



KRISTIN M. CROWLEY
FIRE CHIEF

October 23, 2023

BOARD OF FIRE COMMISSIONERS
FILE NO. 23-114

TO: Board of Fire Commissioners

FROM:  Kristin M. Crowley, Fire Chief

SUBJECT: PLAN TO IMPLEMENT THE RECOMMENDATIONS OF THE
STANDARDS OF COVER REPORT

FINAL ACTION:	<input type="checkbox"/> Approved	<input type="checkbox"/> Approved w/Corrections	<input type="checkbox"/> Withdrawn
	<input type="checkbox"/> Denied	<input type="checkbox"/> Received & Filed	<input type="checkbox"/> Other

SUMMARY

In a recent Board of Fire Commission meeting, it was requested that the Los Angeles City Fire Department (LAFD or Department) report back on plans to implement the recommendations found in the recently reported LAFD Standards of Cover (SOC) Analysis (Board of Fire Commissioners File No. 23-055).

RECOMMENDATION

That the Board:

Approve the report and transmit it to the Mayor and City Council.

FISCAL IMPACT

The proposed plan will require a \$105,985,540.69 increase in the LAFD budget over three years.

DISCUSSION

As previously reported, the Department retained the services of Citygate and Associates (Citygate) to conduct a SOC analysis of the adequacy of the Department's deployment model in relation to service goals and national standards. The SOC analysis and subsequent recommendations for improvement were based on data from 2018 through 2020. However, since 2018, the LAFD has seen over a 9% increase in calls for service, 6% of which are for medical emergencies and 3% for Fire Suppression or other related types of calls for service. Additionally, the number of hospital transports during the COVID-19 pandemic was reduced compared to previous and current rates.

In response to the recommendations made by Citygate in the SOC report, the Department has taken immediate actions to improve services, developed a three-year implementation plan, and begun the next SOC analysis to review deployment needs subsequent to 2020.

Some of the intermediate steps the Department has taken in response to the recommendations made by Citygate include:

- Reached an agreement with the United Firefighters of Los Angeles to implement a coded assign hire policy, which has stabilized daily staffing levels.
- Deployed four additional variable-staffed basic life support (BLS) Rescue Ambulances (RAs) operated by Firefighters who volunteer for overtime.
- Deployed one additional variable-staffed Advanced Life Support (ALS) RA operated by Firefighter/Paramedics (FF/PMs) who volunteer for overtime.
- Deployed two Fast Response Vehicles (FRVs) operated by Firefighters and FF/PMs who volunteer for overtime.
- Redeployed two FRVs operated on 10-hour shifts to “High Incident Impact Areas.”
- Offer additional overtime to staff FRVs in “High Incident Impact Areas” with predictably increased incident volume (e.g., Hollywood area on Fridays and Saturdays).
- Improve dispatch algorithms to decrease the instances of sending three or more units to a single patient.
- Increased hours of operation for Advanced Provider Response Unit (APRU) 65 in South Los Angeles.
- Increased the amount of EMS training received in the Drill Tower, allowing Probationary Firefighters (PFFs) to staff RAs earlier in their first year.
- Accelerating the Los Angeles County accreditation of PFFs with a California state paramedic license.
- Converting Sober Unit 4 to APRU 4 in the downtown area (pending filling Advanced Provider vacancies).

The above-mentioned steps represent only the intermediate steps the Department could rapidly accomplish within the existing budget. The Department agrees with many of the recommendations outlined by Citygate in the SOC report provided on May 31, 2023. As the SOC report outlines, the LAFD requires immediate steps to increase the number of units available to appropriately and safely meet current and growing service demands. The Department offers the attached plan as the next steps to grow the LAFD to meet the evolving needs of the Country’s second-largest city. However, the Department recognizes that the City’s demand for LAFD services has already outpaced the needs in 2018 through 2020, on which Citygate’s analysis is based.

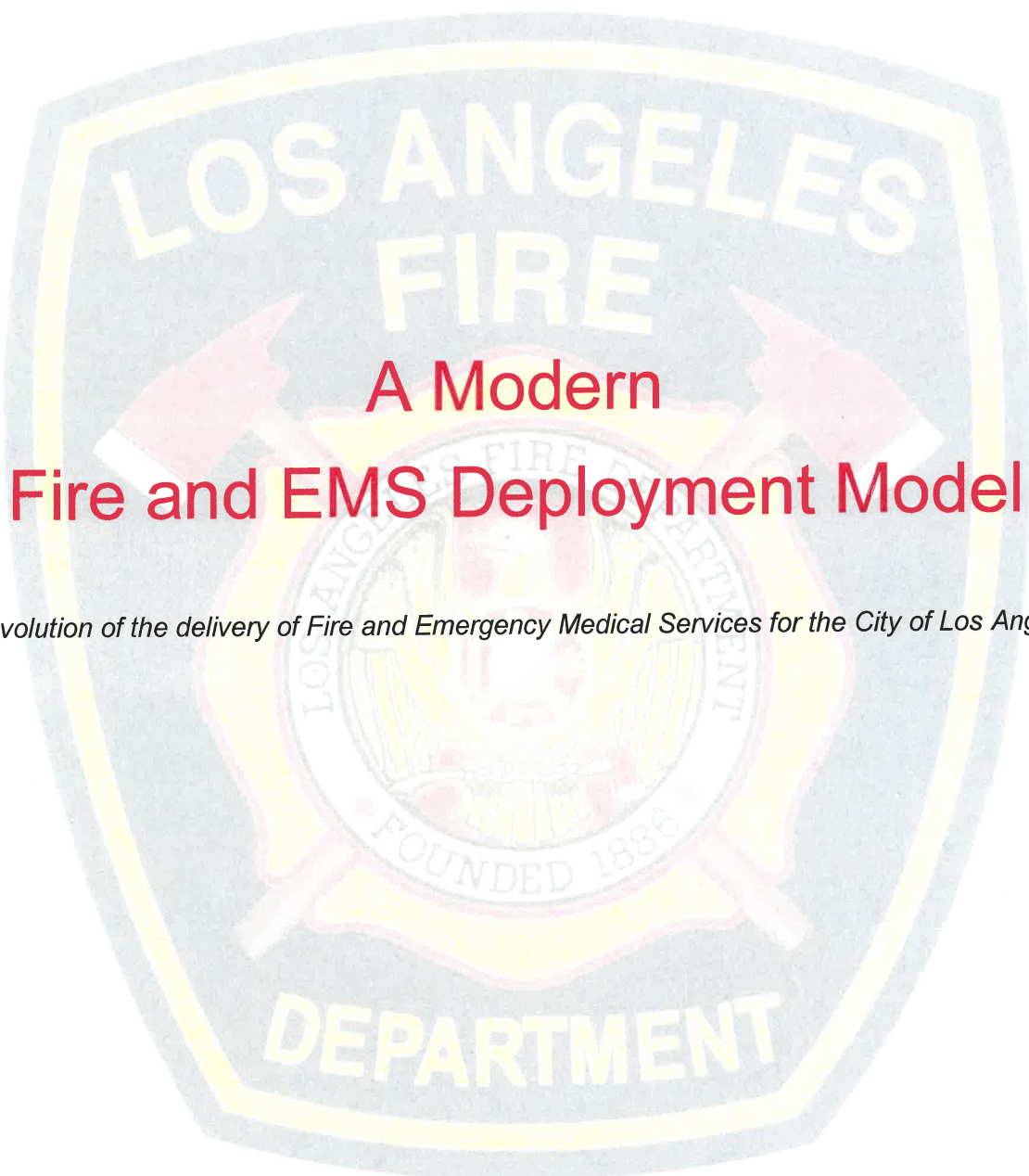
While Citygate's assessment astutely calls for additional EMS resources and an evolution of how the Department manages the evolving demands for medical services, the report only identifies the need for one additional fire station in the area with the most considerable delay in fire suppression travel times; the report does not address response time gaps in several smaller areas. Additionally, the Citygate SOC report does not holistically address that most LAFD stations are currently staffed at capacity, and additional facilities will be needed to house additional EMS and Fire Suppression units in many areas of the City.

CONCLUSION

Citygate's SOC report accurately identifies the need to quickly scale up the number of traditional and alternative EMS response resources. The increase in fire suppression and EMS incidents the City has experienced has outpaced the current deployment model's ability to sustain desirable service level goals. Additionally, the increase in not only life-threatening medical emergencies and fires but the continually rising demand of calls for services related to non-life-threatening medical complaints, mental health emergencies, and both fire suppression and medical emergencies associated with people experiencing homelessness – coupled with the ever-present threat of wildfires, disasters, and a growing city requires an evolution of the LAFD's deployment model. The attached SOC recommendation implementation plan is needed to meet the service demands found in 2018 to 2020. However, with a subsequent 9% increase since the Citygate SOC report, the Department anticipates that the next SOC analysis of service requirements after 2020 will call for adding even more resources and facilities.

Board report prepared by Tyler J. Dixon, Assistant Chief, Emergency Medical Services Bureau.

Attachments



An evolution of the delivery of Fire and Emergency Medical Services for the City of Los Angeles

Los Angeles City Fire Department

KRISTIN M. CROWLEY
Fire Chief

October 6, 2023

Introduction

The Los Angeles City Fire Department (LAFD) is one of the country's largest Emergency Medical Services (EMS) providers. Over 81% of the incidents that LAFD units respond to are EMS in nature, and many of the other all-risk incidents that the department mitigates involve EMS components. In 2022, on average, the LAFD provided emergency medical care to 1,000 patients daily, resulting in 600 daily ambulance transports to hospital emergency departments. In addition to responding to hundreds of fire suppression type calls each day, the LAFD treats hundreds of critically ill and injured patients, providing life-saving interventions and timely transport to definitive care. Additionally, the City's residents and visitors have increased their calls to the LAFD for non-life-threatening medical emergencies, psychiatric emergencies, and medical emergencies related to homelessness. Area hospitals have also been impacted by increased demands on the healthcare industry, resulting in extended wait times at emergency rooms for ambulance personnel to transfer patient care to hospital staff.

The LAFD has responded to the increase in demand for critical and non-critical EMS by piloting multiple innovative programs, adjusting dispatch algorithms, and adding a modest number of resources. However, the continued increase in demand for EMS in Los Angeles has significantly outpaced the LAFD's current resource deployment. This has resulted in a daily drawdown of rescue ambulances (RAs) and fire suppression units, which causes an increase in response times, intermittent fire and EMS coverage gaps, and an unsustainable workload for many LAFD units.

Background

- The LAFD vision is to be the premier, all-risk public safety and emergency service provider that exceeds the expectations of the diverse communities we serve.
- The LAFD mission is to preserve life, protect property, and safeguard our communities through relentless commitment to emergency preparedness, prevention, response, and recovery.
- LAFD goal number one is to deliver exceptional public safety and emergency services.

In furtherance of LAFD goal number one, the department retained Citygate and Associates, LLC (Citygate) to conduct a Standards of Cover (SOC) deployment analysis. The SOC report, previously submitted to the Board of Fire Commissioners (File Number 23-055), outlines Citygate's recommendations to improve the response capabilities of LAFD's apparatus and personnel deployment. Recommendations found in the SOC report are based on an analysis of 2018 to 2020 data. However, since 2018, the LAFD has seen a 9% increase in calls for service, 6% of which are for medical emergencies.

According to Citygate's SOC report, **the number one challenge facing the LAFD is the high volume of EMS incidents.** Citygate not only identified that the LAFD has one

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of the highest EMS incident demands in the country, but also that the types of medical incidents the LAFD responds to have evolved to include increasing requests for non-emergent medical services, mental health emergencies, and incidents involving people experiencing homelessness.

Citygate found the volume and simultaneous demand on the top 28 LAFD stations to be the highest they have ever measured, adding that the units assigned to these stations are overworked and in need of relief units and strategies to decrease the quantity of non-urgent EMS incidents. The SOC report describes the current daily situation in many areas of the City as follows:

"Accordingly, even if fire stations are appropriately located and contain multiple staffed apparatus, peak service demand frequently results in all units assigned to a station simultaneously committed to one or more incidents, thus driving simultaneous service demand to adjoining stations, which results in cascading delays on unit travel times and overall response performance." (p 5)

The SOC report identifies that the **second major challenge facing the LAFD is small coverage gaps** in the San Fernando Valley. Based on travel time data, Citygate found that an area near Woodman Avenue and Roscoe Boulevard in Panorama City would benefit from a new fire station staffed with an additional engine company. The report also indicates the need for an additional battalion command team in the center of the San Fernando Valley.

To improve the level of emergency medical and fire suppression services, maintain desired response times, and balance sustainable and safe workloads for LAFD resources, the SOC report makes recommendations in two major areas:

1. Expand the number of traditional and alternative EMS units, including:
 - Expanding alternative response units (i.e., Advanced Provider Response Units) to a total of 26 units
 - Adding 13 RAs
 - Providing workload relief to an additional 26 RAs with excessively high workloads compared to national standards
2. Add one fire station, one fire engine, and one battalion

The LAFD agrees with Citygate's assessment that additional traditional RAs are needed and that a fleet of alternate response vehicles, such as Advanced Provider Response Units (APRUs) and Fast Response Vehicles (FRVs), need to be "scaled massively and quickly." Yet the LAFD also recognizes that the recommendations are based on data three to five years out of date and that the call volume has subsequently increased by 9% and continues to trend upward. Based on the SOC report and additional analysis of incident types and call volume since 2020, the LAFD has determined that an evolution from the current model to a holistic plan for EMS delivery that meets the current and future needs of the City is required.

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The LAFD has seen a modest increase in fire suppression activity and generally has adequate fire suppression resources to respond to these emergencies, with some exceptions. However, the substantial increase in calls for EMS has overwhelmed the capabilities of the LAFD's RA fleet, causing the commitment of fire suppression resources to EMS missions for substantial periods during daily peak demand. The result is longer response times, intermittent fire suppression and EMS coverage gaps, and unrealistic and unsustainable workloads for dozens of units.

Citygate found the city-wide peak incident demand for the LAFD in 2020 to be between the hours of 9 a.m. to 9 p.m.. Notably, the LAFD responded to almost 60,000 more incidents in 2022 than in 2020 and continues to experience similar city-wide peak demand periods, with some fire stations experiencing continued high demand throughout the night. Additionally, over the last five to 10 years, the LAFD has experienced an increase in specific types of calls for EMS, including:

- Acute life-threatening medical emergencies
- Low acuity urgent and non-urgent medical complaints
- Mental health emergencies
- Medical incidents related to people experiencing homelessness
- Patients with increased social risk factors

Firefighter/Paramedics (FF/PMs) and Emergency Medical Technicians (EMTs) are well-trained to identify common life-threatening conditions and provide stabilizing treatments before and during transport to a hospital Emergency Department. However, Paramedics and EMTs have limited training and capabilities to assess and treat urgent non-life-threatening illnesses and injuries, care for patients experiencing a mental health crisis, or identify appropriate referrals to social services. The LAFD has implemented the FRV and APRU programs to better meet the City's evolving needs.

The LAFD APRU provides a multifunctional emergency medical response unit with a broader scope of practice that is well suited to supplement the LAFD's traditional EMS units in response to the City's demand for additional EMS response capabilities. APRUs are staffed by a Nurse Practitioner or Physician Assistant with an FF/PM. The APRUs can provide advanced medical assessments and treatments, clear patients for transport to a Sober Center or Psychiatric Urgent Care Center (PUCC), provide treatment-in-place resolutions for low-acuity medical problems, and make referrals to allied agencies for patients with elevated social risk factors such as homelessness. The LAFD has also requested that the Los Angeles County Department of Mental Health authorize LAFD Advanced Providers to write psychiatric holds, allowing transport to a broader number of PUCCs.

The City of Los Angeles and the LAFD have supported and undertaken multiple pilot initiatives to address calls to 911 for non-traditional fire and emergency medical services. The APRU is a multifunctional emergency response unit that can provide workload relief to RAs and fire companies, improve resource availability, improve response times, provide advanced medical care, and more appropriately respond to calls for psychiatric emergencies, serial inebriate patients, low acuity medical complaints, and navigate referrals to allied homelessness relief agencies. Additionally,

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the APRU's ability to treat many non-life-threatening medical complaints in place can offload patients from impacted hospital emergency rooms.

An FRV is a lightweight pick-up truck with a small capacity water pump and tank staffed by two firefighters, one of whom is a paramedic. The FRV provides a patrol apparatus that can manage small outside fires (e.g., grass, rubbish, and tent) and respond to nearby EMS calls. Through multiple pilots, the LAFD has found FRVs effective in decreasing response times and offloading EMS call volume from heavy fire suppression apparatus.

Proposed Solution

Based on the recommendations of Citygate's SOC report, further analysis of the LAFD's incident demand and deployment model subsequent to the SOC analysis period, the continued upward trend in EMS volume, and the evolving trends in types of calls for service, the LAFD recommends the following tiered implementation of additional resources to meet the current and predicted needs of the City's fire suppression and EMS deployment:

FY 24/25

- Add the first EMS regional deployment center by leasing or purchasing an existing commercial building in the Los Angeles metropolitan area to house peak demand 12-hour EMS resources.
- Convert the five existing APRUs from a Monday-Thursday 10-hour shift to 12-hour shifts, 7 days per week.
- Add five APRUs 12 hours per day, 7 days per week
- Add two APRUs 24 hours per day, 7 days per week
- Add eight Paramedic staffed RAs 24 hours per day, 7 days per week
- Add two FRVs 24 hours per day, 7 days per week
- Add 10 EMT staffed RAs 12 hours per day, 7 days per week, regionally deployed to peak demand areas
- Add APRU overhead staff: one Captain/Paramedic, one Advanced Provider Supervisor, one Assistant Medical Director, one Sr. Administrative Clerk
- Add regionally deployed BLS RA overhead staff: two Captain/Paramedics, one EMS Educator, one Quality Improvement Analyst
- Add regional deployment EMS Resource Controllers: two Captain/Paramedics

FY 25/26

- Add the second EMS regional deployment center by leasing or purchasing an existing commercial building in the Valley area to house peak demand 12-hour EMS resources.
- Add five APRUs 12 hours per day, 7 days per week
- Add two APRUs 24 hours per day, 7 days per week
- Add five Paramedic staffed RAs 24 hours per day, 7 days per week
- Add two FRVs 24 hours per day, 7 days per week

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- Add 10 EMT staffed RAs 12 hours per day, 7 days per week, regionally deployed to peak demand areas
- Add APRU overhead staff: one Captain/Paramedic, one Battalion Chief/Paramedic, one Assistant Medical Director, one Management Analyst
- Add EMT Ambulance overhead staff: two Captain/Paramedics, one Battalion Chief/Paramedic, one EMS Educator, one Quality Improvement Analyst
- Add EMS planning staff: one Captain/Paramedic

FY 26/27

- Add a new Fire Station, Engine, and Paramedic staffed RA in Panorama City
- Add a Battalion Command Team in the center of the Valley
- Add five APRUs 12 hours per day, 7 days per week
- Add two APRUs 24 hours per day, 7 days per week
- Add six EMT staffed RAs 12 hours per day, 7 days per week, regionally deployed to peak demand areas
- Add APRU and EMS overhead staff: one Advanced Provider Supervisor, one Assistant Medical Director, one Nurse Educator, one Quality Improvement Analyst
- Add EMT Ambulance overhead staff: one Captain/Paramedic

Conclusion

A bold and innovative plan is necessary to accomplish the LAFD's mission, achieve its service goals, and provide the residents of Los Angeles with the all-risk, fire suppression, and EMS model it requires. Over the last decade, the calls for service to the LAFD have not only increased in volume but have changed in type. The LAFD remains one of the country's busiest all-risk, fire suppression, and EMS agencies. However, as Citygate points out, in 2020, the LAFD treated more patients than the busiest hospital emergency room in the country, and the busiest emergency room in the County of Los Angeles combined. Citygate suggests that the "LAFD is in the human care business." While many of the calls for service that the LAFD receives require a response from a fire engine, truck, or RA, and many of the patients treated by the LAFD require rapid transport to the hospital, not every call is well suited for this traditional response model. To ensure equitable delivery of services, the LAFD must not only grow but must also evolve its EMS and fire suppression deployment to match the current and expected service needs of the City.

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Appendix 1

New Resource Implementation Plan Over Three Years (376 Total New Positions)

	FY 24/25	FY 25/26	FY 26/27
APRU	Convert (5) 10hr to 12hr + (5) 12hr + (2) 24hr	+ (5) 12hr + (2) 24hr	+ (5) 12hr + (2) 24hr
Paramedic RA	+ (8) 24hr	+ (5) 24hr	+ (1) 24hr
EMT RA	+ (10) 12hr	+ (10) 12hr	+ (6) 12hr
FRV	+ (2) 24hr	+ (2) 24hr	
Engine			+ (1) 24hr
Battalion			+ (1) 24hr
Administrative Overhead	+ (5) CI/PM + (1) AP Supervisor + (1) Assistant M.D. + (1) Sr. Admin Clerk + (1) EMS Educator + (1) QI Analyst	+ (4) CI/PM + (2) BC/PM + (1) Assistant M.D. + (1) M.A. I + (1) EMS Educator + (1) QI Analyst	+ (1) CI/PM + (1) AP Supervisor + (1) Assistant M.D. + (1) Nurse Educator + (1) QI Analyst

Appendix 2

Areas in Most Need of Additional Resources

Battalions	Council Districts	Neighborhoods
Battalion 1	1, 9, 14	Civic Center, Bunker Hill, Little Tokyo, Chinatown, Olvera Street, Convention Center District, Central City
Battalion 5	4, 5, 10, 13	Hollywood
Battalion 10	2, 4, 6	Van Nuys Van Nuys
Battalion 11	1, 8, 10, 13	Angelino Heights, Westlake, Macarthur Park, Pico-Union, Koreatown
Battalion 12	2, 6, 7, 12	Panorama City, Pacoima
Battalion 13	8, 9, 15	South Los Angeles, Southwest Los Angeles, Hyde Park, Watts, Coliseum Area
Battalion 14	2, 4	North Hollywood
Battalion 18	5, 8, 10	Pico/Robertson, Fairfax

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Appendix 3

Estimated Costs of the Standards of Cover Implementation Plan

FISCAL YEAR	SALARY COST	RESOURCE COST	SALARY & RESOURCE COST
2024/2025	\$31,744,029.10	\$12,276,600	\$44,020,629.10
2025/2026	\$25,581,357.30	\$11,402,055	\$36,983,412.30
2026/2027	\$16,588,718.03	\$8,392,781	\$24,981,499.28
TOTALS	\$73,914,104.44	\$32,071,436	

TOTAL ESTIMATED
BUDGET INCREASE
OVER THREE YEARS* \$105,985,540.69

*Note: Initial estimated costs do not include a deployment center lease (estimated at \$1.5 million each per year) or purchase (estimated at \$5 million each), new fire station construction, or the initial training costs.