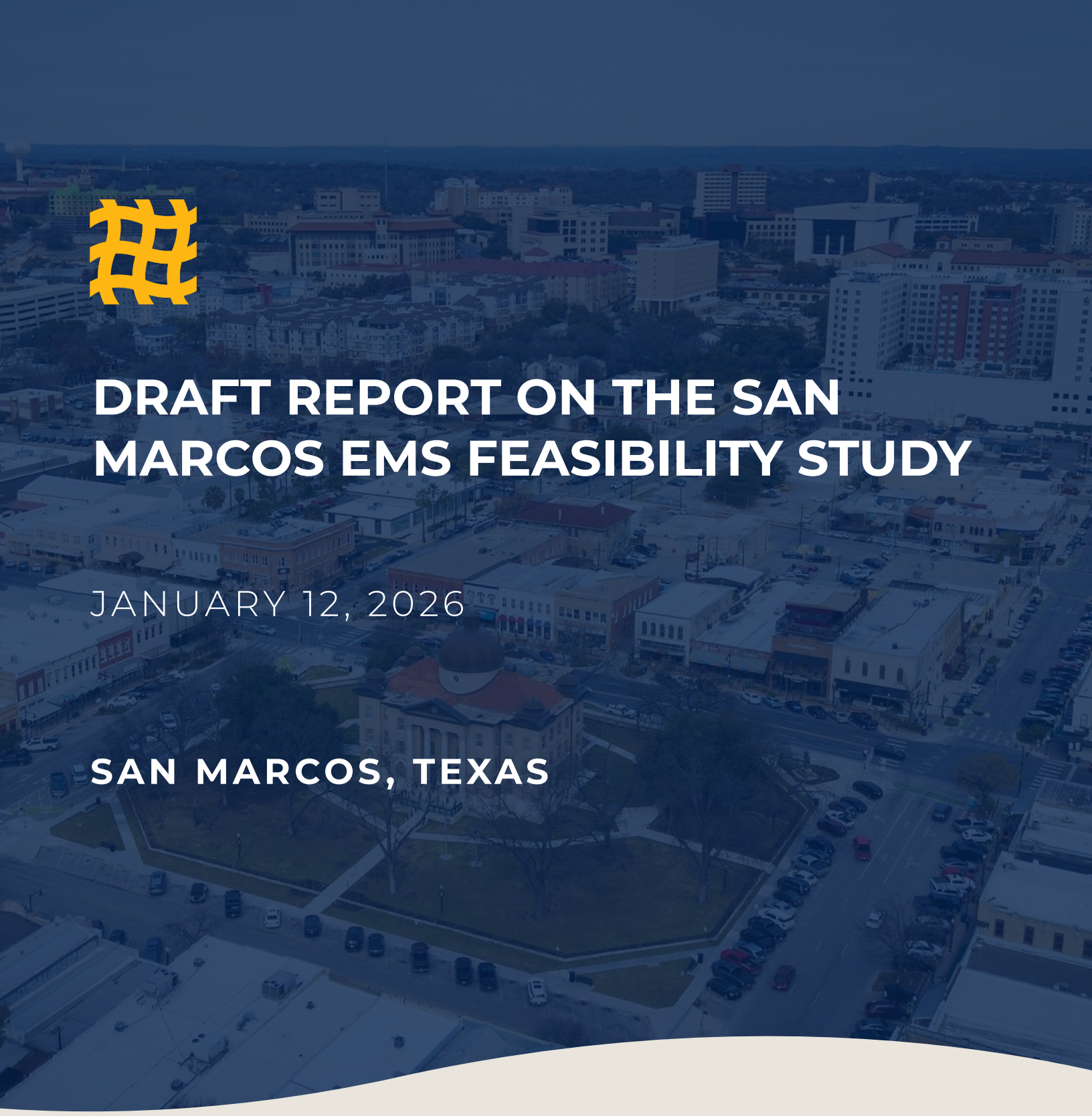


DRAFT REPORT ON THE SAN MARCOS EMS FEASIBILITY STUDY

JANUARY 12, 2026

SAN MARCOS, TEXAS

MATRIX
CONSULTING GROUP

TABLE OF CONTENTS

INTRODUCTION AND EXECUTIVE SUMMARY

The City of San Marcos engaged the Matrix Consulting Group to conduct an Emergency Medical Services (EMS) Feasibility Study. This report presents the project team's research and analysis of the San Marcos emergency medical services system and the community it serves, including staffing levels, response capabilities, and resource deployment.

SCOPE OF WORK

The scope of this study included an assessment of the current emergency medical services system, including operational practices, response capabilities, staffing levels, and the resources required to deliver emergency medical services within the City. Periodic reviews of EMS service delivery are a best practice and are essential to ensuring that community needs continue to be met as conditions change. Accordingly, this project focused on evaluating the emergency medical services delivery system, including the following key areas:

- Response capabilities.
- Response time analysis.
- Resource locations.
- Available resources to serve the city.
- Staffing and workforce.

The approaches used in this study were comprehensive, as described below.

APPROACHES UTILIZED IN THE STUDY

The project team assessed the emergency services to evaluate service levels and organizational issues. The principal approaches utilized by the project team in this study included, but were not limited to, the following:

- Interviews — Project team members interviewed numerous city executives, managers, and supervisory staff.
- Data Collection – the project team collected a wide variety of external and internal data documenting the structure, operations, and organization, including:
    - Staffing and scheduling.
    - Documentation reflecting operations management.
    - Numerous output data points reflect the services provided.

  - Various other performance information and indicators.
- This data was summarized in a 'descriptive profile' of the emergency services, which was reviewed and revised with input from departmental staff to ensure a factual foundation for the study. This approach ensured that the project team understood the emergency services appropriately.

EXECUTIVE SUMMARY

The City initiated this Emergency Medical Services (EMS) Feasibility Study to identify a cost-effective, financially sustainable approach to providing Advanced Life Support (ALS) emergency medical transport while maintaining service reliability and public accountability. The evaluation was conducted in response to increasing medical call volume, continued population growth, and recent changes in regional EMS participation that place greater financial responsibility on the City.

Emergency medical services represent a significant and growing cost driver within the City's public safety operations. Medical calls account for the majority of emergency responses, and demand is projected to increase steadily over the next 15 years. Without a delivery model that provides cost control and budget predictability, rising call volume will continue to strain staffing, fleet replacement, and operating expenses.

Three service delivery options were evaluated:

1. Continuation of a City-only regional EMS model
2. Integration of EMS into the Fire Department
3. Establishment of a standalone City-operated EMS department

While each option is operationally viable, the analysis shows meaningful differences in long-term cost control, administrative efficiency, and financial risk.

Establishing a City-operated EMS department provides the City with the greatest capacity to manage costs and directly reduce financial uncertainty. This model consolidates all EMS revenues and expenditures within the City's budget, eliminates reliance on external governance structures, and allows staffing, deployment, and capital investments to be scaled incrementally based on measured demand rather than contractual obligations.

From a cost perspective, a City-operated EMS department offers several advantages:

- **Predictable Operating Costs** – Staffing levels, compensation structures, and deployment models are set by the City and adjusted through the annual budget process.
- **Reduced Administrative Duplication** – Consolidation of EMS under City management eliminates redundant administrative and professional service expenses.
- **Improved Revenue Oversight** – Patient transport revenues flow directly to the City, enhancing transparency and allowing more accurate forecasting.

- **Lower Long-Term Financial Risk** – Capital replacement schedules, fleet size, and staffing growth can be phased to avoid large, unplanned cost spikes.

The recommended service model is based on operating six ALS transport units, 24 hours per day, supported by a lean supervisory and administrative structure. Financial projections indicate that this deployment level is sufficient to meet current demand while avoiding overstaffing and excessive unit utilization, which would drive overtime and future expansion costs.

Although a City-operated EMS department requires a more extended implementation period than other options, the upfront transition effort is offset by greater long-term cost stability and budget control. The establishment of the department can be completed within approximately 21 months, allowing for a phased transition that maintains uninterrupted service while minimizing financial and operational risk.

Establishing a standalone City EMS department would provide direct City control and a dedicated focus on EMS. Still, it would require the most extended implementation period, approximately nine to fifteen months, and the greatest organizational build-out. This option carries higher startup complexity and cost, as new administrative, financial, and support systems would need to be created.

By contrast, integrating EMS into the San Marcos Fire Department will take approximately the same amount of time as a stand-alone department but will entail much higher annual operating costs for the City. This model leverages existing City infrastructure, leadership, labor agreements, and support services, thereby reducing duplication and facilitating a smoother transition. However, its longer-term costs are higher than those of the standalone.

EVALUATION OF THE CURRENT EMS SYSTEM

CITY OF SAN MARCOS FIRE DEPARTMENT

The fire department is an all-hazard agency. It responds to fires, emergency medical calls (First Responder), hazardous materials incidents, and technical rescue calls, and provides fire prevention programs and educational opportunities to the city's citizens.

MISSION STATEMENT

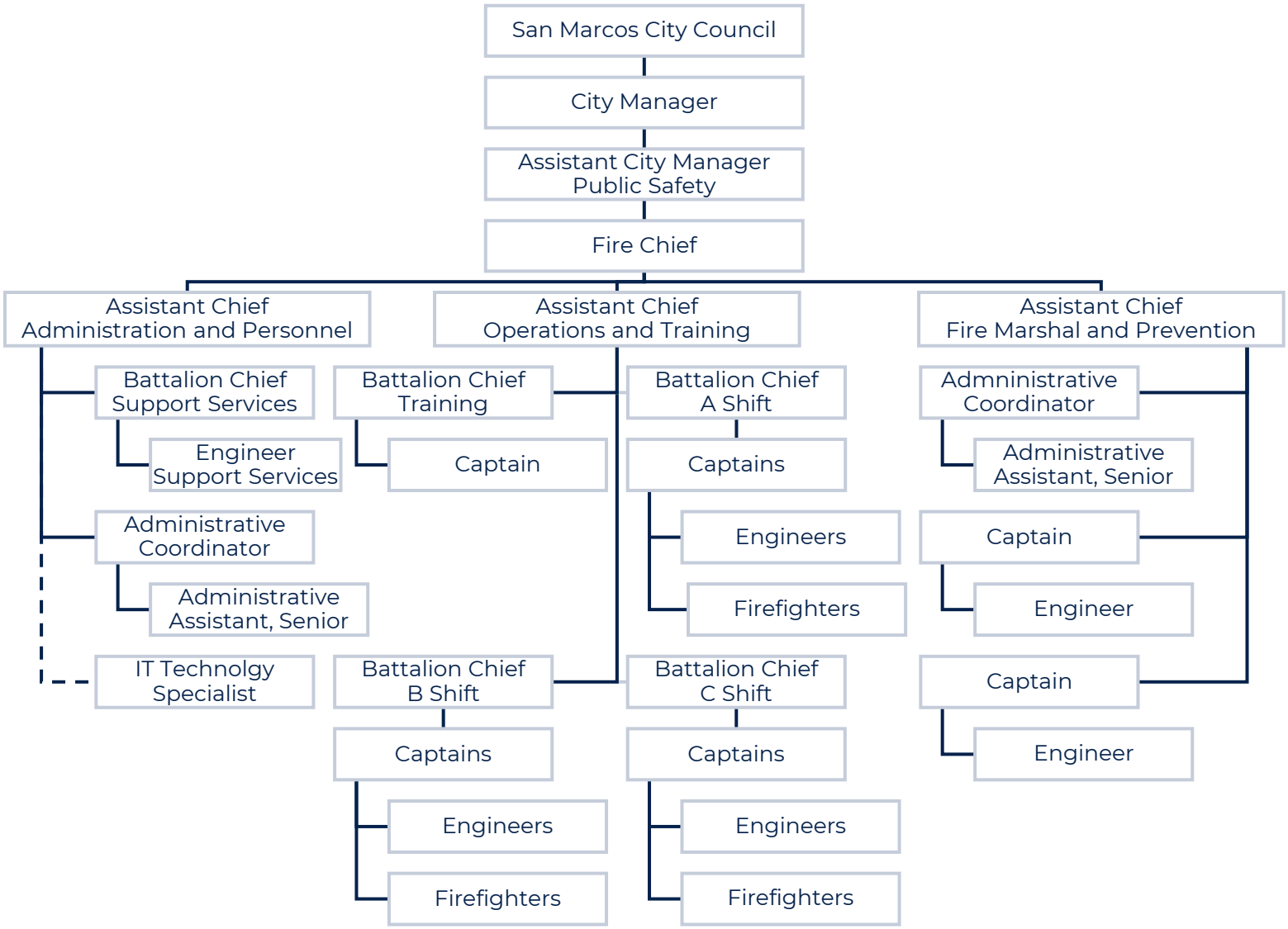
> *The San Marcos Fire Department is dedicated to providing a well-trained, motivated, and diverse team of professionals who deliver excellence in prevention, education programs, and emergency response to our community in a safe, responsible, and efficient manner.*

STAFFING AND DEPLOYMENT

The San Marcos Fire Department was accredited in 2023 as a Texas Fire Chiefs' Best Practices organization. It currently has a Class 2 ISO rating and protects the City with 111 personnel operating from six (6) stations.

ORGANIZATIONAL STRUCTURE

SAN MARCOS FIRE DEPARTMENT ORGANIZATIONAL CHART



STAFFING AND UNIT DESCRIPTIONS

The following table outlines the responsibilities of the fire department personnel and key staff. The "Curr." column represents the number of currently filled positions, while the "Auth." column indicates the number of authorized budgeted positions.

Unit	Curr.	Auth.	Position	Roles and Responsibilities
OFFICE OF THE FIRE CHIEF				
Office of the Fire Chief	1 3	1 3	Fire Chief Assistant Chief	• Fire Chief provides overall leadership, management, and administration of the Fire Department. • The assistant chiefs assist in overall leadership, management, and administration of the Fire Department. Each assistant chief is assigned to oversee and lead a specific fire department division.
Sworn	**4**	**4**		
Civilian	**0**	**0**		
Total Staff	**4**	**4**		
OPERATIONS				
Command	3	3	Battalion Chiefs	• Battalion Chiefs oversee their respective shift operations and response.
OPERATIONS				
A Shift	7 8 13	7 8 14	Captains Engineers Firefighters	• Captains serve as front-line supervisors for all engineers and firefighters under their supervision. • One Captain is assigned to the Battalion Chief as a chief's aide. • Engineers are responsible for operating fire apparatus and ensuring the readiness of the apparatus. • Firefighters are responsible for responding to all calls for service and assisting the Engineers with apparatus readiness.
B Shift	7 8 13	7 8 14	Captains Engineers Firefighters	• Captains serve as front-line supervisors for all engineers and firefighters under their supervision.

Unit	Curr.	Auth.	Position	Roles and Responsibilities
				• One Captain is assigned to the Battalion Chief as a chief's aide. • Engineers are responsible for operating fire apparatus and ensuring the readiness of the apparatus. • Firefighters are responsible for responding to all calls for service and assisting the Engineers with apparatus readiness.
C Shift	7 8 14	7 8 14	Captains Engineers Firefighters	• Captains serve as front-line supervisors for all engineers and firefighters under their supervision. • One Captain is assigned to the Battalion Chief as a chief's aide. • Engineers are responsible for operating fire apparatus and ensuring the readiness of the apparatus. • Firefighters are responsible for responding to all calls for service and assisting the Engineers with apparatus readiness.
TRAINING				
Training and Education	1 1	1 1	Battalion Chief Captain	• Battalion Chief oversees all training and education activities. • The Captain oversees the emergency medical services training and certifications. Functions as the liaison with San Marcos Hays County EMS and DSHS.
Sworn	**90**	**92**		
Civilian	**0**	**0**		
Total Staff	**90**	**92**		

Unit	Curr.	Auth.	Position	Roles and Responsibilities
ADMINISTRATION AND PERSONNEL				
	1	1	Battalion Chief	• Battalion Chief handles facilities, fleet, equipment, TCFP annual testing of pumps, hose, ladders, and station supplies and equipment • Responsible for specifying, ordering, maintaining and supporting fire department equipment, apparatus, and tools. • The engineer assists the Battalion Chief by managing facility requirements, coordinating maintenance activities, and supervising repairs. In addition, the engineer is responsible for administering the station supply program. • The Administrative Coordinator is responsible for preparing and monitoring budgets, as well as managing purchasing activities for the fire department. This role also oversees all aspects of uniform ordering and maintains the uniform ordering portal. • Administrative Assistant, Senior, supports the activities of the Administrative Coordinator for the budget and purchasing.
	1	1	Engineer	
	1	1	Administrative Coordinator	
	1	1	Administrative Assistant Senior	
Sworn	**2**	**2**		
Civilian	**2**	**2**		
Total Staff	**4**	**4**		

Unit	Curr.	Auth.	Position	Roles and Responsibilities
FIRE MARSHAL AND PREVENTION				
	3	3	Captain	• Captains serve as front-line supervisors for all engineers under their supervision. They are responsible for reviewing reports from the engineers, conducting initial and ongoing commercial occupancy inspections, and assisting with plan review. • Investigation Captain will be primarily responsible for overseeing and coordinating the fire origin and cause determination and, if appropriate, following up on the investigation, getting warrants, and working with the DA through arrest and prosecution. • Engineers perform inspections, provide public education activities, and conduct fire investigations. • The Administrative Coordinator is responsible for coordinating activities and correspondence for the fire prevention activities. The administrative coordinator performs several administrative functions in support of the division, including permits, scheduling of events, and reporting • Administrative Assistant, Senior, provides support to the Administrative Coordinator.
	6	6	Engineer	
	1	1	Administrative Coordinator	
	1	1	Administrative Assistant Senior	
Sworn	**9**	**9**		
Civilian	**2**	**2**		
Total Staff	**11**	**11**		
Fire Department				
Sworn	**105**	**107**		
Civilian	**4**	**4**		
Total Staff	**109**	**111**		

PHYSICAL RESOURCES

Six fire stations in the city currently provide fire suppression service to the city. The following tables illustrate the apparatus and staffing of each station.

Station 1

114 East Hutchison Street			
Assigned Apparatus		Staffing	
Unit ID	Resource Description	Scheduled	Minimum
Engine 1	2024 Spartan Type 1 Engine	4	3
Battalion 1	2021 Chevrolet 3500HD Command	2	1
Rescue 1	2016 SVI Heavy Rescue	Cross-Staffed	
Battalion 2 Reserve	2011 Chevrolet Suburban		

Station 2

205 Fint Ridge Road			
Assigned Apparatus		Staffing	
Unit ID	Resource Description	Scheduled	Minimum
Engine 2	2022 Spartan Metro Star Type 1 Engine	4	3
Brush 2	2003 Ford F-550 Type 6 Engine	Cross-Staffed	
Engine 2 Reserve	2007 Smeal Type 1 Engine		

Station 3

2420 Hunter Road			
Assigned Apparatus		Staffing	
Unit ID	Resource Description	Scheduled	Minimum
Truck 3	2014 Spartan 100' Aerial	6	4
Haz Mat 3	2004 Ford F-550	Cross-Staffed	
Truck 1 Reserve	2006 Smeal Aerial		

Station 4

1404 Wonder World Drive			
Assigned Apparatus		Staffing	
Unit ID	Resource Description	Scheduled	Minimum
Engine 4	2017 Spartan Type 1 Engine	5	3
Blocker 4	2002 Pierce	Cross-Staffed	
Engine 4 Reserve	2012 Spartan		

Station 5

100 Carlson Circle			
Assigned Apparatus		Staffing	
Unit ID	Resource Description	Scheduled	Minimum
Truck 5	2020 Spartan 105' Tractor Drawn Quint	5	4
Brush 5	2013 Ford F-550 Type 6 Engine		Cross-Staffed
Truck 2 Reserve	2010 Smeal 105' Aerial		
Engine 1 Reserve	2009 Smeal Type 1 Engine		

Station 6

5716 South Old Bastrop Highway			
Assigned Apparatus		Staffing	
Unit ID	Resource Description	Scheduled	Minimum
Engine 6	2020 Spartan Type 1 Engine	4	3
Brush 6	2013 Ford F-550 Type 6 Engine		Cross-Staffed

KEY WORKLOAD DRIVERS

The San Marcos Fire Department responds to emergency and non-emergency calls for service. The following table illustrates the fire department's emergency medical calls for service for the years 2022 – 2024.

SAN MARCOS EMERGENCY MEDICAL SERVICES CALLS 2022 - 2024

EMS Calls	2022	2023	2024	Total	Pct.
Auto Accidents	1,928	1,829	1,907	5,664	33.3%
Medical Calls	3,833	3,652	3,803	11,288	66.5%
Rescue Calls - Extrication	23	8	3	34	0.2%
Total EMS Calls for Service	**5,784**	**5,489**	**5,713**	**16,986**	
Year-over-Year Change		**-5.1%**	**4.1%**		
Average Calls per Day	**15.8**	**15.0**	**15.7**		

The table shows that 66.5% of all calls received by the fire department are medical-related. Of the 16,986 medical calls received from 2022 to 2024, 33.3% were related to auto accidents and 0.2% were extrication calls.

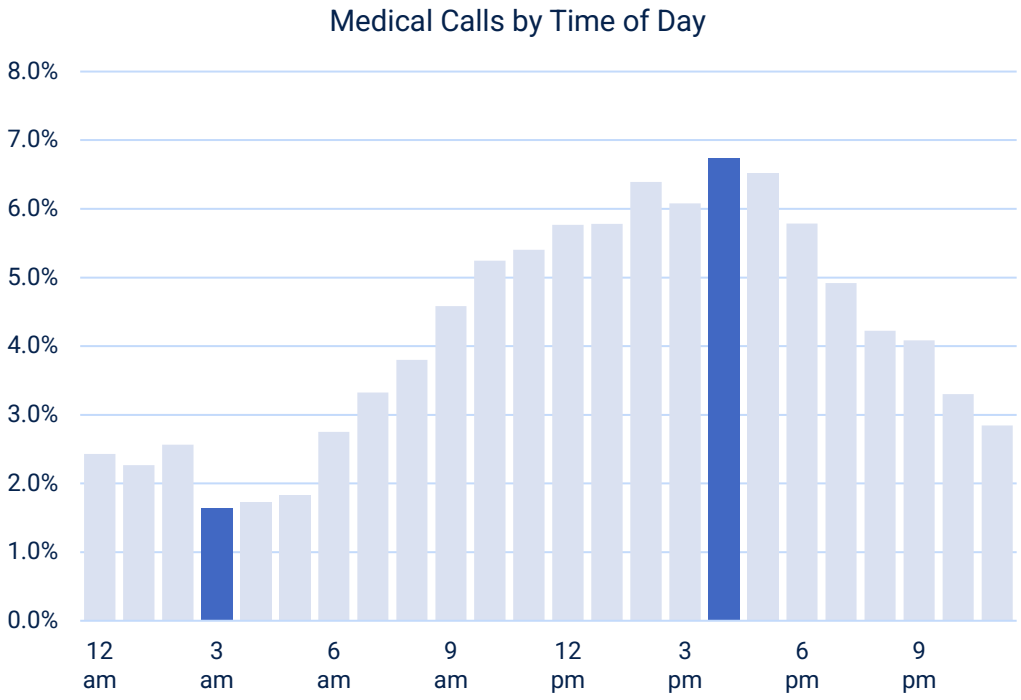
The following table shows the total number of emergency medical calls for service managed by the fire department for each hour and day of the week over the past three years.

MEDICAL CALLS BY HOUR AND DAY OF THE WEEK 2022 - 2024

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
12 am	0.52%	0.25%	0.24%	0.22%	0.27%	0.49%	0.42%
1 am	0.39%	0.30%	0.21%	0.23%	0.35%	0.34%	0.45%
2 am	0.52%	0.28%	0.25%	0.26%	0.24%	0.41%	0.60%
3 am	0.35%	0.19%	0.14%	0.20%	0.15%	0.18%	0.44%
4 am	0.33%	0.25%	0.17%	0.26%	0.23%	0.22%	0.26%
5 am	0.27%	0.24%	0.25%	0.31%	0.23%	0.29%	0.25%
6 am	0.38%	0.43%	0.42%	0.29%	0.45%	0.44%	0.35%
7 am	0.41%	0.55%	0.54%	0.48%	0.47%	0.44%	0.42%
8 am	0.44%	0.72%	0.54%	0.49%	0.58%	0.56%	0.48%
9 am	0.47%	0.79%	0.80%	0.62%	0.70%	0.60%	0.60%
10 am	0.59%	0.94%	0.82%	0.73%	0.76%	0.66%	0.75%
11 am	0.69%	0.65%	0.73%	0.92%	0.78%	0.74%	0.90%
12 pm	0.90%	0.88%	0.77%	0.99%	0.70%	0.68%	0.85%
1 pm	0.74%	0.94%	0.60%	0.80%	0.91%	0.87%	0.93%
2 pm	0.84%	0.90%	0.93%	0.76%	1.02%	1.06%	0.89%
3 pm	0.78%	0.75%	0.94%	0.71%	0.97%	0.97%	0.96%
4 pm	0.80%	1.08%	0.80%	0.98%	0.90%	1.10%	1.07%
5 pm	0.85%	1.04%	0.95%	0.98%	0.76%	1.10%	0.82%
6 pm	0.75%	0.78%	0.77%	0.84%	0.81%	0.88%	0.96%
7 pm	0.73%	0.75%	0.70%	0.68%	0.70%	0.74%	0.62%
8 pm	0.53%	0.52%	0.55%	0.58%	0.74%	0.71%	0.59%
9 pm	0.52%	0.60%	0.47%	0.45%	0.65%	0.65%	0.75%
10 pm	0.49%	0.32%	0.41%	0.50%	0.52%	0.66%	0.39%
11 pm	0.39%	0.39%	0.40%	0.39%	0.37%	0.32%	0.58%

Note that the busiest time of day is between 8 a.m. and 7 p.m. during the Monday through Friday work week. On the weekend, the call volume picks up from approximately 10 a.m. through the 8 p.m. hour. The busiest hour of the day is the 4 p.m. hour, and the slowest hour of the day is the 3 a.m. hour.

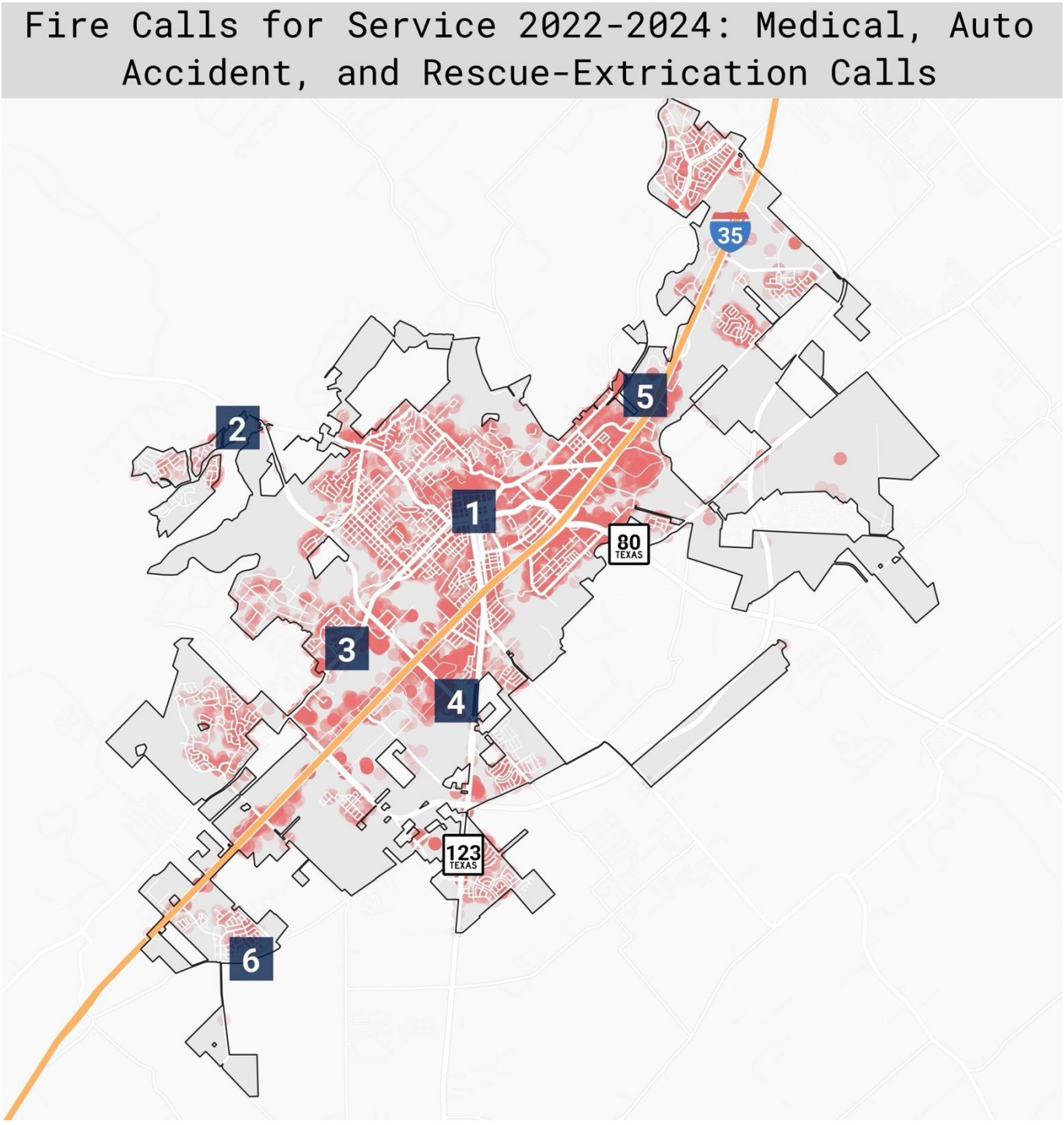
The following chart further illustrates the calls for service by hour of the day.



As illustrated, calls increase sharply at 6 a.m., peaking at 4 p.m. and remaining steady throughout the day. Calls begin to decline at 6 p.m., with 3 a.m. being the slowest hour of the day.

The following map presents a spatial overview of the fire department's emergency medical activity in San Marcos.

SAN MARCOS FIRE DEPARTMENT MEDICAL CALLS FOR SERVICE DENSITY



SYSTEM PERFORMANCE

Response time is divided into measurable segments: call processing, turnout, and travel time. Each component represents a different point in the response time continuum and can help identify areas for improvement.

- Call Processing begins when the call taker answers the call and ends with the dispatch of appropriate emergency services.
- Turnout Time begins when the emergency service receives the call, and personnel are on the apparatus responding.
- Travel Time begins when the apparatus and personnel initiate the response and ends upon arrival at the emergency location.

The expression of response time has evolved from representing an average time at 50% performance to a more accurate fractal measure. Fractal time measures how often a department can perform within each response time component. The National Fire Protection Association (NFPA) and the Center for Public Safety Excellence (CPSE) use the 90th percentile as the standard for benchmark and baseline measurements.

- **Baseline performance**: what the agency can perform based on the performance of call processing, turnout time, and travel time over the previous four years.
- **Benchmark performance** is the agency's target level, reflecting what it strives to achieve regarding community risk and expectations.

The following table illustrates the San Marcos Fire Department's performance on high-priority emergency medical calls.

SAN MARCOS FIRE DEPARTMENT RESPONSE TIME 2022 – 2024

Priority EMS Calls – 90th Percentile Times	2022 – 2024	2022	2023	2024	Objectives
Call Processing	4:06	3:49	4:16	4:09	1:00
Turnout Time	2:26	2:38	2:26	2:12	1:00
Travel Time	6:45	6:49	6:34	6:51	4:00
Pct of Calls at/under 4 minutes	54.9%	54.5%	57.6%	52.4%	
Total Response Time	**12:10**	**12:12**	**12:10**	**12:08**	**6:00**
Number of Calls	**11,942**	**4,133**	**3,947**	**3,862**	
Pct of Calls at/under 6 minutes	**19.6%**	**23.4%**	**18.5%**	**16.4%**	

All the times displayed represent the 90th percentile for each of the three years. The performance objective time located on the far right indicates the benchmark performance objective set by the SMFD in the Community Risk Assessment Standard of Cover dated May 2020.

For perspective, over the three years, about 55% of calls met or exceeded the 4-minute travel-time benchmark. For the total response time, the 6-minute performance benchmark was met about 20% of the time.

SAN MARCOS/HAYS COUNTY EMS

San Marcos/Hays County EMS (SMHCEMS), headquartered in San Marcos, provides emergency medical services to the City of San Marcos and ESD 9 along the I-35 corridor between Austin and San Antonio. Established in 1984, the organization operates as a nonprofit 501(c)(3) corporation, independent from municipal or county government. The agency is governed by a Board of Directors responsible for strategic oversight, financial stewardship, and executive leadership. Day-to-day operations are led by an Executive Director, supported by field supervisors, training officers, and administrative staff. The organization maintains multiple EMS stations throughout the county.

MISSION STATEMENT

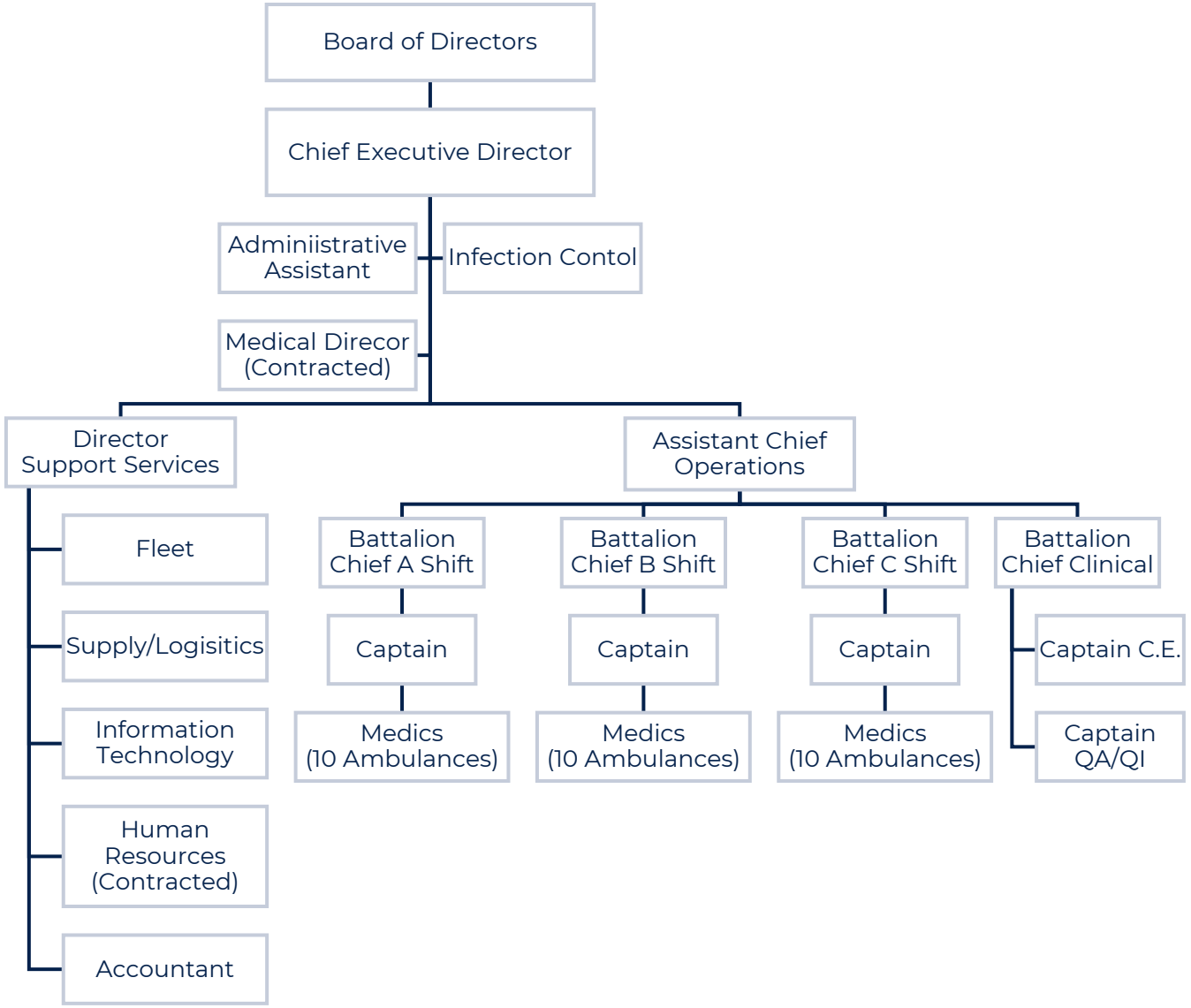
> *Our mission at San Marcos Hays County EMS is to keep communities healthy and strong. By leveraging partnerships with local and regional government agencies, area hospitals and local healthcare providers, we are able to provide excellent patient care at a top dollar value to local taxpayers.*

STAFFING AND DEPLOYMENT

Although not a city department, SMHCEMS works closely with the City of San Marcos, ESD 9, fire departments, and regional hospitals to ensure coordinated emergency response.

ORGANIZATIONAL STRUCTURE

SAN MARCOS HAYS COUNTY EMS ORGANIZATIONAL CHART



STAFFING AND UNIT DESCRIPTIONS

The following table outlines the responsibilities of the SMHCEMS personnel and key staff. The "Curr." column represents the number of currently filled positions, while the "Auth." column indicates the number of authorized budgeted positions.

Unit	Curr.	Auth.	Position	Roles and Responsibilities
ADMINISTRATION				
Administration	1	1	Executive Director	• Executive Director provides overall leadership, management, and administration of SMHCEMS. • Assistant Chief – Operations assists in overall leadership, management, and administration of the SMHCEMS and the emergency operations. • Director – Support Services assists in overall leadership, management, and administration of the SMHCEMS and the support functions. • Administrative Assistant provides support to the leadership team.
	1	1	Assistant Chief – Operations	
	1	1	Director – Support Services	
	1	1	Administrative Assistant	
Sworn	**2**	**2**		
Civilian	**2**	**2**		
Total Staff	**4**	**4**		
OPERATIONS				
Command	3	3	Battalion Chiefs	• Battalion Chiefs: oversee their respective shift operations and response.
OPERATIONS				
A Shift	1	1	Captains	• Captains: serve as front-line supervisors for all paramedics under their supervision. • Lt Paramedics act as Field Training Officers and are responsible for responding to all calls for service • Paramedics are responsible for responding to all calls for service. • EMTs are responsible for responding to all calls for service.
	2	3	Lt. Paramedics	
	7	6	Paramedics	
	7	7	EMT's	

Unit	Curr.	Auth.	Position	Roles and Responsibilities
B Shift	1 3 6 7	1 3 6 7	Captains Lt. Paramedics Paramedics EMT's	• Captains: serve as front-line supervisors for all paramedics under their supervision. • Lt Paramedics act as Field Training Officers and are responsible for responding to all calls for service • Paramedics are responsible for responding to all calls for service. • EMTs are responsible for responding to all calls for service.
C Shift	1 2 7 7	1 3 6 7	Captains Lt. Paramedic Paramedics EMT's	• Captains: serve as front-line supervisors for all paramedics under their supervision. • Lt Paramedics act as Field Training Officers and are responsible for responding to all calls for service • Paramedics are responsible for responding to all calls for service. • EMTs are responsible for responding to all calls for service.
Float	6 5	6 6	Paramedics EMT's	• Paramedics are responsible for responding to all calls for service. • EMTs are responsible for responding to all calls for service.
CLINICAL EDUCATION AND QA/QI				
Training and Education **Quality Assurance**	1 2	1 2	Battalion Chief Captain	• Battalion Chief oversees all training and education activities, and Quality Assurance and Improvement. • Captain oversees the emergency medical services training and certifications. • Captain oversees the quality assurance and improvement activities.
Sworn	**68**	**69**		
Civilian	**0**	**0**		
Total Staff	**68**	**69**		

Unit	Curr.	Auth.	Position	Roles and Responsibilities
SUPPORT SERVICES				
	1	1	Fleet Mechanic	• Fleet Mechanic conducts preventive maintenance and repairs to all apparatus.
	1	1	Resource Specialist	• Resource Specialist handles the procurement and storage of supplies and equipment.
	1	1	IT Specialist	• IT Specialist manages the wireless communications systems.
	1	1	Accountant	• Accountant handles the financial aspects of the organization.
Sworn	**0**	**0**		
Civilian	**4**	**4**		
Total Staff	**4**	**4**		
San Marcos Hays County EMS				
Sworn	**70**	**71**		
Civilian	**6**	**6**		
Total Staff	**76**	**77**		

PHYSICAL RESOURCES

SMHCEMS operates from 6 fire stations in San Marcos and 4 in Kyle. The following tables illustrate the apparatus and staffing of each station. The power units are shown with two personnel. There are times when the power units are left unstaffed to ensure the 24-hour units are staffed.

SAN MARCOS EMS STATION DETAIL

Station 1 – San Marcos Fire Department

114 East Hutchison Street			
Assigned Apparatus		Staffing	
Unit ID	Resource Description	Scheduled	Minimum
Medic 1	2021 Ram 4500		2

Station 2 – San Marcos Fire Department

205 Fint Ridge Road			
Assigned Apparatus		Staffing	
Unit ID	Resource Description	Scheduled	Minimum
Medic 2 (Power Unit)	2018 Ram 4500		2

Station 4 – San Marcos Fire Department

1404 Wonder World Drive			
Assigned Apparatus		Staffing	
Unit ID	Resource Description	Scheduled	Minimum
Medic 4	2021 Ram 4500		2

Station 5 – San Marcos Fire Department

100 Carlson Circle			
Assigned Apparatus		Staffing	
Unit ID	Resource Description	Scheduled	Minimum
Medic 5	2020 Ram 4500		2
Medic 6 (Power Unit)	2018 Ram 4500		2

Station 6 – San Marcos Fire Department

5716 South Old Bastrop Highway			
Assigned Apparatus		Staffing	
Unit ID	Resource Description	Scheduled	Minimum
Medic 11 (Power Unit)	2022 Ram 4500		2

Station 21 - Kyle Fire Department			
210 West Moore Street			
Assigned Apparatus		**Staffing**	
Unit ID	**Resource Description**	**Scheduled**	**Minimum**
Medic 21	2022 Ram 4500		2

Station 22 - Kyle Fire Department			
150 Bunton Creek Road			
Assigned Apparatus		**Staffing**	
Unit ID	**Resource Description**	**Scheduled**	**Minimum**
Medic 22	2020 Ram 4500		2

Station 23 - Kyle Fire Department			
201 Mountain City Drive			
Assigned Apparatus		**Staffing**	
Unit ID	**Resource Description**	**Scheduled**	**Minimum**
Medic 23	2022 Ram 4500		2

Station 24 - Kyle Fire Department			
110 High Road			
Assigned Apparatus		**Staffing**	
Unit ID	**Resource Description**	**Scheduled**	**Minimum**
Medic 24	2022 Ram 4500		2

KEY WORKLOAD DRIVERS

The SMHCEMS responds to emergency and non-emergency calls for service. The following table illustrates emergency medical calls for service for 2023–2024 in the City of San Marcos.

SMHCEMS CALLS FOR SERVICE 2023 – 2024 – SAN MARCOS

Call Type	2023	2024	Total	Pct.
Aircraft Emergency	4	5	10	0.0%
Auto Accident	1,140	1,239	2,930	12.7%
EMS Standby Calls	26	60	100	0.5%
Fire Related Calls	226	229	547	2.4%
Interfacility Transfer	29	18	112	0.3%
Medical Alarm	293	280	671	3.1%
Medical Calls	7,605	7,499	18,415	80.7%
Mutual Aid	3	5	10	0.0%
Rescue - Entrapment	3	5	11	0.0%
Rescue - Search	2	0	2	0.0%
Rescue - Technical	4	1	5	0.0%
Rescue - Water	5	5	10	0.1%
Service Calls	20	15	48	0.2%
Total Calls for Service – San Marcos	**9,360**	**9,361**	**18,721**	
Year-over-Year Change		**0.0%**		
Average Calls per Day	**25.6**	**25.6**		

Data for 2022 was not used due to a change in CAD software and the inability to migrate it between systems. The table indicates that 80.5% of departmental calls are medical in nature. From 2023 to 2024, there were 18,721 medical calls; 12.7% involved auto accidents, while the rest concerned issues like extrication, medical alarms, and fire-related incidents.

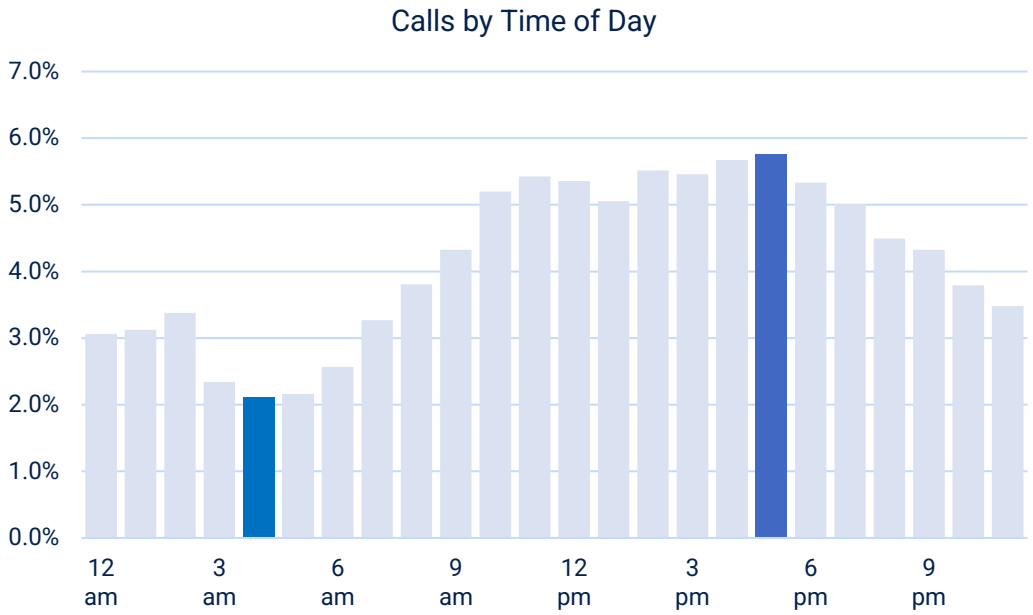
The following table shows the total number of emergency medical calls for service managed by SMHCEMS for each hour and day of the week over the past two years.

CALLS BY HOUR AND DAY OF THE WEEK 2023 – 2024 – SAN MARCOS

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
12 am	0.52%	0.36%	0.40%	0.33%	0.39%	0.47%	0.59%
1 am	0.52%	0.31%	0.41%	0.42%	0.38%	0.46%	0.62%
2 am	0.71%	0.37%	0.28%	0.44%	0.40%	0.50%	0.69%
3 am	0.45%	0.26%	0.24%	0.28%	0.26%	0.35%	0.50%
4 am	0.43%	0.27%	0.24%	0.28%	0.26%	0.31%	0.34%
5 am	0.36%	0.26%	0.23%	0.35%	0.33%	0.31%	0.31%
6 am	0.39%	0.39%	0.30%	0.33%	0.44%	0.41%	0.31%
7 am	0.42%	0.52%	0.49%	0.44%	0.43%	0.51%	0.45%
8 am	0.49%	0.59%	0.55%	0.53%	0.62%	0.59%	0.45%
9 am	0.52%	0.69%	0.72%	0.66%	0.62%	0.55%	0.56%
10 am	0.64%	0.84%	0.79%	0.75%	0.78%	0.74%	0.66%
11 am	0.70%	0.72%	0.84%	0.85%	0.80%	0.82%	0.71%
12 pm	0.85%	0.76%	0.68%	0.88%	0.80%	0.66%	0.74%
1 pm	0.70%	0.70%	0.67%	0.73%	0.71%	0.82%	0.73%
2 pm	0.75%	0.79%	0.80%	0.84%	0.84%	0.83%	0.69%
3 pm	0.67%	0.81%	0.83%	0.73%	0.80%	0.77%	0.84%
4 pm	0.76%	0.86%	0.85%	0.84%	0.76%	0.80%	0.81%
5 pm	0.78%	0.92%	0.83%	0.77%	0.74%	0.84%	0.87%
6 pm	0.73%	0.75%	0.75%	0.72%	0.71%	0.81%	0.86%
7 pm	0.67%	0.70%	0.72%	0.65%	0.81%	0.75%	0.71%
8 pm	0.56%	0.64%	0.56%	0.72%	0.70%	0.64%	0.66%
9 pm	0.51%	0.57%	0.67%	0.52%	0.65%	0.79%	0.62%
10 pm	0.49%	0.52%	0.61%	0.52%	0.52%	0.63%	0.50%
11 pm	0.47%	0.43%	0.53%	0.49%	0.48%	0.54%	0.53%

Note that the busiest time of day is between 7 a.m. and 8 p.m., Monday through Friday. On weekends, call volume increases from approximately 9 a.m. through 8 p.m. The busiest hour of the day is the 5 p.m. hour, and the slowest hour of the day is the 4 a.m. hour.

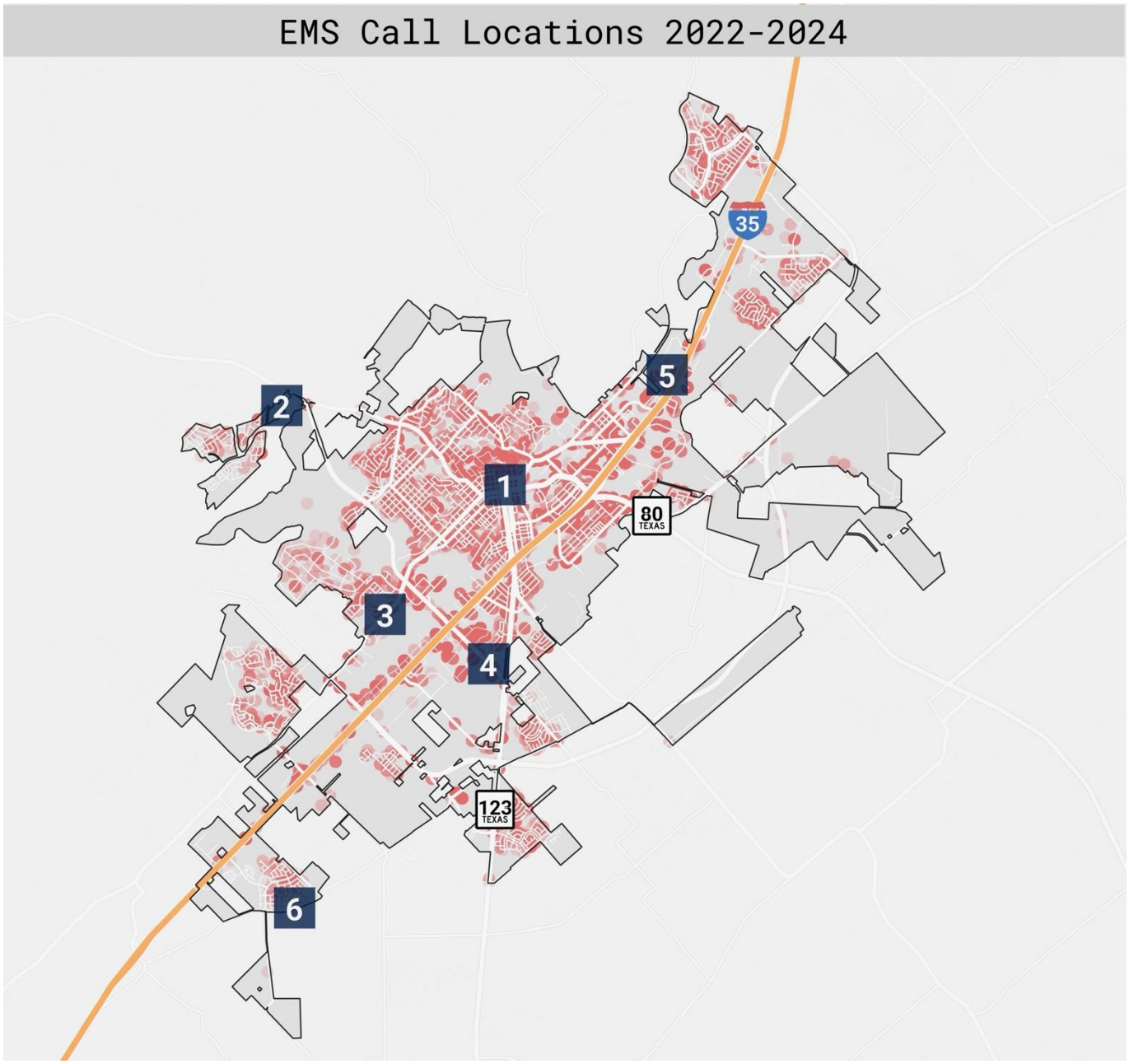
The following chart further illustrates the calls for service by hour of the day.



As illustrated, calls increase sharply at 7 a.m., peak at 5 p.m., and remain steady throughout the day. Call volume begins to decline at 6 p.m., with 4 a.m. the slowest hour of the day.

The following map presents a spatial overview of the department's emergency medical activity in San Marcos.

SAN MARCOS HAYS COUNTY EMS CALLS FOR SERVICE DENSITY



SYSTEM PERFORMANCE

Response time is divided into measurable segments: call processing, turnout, and travel time. Each component represents a different point in the response time continuum and can help identify areas for improvement.

- Call Processing begins when the call taker answers the call and ends with the dispatch of appropriate emergency services.

- Turnout Time begins when the emergency service receives the call, and personnel are on the apparatus responding.
- Travel Time begins when the apparatus and personnel initiate the response and ends upon arrival at the emergency location.

The expression of response time has evolved from representing an average time at 50% performance to a more accurate fractal measure. Fractal time measures how often a department can perform within each response time component. The National Fire Protection Association (NFPA), the Center for Public Safety Excellence (CPSE), and the Commission on Accreditation of Ambulance Services (CAAS) use the 90th percentile as the standard for benchmark and baseline measurements.

- **Baseline performance**: what the agency can perform based on the performance of call processing, turnout time, and travel time over the previous four years.
- **Benchmark performance** is the agency's target level, reflecting what it strives to achieve regarding community risk and expectations.

The following table illustrates SMHCEMS's performance on emergency medical calls marked as priority 1 and 2.

SMHCEMS RESPONSE TIME 2022 – 2024 - SAN MARCOS

Priority EMS Calls – 90th Percentile Times	2023 – 2024	2023	2024	Objectives
Call Processing	4:10	4:14	4:06	1:00
Turnout Time	2:41	2:44	2:35	1:00
Travel Time	9:36	9:40	9:34	4:00
Pct of Calls at/under 4 minutes	34.0%	35.5%	32.5%	
Total Response Time	**15:42**	**15:43**	**15:40**	**6:00**
Number of Calls	**15,817**	**6,422**	**6,619**	
Pct of Calls at/under 6 minutes	**7.2%**	**7.8%**	**6.6%**	

All the times displayed represent the 90th percentile for each of the two years. The performance objective time on the far right indicates that the benchmark performance objective aligns with the fire department.

For context, over the two years, about 31.6% of calls met or exceeded the 4-minute travel-time benchmark. For the total response time, the 6-minute performance benchmark was met about 6.7% of the time.

COMPARATIVE ANALYSIS

To gain insight into prevailing emergency medical services practices among peer agencies, the project team conducted a comparative survey of selected agencies of comparable size and nature. The survey

was designed to develop an understanding of common operational practices and staffing levels. Nine agencies were contacted; six participated and completed an online survey. The data in this section were acquired through a combination of contacts with participating agencies and online research conducted by the project team. The agencies were asked to participate through an electronic survey distributed in November 2025.

It is important to note that the contents and findings of the comparative survey should not be interpreted as recommendations for the overall study, but rather as a reflection of current trends and commonalities in a limited sample of agencies similar to San Marcos.

COMPARATIVE AGENCY OVERVIEW

As a basis for comparison, the table below presents background statistics for each agency contacted to participate in the survey, listed in order of population.

COMPARATIVE AGENCIES

Department	Population	Area - Sq. Mi	Population Density	Stations
Garland Fire Department*	246,018	57.3	4,293.5	11
Waco Fire Department	146,608	101.2	1,448.7	13
Denton Fire Department*	139,869	97.9	1,428.7	9
College Station Fire Department*	120,511	51.3	2,349.1	7
Georgetown Fire Department*	101,344	60.5	1,675.1	7
New Braunfels Fire Department	90,403	45.6	1,982.5	7
Leander Fire Department	87,511	37.7	2,321.2	5
San Marcos Fire Department	74,319	35.7	2,081.8	6
Grapevine Fire Department	50,631	35.8	1,414.3	5
City of Schertz EMS*	42,002	32.1	1,308.5	8
Average	**109,921.6**	**55.5**	**2,030.3**	**7.8**

San Marcos ranks in the lower third of its peers in population and has one of the smallest service areas. In terms of population density, San Marcos is in the top third of the comparable agencies.

NUMBER AND EMPLOYEE CLASSIFICATION

	College Station	Garland	Denton	Schertz	Georgetown	New Braunfels	San Marcos FD	SMHC EMS	Leander
Full-Time Employees	206	295	250	77	174	166	111	70	96
Part-Time Employees	0	0	0	20	1	0	0	0	1

OPERATIONS

Surveyed agencies were asked to identify the type of EMS system they operate and the volume of medical calls for service. In the City of Schertz, emergency medical services are provided by an independent, city-operated EMS department. The City of Leander operates in a manner similar to San Marcos, utilizing a third-party agency for patient transport. All other surveyed agencies utilize a fire department–based EMS transport system.

EMS CALLS FOR SERVICE

	College Station	Garland	Denton	Schertz	Georgetown	New Braunfels	SMHC EMS	San Marcos FD	Leander
Emergency Medical Calls	8,189	20,905	14,837	NA	12,227	10,800	9,361	3,803	3,263
BLS Transports	982	0	5,642	NA	2,738	300	NA	0	0
ALS Transports	6,342	12,879	9,195	NA	9,488	6,000	NA	0	0
Per capita	0.07	0.08	0.11		0.12	0.12	0.13	0.05	0.04
Daily Avg.	22.4	57.3	40.6		33.5	29.6	25.6	10.4	8.9

San Marcos EMS has a higher per-capita call volume than other surveyed agencies, but one of the lowest daily call volumes. Schertz did not provide any data.

STAFFING AND PAY SCALES

None of the fire-based departments utilize single-role paramedics or EMTs within their staffing models, and all staff their transport units with two paramedics. Schertz operates as a dedicated EMS department with no operational need for dual-role personnel, and they did not provide information on their unit staffing model. The following table illustrates the pay scales for the surveyed agencies.

PAY SCALES COMPARISON

	College Station	Garland	Denton	Schertz	Georgetown	New Braunfels	San Marcos FD	SMHC EMS	Leander
Firefighter EMT	$63,423 $67,423	$77,575 $100,214			$70,004 $100,696	$66,974	$66,461 $92,998		$70,695 $99,877
Firefighter Paramedic	$69,423 $86,138	$84,278 $110,671	$80,000 $100,000		$76,404 $107,096	$70,974			
Single Role Paramedic	$59,820			$75,145 $91,425	$76,404 $107,096			$77,820 $110,292	
Single Role EMT	$61,568			$58,075 $73,483				$63,667 $90,235	
Incentives	$500 per month for a paramedic and a $150 stipend for an ambulance assignment				$50 for ambulance assignment		$125 per month for a paramedic	$100 per month for education $200 per month for bilingual	$300 stipend for a paramedic

College Station provides a $500 monthly incentive to personnel who hold and maintain a paramedic certification. In addition, employees receive a $150 bonus for each shift they are assigned to the ambulance. In Leander, paramedics receive a $300 per month stipend. Georgetown offers a similar incentive, providing a $50 bonus for every ambulance assignment. San Marcos provides a $125-per-month incentive for personnel who hold and maintain a paramedic license, which is below current market rates.

RECRUITMENT AND RETENTION

One challenge the City may face in transitioning the fire department to an EMS transport agency is hiring and onboarding trained paramedics. The initial education and certification to become a paramedic takes more than a year. One option is to employ non-certified staff and provide the training in-house through a fire/EMS academy. The rationale for this option is to create a demographic match, build community support, and foster a low-turnover environment. In contrast, the standalone EMS Department may have an easier time attracting paramedics, as it operates under a single-role staffing model.

ANALYSIS OF OPTIONS FOR FUTURE ALS TRANSPORT

Three options are available for providing emergency medical services in the City of San Marcos. A detailed evaluation of each alternative is presented in the subsequent sections.

ASSUMPTIONS

Several assumptions were developed for each potential option and are included in the following sections.

WORKLOAD PROJECTIONS

The most effective way to project workloads for emergency medical calls for service is to project population growth and use calls per capita.

EMS CALLS FOR SERVICE PROJECTION

	2024	2025	2030	2035	2040
Population	86,059	90,706	117,989	153,477	199,639
CFS	9,361	9,866	12,834	16,694	21,716
Per Capita	0.109				
Calls per Day	25.6	27.0	35.2	45.7	59.5

San Marcos performs an annual population estimate based on housing units. Over the past four years, San Marcos has averaged 4% annual population growth. In 2024, the city recorded a per-capita emergency medical call rate of 0.109 calls. Applying both the historical growth trend and the per-capita utilization rate enables the projection of emergency medical call volume through 2040. Additionally, the senior population has increased by approximately 1% over the past 4 years. Because older adults typically require a greater share of medical services, this demographic shift may increase future demand for emergency medical response. The following table outlines the components of response time for emergency medical calls handled by SMHCEMS.

RESPONSE TIME FOR PRIORITY 1 EMS CALLS – 2022 - 2024

Priority EMS Calls – 90th Percentile Times	2023 – 2024	2023	2024	Objectives
Call Processing	3:57	4:01	3:54	1:00
Turnout Time	2:41	2:44	2:35	1:00
Travel Time	9:36	9:37	9:34	4:00
Pct of Calls at/under 4 minutes	34.1%	35.8%	32.4%	
Pct of Calls at/under 8 minutes	81.5%	81.6%	81.5%	

The performance objectives shown are those from the San Marcos Fire Department Community Risk Assessment and Standard of Cover. However, for a two-tiered response system, NFPA 1710 provides the following performance benchmark objectives.

- First-Response (Tier 1) Unit: 4-minute travel time (to provide immediate BLS/ALS care)
- Transport (Tier 2) Unit: 8-minute travel time (for the ambulance to arrive with full ALS capability and transport capacity)

As shown in the previous table, the medic unit meets or exceeds the 8-minute performance benchmark in 81% of cases.

Another metric for future staffing and deployment decisions is unit utilization, the time a unit is committed to a call for service. In the SMHCEMS system, Medics 1, 4, and 5 are staffed 24 hours a day, 7 days a week. Based on the current average call duration, the utilization for each unit can be estimated, as shown in the table below.

UNIT HOUR UTILIZATION PROJECTION – FULL-TIME UNITS

	2024	2025	2030	2035	2040
Medic 1	20.2%	21.3%	27.8%	36.1%	47.0%
Medic 4	21.9%	23.1%	30.0%	39.0%	50.8%
Medic 5	20.8%	21.9%	28.5%	37.1%	48.2%

In the SMHCEMS system, Medics 2, 6, and 11 are staffed as peak load units or power units. These units are designed to be staffed during periods of high call volume. Each unit is staffed at different times of day and on different days of the week, for a total of 4,992 hours per year. Using the same methodology, the unit utilization for each unit is estimated as illustrated in the following table.

UNIT HOUR UTILIZATION PROJECTION – POWER UNITS

	2024	2025	2030	2035	2040
Medic 2	22.4%	16.5%	21.4%	27.9%	36.3%
Medic 6	22.4%	23.6%	30.8%	40.0%	52.0%
Medic 11	13.8%	14.5%	18.9%	24.5%	31.9%

The Unit Hour Utilization (UHU) was first introduced in the private ambulance service to optimize efficiency and determine profitability. In recent years, fire and emergency medical services have begun using the metric to quantify the proportion of time a unit spends actively responding to incidents relative to its availability for emergency responses. Medical units are typically used for this measurement because their calls are more frequent and relatively predictable, and because transport components increase the time required. However, there is no universal threshold for optimal unit utilization, making comparisons between services or departments challenging.

In 2016 Henrico County Virginia conducted a study of unit utilization. Through their study they developed a scale to identify the community impact on travel time and availability of their emergency medical units.[1]

HENRICO COUNTY UNIT UTILIZATION FACTORS

Factor	Indicator	Description
16% to 24%	Ideal Commitment Range	Personnel can maintain training requirements and physical fitness and can consistently achieve response time benchmarks. Units are available to the community more than 75 percent of the day. Units below 0.16 should be evaluated for more efficient use as additional operating capacity is available.
25%	System Stress	Community availability and unit sustainability are not questioned. First-due units are responding to their assigned community 75 percent of the time, and response benchmarks are rarely missed. At this level, agency leaders must understand that commitment factor increases are imminent. The community this unit serves will begin to see increasingly longer response times as neighboring stations send apparatus during one out of four calls.
26% to 29%	Evaluation Range	In this range, the community served will experience delayed incident responses. Just under 30 percent of the day, first-due ambulances are unavailable; thus, neighboring responders will likely exceed goals. Agency leadership should immediately begin identifying funding sources to provide relief. At this range, commitment factors are only expected to increase.
30% or more	Line in the Sand	Not Sustainable: Commitment Threshold – shows our community has less than a 70 percent chance of timely emergency service and immediate relief is vital. Personnel assigned to units at or exceeding 0.3 may show signs of fatigue and burnout and may be at increased risk of errors. Required training and physical fitness sessions are not consistently completed.

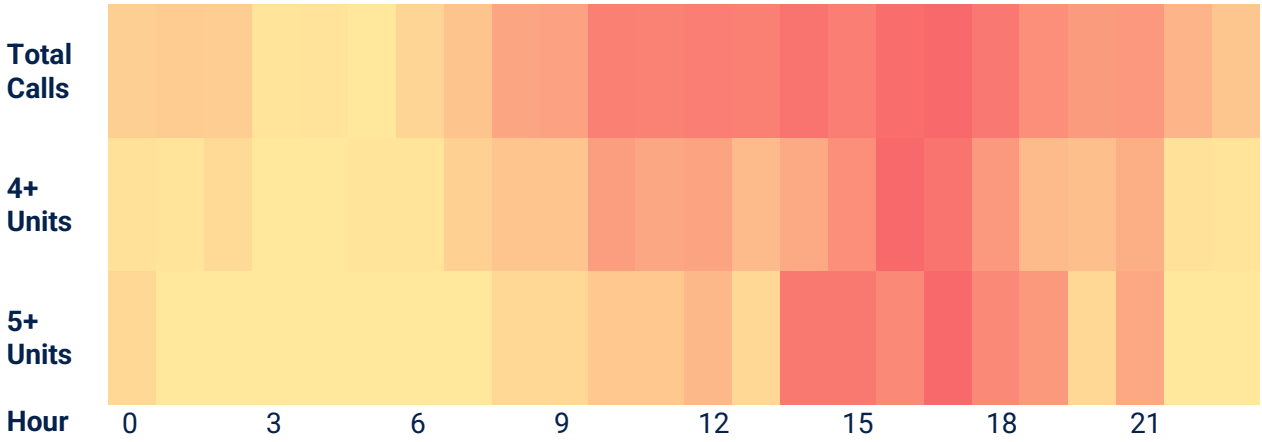
The full-time units are quickly approaching the evaluation range on the Henrico County scale and, by 2030, will be in the non-sustainable range. Adding the power units to a full-time status will allow the redistribution of calls and workload. Unit hour utilization will need to be closely monitored on an ongoing basis. Based on projected call growth and current utilization trends, there is a high likelihood that a seventh ambulance will be required by 2030, with additional transport units needed in subsequent years to maintain acceptable response times and system reliability.

Concurrent calls are an essential metric because they indicate how often multiple calls for service occur simultaneously. Most emergency services systems can handle numerous calls; more critical is the availability of resources for the next call. In the SMHCEMS system, there are six medic units available in

[1] https://www.fireengineering.com/apparatus-equipment/how-busy-is-busy/#gref

the city. The following graph illustrates the number of times multiple units are committed to calls for service.

EMS UNIT COMMITMENTS – 2024



As illustrated, the number of units committed increases from about 10 am through 9 pm. During peak call times, there may be only 1 or 2 units available to respond, which can mean they are responding from one side of the city to the other, increasing travel time.

EMS CALL DISTRIBUTION

As noted, the City of San Marcos has six medic units assigned. Of the calls assigned to these units, approximately 19.0 percent in 2023 and 19.5 percent in 2024 occurred outside the city limits. Conversely, a relatively small share of EMS calls occurring within the city, approximately 1.5 percent in 2023 and 1.7 percent in 2024, were handled by units from outside the city. This indicates that the city units function primarily as a net exporter of EMS capacity.

ASSUMPTION FINDING

The City of San Marcos should operate six fully staffed medic units on a 24-hour, 7-day-a-week basis, supported by three additional reserve units to ensure service continuity during maintenance, repairs, or unexpected mechanical failures.

FINANCIAL RESOURCES

The financial resources comprise multiple categories and line items that are likely to remain consistent regardless of the final option selected.

REVENUE

The primary source of funding for emergency medical services is patient transport charges. Revenue is driven primarily by overall call volume and the proportion of calls that result in transport for additional medical care. A critical related factor is the system's payor mix, which includes Medicare, Medicaid, commercial insurance, and private-pay patients. Based on FY 2024–2025 financial data, the average

charge per call was $1,030.33. As with any health care provider, contractual adjustments and write-offs are routine components of operations. For example, Medicare reimburses a fixed amount for transportation, and once that payment is accepted, it must be recognized as full payment. CAD data indicate that approximately 57% of calls result in patient transport. Using the previously identified call projections, the following table assumes that 57% of projected calls are billable.

FIVE-YEAR PATIENT REVENUE PROJECTION

Line Item	FY 25 - 26	FY 26 - 27	FY 27 - 28	FY 28 - 29	FY 29-30	FY 30-31
Gross Charges	$5,715,677	$5,944,304	$6,182,076	$6,429,359	$6,686,533	$6,953,995
Contractual Adjustment	($1,829,017)	($1,902,177)	($1,978,264)	($2,057,395)	($2,139,691)	($2,225,278)
Deductions	($342,941)	($356,658)	($370,925)	($385,762)	($401,192)	($417,240)
Bad Debt Write Off	($1,314,606)	($1,367,190)	($1,421,877)	($1,478,753)	($1,537,903)	($1,599,419)
Net Patient Revenue	$2,229,114	$2,318,279	$2,411,010	$2,507,450	$2,607,748	$2,712,058

STATUS QUO

This option would preserve the current organizational structure and enable it to continue providing services to the City of San Marcos.

ORGANIZATION AND STAFFING

As the service area changes, the organization must adapt as well. The current system operates 10 medic units, which will be reduced to 6. This reduction will result in a corresponding decrease in personnel and assets, including ambulances.

The current staffing model has two supervisors per shift, a Battalion Chief and a Captain. With the reduction of medic units, there is a need for one supervisor per shift. Several organizational principles guide an organizational structure, including:

- Accountability and responsibility
- Coordination of Work Efforts
- Degree of Organizational Risk
- Supervisor and Management Span of Control

Nationally recognized best practice for span of control in highly technical and professional positions is to limit direct reports to 5 or 6, with 9 considered the maximum to mitigate organizational risk. With 6 medic units, the span of control is within the acceptable limits.

RECOMMENDATION

Reduce the number of supervisors per shift by eliminating the Captain's position.

OPERATIONAL STAFFING NEEDS

The current work schedule for shift personnel is twenty-four (24) continuous hours on duty followed by forty-eight (48) continuous hours off duty, commonly referred to as a 24/48 schedule. The following table shows the typical staffing required to cover a single position.

24 hours on/48 hours off	
Single Position	
2,912.0	Hours for one Paramedic / EMT
240.0	PTO
2,672.0	Hours Available to work
1.09	People to cover 2,920 hours
3.27	People to cover 24 / 7 / 365

The hours allocated for PTO are based on the average hours used by current staff. The system will require 1.1 staff members to cover a 24-hour shift and 3.3 staff members to cover a single position for 24 hours, 7 days a week. The current service delivery model requires a minimum of two personnel per medic unit. With the elimination of the Captain, a Battalion Chief becomes the shift supervisor. Staffing six units plus a Battalion Chief results in a minimum staffing level of 13 personnel per shift.

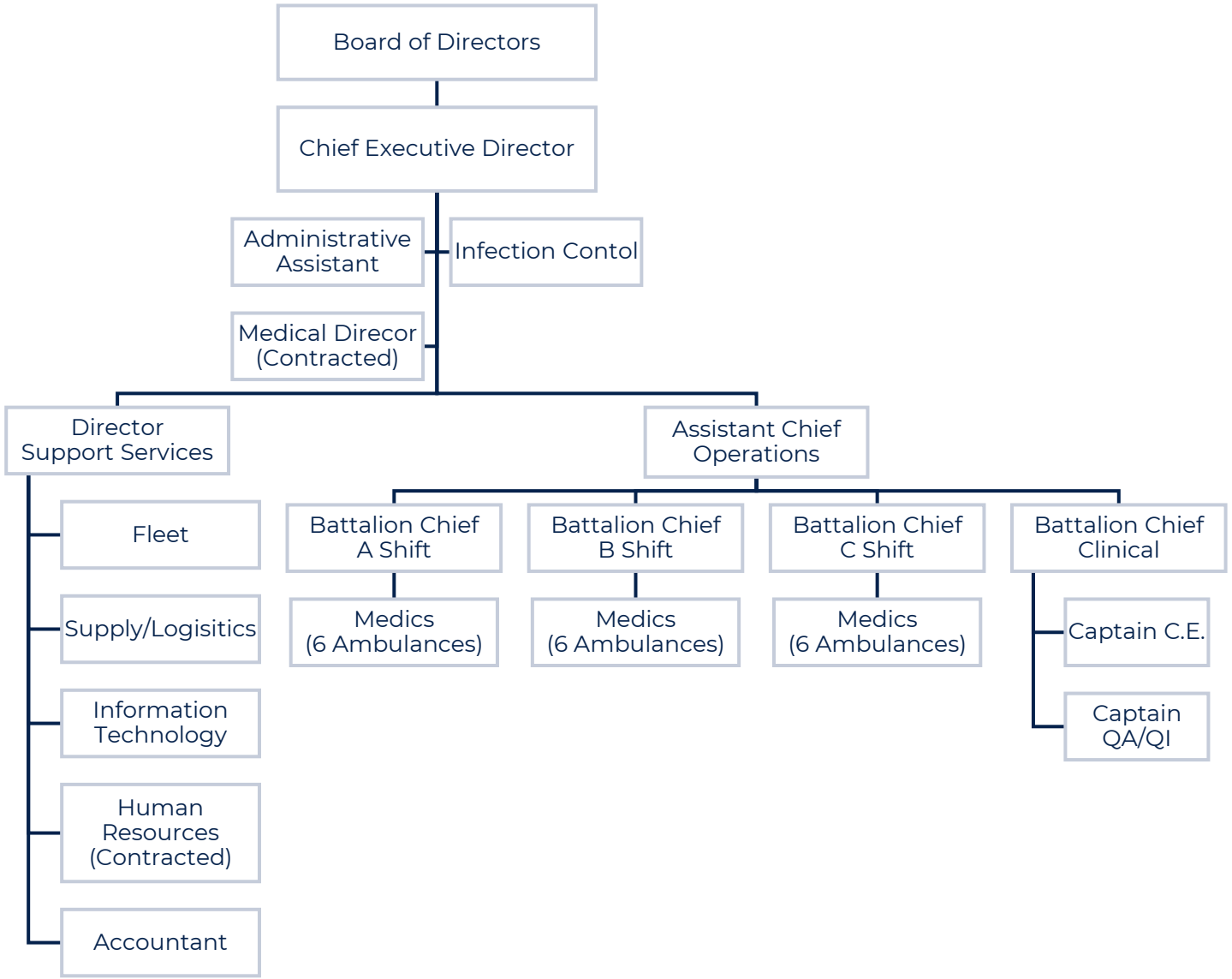
24 hours on/48 hours off	
Single Shift	
13	Minimum Staffing per Shift
14.2	Number Assigned per Shift
15	Number Needed per Shift

Department	
3	Number of Shifts to Cover
15	Staffing per Shift
45	Department Shift Staffing

As illustrated, at least 45 operational personnel will be needed to operate the EMS system. With 15 personnel assigned per shift, occasional overtime will likely be required to ensure coverage. This is also based on the average time-off benefit. As seniority increases, senior personnel will accrue more time off, which may require additional overtime to maintain coverage or the addition of personnel to cover the time off.

The following organizational chart illustrates the revised organizational structure.

SAN MARCOS HAYS COUNTY EMS ORGANIZATIONAL CHART



AUTHORIZED STAFFING

The following table outlines the SMHCEMS personnel needed in the new organization.

Unit	Auth.	Position
Administration		
Administration	1	Executive Director
	1	Assistant Chief – Operations
	1	Director – Support Services
	1	Administrative Assistant
Sworn	**2**	
Civilian	**2**	
Total Staff	**4**	
Operations		
Command	3	Battalion Chiefs
Operations		
A Shift	1	Lt. Paramedic
	5	Paramedics
	6	EMT's
B Shift	1	Lt. Paramedic
	5	Paramedics
	6	EMT's
C Shift	1	Lt. Paramedic
	5	Paramedics
	6	EMT's
Float	6	Paramedics
Clinical Education and QA/QI		
Training and Education	1	Battalion Chief
Quality Assurance	2	Captain
Sworn	**48**	
Civilian	**0**	
Total Staff	**48**	
Support Services		
	1	Fleet Mechanic
	1	Resource Specialist
	1	IT Specialist
	1	Accountant
Sworn	**0**	
Civilian	**4**	

Total Staff	**4**
San Marcos Hays County EMS	
Sworn	**50**
Civilian	**6**
Total Staff	**56**

FINANCIAL ESTIMATES FOR CONTINUED SERVICE BY SMHCEMS

The SMHCEMS budget included a detailed breakdown of the agencies participating in the system: ESD #9, Guadalupe County, and the City of San Marcos. Each agency was allocated a proportional share of both system revenue and service delivery costs. Under this model, the City of San Marcos contributed 42% of the total revenue and was therefore responsible for 42% of the associated expenditures. For purposes of this evaluation, 50% of the cost was used for many of the line items. Some costs can be allocated using actual expenses or a percentage. The personnel costs were adjusted to match the authorized staffing chart, and other fees could be reduced. Some expenses are allocated in full, such as the administration building lease, which will no longer be shared with partner agencies.

EXPENDITURES PROJECTION

Line Item	FY 25 - 26 Budget	FY 26 - 27	FY 27 - 28	FY 28 - 29	FY 29 - 30	FY 30 - 31
Personnel	$6,997,419	$7,207,342	$7,423,562	$7,646,269	$7,875,657	$8,111,927
Equipment	$91,385	$94,126	$96,950	$99,859	$102,854	$105,940
Communications	$221,821	$228,476	$235,330	$242,390	$249,661	$257,151
Administrative	$51,995	$53,555	$55,161	$56,816	$58,521	$60,276
Operations	$284,238	$292,765	$301,548	$310,595	$319,913	$329,510
Professional Fees	$503,549	$518,656	$534,215	$550,242	$566,749	$583,752
Facilities	$214,236	$220,663	$227,283	$234,102	$241,125	$248,359
Training	$77,285	$79,604	$81,992	$84,452	$86,985	$89,595
Vehicles	$360,318	$371,127	$382,261	$393,729	$405,541	$417,707
Total Operating Expense	**$8,802,246**	**$9,066,314**	**$9,338,303**	**$9,618,452**	**$9,907,006**	**$10,204,216**
Capital Loan Payments	$517,538	$358,923	$214,392	$33,111	$33,111	$33,111
Capital Investment	$145,000	$145,000	$145,000	$495,000	$805,000	$871,000
Total Expenses	**$9,464,784**	**$9,570,236**	**$9,697,695**	**$10,146,563**	**$10,745,116**	**$11,108,327**

TIMELINES FOR IMPLEMENTATION

SMHCEMS could transition to serving only the City of San Marcos within approximately eight to 12 months. This timeframe allows the City to resolve outstanding agreements, align staffing and budgets, and transition without disrupting emergency medical services.

Phase 1: Council Direction and Transition Planning (months 0–2)

- City Council provides direction to move SMHCEMS to a San Marcos–only service model.
- Confirm service levels, coverage expectations, and the number of ambulances required.
- Form a transition oversight team (City Manager's Office, EMS leadership, Finance, HR, Legal, Medical Director).
- Begin formal discussions with the remaining partner agency regarding separation.

Phase 2: Legal and Financial Separation (months 2–4)

- Amend or terminate remaining interlocal agreements.
- Resolve allocation or transfer of shared assets, contracts, and liabilities.
- Finalize San Marcos–only EMS budget and cost structure.
- Align billing, insurance, and compliance processes with a City-only service area.

Phase 3: Staffing and Operational Alignment (months 4–8)

- Confirm staffing levels needed to support San Marcos–only coverage.
- Retain and realign existing personnel to minimize disruption.
- Ensure alignment or modify the existing CBA agreement.
- Adjust deployment plans to reflect a reduced service area.
- Coordinate with dispatch, hospitals, and mutual-aid partners.

Phase 4: Transition and Go-Live (8–12 months)

- Complete readiness review (staffing, units, equipment, policies).
- Finalize branding, reporting, and performance metrics.
- Officially transition SMHCEMS to a City-only EMS provider.
- Monitor performance closely during the initial operating period.

FIRE BASED EMS

This option would integrate the emergency medical services delivery system into the fire department's organizational and operational structure.

ORGANIZATION AND STAFFING

Under this option, the existing organization would be incorporated into the fire department and would need to adapt to and integrate into its organizational structure. The current system operates 10 medic units, which would be reduced to 6. This reduction would result in a corresponding decrease in staffing levels and physical assets, including ambulances.

OPERATIONAL STAFFING NEEDS

Under this option, emergency medical services are fully integrated into the fire department, requiring the analysis to address the entire scope of fire department operations rather than evaluating EMS as a standalone function. The initial phase of this assessment focuses on the department's current organizational structure, staffing model, and baseline operational capacity. The following table presents the staffing factor necessary to ensure continuous coverage for a single operational position, incorporating work schedules, actual leave, and relief requirements.

24 hours on/48 hours off	
Single Position	
2,912.0	Hours for One Position
359.3	PTO
2,552.7	Hours Available to work
1.14	People to cover 2,912 hours
3.42	People to cover 24 / 7 / 365

The paid time off (PTO) assumptions used in this analysis are based on the average of 44 months of actual leave usage by the current operational staff.. With these assumptions, the system requires 1.13 personnel to staff a single 24-hour shift and 3.42 personnel to provide continuous coverage for a single position, 24 hours per day, seven days per week. Based on the department's existing minimum staffing levels for fire suppression operations, the following table summarizes the total personnel required to staff the department on a full-time basis.

The 3.42 staffing factor is a critical planning benchmark because it reflects the minimum number of employees required to sustain uninterrupted operations without excessive overtime, thereby directly influencing workforce sustainability, budget stability, and service reliability.

24 hours on/48 hours off	
Single Shift	
31	Minimum Staffing per Shift
35.4	Number Assigned per Shift
35	Number Needed per Shift

Department	
3	Number of Shifts to Cover
35	Number needed per shift
105	Department Shift Staffing

As illustrated, a minimum of 105 operational personnel is required to sustain fire suppression operations. The department is currently authorized for 90 operational positions, resulting in a shortfall of 15 personnel relative to minimum staffing needs.

The integration of emergency medical services further increases operational demand, raising minimum on-duty staffing from 31 to 43 positions. Applying the same 3.42 staffing factor to these additional EMS-related positions, the following table summarizes the total number of operational personnel required to staff the combined fire and EMS system.

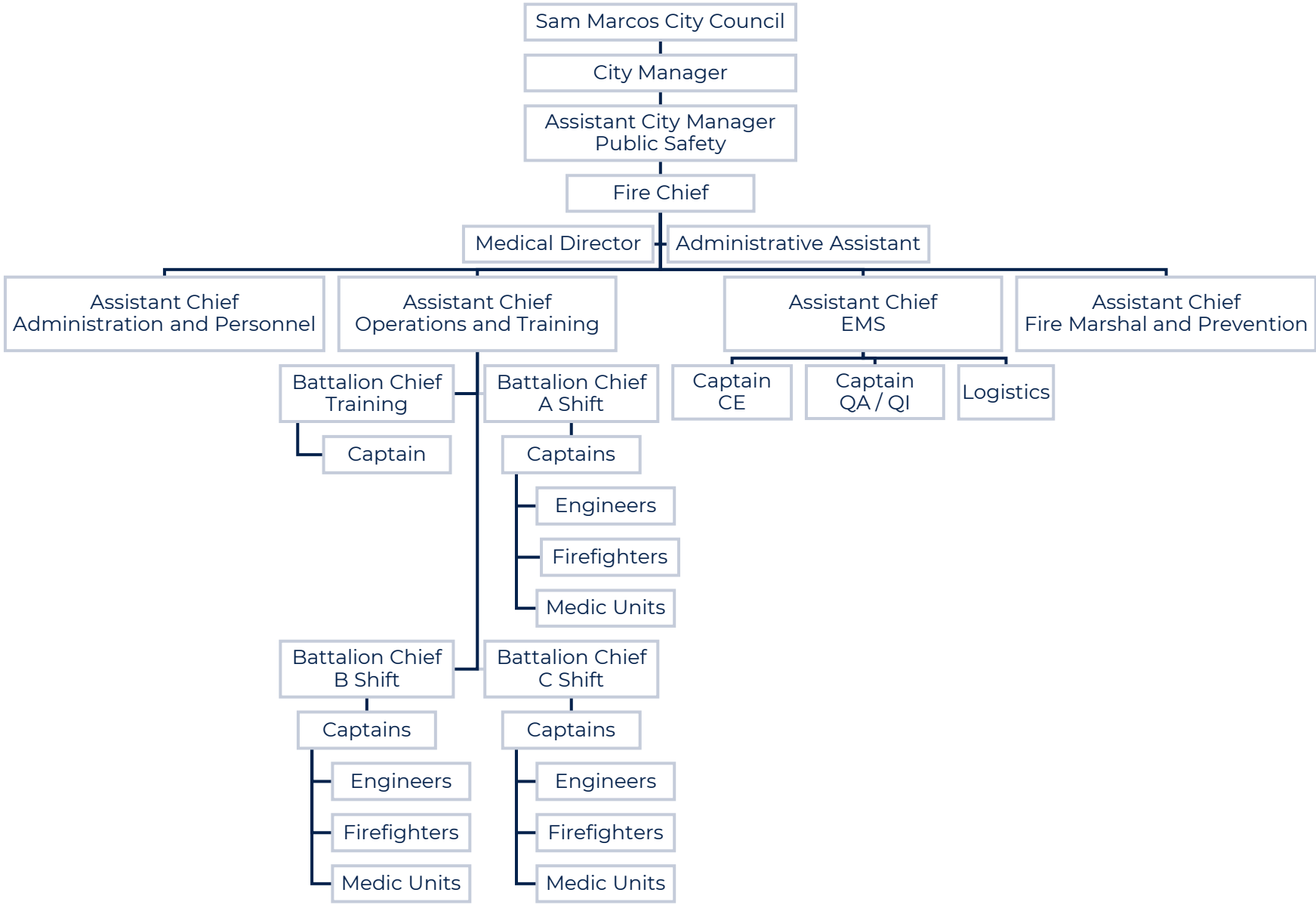
From a management perspective, addressing the existing 18-position staffing gap is foundational to successful EMS integration, as unresolved fire-suppression shortfalls would likely be absorbed through overtime or staffing trade-offs, thereby increasing operational risk, workforce fatigue, and budget volatility before new EMS responsibilities are added.

24 hours on/48 hours off	
Single Shift	
43	Minimum Manning per Shift
49.1	Number Assigned per Shift
49	Number Needed per Shift
Department	
3	Number of Shifts to Cover
49	Number needed per shift
147	Department Shift Staffing

As illustrated, a minimum of 147 operational personnel, an increase of 57 positions (15 for fire suppression and 42 for EMS), will be required to operate the integrated fire and EMS system. This staffing level is based on the current average use of leave benefits. As employee seniority increases, accrued time off will also increase, which may necessitate additional overtime to maintain minimum staffing levels or the addition of personnel to backfill scheduled absences.

As of August 2025, the department has 45 personnel holding paramedic certifications; however, only 36 are assigned to operational shifts, resulting in 12 paramedics per shift. While this meets the minimum staffing required to place six ambulances in service, it provides no operational depth to absorb leave usage, training demands, vacancies, or simultaneous high-acuity incidents, leaving the transport system highly vulnerable to disruption. The following organizational chart illustrates the fire department's structure with EMS included.

FIRE-BASED EMERGENCY MEDICAL SERVICES – SAN MARCOS



AUTHORIZED STAFFING

The following table presents the additional staffing required to support fire suppression and emergency medical service delivery.

Unit	Auth.	Position
Administration		
Administration	1	Assistant Chief – EMS
	1	Administrative Assistant
Sworn	**1**	
Civilian	**1**	
Total Staff	**2**	
Operations		
Operations		
A Shift	19	Firefighter/EMT/Paramedic
B Shift	19	Firefighter/EMT/Paramedic
C Shift	19	Firefighter/EMT/Paramedic
Clinical Education and QA/QI		
Training and Education	1	Captain
Quality Assurance	1	Captain
Supply/Logistics	1	Resource Specialist
Fleet Maintenance		
Fleet Maintenance	**1**	Fleet Service Technician
Sworn	**59**	
Civilian	**2**	
Total Staff	**61**	
San Marcos EMS Division		
Sworn	**60**	
Civilian	**3**	
Total Staff	**63**	

In addition to training and quality assurance, the two Captains will provide support for records management, HIPAA controls, and regulations governing narcotic drug inventories and licensing. The Resource Specialist will handle the EMS supplies and equipment.

FINANCIAL ESTIMATES FOR EMS TRANSPORT SERVICE BY THE FIRE DEPARTMENT

Using the SMHCEMS budget as the baseline, the following financial projection was developed. Personnel costs were adjusted to align with the current Meet and Confer agreement between the firefighters and the City. In addition, several expense categories associated with the existing EMS organization, such as

facility maintenance, payroll service fees, accounting and audit fees, legal fees, and other select professional service fees, would be eliminated under an integrated fire and EMS model.

The expenses shown represent the incremental cost of integrating fire and EMS operations, including the additional personnel required to meet the established relief factor.

EXPENDITURES PROJECTION

Line Item	FY 25 – 26 Budget	FY 26 – 27	FY 27 – 28	FY 28 – 29	FY 29 – 30	FY 30 – 31
Personnel	$7,533,512	$7,759,517	$7,992,303	$8,232,072	$8,479,034	$8,733,405
Equipment	$91,385	$94,126	$96,950	$99,859	$102,854	$105,940
Communications	$200,813	$206,837	$213,042	$219,434	$226,017	$232,797
Administrative	$51,995	$53,555	$55,161	$56,816	$58,521	$60,276
Operations	$284,238	$292,765	$301,548	$310,595	$319,913	$329,510
Professional Fees	$384,450	$395,984	$407,863	$420,099	$432,702	$445,683
Facilities	$214,236	$220,663	$227,283	$234,102	$241,125	$248,359
Training	$77,285	$79,604	$81,992	$84,452	$86,985	$89,595
Vehicles	$360,318	$371,127	$382,261	$393,729	$405,541	$417,707
Total Operating Expense	**$9,198,232**	**$9,474,179**	**$9,758,404**	**$10,051,156**	**$10,352,691**	**$10,663,272**
Capital Loan Payments	$517,538	$358,923	$214,392	$33,111	$33,111	$33,111
Capital Investment	$145,000	$145,000	$145,000	$495,000	$805,000	$871,000
Total Expenses	**$9,860,770**	**$9,978,101**	**$10,117,796**	**$10,579,267**	**$11,190,802**	**$11,567,382**

TIMELINES FOR IMPLEMENTATION

EMS could be transitioned into the San Marcos Fire Department in as little as four to eight months. This approach minimizes risk, uses existing City infrastructure, and provides the quickest path to stable, City-controlled emergency medical services.

Phase 1: Council Direction and Transition Planning (months 0 - 3)

- City Council directs that EMS be integrated into the San Marcos Fire Department.
- Confirm service levels, ambulance count, and staffing model.
- Establish a transition team (City Manager's Office, Fire Chief, EMS leadership, Finance, HR, Legal, Medical Director).
- Engage the Capital Area Trauma Regional Advisory Council (CATRAC)
- Maintain existing SMHCEMS operations during the transition.

Phase 2: Legal, Financial, and Administrative Integration (months 3 - 8)

- Amend or terminate remaining interlocal agreements.
- Transfer EMS assets, contracts, and obligations to the City.

- Integrate the EMS budget into the Fire Department structure.
- Align billing, risk management, policies, and compliance under the Fire Department.
- Amend ALS/MICU protocols as needed.
- Join the CATRAC.

Phase 3: Staffing and Labor Alignment (months 6 -18)

- Align pay, benefits, schedules, and classifications with the Fire Department and the Meet and Confer agreement.
- Hire and onboard new personnel.
- Conduct orientation, field training, and targeted cross-training.
- Retain current deployment and coverage by SMHCEMS throughout this phase.

Phase 4: Operational Integration and Go-Live (months 16 - 21)

- Application, inspection, and licensure by the Texas Department of State Health Services (DSHS).
- Finalize station assignments and deployment plans.
- Integrate dispatch, training, QA/QI, and supervision.
- Conduct readiness review.
- Officially launch fire-based EMS operations.

EMS AS A SEPARATE CITY DEPARTMENT

ORGANIZATION

Another option is to establish a separate department within the City's organizational structure to provide emergency medical services, with its own management, staffing, and operational oversight.

OPERATIONAL STAFFING NEEDS

The current work schedule for shift personnel is twenty-four (24) continuous hours on duty followed by forty-eight (48) continuous hours off duty, commonly referred to as a 24/48 schedule. The following table illustrates the typical staffing required to cover a single position.

24 hours on/48 hours off	
Single Position	
2,912.0	Hours for one Paramedic / EMT
359.3	PTO
2,552.7	Hours Available to work
1.14	People to cover 2,920 hours
3.42	People to cover 24 / 7 / 365

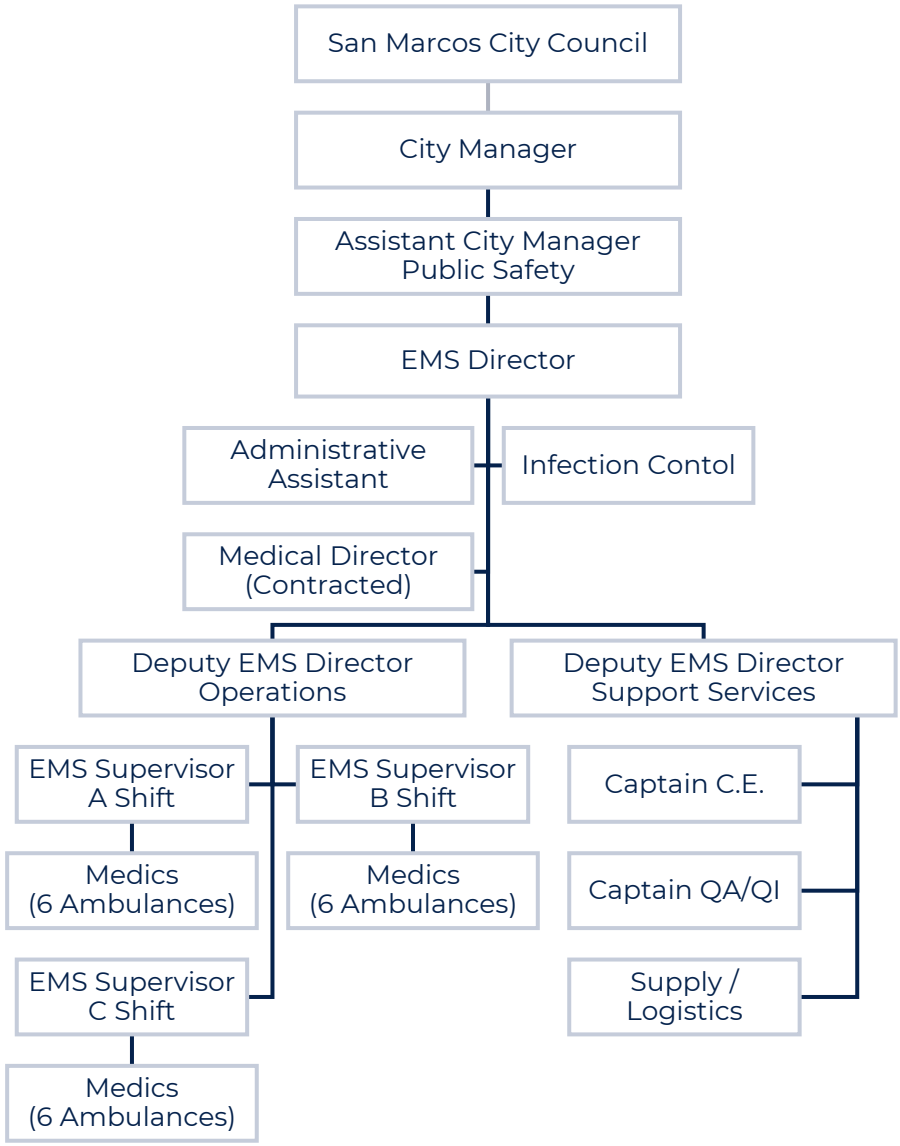
The hours allocated for PTO are based on the average hours used by the fire department staff. The system will require 1.14 staff members to cover a 24-hour shift and 3.42 staff members to cover a single position for 24 hours, 7 days a week. The department's delivery model will require a minimum of two personnel per medic unit, plus an EMS Supervisor. Staffing six units and the EMS Supervisor results in a minimum staffing level of 13 personnel per shift.

24 hours on/48 hours off	
Single Shift	
13	Minimum Staffing per Shift
14.8	Number Assigned per Shift
15	Number Needed per Shift
Department	
3	Number of Shifts to Cover
15	Staffing per Shift
45	Department Shift Staffing

As illustrated, at least 45 operational personnel will be needed to operate the EMS system. With 15 personnel assigned per shift, occasional overtime will likely be required to ensure coverage. This is also based on the average time-off benefit. As seniority increases, senior personnel will accrue more time off, which may require additional overtime to maintain coverage or the addition of personnel to cover the time off.

The following organization chart illustrates the new organization.

SAN MARCOS EMS DEPARTMENT ORGANIZATIONAL CHART



AUTHORIZED STAFFING

The following table outlines the personnel needed in the new department.

Unit	Auth.	Position
Administration		
Administration	1	EMS Director
	1	Deputy EMS Director– Support
	1	Deputy EMS Director– Operations
	1	Administrative Assistant
Sworn	**2**	
Civilian	**2**	
Total Staff	**4**	
Operations		
Command	3	EMS Supervisor
Operations		
A Shift	1	Paramedic - Field Trainer
	5	Paramedics
	6	EMT's
B Shift	1	Paramedic - Field Trainer
	5	Paramedics
	6	EMT's
C Shift	1	Paramedic - Field Trainer
	5	Paramedics
	6	EMT's
Float	6	Paramedics
Sworn	**45**	
Civilian	**0**	
Total Staff	**45**	
Support Services		
Training and Education	1	Captain
Quality Assurance	1	Captain
Supply/Logistics	1	Resource Specialist
Fleet Maintenance	1	Fleet Service Technician
Sworn	**2**	
Civilian	**2**	
Total Staff	**4**	
San Marcos City EMS Department		
Sworn	**49**	
Civilian	**4**	
Total Staff	**53**	

FINANCIAL ESTIMATES FOR EMS SERVICE BY A CITY EMS DEPARTMENT

Using the SMHCEMS budget as a base, the following financial projection was developed. The personnel costs were adjusted to match the current Meet and Confer agreement between the firefighters and the city, as well as the city's pay scale. In addition, several expense categories associated with the existing EMS organization, such as facility maintenance, payroll service fees, accounting and audit fees, legal fees, and other select professional service fees, would be eliminated under a City-based EMS model.

Expenditures Projection

Line Item	FY 25 – 26 Budget	FY 26 – 27	FY 27 – 28	FY 28 – 29	FY 29 – 30	FY 30 – 31
Personnel	$6,878,379	$7,084,730	$7,297,272	$7,516,190	$7,741,676	$7,973,926
Equipment	$91,385	$94,126	$96,950	$99,859	$102,854	$105,940
Communications	$200,813	$206,837	$213,042	$219,434	$226,017	$232,797
Administrative	$51,995	$53,555	$55,161	$56,816	$58,521	$60,276
Operations	$284,238	$292,765	$301,548	$310,595	$319,913	$329,510
Professional Fees	$384,450	$395,984	$407,863	$420,099	$432,702	$445,683
Facilities	$214,236	$220,663	$227,283	$234,102	$241,125	$248,359
Training	$77,285	$79,604	$81,992	$84,452	$86,985	$89,595
Vehicles	$360,318	$371,127	$382,261	$393,729	$405,541	$417,707
Total Operating Expense	**$8,543,099**	**$8,799,392**	**$9,063,373**	**$9,335,275**	**$9,615,333**	**$9,903,793**
Capital Loan Payments	$517,538	$358,923	$214,392	$33,111	$33,111	$33,111
Capital Investment	$145,000	$145,000	$145,000	$495,000	$805,000	$871,000
Total Expenses	**$9,205,636**	**$9,303,314**	**$9,422,766**	**$9,863,385**	**$10,453,443**	**$10,807,903**

TIMELINES FOR IMPLEMENTATION

A standalone City EMS department could be implemented in about nine to fifteen months. This option provides direct City control and a dedicated focus on EMS. Still, it requires more time and resources to establish new administrative and operational systems compared to a fire-based approach.

Phase 1: Council Direction and Department Design (months 0 - 3)

- City Council authorizes creation of a standalone EMS department.
- Define mission, service level, and the San Marcos–only service area.
- Establish organizational structure (EMS Director/Chief, medical director, and command staff).
- Engage the Capital Area Trauma Regional Advisory Council (CATRAC)
- Maintain SMHCEMS operations during transition.

Phase 2: Legal, Financial, and Governance Setup (months 3 - 6)

- Amend or terminate remaining interlocal agreements.

- Transfer EMS assets, contracts, and liabilities to the City.
- Establish department budget, financial controls, and billing systems.
- Adopt City policies for EMS operations, HR, risk management, and compliance.

Phase 3: Staffing and Systems Build-Out (months 6–18 months)

- Hire department leadership, administrative staff, and contract medical director.
- Establish pay, benefits, schedules, and labor framework.
- Transition existing EMS personnel to City employment/hire additional staff as needed.
- Procure or reassign ambulances, equipment, and IT systems.
- Create training, QA/QI, and medical oversight structures.
- Join the CATRAC

Phase 4: Operational Readiness and Go-Live (16–21 months)

- Application, inspection, and licensure by the Texas Department of State Health Services (DSHS).
- Finalize deployment and response plans.
- Conduct training, orientation, and system testing.
- Coordinate with dispatch, hospitals, and mutual-aid partners.
- Launch EMS operations as a City department.
- Monitor and adjust operations during the initial months.

RECOMMENDATIONS TO POLICYMAKERS

PROJECT RECOMMENDATIONS

Based on the analysis of current system performance, projected service demand, financial modeling, and comparative review of peer agencies, it is recommended that the City establish a standalone, City-operated Emergency Medical Services (EMS) Department to provide Advanced Life Support (ALS) transport services. This recommendation is driven by the City's desire for direct accountability, long-term governance stability, and operational focus specific to emergency medical services. A City-operated EMS department provides the following advantages:

- **Direct City Oversight and Accountability**: A standalone EMS department places full responsibility for emergency medical service delivery under City management, enabling elected officials and executive leadership to set service expectations, performance benchmarks, and budget priorities.
- **Dedicated EMS Mission and Leadership**: Unlike integrated or multi-jurisdictional models, a city-based EMS department maintains a singular focus on medical response, patient care, clinical quality, and regulatory compliance, without competing operational priorities.
- **Financial Transparency and Cost Control**: Operating EMS as a City department enables full integration of revenue and expenditure data into the City's budget process. This improves transparency related to transport revenue, staffing costs, capital replacement planning, and long-term financial sustainability.
- **Scalability to Match Community Growth**: San Marcos is experiencing sustained population growth and increasing medical call volume. A City-based EMS department allows staffing, deployment, and fleet size to be expanded incrementally in response to measured demand rather than through renegotiation of interlocal agreements.
- **Continuity of Service Following Regional Changes**: With the withdrawal of ESD #9 and evolving regional service relationships, a City-operated EMS department eliminates reliance on external governance structures and provides long-term service continuity for residents.

OPERATIONAL CONSIDERATIONS

Under this model, the City would operate six fully staffed ALS transport units, 24 hours per day, supported by a dedicated EMS supervisory and administrative structure. Staffing levels, deployment assumptions, and relief factors are consistent with nationally recognized best practices and reflect realistic workload projections.

The recommended organizational structure includes:

- Dedicated EMS executive leadership

- Shift supervisors and field training officers
- Clinical education and QA/QI oversight
- Integrated logistics and support functions

This structure balances operational effectiveness with fiscal responsibility and limits unnecessary administrative overhead.

FINANCIAL IMPACT

Financial modeling indicates that a City-operated EMS department is financially viable and can be sustained using projected transport revenues supplemented by City support as needed. While startup and transition costs are higher than other options, long-term operating costs remain competitive, and the City retains full control over future cost drivers, staffing levels, and capital investments

IMPLEMENTATION TIMELINE

Establishing a standalone City EMS department can be completed in approximately 21 months, allowing sufficient time for governance actions, staffing transitions, system setup, and phased implementation without disrupting emergency medical services.

IMPLEMENTATION CHECKLIST

The following checklist can be used as a guide during the planning and formation of a City EMS Department:

1. **Governance**
    - City ordinance/resolution authorizing ALS/MICU EMS.
    - Defined primary response area & written relationships with existing EMS/fire.
2. **Medical Direction**
    - EMS Medical Director contracted.
    - ALS + MICU protocols approved and signed.
    - QA/QI plan documented.
3. **Operations & Resources**
    - MICU-capable ambulances specified and ordered.
    - Monitors (12-lead, $EtCO_2$), pumps, ventilators (if used) procured.
    - Medication formulary set, drug storage, and DEA plan in place.
    - ePCR system selected and configured.

4. **Personnel**
    - ALS/MICU staffing model set; positions funded.
    - Paramedics/others hired and credentialed.
    - MICU-specific training completed and documented.
5. **Systems Integration**
    - 911/dispatch agreement executed with PSAP.
    - Radio plans and hospital contact procedures established.
    - RAC membership and regional plan alignment.
6. **DSHS Application**
    - Provider application, fees, insurance, and vehicle list completed.
    - Protocols, policies, and the medical director agreement were submitted.
    - Inspection completed and any deficiencies corrected.

EMERGENCY MEDICAL SERVICES OPTIONS COMPARISON

Category	Fire-Based EMS	City EMS Department	Status Quo
Implementation Timeline	Up to 21 months	Up to 21 months	Already operating but shorter. Up to 12 months
Speed to Implement	Fastest	Moderate	N/A
Governance & Accountability	Direct City control through the Fire Chief and the City Manager	Direct City control through the EMS Director and the City Manager	Shared governance; reduced but still divided
Administrative Structure	Uses existing Fire Dept. admin, HR, finance, training	New department administration required	Shared administrative structure
Startup Complexity	Low	High	Low (but unstable long-term)
Upfront Costs	Low to moderate	Highest	Low
Long-Term Cost Control	Strong City control	Strong City control	Limited City control
Staffing & Labor Alignment	Aligns with the existing Meet and Confer agreement	Requires a new or modified labor framework	Mixed employment models
Operational Integration	High (fire & EMS coordinated)	Moderate (coordination required)	Varies by partner
System Stability During Transition	High	Moderate	Moderate to low
Risk Level	Lowest	Moderate	Moderate to high
Flexibility to Adjust Deployment	High	Moderate	Low
Primary Advantages	Fastest transition, lowest risk, fewer new costs, clear accountability	Dedicated EMS focus, independent leadership	Shared costs, regional coverage
Primary Challenges	Cultural integration of fire/EMS roles	Longer timeline, higher startup cost, new bureaucracy	Reduced partnership weakens sustainability
Best Use Case	Rapid, stable City control with minimal disruption	Long-term independent EMS vision	Short-term bridge only