	-	-
Fire Prevention Annual Inspector/Plans Review	-	-	-	-	\$135,000	\$35,000	-	-	-	-
SCBA Mobile Compressor Trailer	-	-	-	-	-	\$100,000	-	-	-	-
Extractors for Remaining Fire Stations	-	-	-	-	-	\$120,000	-	-	-	-
Additional Lieutenant in the Training Section	-	-	-	-	-	-	\$135,000	\$10,000	-	-
Additional Full Time Medic Unit (9th)	-	-	-	-	-	-	\$990,000	\$440,000	-	-
Command Post Technology Upgrade	-	-	-	-	-	-	TBD	TBD	-	-
EMS Cart	-	-	-	-	-	-	-	\$25,000	-	-
EMS Equipment Vending Machines	-	-	-	-	-	-	-	\$48,000	-	\$48,000
Additional Full Time Medic Unit (10th)	-	-	-	-	-	-	-	-	\$990,000	\$440,000
Additional Fire Prevention Annual Inspector	-	-	-	-	-	-	-	-	\$135,000	\$35,000
Emergency Operations Section Captain	-	-	-	-	-	-	-	-	\$145,000	\$10,000
Additional Firefighter in the Logistics Section	-	-	-	-	-	-	-	-	\$110,000	\$10,000

*Figure based on planned 2017 Bond request

Plano Fire-Rescue Station Map

2015 Call Volume



<u>Station 1, 1901 K Ave</u>		
Engine 1		2,280
Truck 1		983
Medic 1		3,030
Squad 1		1,675
<u>Station 2, 2630 W. 15th St.</u>		
Engine 2		2,184
Medic 2		2,704
<u>Station 3, 3520 Sherrye Dr.</u>		
Engine 3		1,595
Medic 3		1,828
<u>Station 4, 6000 Roundrock Trl.</u>		
Engine 4		1,306
Truck 4		488
Squad 2		1,042
<u>Station 5, 5115 W. Park Blvd.</u>		
Engine 5		2,098
Truck 5		815
<u>Station 6, 6651 Alma Rd.</u>		
Engine 6		1,993
Medic 6		2,571
Battalion 1		599
<u>Station 7, 5602 Democracy Dr.</u>		
Engine 7		1,647
Medic 7		2,668
<u>Station 8, 4555 Hedgcoxe Dr.</u>		
Truck 8		1,384
<u>Station 9, 6625 W. Parker Dr.</u>		
Engine 9		1,367
<u>Station 10, 3540 McDermott Dr.</u>		
Engine 10		1,194
Medic 10		1,674
<u>Station 11, 4800 Los Rios Blvd.</u>		
Engine 11		518
<u>Station 12, 4101 W. Parker Rd.</u>		
Engine 12		1,791
Medic 12		3,092
Battalion 2		746
<u>Station 13, 6901 Corporate Dr.</u>		
Engine 13		610
<u>Demand/Reserve Apparatus</u>		
Medic 81		589
Medic 82		40
Medic 83		53

2015 Plano Fire-Rescue Statistical Summary

General Information

Population Served	271,140
Protection Area	72.2 square miles
Number of Personnel	351
Number of Fire Stations	13
Operating Budget FY '14-'15	\$50,645,967

2015 Response Time		Increase
Fire Calls (Avg)	5:14	0:17
Fire Calls (90%)	7:51	1:30
EMS Calls (Avg)	5:14	0:26
EMS Calls (90%)	6:53	0:11

Incident Types

Number of Incidents:	24,976	(+9.76%)
EMS	15,689	(+7.11%)
Transports	11,638	(+9.46%)
Fires	367	(+2.80%)
Structure Fires	144	(+7.46%)
Vehicle Fires	87	(+17.57%)
Grass/Brush/Wildland	67	(+11.67%)
Other Fires	69	(-22.47%)
Hazardous Condition	637	(+19.29%)
Service Calls	2,292	(-18.32%)
Good Intent Calls	4,117	(+33.12%)
False Call / Alarm	1,825	(+4.05%)
Total Fire Loss	\$3,735,415	(-24.11%)

Station Information

Busiest Station	Station 1	(4,455 Calls)
Busiest Engine	Engine 1	(2,280 Calls)
Busiest Truck	Truck 8	(1,384 Calls)
Busiest Ambulance	Medic 12	(3,092 Calls)
Busiest Day of Week	Friday	
Busiest Month	October	

Community Education

Public Education Programs Delivered	510
Public Education Program Audience	43,674
CPR Classes	28
CPR Audience	1,264

Fire Prevention

Existing Building Inspections Completed	5,698
Engineering Plan Reviews	576
New Construction Plan Reviews	1,539
Investigations	39



Plano
City of Excellence

