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San Francisco Fire Department

What Does the Future Hold?

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City and County of San Francisco

Civil Grand Jury, 2014-2015

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Philip Reed, Foreperson Pro Tem

Anne M. Turner, Recording Secretary

Morris Bobrow

Leonard Brawn

Daniel Chesir

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THE CIVIL GRAND JURY

The Civil Grand Jury is a government oversight panel of volunteers who serve for one year. It makes findings and recommendations resulting from its investigations.

Reports of the Civil Grand Jury do not identify individuals by name. Disclosure of information about individuals interviewed by the jury is prohibited. California Penal Code, section 929

STATE LAW REQUIREMENT

California Penal Code, section 933.05

Each published report includes a list of those public entities that are required to respond to the Presiding Judge of the Superior Court within 60 to 90 days, specified.

A copy must be sent to the Board of Supervisors. All responses are made available to the public.

For each finding the response must:

- 1) agree with the finding, or
- 2) disagree with it, wholly or partially, and explain why.

As to each recommendation the responding party must report that:

- 1) the recommendation has been implemented, with a summary explanation; or
- 2) the recommendation has not been implemented but will be within a set time frame as provided; or
- 3) the recommendation requires further analysis. The officer or agency head must define what additional study is needed. The Grand Jury expects a progress report within six months; or
- 4) the recommendation will not be implemented because it is not warranted or reasonable, with an explanation.

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Summary

In mid-2014, local media published articles on the San Francisco Fire Department (SFFD) that focused on the fact that SFFD ambulances were not responding to dispatches often enough and fast enough. The Civil Grand Jury was moved to investigate these allegations. We found out that “often enough” means that SFFD was not fulfilling the mandate of its Exclusive Operating Area (EOA) agreement with the State of California in which SFFD agreed that it would respond to 80% of all emergency medical dispatches issued by the Department of Emergency Services (DEM). The remaining 20% would be handled by private ambulance providers. And “fast enough” meant that SFFD was not answering life threatening (Code 3) dispatches in 10 minutes or less 90% of the time. It was also not answering non-life-threatening (Code 2) dispatches in 20 minutes or less 90% of the time.

In the course of our inquiries about SFFD we discovered that the SFFD training facility at Treasure Island (TI) is living on borrowed time because the current agreement with Treasure Island Development Authority (TIDA) calls for the facility to be demolished to make room for public parkland. The Department has no plan to replace the facility.

Both issues demonstrate the importance of strategic planning for SFFD. The Department has no multi-year approved strategic plan for replacement of fire suppression or emergency response equipment, or for the replacement of the TI training facility. Nor does it have adequate plans for comprehensive training for rank and file in response to a natural or human-caused disaster.

As a result of our investigation, we recommend that SFFD:

- Develop a strategic plan that addresses achieving EOA requirements, maintains a working fleet of response vehicles and plans for infrastructure improvements;
- Modify the Emergency Medical Technician deployment system to ensure comprehensive City coverage; and
- Quickly develop a plan to either continue the use of the training facility on Treasure Island or acquire land for a new training facility for its replacement.

We make these recommendations realizing that SFFD must protect a rapidly growing City with increased public safety needs.

This Civil Grand Jury recognizes the great history of SFFD. We are aware that firefighters put themselves in peril every day, and some have made the supreme sacrifice. The people of San Francisco have shown their gratitude in many ways. The Civil Grand Jury wants to express its gratitude for the service the SFFD provides to San Franciscans. In this report we make recommendations intended to improve SFFD operations.

Methodology

The Civil Grand Jury conducted 33 interviews with SFFD leadership, rank and file firefighters and paramedics plus various City department heads. We present an investigative report that considers two main concerns: emergency response issues and the future of the SFFD training facility on Treasure Island.

Our research included a review of reports of prior Civil Grand Juries as well as the Budget and Legislative Analyst's 2014 Performance Audits. We requested and analyzed a cross section of data from SFFD. We used information from reports generated by SFFD on staffing and equipment inventory as well as the San Francisco's 10 Year Capital Plan and reviewed the TIDA plans for Treasure Island. The Civil Grand Jurors also toured the 911 Dispatch Center, Treasure Island Training Center, Station 1, Station 35, Station 49, the Fire Boat and SFFD headquarters. Finally, we used reference material garnered from the websites of SFFD, San Francisco Firefighters Local 798, TIDA, the City and County of San Francisco, and comparable metropolitan fire departments.

A: Emergency Response Issues

Discussion

The San Francisco Fire Department (SFFD) is the third largest in California after Los Angeles and San Diego with an operating budget of \$356 million. 91% of the budget is spent on salary and benefits. There are 43 stations (referred to as firehouses) throughout the City, three stations at San Francisco International Airport, and Station 49 which houses emergency vehicles and supplies. (See Appendix 1 for locations of firehouses.)

For most of its history, SFFD did not respond to purely medical emergencies. Prior to 1997, a separate agency known as Emergency Medical Services (EMS) performed this function. In that year, the two agencies merged and EMS has become a large part of what SFFD does.

The 1997 merger was the topic of a 2003-2004 Civil Grand Jury report, *"The Merger of Emergency Medical Services and the San Francisco Fire Department: A Match Made in Heaven or Shotgun Wedding?"* The report described the merger as a way to get better and faster deployment of emergency medical services and to better utilize the rich resources of the SFFD. The report exposed unforeseen complications arising from the "culture clash that occurred between the two services...and...the extreme reluctance to change that is characteristic of SFFD." The report also noted that no criteria were established to measure the merger's success or failure.

In response to the merger, the Department developed what it called a "static" deployment of paramedic-staffed firehouses. Paramedics were assigned to each firehouse. But the model resulted in the following operational deficiencies and work force concerns:

- Inability to meet fluctuating demand for ambulance service and work force concerns,
- 24 hour shifts resulting in fatigue issues for paramedics,¹
- Fair Labor Standards Act overtime and compensation issues resulting in litigation and increased costs.

¹ SF Fire Commission meeting December 3, 2007.

In 2009 the Department completed conversion to a “dynamic” deployment model designed to enhance scheduling, increase efficiency, and improve response times by stationing ambulances at locations throughout the City rather than at “static” fixed locations.³

The dynamic model has worked better than the static model, but there remain problems that the Civil Grand Jury investigated. We compared applicable performance standards to actual performance, looked at training for both fire fighters and emergency services staff, and, based on complaints from interviewees, investigated data on the equipment SFFD is using.

Applicable Performance Standards

Several performance standards provide benchmarks for response times and call volume. Response times are quantifiable determinants assigned by the State Emergency Medical Services Agency (EMSA) through the Local Emergency Medical Services Agency (LEMSA). SFFD is required to respond to a medical dispatch within 2 minutes of notification 90% of the time for Code 3 life-threatening emergencies. It must respond within 4 minutes 30 seconds for Code 2 non-life-threatening emergencies 90% of the time. These standards are measured by tracking the time between “Dispatch” the time from receipt of call to sending a response vehicle, and “Response” the time from receipt of dispatch order to arrival on scene.

The volume of emergency calls SFFD responds to is set in the Exclusive Operating Area (EOA) agreement between EMSA and SFFD granting SFFD the right to respond to 80% of emergency calls, leaving response to the remaining 20% to contracted private ambulance providers. The EOA agreement enables the City to be paid for emergency transport services provided².

Even though response time can be measured, it is extremely difficult to generalize from it, as many extraneous factors influence how fast an ambulance can get across town. (For more information on performance standards, see Appendix 4).

A LEMSA standard states that the Rescue Captain staffing ratio “shall be one on-duty Rescue Captain for every 10 Advanced Life Support (ALS) ambulances in order to maintain a reasonable span of control and availability for field response.” In 2014, there were only 3 Rescue Captains each supervising 20 ambulances.

Lastly, San Francisco voters passed Proposition F in 2005 requiring SFFD to maintain and operate firehouses and equipment 24 hours a day, 7 days a week. (See Appendix 5 on Proposition F).

² Per the City’s Health Code, (<http://www.dhcs.ca.gov/provgovpart/Pages/GEMT.aspx>) specifically Article 3 Section 128.1(a)1, the Board of Supervisors has authorized the Department to charge for these services. Rates can be adjusted annually by Medical CPI, and are currently set at \$1,869 for transport, \$416 for treatment with no transport, and \$35 per mile.

Actual Performance

In 2014, 76.9% of all emergency calls were for medical emergencies. Fire suppression calls represented 23.1% of the emergency calls³. Medical calls have increased 5.5% between 2007 and 2013. Engines and trucks as well as ambulances respond to emergency medical calls. These numbers do not exclude false alarms.

The Civil Grand Jury learned that SFFD is not meeting the performance standards established by the State, set out in the EOA, and overseen locally by LEMSA. In 2014, the Mayor, concerned about reports that emergency vehicles were responding too slowly, called for the formation of an Ambulance Working Group⁴ to investigate those reports. That group's final report, dated February 2015, found a greater than 6% decrease in overall medical response times since August 2014. In January 2015, the average response time represented a 10% decrease. Reports generated by SFFD staff show response time progress, but the Department is still not achieving the EMSA mandates for Code 3 response time³.

	Average (Min)	90th percentile (Min)	On-Time Performance
2015/01	7.29	12.07	82.96
2015/02	7.19	12.11	82.85
2015/03	6.84	10.98	86.46
2015/04	6.93	11.13	86.22
2015/05	6.89	11.35	85.69
2015/06	6.72	10.82	87.08

Source: SFFD

Instances in which first responders arrive at a scene and subsequently request an ambulance with a paramedic on-board be sent are termed "medic to follow." The Ambulance Working Group reviewed the frequency and response times for "medic to follow" requests. A Department analysis shows that 25% of "medic to follow" calls took longer than ten minutes in the outlying parts of the City, particularly those furthest away from a hospital where ambulances tend to congregate between calls. (See Heat Map below)

The Budget and Legislative Analyst conducted a Performance Audit of Emergency Medical Service Resources in 2014. Since the SFFD must improve its response time

³ Per SFFD staff report, June 2015

⁴ The Ambulance Working Group was formed at the request of the Mayor in 2014 to review ambulance response times and call volume.

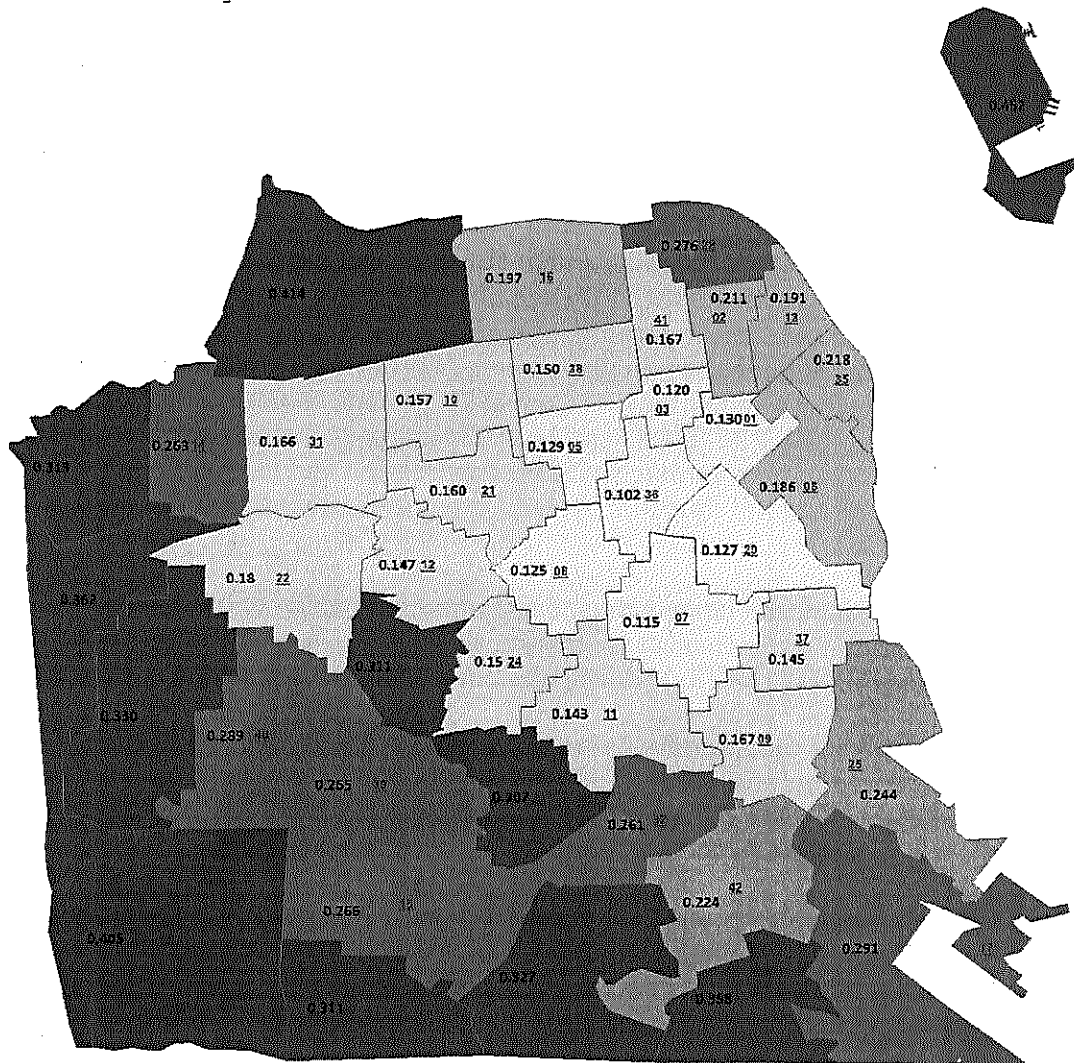
to emergency medical calls in order to maintain its EOA, it recommended the following operational efficiencies to achieve the EOA mandate:

1. Additional ambulance shifts,
2. Additional staffing,
3. Replace aging ambulance fleet, and
4. Cross-training of new uniformed employees (entry level firefighters).⁵
Cross trained firefighters are able to handle both fire suppression and emergency medical responses but few stations have firefighters who are cross-trained as paramedics.

In our research, we were struck by the following:

- In spite of the dynamic model, ambulances cluster around the hospitals, which are located in the Mission, Western Addition, Parnassus Heights and downtown areas; no such clustering exists in the outlying western neighborhoods (Battalions 7, 8, 9 and 10).
- For ambulances dynamically stationed in the western neighborhoods and requiring replenishment of supplies during their normal shift, an inordinate amount of time is consumed in traveling to and from Station 49 (located in the southeastern part of San Francisco at 1415 Evans Street).
- Response times for ambulances to the outlying western neighborhoods suffer as fewer ambulances are available. (See the red sections of the map below)

⁵ Performance Audit, June 2014.



Source: SFFD

Challenges

The primary reasons for failing to meet EMS response time standards are: EMS staffing and ambulance deployment, aging equipment, working conditions, population trends, and the absence of strategic planning.

1. Staffing and Ambulance Deployment

The Budget and Legislative Analyst's 2014 Performance Audit found the Department's inventory management and controls to be inefficient. Paramedics and emergency medical technicians (EMT's) are responsible for restocking and cleaning ambulances at the beginning and end of their shifts, thereby reducing the time EMT's are available to respond to emergencies. The audit observed that civilians could be assigned those tasks.

During the Civil Grand Jury's tour of Station 49, we were also told that SFFD could use civilian personnel to take over the tasks of restocking and cleaning ambulances at a cost saving to the City; such personnel would cost less than the paramedics and EMTs who currently do the job. We learned that the Department has hired a few "storekeepers" for restocking and cleaning, but not enough to relieve paramedics from these tasks.

The Department of Emergency Management (DEM) is responsible for receiving 911 calls and dispatching resources to SFFD and SFPD. With few exceptions, DEM dispatchers do not have EMT or paramedic experience but are trained to adhere to a set of protocols which guide them in dispatching appropriate emergency resources. One rescue captain and two lieutenants from SFFD provide subject matter expertise for the SFFD dispatches. The "Fleet Seat" is a DEM employee who is responsible for supervising the appropriate dispatch of SFFD suppression and emergency vehicles. All DEM dispatch personnel rotate through different assignments, taking calls for police, fire, and EMS.

Historically, there have not been enough daily ambulance shifts to meet the EOA 80% requirement. In order to increase market share, the City would need to add three ambulance shifts (16 FTEs)⁶ during the peak hours from 6:30 AM to 6:30 PM.

SFFD is in violation of the Administrative Code ⁷ that requires the Department to maintain four static ambulances based at firehouses. The Department transitioned all of its ambulance fleet to dynamic deployment in September 2009, and thus is currently in violation of the Code.

When a private ambulance and an SFFD ambulance are equidistant to an incident, the private ambulance is more likely dispatched because all private ambulances have paramedics on board while not all SFFD engines have assigned paramedics; this can lead to a "medic to follow" request. Partly because of this, SFFD continues to struggle to meet its 80% market share requirement.

2. Aging Equipment

Another reason for slow response times is a chronic lack of serviceable ambulances. The ambulance fleet is aging; more than a few need to be permanently retired. As time is of the essence in responding to medical calls, dependable ambulances are a must.

The useful life span for a SFFD ambulance is 10 years. In 2014 almost 50% of the fleet exceeded the 10-year life span. As of February 2014 the average mileage for

⁶ Performance Audit, pg. 14, June 2014.

⁷ San Francisco Admin Code Section 2A.97.

these older ambulances was 158,299 and the average repair cost per vehicle over its lifetime could be as much as \$162,554. (See Appendix 3: Rig Inventory). The Department does not track the number of ambulances out of service on a daily basis⁸ but Department officials note that as many as one-third of the ambulance fleet may require servicing at any given time. 19 new ambulances were placed into service in spring 2015. However, the Department ambulance fleet of 54 vehicles requires regular replacement of aged equipment as well as upgrading technology on all SFFD vehicles. (See Appendix 6 Technology Needs).

3. Working Conditions

The Civil Grand Jury observed less than optimum working conditions for paramedics at Station 49. Some key issues for this facility include:

- More than 100 paramedics and other Department personnel use Station 49 on a daily basis. This facility was not originally designed for ambulance storage and does not adequately accommodate this number of people and equipment. For example, there are only three bathrooms, two for men and one for women.
- Station 49 lacks essentials for the staff who work out of there. There is no water fountain, no kitchen or break room, unsafe street parking for employee vehicles, a deteriorating interior and exterior, and an inadequate security system.

The Ambulance Working Group noted in its final report that Station 49 is to be replaced with a new, state of the art facility. Plans for this \$40 million facility will be incorporated into the City's upcoming 10 Year Capital Plan and into the anticipated 2016 Health Bond.

4. Population Trends

Growth in the City's population is one of the reasons for increased demand in emergency medical services. Between 2000 and 2013, the population of San Francisco grew by 7.8%. The Association of Bay Area Government projects the population of San Francisco will increase by another 35% in three decades.⁹ San Francisco also has a high daytime commuter population. According to the 2006-2010 American Community Survey, the resident population during that period averaged 798,172 but the daytime population during the same period was 951,627, which is 21% higher than the resident population.¹⁰

At the same time that the Bay Area population is growing, it is also growing older. In 2014, residents over 65 constituted 22% of the total City population, thus increasing the number of emergency medical calls from elderly residents.

⁸ Ibid.

⁹ 2014 Performance Audit of Emergency Medical Services Resources at the San Francisco Fire Department. June 2014, p.24.

¹⁰ See www.onesanfrancisco.org.

The effects of rapid population growth are apparent to anyone who lives in, works in or visits San Francisco. Traffic is a growing problem along with available street parking. It takes longer to travel in many parts of the City, not just downtown. The City is growing vertically with the development of many high-rise offices and housing. Each of these issues affects the SFFD and their ability to respond in a timely manner to fire and medical emergencies. For example, ladders on SFFD fire trucks can only extend to the 6th story of a high rise. These problems will continue to intensify as more people occupy San Francisco.

5. Lack of Strategic Planning

Strategic development is vital to SFFD in order for it to provide the City with a safety net. Without it, plans cannot be made to meet future needs created by changing demographics, catastrophic events, aging obsolete equipment, and staffing needs resulting from attrition. Population growth will impact SFFD's ability to keep San Francisco safe.

SFFD is remiss in not planning adequately to provide service in the event of a great natural disaster. It cannot ignore the reality that San Francisco is a City that sits near the San Andreas earthquake fault and has already suffered major natural disasters. Living in a time when a terrorist strike on San Francisco could be a reality rather than a movie, we asked SFFD personnel about the training they receive to respond to a disaster. Their responses indicated that such training is not provided, particularly for rank and file.

Strategic planning would provide SFFD with necessary tools such as performance analysis, research, continuous quality improvement, risk management, and grant writing functions. Since at least 2002, the Budget and Legislative Analyst has recommended that the Department formally conduct strategic and organizational planning.

The SF Fire Commission meets regularly with SFFD leadership to consider budget, personnel and other Department business. The Fire Commission should oversee the development and monitor the implementation of a strategic plan, including receiving regular performance reports from the Chief of Department with detailed action plans, including dates.

Findings

- F_1.1 SFFD continues to fail to meet EOA response time standards, resulting in lost revenue for the City.
- F_1.2 The current dynamic dispatch model fails to meet EMSA response times in the western neighborhoods of the City (Battalions 7, 8, 9 and 10) for several reasons, chief among them the long distance from Station 49 for re-stocking an ambulance during a working shift and the long distance from hospitals, where ambulances tend to congregate in the natural course of their duty.
- F_1.3 A number of firehouses are without paramedic-level service due to a shortage of firefighter/paramedics. The shortage is caused by insufficient cross training of personnel and insufficient training for paramedics.
- F_1.4 SFFD has reduced the mandatory minimum of four Rescue Captains to three, resulting in an increase in span of control from a recommended 10 ambulances per Rescue Captain to 20.
- F_1.5 SFFD has no formal strategic plan and is not creating such a plan in the near future; the Fire Commission seems a natural group to assist the Chief in this very important venture.

Recommendations

- R_1.1 That by December 2015 the Chief develop a plan and the methodology for bringing response times for both Code 2 and Code 3 calls to required levels, and that the Department achieve compliance with EOA standards by December 2016.
- R_1.1.1 The Fire Commission should require the Chief to prepare a monthly report on ambulance performance versus the EOA and the average number of ambulances capable of responding to a service call.
- R_1.2 That by July 2016, the Chief institute a modified static/dynamic model of ambulance deployment to include ambulances based at stations in Battalions 7, 8, 9, and 10, with the remaining ambulance fleet operating out of Station 49.

R_1.2.1 The Civil Grand Jury recommends the number of supply trips from Station 49 be reduced through implementation of a secure inventory reserve at some stations or by contracting with a medical supply company to restock supplies at fire houses.

R_1.3 That by July 2017, the Chief schedule sufficient training so that all engines will have a paramedic on every crew.

R_1.4 That the span of control for Rescue Captains be reduced in the next fiscal year, bringing the Department into compliance with Admin Code 2A.97.

R_1.5 That by December 2015 the Chief, using funds allocated in the next budget year, contract with an experienced consultant to initiate a strategic plan covering; full funding for equipment renewal; facilities maintenance and updates; communication technology; and training for both normal operations and disasters.

B. Treasure Island Training Facility

Discussion

SFFD's Treasure Island Training Center (TITC), which occupies 4.82 acres on Treasure Island and was originally used by the Navy as its firefighting training center, serves as the primary facility for training recruits. The Department has a year-to-year lease with the Treasure Island Development Authority (TIDA) for use of the property. There is an additional limited training center at Station 7 at 19th and Folsom Streets, which concentrates on fire suppression training in a multi-story building.

TIDA is a non-profit, public benefit agency dedicated to the economic development of former Naval Station Treasure Island. It is vested with the right to administer the Tidelands Trust property. TIDA is also responsible for administering vital municipal services to Treasure and Yerba Buena Islands during interim use of the property.¹¹

Hands-on training is essential and critical for firefighters and paramedics. TITC has multiple on-site training facilities including a burn house that can be ignited with propane lines without actually burning the house down. Pipes carry propane in such a way that, when ignited, the propane flames do not actually touch the wood in the house. There is also part of a BART car and Muni tracks, a high-rise prop, and an elevator prop where personnel can practice techniques to extricate people from elevators. These props also have propane lines that ignite during a training exercise. Personnel train on a large area of broken concrete shards, developing the expertise to safely cross such an area in full gear. TIDA development plans calls for a shared fire/police station on Treasure Island, but there is no provision in the plan for retaining the SFFD training center.

Those Command Staff, civilian staff, and Commissioners who were interviewed have the highest praise for the current training center. A sample of comments follows:

“[The] TI training center absolutely is a need.”

¹¹ The Treasure Island Conversion Act of 1997 was written to avoid dual-agency administration of the redevelopment of TI. The Act became effective in 1998, and provided the authority to make TIDA the sole redevelopment agency for TI, giving it redevelopment taxing power and amending the Burton Act to make TIDA a Tidelands Trust Trustee for TI. The significance of this act for the SFFD training facility on TI is that requests for amendments to the agreement on the use of the land the facility sits on, reside with the trustee, which is TIDA.

“...Losing the TI training center is going to be one of the greatest losses to the Department.”

“TI [training center] is a very impressive training facility.”

“If we lose [TI], that will be really stupid.”

“This is a huge issue for the Department.”

“TI [training center] is of great value to the Department. It is immeasurable.”

“Training is the backbone of who we are.”

We have learned that a plan for a replacement training facility is on the deferred list of the City’s Capital Budget at an estimated cost of \$160 million. Meanwhile, TIDA estimates development on TI can begin as early as 2023. The intended new use of the land currently used by the Department for the training facility is to convert it to public parklands.

TITC is used by other City departments and regional organizations on a cost recovery basis. Many other agencies including SFPD, City College of San Francisco, Fire Rescue Service, CAL Fire, SF Sheriff’s Department, BART, and other regional fire and rescue organizations use the training center. In our talks with TITC personnel, the idea was expressed that additional fees be charged beyond cost recovery.

The TITC personnel also discussed the possibility of TITC moving to another location on TI.

Findings

F_2.1 The City could save a significant amount of the \$160 million currently earmarked for a new training facility by keeping the current training center on TI, even if improvements were required.

F_2.2 Wherever located, SFFD training center requires a significant amount of property as well as special safety considerations, since it must have propane storage tanks plus other facilities and props that can simulate a variety of fires.

F_2.3 Most fire departments in the region do not have training facilities comparable to the TI training center (or the new SFFD training center that would replace it). Some of these agencies use the TITC for training and would likely continue use if it remains available, even if the fee structure was converted to include revenue for SFFD and the City.

Recommendations

The Civil Grand Jury recommends:

R_2.1 That the Chief review the current agreement with TIDA to determine whether it is possible to amend the agreement so as to retain the existing location of the training facility.

R_2.2 That TIDA review its current agreement with SFFD to determine whether it is possible to amend the agreement so as to retain the existing location of the training facility.

R_2.3 That, while Recommendations 2.1 and 2.2 are being explored, the Chief and the Fire Commission determine an alternate site for the training center since, if an already City-owned site is not adequate to serve as a training center, the purchase of a new site will be more than difficult in the current real estate market.

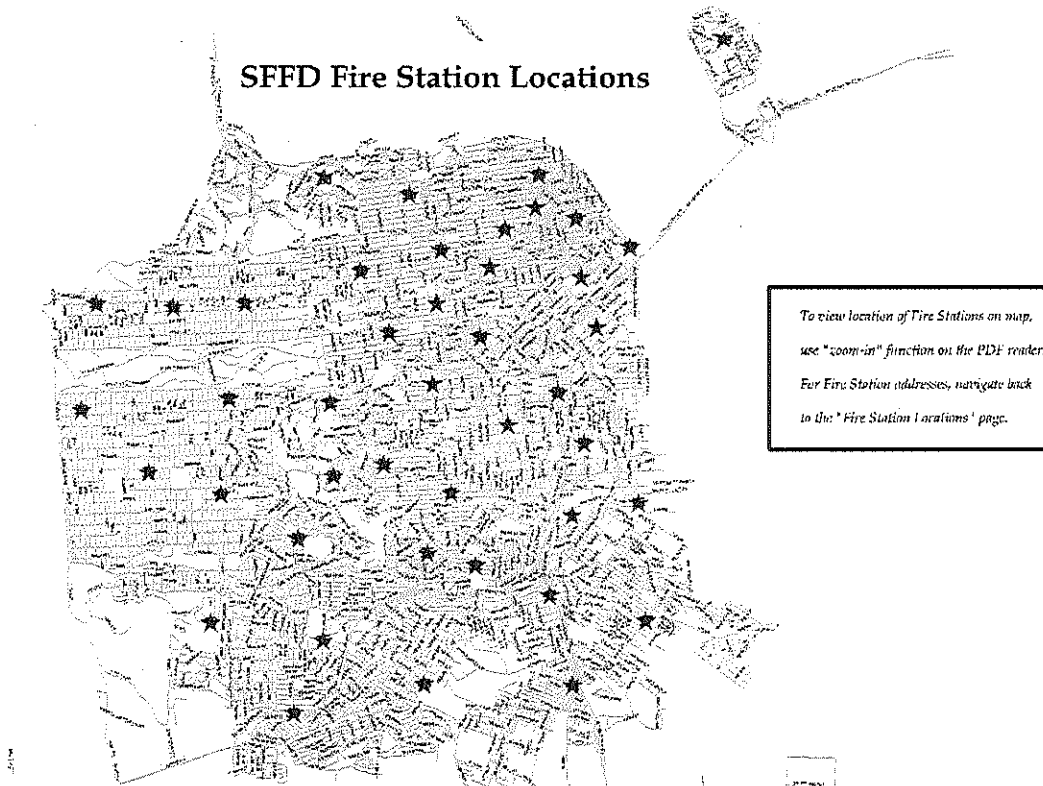
Response Matrix

<i>Finding</i>	<i>Recommendation</i>	<i>Respondent</i>
<p>F_1.1 SFFD continues to fail to meet EOA response time standards, resulting in lost revenue for the City.</p>	<p>R_1.1 That by December 2015 the Chief develop a plan and the methodology for bringing response times for both Code 2 and Code 3 calls to required levels, and that the Department achieve compliance with EOA standards by December 2016.</p> <p>R_1.1.1 The Fire Commission should require the Chief to prepare a monthly report on ambulance performance versus the EOA and the average number of ambulances capable of responding to a service call.</p>	<p>Chief of Department, Commission</p>
<p>F_1.2 The current dynamic dispatch model fails to meet EMSA response times in the western neighborhoods of the City (Battalions 7, 8, 9 and 10) for several reasons, chief among them the long distance from Station 49 for re-stocking an ambulance during a working shift and the long distance from hospitals, where ambulances tend to congregate in the natural course of their duty.</p>	<p>R_1.2 That by July 2016, the Chief institute a modified static/dynamic model of ambulance deployment to include ambulances based at stations in Battalions 7, 8, 9, and 10 with the remaining ambulance fleet operating out of</p>	<p>Chief of Department</p>

	<p>Station 49.</p> <p>R_1.2.1 The Civil Grand Jury recommends the number of supply trips from Station 49 be reduced through the implementation of a secure inventory reserve at some stations or by contracting with a medical supply company to restock supplies at firehouses.</p>	
<p>F_1.3 A number of firehouses are without paramedic-level service due to a shortage of firefighter/paramedics. The shortage is caused by insufficient cross training of personnel and insufficient training for paramedics.</p>	<p>R_1.3 That by July 2017, the Chief schedule sufficient new training academies so that all engines will have a paramedic on every crew.</p>	<p>Chief of Department</p>
<p>F_1.4 SFFD has reduced the mandatory minimum of four Rescue Captains to three, resulting in an increase in span of control from a recommended 10 ambulances per Rescue Captain to 20.</p>	<p>R_1.4 That the span of control for Rescue Captains be reduced in the next fiscal year, bringing the Department into compliance with Admin Code 2A.97.</p>	<p>Chief of Department</p>
<p>F_1.5 SFFD has no formal strategic plan and is not creating such a plan in the near future; the Fire Commission seems a natural group to assist the Chief in this very important venture.</p>	<p>R_1.5 That by December 2015 the Chief, using funds allocated in the next budget year, contract with an experienced consultant to initiate a strategic plan covering: full funding for equipment renewal;</p>	<p>Chief of Department, Commission</p>

	facilities maintenance and updates; communication technology; and training for both normal operations and disasters.	
F_2.1 The City could save a significant amount of the \$160 million currently earmarked for a new training facility by keeping the current training center on TI, even if improvements were required	R_2.1 That the Chief review the current agreement with TIDA to determine whether it is possible to amend the agreement so as to retain the existing location of the training facility.	Chief of Department
F_2.2 Wherever located, SFFD training center requires a significant amount of property as well as special safety considerations, since it must have propane storage tanks plus other facilities and props that can simulate a variety of fires.	R_2.2 That TIDA review its current agreement with SFFD to determine whether it is possible to amend the agreement so as to retain the existing location of the training facility.	TIDA Treasure Island Director
F_2.3 Most fire departments in the region do not have training facilities comparable to the TI training center (or the new SFFD training center that would replace it). Some of these agencies use the TITC for training and would likely continue use if it remains available, even if the fee structure was converted to include revenue for SFFD and the City.	R_2.3 That while Recommendations 2.1 and 2.2 are being explored, the Chief and the Fire Commission determine an alternate site for the training center since, if an already City-owned site is not adequate to serve as a training center, purchase of a new site will be more than difficult in the current real estate market.	Chief of Department, Commission

Appendix 1: Map of Stations



Note: Does not included Station 49, Station 4, or Airport Firehouses

Appendix 1A: Station Locations

Fire Station Locations

Station 1	935 Folsom at 5th Street
Station 2	1340 Powell Street at Broadway
Station 3	1067 Post Street at Polk Street
Station 4	449 Mission Rock at 3rd Street
Station 5	1301 Turk Street at Webster Street
Station 6	135 Sanchez Street at Henry Street
Station 7	2300 Folsom Street at 19th Street
Station 8	36 Bluxome Street at 4th Street
Station 9	2245 Jerrold Avenue at Upton Street
Station 10	655 Presidio Avenue at Bush Street
Station 11	3880 26th Street at Church Street
Station 12	1145 Stanyan Street at Grattan Street
Station 13	530 Sansome Street at Washington Street
Station 14	551 26th Avenue at Geary Boulevard
Station 15	1000 Ocean Avenue at Phelan Avenue
Station 16	2251 Greenwich Street at Fillmore Street
Station 17	1295 Shafter Avenue at Ingalls Street
Station 18	1935 32nd Avenue at Ortega Street
Station 19	390 Buckingham Way at Winston Street
Station 20	285 Olympia Way at Clarendon Avenue

Station 21	1443 Grove Street at Broderick Street
Station 22	1290 16th Avenue at Irving Street
Station 23	1348 45th Avenue at Judah Street
Station 24	100 Hoffman Avenue at Alvarado Street
Station 25	3305 3rd Street at Cargo Way
Station 26	80 Digby Street at Addison Street
Station 28	1814 Stockton Street at Greenwich Street
Station 29	299 Vermont Street at 16th Street
Station 31	441 12th Avenue at Geary Boulevard
Station 32	194 Park Street at Holly Park Circle
Station 33	8 Capital Street at Broad Street
Station 34	499 41st Avenue at Geary Boulevard
Station 35	Pier 22½, The Embarcadero at Harrison Street
Station 36	109 Oak Street at Franklin Street
Station 37	798 Wisconsin Street at 22nd Street
Station 38	2150 California Street at Laguna Street
Station 39	1091 Portola Drive at Miraloma Drive
Station 40	2155 18th Avenue at Rivera Street
Station 41	1325 Leavenworth Street at Jackson Street
Station 42	2430 San Bruno Avenue at Silver Avenue
Station 43	720 Moscow Street at France Avenue
Station 44	1298 Girard Street at Wilde Avenue
Station 48	800 Avenue I at 10th Street, Treasure Island
Station 49	1415 Evans Avenue at Mendell Street

Station 51

218 Lincoln Blvd at Keyes Avenue

Division and Battalion Stations

Division 2:

Battalion 1

Station 2
Station 13
Station 28
Station 41

Battalion 4

Station 5
Station 10
Station 16
Station 38
Station 51

Battalion 7

Station 12
Station 14
Station 22
Station 31
Station 34

Battalion 8

Station 18
Station 19
Station 20
Station 23
Station 40

Division 3:

Battalion 2

Station 3
Station 6
Station 21
Station 29
Station 36

Battalion 3

Station 1
Station 4
Station 8
Station 35
Station 48

Battalion 6

Station 7
Station 11
Station 24
Station 26
Station 32

Battalion 9

Station 15
Station 33
Station 39
Station 43

Battalion 10

Station 9
Station 17
Station 25
Station 37
Station 42
Station 44

Airport Division Station Locations

Station 1

Building #650, West Field Road
San Francisco International Airport

Station 2

Building #1064, North Access Road
San Francisco International Airport

Station 3
Building #12, South Area Drive
San Francisco International Airport

2000	6	145626	14501152	SPARTAN/LTI
2001	18	145631	14501153	SPARTAN/LTI
2002	16	145632	14501154	SPARTAN/LTI
2003	11	145633	14501155	SPARTAN/LTI
2010	1	145634	14500022	SPARTAN/LTI
2010	3	145635	14500023	SPARTAN/LTI
2010	7	145636	14500024	SPARTAN/LTI
2011	17	145637	14500015	SPARTAN/LTI

Engines

Vehicle	Company		
Year	Number	Asset#	Make
1991	RP 26	145598	SPARTAN/3D
1991	RP 10	145599	SPARTAN/3D
1992	RP TI	145501	SPARTAN/3D
1992	RP BOE	145502	SPARTAN/3D
1992	RP BOE	145504	SPARTAN/3D
1993	RP BOE	145505	3-D/SPARTAN
1993	RP float	145506	SPARTAN/3D
1993	RP 9	145507	SPARTAN/3D
1993	RP BOE	145508	SPARTAN/3D
1994	RP float	145509	SPARTAN/3D

1994	RP 40	145510	SPARTAN/3D
1994	RP 24	145511	SPARTAN/3D
1994	RP BOE	145512	SPARTAN/3D
1998	26	145513	SPARTAN/3D
1998	23	145514	SPARTAN/3D
1998	13	145524	SPARTAN/3D
1998	RP BOE	145525	SPARTAN/3D
1998	RP 48	145526	SPARTAN/3D
1998	33	145527	SPARTAN/3D
1998	39	145529	SPARTAN/3D
1999	RP BOE	145530	SPARTAN/3D
1999	RP BOE	145531	SPARTAN/3D
1999	12	145532	SPARTAN/3D
1999	16	145533	SPARTAN/3D
1999	34	145534	SPARTAN
1999	37	145535	SPARTAN
2000	40	145536	SPARTAN
2001	25	145537	SPARTAN
2001	38	145538	SPARTAN
2001	29	145539	SPARTAN
2002	28	145540	HME
2002	32	145541	HME
2002	35	145542	HME

2003	42	145543	SPARTAN / LA FRANCE
2003	20	145544	SPARTAN / LA FRANCE
2005	51	145P521	PIERCE
2006	48	145545	LA FRANCE
2006	31	145546	LA FRANCE
2006	44	145547	LA FRANCE
2006	18	145549	LA FRANCE
2006	19	145552	LA FRANCE
2006	43	145554	LA FRANCE
2006	24	145555	LA FRANCE
2006	10	145556	LA FRANCE
2006	22	145557	LA FRANCE
2006	14	145558	LA FRANCE
2009	21	145559	SPARTAN
2009	15	145560	SPARTAN
2009	41	145563	SPARTAN
2009	9	145567	SPARTAN
2009	17	145568	SPARTAN
2013	1	145576	SPARTAN
2013	2	145573	SPARTAN
2013	3	145577	SPARTAN
2013	4	145572	SPARTAN
2013	5	145579	SPARTAN

2013	6	145575	SPARTAN
2013	7	145578	SPARTAN
2013	8	145570	SPARTAN
2013	11	145574	SPARTAN
2013	36	145569	SPARTAN

Rescue Squad

Year	Type	Company/ Medic Number	Un/ manned	Asset#	Make	Model
2004	Rescue Squad	1	m	145861	AMERICAN LA FRANCE	EAGLE
2004	Rescue Squad	7	m	145862	AMERICAN LA FRANCE	EAGLE

Ambulances

Year	Company/ Medic Number	Asset#	Make
1998	Relief	145-733	FORD
1998	RA48	145-731	FORD
1998	Ebola	145-730	FORD
2000	Relief	145-744	FORD

2000	Relief	145-741	FORD
2000	Relief	145-737	FORD
2003	Relief	145-756	FORD
2003	Relief	145-755	FORD
2003	Relief	145-754	FORD
2003	Relief	145-753	FORD
2003	Relief	145-751	FORD
2003	Relief	145-750	FORD
2003	Relief	145-749	FORD
2003	Relief	145-748	FORD
2003	Relief	145-747	FORD
2003	Relief	145-746	FORD
2003	Relief	145-745	FORD
2005	87	145-763	FORD
2005	86	145-762	FORD
2005	84	145-760	FORD
2005	81	145-757	FORD
2005	Relief	145-759	FORD
2006	67	145-767	FORD
2006	66	145-766	FORD
2006	73	145-765	FORD
2006	Relief	145-768	FORD
2007	74	145-772	FORD

2007	77	145-770	FORD
2007	54	145-769	FORD
2007	Bariatric	145-771	FORD
2012	72	145-00087	FORD
2012	78	145-00086	FORD
2012	68	145-00085	FORD
2012	58	145-00084	FORD
2012	76	145-00083	FORD
2014	55	145-00182	FORD
2014	85	145-00181	FORD
2014	89	145-00180	FORD
2014	82	145-00143	FORD
2014	57	145-00142	FORD
2014	56	145-00141	FORD
2014	88	145-00140	FORD
2014	63	145-00139	FORD
2014	62	145-00138	FORD
2014	61	145-00137	FORD
2014	60	145-00136	FORD
2014	70	145-00135	FORD
2014	64	145-00134	FORD
2015	65	145-00190	FORD
2015	53	145-00189	FORD

2015	52	145-00188	FORD
2015	75	145-00187	FORD
2015	79	145-00186	FORD
2015	71	145-00183	FORD

Specialty

Year	Company/ Medic Number	Asset#	Make
1998	Relief	145-733	FORD
1998	RA48	145-731	FORD
1998	Ebola	145-730	FORD
2000	Relief	145-744	FORD
2000	Relief	145-741	FORD
2000	Relief	145-737	FORD
2003	Relief	145-756	FORD
2003	Relief	145-755	FORD
2003	Relief	145-754	FORD
2003	Relief	145-753	FORD
2003	Relief	145-751	FORD
2003	Relief	145-750	FORD
2003	Relief	145-749	FORD
2003	Relief	145-748	FORD

2003	Relief	145-747	FORD
2003	Relief	145-746	FORD
2003	Relief	145-745	FORD
2005	87	145-763	FORD
2005	86	145-762	FORD
2005	84	145-760	FORD
2005	81	145-757	FORD
2005	Relief	145-759	FORD
2006	67	145-767	FORD
2006	66	145-766	FORD
2006	73	145-765	FORD
2006	Relief	145-768	FORD
2007	74	145-772	FORD
2007	77	145-770	FORD
2007	54	145-769	FORD
2007	Bariatric	145-771	FORD
2012	72	145-00087	FORD
2012	78	145-00086	FORD
2012	68	145-00085	FORD
2012	58	145-00084	FORD
2012	76	145-00083	FORD
2014	55	145-00182	FORD
2014	85	145-00181	FORD

2014	89	145-00180	FORD
2014	82	145-00143	FORD
2014	57	145-00142	FORD
2014	56	145-00141	FORD
2014	88	145-00140	FORD
2014	63	145-00139	FORD
2014	62	145-00138	FORD
2014	61	145-00137	FORD
2014	60	145-00136	FORD
2014	70	145-00135	FORD
2014	64	145-00134	FORD
2015	65	145-00190	FORD
2015	53	145-00189	FORD
2015	52	145-00188	FORD
2015	75	145-00187	FORD
2015	79	145-00186	FORD
2015	71	145-00183	FORD

Source: SFPD

Key:
Frontline (Green)
Relief (Yellow)
Retire (Red)

Appendix 4: Performance Standards

Exclusive Operating Area

The State of California grants to the City the right to an Exclusive Operating Area (EOA) to respond to 80% of emergency calls, leaving the remaining 20% to contracted private ambulance providers. EOAs are a tool by which the State Emergency Medical Services Authority (EMSA) ensures the effectiveness and success of a medical transportation system. An EOA is an EMS area which restricts operations to designated provider(s) of emergency ground ambulance service. Although the EOA agreement authorizes SFFD to respond to a minimum of 80% of all emergency medical calls, the Department has not achieved this minimum requirement since the EOA was reinstated in 2012.

In 2014 the Budget and Legislative Analyst conducted a Performance Audit of Emergency Medical Services and the San Francisco Fire Department at the request of the Board of Supervisors.¹² The audit found the Department's failure to meet the EOA market share threshold of 80% resulted from insufficient ambulance shifts. The audit recommended that the Department add three ambulance shifts during peak times.

The Performance Audit further recommended improved logistics at Station 49 where ambulances are housed, stocked and cleaned by paramedics and EMTs before and after shifts. Due to continued budget constraints the Department has been unable to hire civilian staff to perform these duties. Doing so would increase the amount of shift time that ambulances are actually in service and responding to calls.

The Department reduced the number of management positions in the EMS division despite an increase in the number of EMS calls. The reduction in the number of field rescue captains in particular, is a direct violation of the City's Administrative Code 2A.97 as adopted by the Board of Supervisors which requires:

“...In addition to the apparatus housed within each neighborhood firehouse as of January 1, 2004...the Fire Department shall maintain and operate 24 hours per day the following: an arson/fire investigation unit; no fewer than four ambulances; and four Rescue Captains.”¹³

In response to this Performance Audit finding, the Chief noted, “the necessary changes to shift to cover a 24-hour operation would trigger labor relations issues that may not have a favorable outcome for the Department...rather, the Department is exploring technological improvements to inventory tracking.”¹⁴

¹² 2014 Performance Audit of Emergency Medical Services Resources at the San Francisco Fire Department. Budget and Legislative Analyst, June 2014.

¹³ City and County of San Francisco Adm. Code 2A.97.

¹⁴ Performance Audit, pg. 37.

National Fire Protection Association Standard 1710

The National Fire Protection Association (NFPA) has established time standards for fire and medical responses. Standard 1710 define response time goals for various stages of response to an emergency incident. While NFPA 1710 is not a legal requirement, it provides a standardized guideline followed by many cities across the country, including, San Francisco, Los Angeles, Chicago, Houston, Dallas, and Boston. The NFPA standards for turnout time (from notification to beginning of travel) and travel time range from 80 seconds turnout time for fire incidents, 4 minutes or less travel time for fires, 60 seconds turnout time for EMS incidents, 4 minutes or less for basic life support, 8 minutes or less travel time for advanced life support.

San Francisco EMSA Pre-Hospital Provider Response Time Standards

The EMSA sets emergency response time standards, provides leadership in developing and implementing EMS systems throughout California, and sets standards for the training and scope of practice of EMS personnel. Day-to-day EMS system management is the responsibility of the local and regional EMS agencies. It is principally through these agencies that the EMS Authority works to promote quality EMS services statewide.

The following goals for emergency response time as defined in Policy 4000, Section 4 of the San Francisco EMSA Agency Policy Manual state:

“Emergency Dispatch Centers shall ensure that an appropriate Advanced Medical Priority Dispatch System response determinant is assigned and the approved response vehicles for that determinant are notified of the assignment within 2 minutes, 0 seconds 90% of the time for all presumptively defined life-threatening emergencies.”¹⁵

“The SFFD shall ensure that responders capable of performing Basic Life Support (BLS) and defibrillation are on scene of all presumptively defined life- threatening emergencies within 4 minutes and 30 seconds, 90% of the time.

Providers shall ensure that responders capable of performing Advanced Life Support (ALS) are on the scene of all presumptively defined life-threatening emergencies with 7 minutes and 0 seconds, 90% of the time.

Providers shall ensure that a Patient Transport Capable Vehicle, staffed by at least 2 people including one paramedic and permitted as an ALS ambulance by the EMS agency, is on the scene of all Code 2 (non-life-threatening emergencies) within 20 minutes, 0 seconds 90% of the time.”¹⁶

¹⁵ San Francisco EMSA Agency Policy Manual, Policy 4000, Section 4.

¹⁶ Ibid.

Appendix 5: Proposition F

San Francisco voters passed Proposition F (also known as the Neighborhood Firehouse Protection Act) in 2005, which established new baseline service level requirements for the operation of San Francisco firehouses. These service levels require SFFD to “maintain and operate firehouses and emergency apparatus at the same location to the same extent as existed on January 1, 2004”¹⁷ and requiring all fire stations to remain open 24 hours a day, seven days a week. The Department’s budget for fire suppression increased by 44.0% from FY 2007-2008 to FY 2012-2014, which is significantly higher than the 17.6% increase in emergency calls during the same period. In order to meet minimum staffing levels required by Proposition F, the Department increased the use of suppression overtime by nearly 100% from FY 2009-2010 to FY 2012-2013.¹⁸ Section 2A.97 of the City Administrative Code outlines the mandate created in Proposition F.

A memorandum of understanding with San Francisco Firefighters Local 798 sets minimum staffing requirements for engines of one officer and 3 firefighters, and for trucks of one officer and 4 firefighters. Local EMSA policy requires all ALS units to have at least one paramedic on board. Thus, the SFFD engines designated as ALS must have one cross-trained firefighter/paramedic and 2 regular firefighters in addition to an officer. The Department must also maintain a minimum of 4 static ambulances based at firehouses.¹⁹

¹⁷ See City and County of San Francisco Administrative Code 2A.97.

¹⁸ See 2014 Performance Audit of Emergency Medical Responses at SFFD

¹⁹ San Francisco Fire Commission, Resolution 2007-06.

Appendix 6: Technology Challenges

Critical to effective communication in SFFD is the availability of current technology. SFFD is working with the Department of Technology to upgrade existing T1 lines in some firehouses, but the Civil Grand Jury was surprised to learn that many stations still do not have a fiber connection to the City's infrastructure and most of the 33 stations are not Wi-Fi equipped. Keeping the Department current with basic hardware, software and new technology are absolutely necessary in today's IT environment. These efforts will also bring SFFD in line with current IT standards and practices, increasing reliability, timely service response, enable data integration and foster collaborations with command staff and other City agencies. The sharing of critical information can help firefighters and emergency responders handle situations and limit risk to the public. Keeping technology current will improve recovery time if the event of a disaster or outages.

SFFD should have access in the field to mobile equipment, hand-held devices and services for remote installation and updates to current applications; this will help improve access to real time information. According to the Department of Technology timeline, all T1 lines will be replaced with fiber by March 2016. In addition to the SFFD base budget proposal, is a request for \$823,407 for additional IT support.

Glossary

- ALS – Advanced Life Support:** Persons trained in ALS can provide high-level emergency medical service
- ALS engine:** An engine staffed with an officer, a driver (firefighter) and a firefighter-EMT and firefighter-Paramedic
- Ambulance:** A vehicle equipped to assess, treat and transport medical patients. Also known as Medic Units
- Ambulance Working Group:** a task force created by the Mayor in the fall of 2014 and led by the Mayor’s Director of Budget, to tackle the issues of response times and ambulance inventory
- BLS – Basic Life Support:** Persons trained in BLS can provide Cardio-Pulmonary Resuscitation (CPR), basic first aid and patient transport.
- Code 2:** non-life-threatening injuries
- Code 3:** life-threatening injuries
- Command Staff:** Executive members of the SFFD, responsible for the day-to-day operation and long range planning
- DEM - Department of Emergency Management:** Is divided into two groups, Division of Emergency Communications and Division of Emergency Services
- Department;** in this report, refers to the San Francisco Fire Department
- DPH – San Francisco Department of Public Health**
- DPW – San Francisco Department of Public Works**
- EOA - Exclusive Operating Area:** the San Francisco EMS Agency asked the California EMS Authority to review and reconsider their 2008 decision which rescinded the Exclusive Operating Area (EOA) that San Francisco operated under since 1981 pursuant to Section 1797.224. In 2012, the Exclusive Operating Area in San Francisco was reestablished for the purposes of 911 responses.
- EMS – Emergency Medical Services**
- EMT – Emergency Medical Technician:** A person trained and certified in BLS. SFFD requires that all firefighters must have EMT- 1 licensures
- Emergency Medical Response times:** The SFFD responds to two types of calls, Code 2 and Code 3. Code 2 calls are non-life-threatening; Code 3 calls are those that are life threatening.
- EMSA - Emergency Medical Services Authority**
- Engine:** A fire suppression apparatus staffed by an officer and three firefighters and equipped with a pump, hose and water supply
- Firefighter:** A person trained in fire suppression.
- Firefighter-EMT:** a person trained in fire suppression and BLS.
- Firefighter-Paramedic:** A person trained in fire suppression who is also a licensed paramedic capable of delivering ALS emergency medical care as well as BLS.
- H3 Level 3:** Firefighter/Paramedic who completed SF County Paramedic training
- LEMSA - Local Emergency Medical Services Authority**

Medic to follow: refers to situations where an engine or truck is at a scene and an ambulance has been dispatched but is not already at the scene

Medic Unit – A staff of either two firefighters/paramedics or one firefighter/paramedic and one firefighter-EMT: Medic Units provide ALS treatment and transport of ALS and BLS patients suffering in medical emergencies. The term “ambulance” is used in this report for medic unit.

MOU – Memorandum of Understanding: a document that specifies a certain agreement between parties, in this case, between the City and County of San Francisco and San Francisco firefighters Union, Local 798, IAFF and AFL-CIO.

NFPA – National Fire Protection Agency: is a United States trade association that creates and maintains private, copyrighted, standards and codes for usage and adoption by local governments. This includes publications from model buildings codes to the many on equipment utilized by firefighters while engaging in hazardous material (hazmat) response, rescue response, and some firefighting. NFPA is responsible for 380 codes and standards.

Paramedic: A person with ALS training. He/she must have a State of California Paramedic license, ALS card, EMT-P accreditation card and valid California driver’s license.

Rescue Captain: Supervisory personnel responding to suppression calls from fire stations .

Rig: term used to describe vehicles used by the Fire Department

SFFD – San Francisco Fire Department

SFPD – San Francisco Police Department

Suppression: The purpose of fire suppression is to either put out a fire or stop it from propagating.

TIDA – Treasure Island Development Authority: responsible for the plans and development of Treasure Island. A Board of seven Directors rules TIDA, all of whom are appointed by the Mayor.

TITC - Treasure Island Training Center

Truck – called “hook and ladder”: Trucks are staffed with an officer (lieutenant or captain), a driver (firefighter), a tiller (firefighter), one firefighter-EMT and one firefighter. Trucks carry ladders and fire equipment. Trucks are used to provide height access, rescue and ventilation.