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Fire and Emergency Medical Service Staffing Study

Burleson Fire Department
Burleson, Texas

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INTRODUCTION

The Burleson Fire Department retained FITCH to evaluate their current state of operations and make recommendations for operational and administrative staffing to prepare for a fiscally and operationally sustainable future. Thus, this evaluation considers the Department's needs over the next five years as they relate to increased demand for services, expanding EMS operations, changes related to employee leave, and the opening of Station 4.

Five years of payroll data for fiscal years 2018 through 2022 were provided. Department staff identified those positions that were operational, or line personnel assigned to staff 24-hour shifts in fire stations and worked with the FITCH team to properly categorize pay codes. Various other documents, including relevant policies and procedures, financial records, job descriptions, fleet inventories, and compensation data were also provided and reviewed.

This review was intended to specifically assess and evaluate staffing levels at the operational and administrative levels. The operational assessment includes current shift coverage, future shift coverage, future station deployments, minimum staffing policies, vacation & sick leave accrual and use policies, overtime utilization, and other practices that impact staffing and scheduling requirements. The administrative assessment considers current and future needs to adequately support and facilitate all core agency programs and functions.

OPERATIONAL ASSESSMENT

Time Assessment

The following assessment considers payroll time codes considered in the provided data set. As an operational assessment, the data was filtered to the operational classifications of Battalion Chief, Lieutenant, Apparatus Operator, and Firefighter. Budgeted FTE positions (Table 1) were utilized to provide weighted values were appropriate.

Table 1: Budgeted FTE Counts by Position and Year

Operations FTE Count - Budgeted							
Position	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2018-2022**
FIRE BATTALION CHIEF	3	3	3	3	3	3	0.0%
FIRE LIEUTENANT	9	9	9	9	9	9	0.0%
FIRE APPARATUS OPERATOR	9	9	9	9	9	9	0.0%
FIREFIGHTER	24	24	24	25	31	37	29.2%
Operations Total	**45**	**45**	**45**	**46**	**52**	**58**	**15.6%**
Year-over-year change	**n/a**	**0.0%**	**0.0%**	**2.2%**	**13.0%**	**11.5%**	
Admin Battalion Chief	1	1	1	1	0	2	-100.0%
Admin Lieutenant	0	0	0	0	1	0	n/a
Total for BC, LT, AO, FF	**46**	**46**	**46**	**47**	**53**	**60**	**15.2%**
Year-over-year change	**n/a**	**0.0%**	**0.0%**	**2.2%**	**12.8%**	**13.2%**	

DISTRIBUTION OF WORKED, EARNED, AND LEAVE HOURS

The utilized data set contained 40 unique pay codes. Pay codes were consolidated into 15 buckets across three categories of Worked, Earned, and Leave. "Worked" hours represent sweat hours, or actual hours worked by personnel. "Earned" hours represent pay or compensation that was issued hourly but does not influence staffing availability. "Leave" hours represent all time spent away from normally scheduled work for personnel. The following table summarizes these total values.

Table 2: 2018-2022 Sum of Payroll Hours by Type and Category

Sum of Hours Quantity - All BC, LT, AO, FF						
Hours Description	**2018**	**2019**	**2020**	**2021**	**2022**	**Yearly Average**
Worked						
Regular Hours	102875.8	110261.3	114481.0	111261.5	129633.5	113702.6
Overtime	5043.0	6234.0	12811.0	13220.0	13600.0	10181.6
Light Duty	0.0	0.0	0.0	0.0	0.0	0.0
Worked Total	**107918.8**	**116495.3**	**127292.0**	**124481.5**	**143233.5**	**123884.2**

Earned						
Assignment Pay	15906.3	15294.0	17413.5	20515.0	18791.8	17584.1
Holiday Pay	811.0	843.5	1176.0	3282.0	2806.0	1783.7
Comp. Time Accrual	72.0	64.5	0.0	0.0	0.0	27.3
On-Call	0.0	0.0	0.0	0.0	8.3	1.7
Earned Total	**16789.3**	**16202.0**	**18589.5**	**23797.0**	**21606.0**	**19396.8**
Leave						
Vacation Used	8435.6	7068.2	5979.0	8791.7	11668.9	8388.7
Vacation Overage	0.0	0.0	0.0	32.6	262.2	58.9
Holiday Used	3981.0	4354.0	3388.0	4274.5	3162.0	3831.9
Sick Leave (FMLA, Short, Long-term)	2470.5	3032.5	2159.0	7749.7	5940.5	4270.4
Miscellaneous (Funeral, Court, Military, Emergency, Parental, etc.)	1428.0	255.5	2658.0	994.0	253.3	1117.8
Worker's Compensation (if separate from Sick Leave)	3.0	228.0	710.0	924.5	1412.5	655.6
Wellness	504.0	284.0	360.0	564.0	355.5	413.5
Comp. Time Used	422.3	166.8	57.8	0.3	1.0	129.6
Leave Total	**17244.4**	**15389.0**	**15311.7**	**23331.2**	**23055.7**	**18866.4**

In 2022, Regular hours represented 90.5% of all sweat hours with overtime accounting for the remainder. However, 32.7% of the overtime hours are programmatic resulting from Fair Labor Standards Act (FLSA) required compensation related to the department's 56-hour average work week. The remaining 68.3 % of overtime reflects work done in addition to normally scheduled hours. Overtime is discussed in greater detail under its heading.

Scheduled leave consisting of vacation and holiday accounts for 65.5% of all leave. Unscheduled leave accounts for 31.9% of all leave. It is noteworthy that Workers Compensation leave has experience extraordinary increases from 2018 thru 2022. While the COVID pandemic is a likely driver for 2020 and 2021, 2022 posted the highest annual total in the range at 1,412.5 hours. Values weighted by FTE count also demonstrate substantial increases. The agency should conduct a detailed study of the Worker's Compensation utilization within the fire department to identify drivers and potential remedies. Remedies may consist of health and wellness initiatives, safety practices, or business practices.

The following table represents the year-over-year changes, weighted by FTE count, for the consolidated leave buckets.

Table 3: 2018-2022 Percentage of Change among Payroll Categories and Types

Weighted - % Year-over-Year Change by Type and Category - All BC, LT, AO, FF						
Hours Description	**2018**	**2019**	**2020**	**2021**	**2022**	**2018-2022**
Worked						
Regular Hours	n/a	7.2%	3.8%	-4.9%	3.3%	9.4%
Overtime	n/a	23.6%	105.5%	1.0%	-8.8%	134.1%
Light Duty	n/a	n/a	n/a	n/a	n/a	n/a
Worked Total	**n/a**	**7.9%**	**9.3%**	**-4.3%**	**2.0%**	**15.2%**
Earned						
Assignment Pay	n/a	-3.8%	13.9%	15.3%	-18.8%	2.5%
Holiday Pay	n/a	4.0%	39.4%	173.1%	-24.2%	200.3%
Comp. Time Accrual	n/a	-10.4%	-100.0%	n/a	n/a	-100.0%
On-Call	n/a	n/a	n/a	n/a	n/a	n/a
Earned Total	**n/a**	**-3.5%**	**14.7%**	**25.3%**	**-19.5%**	**11.7%**
Leave						
Vacation Used	n/a	-16.2%	-15.4%	43.9%	17.7%	20.1%
Vacation Overage	n/a	n/a	n/a	n/a	614.0%	n/a
Holiday Used	n/a	9.4%	-22.2%	23.5%	-34.4%	-31.1%
Sick Leave (FMLA, Short, Long-term)	n/a	22.7%	-28.8%	251.3%	-32.0%	108.7%
Miscellaneous (Funeral, Court, Military, Emergency, Parental, etc.)	n/a	-82.1%	940.3%	-63.4%	-77.4%	-84.6%
Worker's Compensation (if separate from Sick Leave)	n/a	7500.0%	211.4%	27.4%	35.5%	40764.8%
Wellness	n/a	-43.7%	26.8%	53.3%	-44.1%	-38.8%
Comp. Time Used	n/a	-60.5%	-65.4%	-99.6%	254.7%	-99.8%
Leave Total	**n/a**	**-10.8%**	**-0.5%**	**49.1%**	**-12.4%**	**16.0%**

Observation:

Workers Compensation leave has experienced extraordinary increases from 2018 thru 2022. While the COVID pandemic is a likely driver for 2020 and 2021, 2022 posted the highest annual total in the range at 1,412.5 hours.

Recommendation:

The agency should conduct a detailed study of the Worker's Compensation utilization within the fire department to identify drivers and potential remedies.

OVERTIME

Overtime was evaluated to determine usage trends, causative factors, and potential options to reduce cost and force hiring. The primary data source for the following was the five years of payroll records referenced earlier. A limitation of the payroll data is that overtime is not specifically labeled by its use. Instead, the payroll data provides just two categories, "Overtime

150%" (vacancy OT) which is overtime for activities in addition to scheduled hours, and "Overtime 50%" (FLSA OT) which is overtime incurred during scheduled hours as a result of FLSA requirements. Thus, the City should consider implementing additional overtime pay codes to better track the use and drivers of overtime within the agency. Following consultation with department staff, all "Overtime 150%" was assumed to be related to daily operational level staffing requirements.

Recommendation:
The City should consider implementing additional overtime pay codes to better track the use and drivers of overtime within the agency.

In 2022, the Agency registered a total of 13,600 overtime hours, 9,282.5 hours of vacancy OT and 4,317.5 hours of FLSA OT. The Firefighter classification accounted for the largest sum of vacancy OT which demonstrates a sound management strategy to limit fiscal impacts by hiring back at the lowest rank while allowing other members to act-up in higher classifications. Overall, the quantity of vacancy OT has increased 389% and the fiscal cost has increased by 478% from 2018 thru 2022.

Table 4: Overtime Quantity by Year and Type

Position	Sum of Hours Quantity - All BC, LT, AO, FF					
	2018	2019	2020	2021	2022	Yearly Average
Vacancy Overtime 150%						
BATTALION CHIEF	105.00	363.75	862.25	544.75	185.75	412.30
LIEUTENANT	363.50	349.50	1066.00	1358.00	439.50	715.30
APPARATUS OPERATOR	601.50	597.00	3086.50	2312.25	901.25	1499.70
FIREFIGHTER	829.00	1267.75	3925.25	5718.50	7756.00	3899.30
Total at 150%	**1899.00**	**2578.00**	**8940.00**	**9933.50**	**9282.50**	**6526.60**
FSLA Overtime 50%						
BATTALION CHIEF	422.50	547.00	424.00	344.00	168.00	381.10
LIEUTENANT	730.00	549.00	575.00	693.00	590.00	627.40
APPARATUS OPERATOR	869.50	1308.00	1436.00	853.00	852.00	1063.70
FIREFIGHTER	1122.00	1252.00	1436.00	1396.50	2707.50	1582.80
Total at 50%	**3144.00**	**3656.00**	**3871.00**	**3286.50**	**4317.50**	**3655.00**
Total all OT	**5043.00**	**6234.00**	**12811.00**	**13220.00**	**13600.00**	**10181.60**

In 2022, the department spent a total of $446,444.89 on overtime for operational positions. FLSA overtime accounted for $61,893.24 of the total while vacancy OT accounted for $384,547.65.

Table 5: Overtime Costs by Year and Type

Sum of Hours Amount - All BC, LT, AO, FF						
Position	2018	2019	2020	2021	2022	Yearly Average
Vacancy Overtime 150%						
BATTALION CHIEF	$4,627.53	$16,066.46	$54,448.93	$29,914.34	$12,042.86	$23,420.02
LIEUTENANT	$14,202.86	$14,787.38	$48,766.55	$67,330.07	$23,705.83	$33,758.54
APPARATUS OPERATOR	$21,690.32	$21,216.39	$120,628.04	$96,754.91	$39,842.19	$60,026.37
FIREFIGHTER	$25,972.87	$39,471.39	$139,580.28	$216,775.51	$308,956.77	$146,151.36
Total at 150%	**$66,493.58**	**$91,541.62**	**$363,423.80**	**$410,774.83**	**$384,547.65**	**$263,356.30**
FLSA Overtime 50%						
BATTALION CHIEF	$6,550.04	$8,556.20	$7,233.64	$6,127.98	$3,397.58	$6,373.09
LIEUTENANT	$9,530.16	$7,884.46	$9,094.60	$11,566.48	$10,589.07	$9,732.95
APPARATUS OPERATOR	$10,064.38	$15,415.00	$19,155.40	$11,633.81	$13,395.55	$13,932.83
FIREFIGHTER	$12,030.48	$13,245.63	$17,173.61	$17,446.96	$34,511.04	$18,881.54
Total at 50%	**$38,175.06**	**$45,101.29**	**$52,657.25**	**$46,775.23**	**$61,893.24**	**$48,920.41**
Total all OT	**$104,668.64**	**$136,642.91**	**$416,081.05**	**$457,550.06**	**$446,440.89**	**$312,276.71**

The rate of FLSA overtime remained rather stable in comparison to the progression of FTEs within the department. From 2018 thru 2022, the operational FTE count increased 15.6% while FLSA overtime increased 19% as would be expected. However, vacancy OT increased at an exponential rate (324%) in comparison to the rate of FTE increase over the same period.

Table 6: Year-over-Year Change in Overtime by FTE Count

Weighted % Year-over-Year Change in Overtime Quantity - All BC, LT, AO, FF						
Overtime Category-Weighted	2018	2019	2020	2021	2022	2018-2022
Vacancy OT Year-over-Year Change	n/a	36%	247%	9%	-17%	324%
FLSA OT Year-over-Year Change	n/a	16%	6%	-17%	16%	19%
Total Year-over-Year Change	n/a	24%	106%	1%	-9%	134%

Observation:
From 2018 thru 2022, vacancy OT increased at an exponential rate (324%) in comparison to the rate of FTE increases over the same period.

Utilizing payroll data for the full five years, the consolidated leave buckets were assessed for correlation with vacancy OT usage. Limitations were initially encountered because of the number of variables being assessed, as well as various pay codes not being used in certain fiscal years.

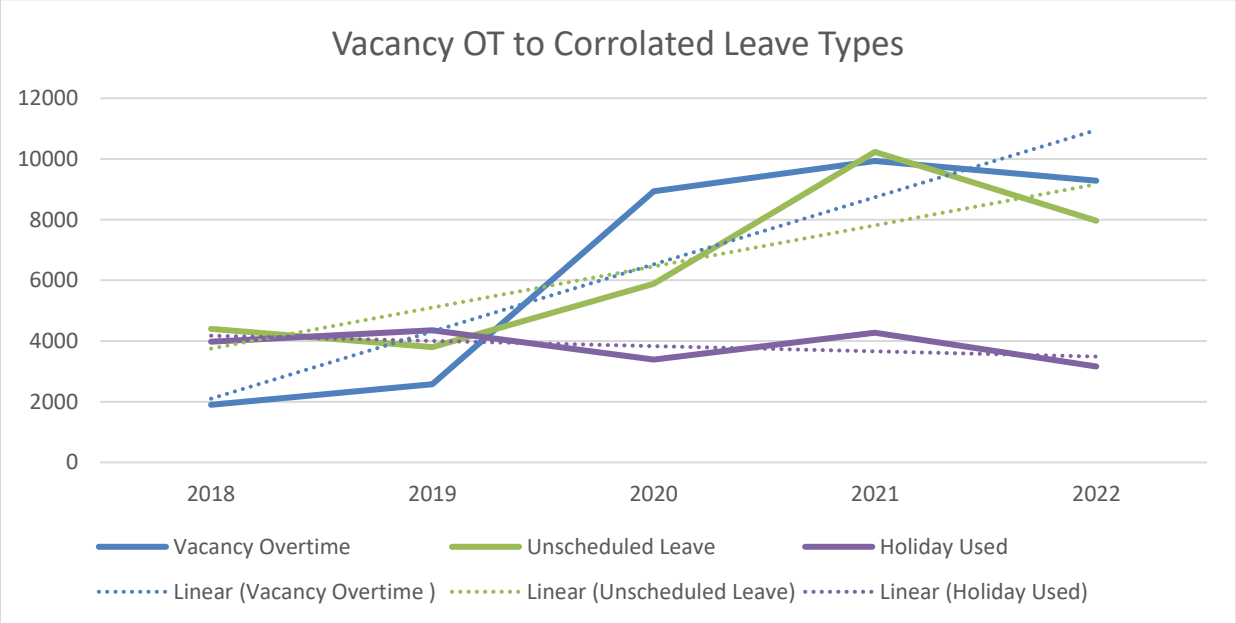
As reflected in Table 3 above, "Sick Leave" and "Worker's Compensation" pay codes spiked in 2021 and remained high in 2022 when compared to the other years in the data set. It's without coincidence that these spikes coincide with the pandemic.

The City has a policy that governs the accrual and use of sick leave. Currently the policy only caps the payout amount of sick leave upon qualified separation and not the amount of leave that can be earned. Furthermore, there is no limit on the amount or frequency of sick leave use for employee's who possess a balance of time. As a result, the environment is conducive to the potential for sick leave abuse. Thus, the City should consider implementing a cap for the accrual of sick leave and a policy to define and govern the abuse of sick leave. Sick leave abuse policies often define the frequency and amount of sick leave that may be used, outside of validated medical care, within a set rolling period of time. These policies have proven effective in lowering the usage rate of autonomous sick leave.

Recommendation:
The City should consider implementing a cap for the accrual of sick leave and a policy to define and govern the abuse of sick leave that's based on the frequency and amount of use.

To further assist in the analysis, pay codes were consolidated into one of six pay code groupings. These included vacation, vacation overage, holiday, sick leave, worker's compensation, and all remaining other off duty pay codes. Statistical analysis revealed varying levels of correlation between the pay code groupings and the use of vacancy OT. While none were statistically valid, Worker's Compensation and Sick Leave had the highest levels of positive correlation with vacancy OT. Conversely, Holiday time usage showed a negative correlation with vacancy OT. Although the recent pandemic provides a logical basis for the correlation of unscheduled leave to OT, current staffing levels increase the organization's sensitivity to these impacts as a result. This is expanded upon in the following section.

Figure 1: Correlation of Leave Type to Vacancy OT



It is important to note that the use of vacation leave has also increased exponentially when compared to the increase in FTEs over the same period. Vacation leave did show a positive correlation to vacancy OT, but to a lesser extend than unscheduled leave. So, while not a primary driver, it is a contributing factor that will be discussed further in the following section.

Observation:
Worker's Compensation and Sick Leave had the highest levels of positive correlation with vacancy OT. Conversely, Holiday time usage showed a negative correlation with vacancy OT.

Observation:
The use of vacation leave showed a positive correlation to vacancy OT and has increased exponentially when compared to the increase in FTEs over the same period. So, while not a primary driver, it is a contributing factor

IMPACTS OF TIME-OFF

The following analysis evaluates time-off utilization and seeks to understand any additional influences on vacancy OT. Time-off, or leave, is categorized as either scheduled or unscheduled. Scheduled leave represents all leave that is planned and generally predictable by hours accrued and authorized slots for use. Unscheduled leave represents all leave that is unplanned and generally unpredictable such as sick or emergency leave. For these analyses, miscellaneous leave types were included within the unscheduled leave category.

Leave Accrual

Line level operational personnel are assigned to a three shift 24/48 rotation where they work a 24-hour shift followed by a 48-hour off period. Leave is accrued by hours worked in relation to years of service or benefit awards. Operational personnel earn vacation and sick time at varying levels based on their years of service and are able to accrue a bank of unused hours (Table 7). Additional leave is provided via ten 12-hour City holidays, totaling 120 hours annually, which personnel have the option of using for payment or time-off. In 2022, the use of Holiday for time-off represented 50.6% of the issued Holiday time. Finally, personnel who participate in the annual fit for duty medical assessment can earn an additional 12 hours of wellness leave.

Observation:
In 2022, the use of Holiday for time-off represented 50.6% of the issued Holiday time.

Table 7: Vacation and Sick Leave Accrual Rates

Leave Accrual Policy Effective 4-4-21			
Vacation			
Years of Service	**Ann-Accr/hrs**	**Cap/hrs**	**Payout/hrs**
0-9	180	360	360
10-19	240	480	480
20+	300	600	600
Sick Leave			
Years of Service	**Ann-Accr/hrs**	**Cap/hrs**	**Payout/hrs**
0-4	156	Unlimited	0
5-9	156	Unlimited	360
10-14	156	Unlimited	720
15-19	156	Unlimited	900
20+	156	Unlimited	1080

In April of 2021, the City modified the leave accrual policy and established maximum values for vacation leave banks. Employees who reach their caps forfeit any additional earned leave until their balances are reduced to sub-cap levels. Prior to this, personnel were able to accrue an unlimited amount of vacation time. Thus, the policy change, while prudent City management, does create a greater incentive for use of the leave than the department would have previously experienced. Table 3, provided earlier, shows a 43.9% increase in vacation use from 2020 to 2021 and a 17.7% increase from 2021 to 2022. Restrictive vacation policies during COVID in 2020 contributed to the 43.9% increase in 2021 as restrictions were eased. However, utilization remained elevated in 2022 and an overall increase of 20.1% was observed in the period from 2018 thru 2022. While a specific value of effect is difficult to quantify, the data does demonstrate an increase is vacation leave utilization in the years following the policy change.

Observation:
The is an observable increase in the use of vacation leave following changes made to the City's leave accrual policy in April of 2021.

The distribution of leave accrual among the operational workforce was evaluated to determine the potential liabilities related to scheduled leave over the next five years. There are 58 operational personnel on the current organizational roster. To its advantage, the department's personnel are largely young in tenure with 50% of personnel having less than five years of service and 72% having less than ten. The 10-19 year range is the next largest group representing 17% of the department. The following table and chart demonstrates the current distribution and year-over-year migration of personnel among the three levels of accrual.

Table 8: Distribution of Personnel by Years of Service

Distribution of Ops Personnel by Years of Service					
Years of Service	**CY23**	**CY24**	**CY25**	**CY26**	**CY27**
0-9	72%	72%	69%	67%	53%
10-19	17%	17%	19%	19%	28%
20+	10%	10%	12%	14%	19%

Finally, the migration of personnel through the accrual categories was quantified by the amount of hours accrued annually as the workforce ages. The data demonstrates two beneficial factors regarding future accrued leave liabilities. First, the vast majority of membership being at the lowest accrual level limits near term accrual liabilities. Second, the broad range of the three accrual levels tempers the advancement of personnel into higher rates of accrual over the next five years. Thus,

Table 9: Vacation Accrual Liabilities: 2023 - 2027

Hours Accrued	CY23	CY24	CY25	CY26	CY27	CY23-CY27 Average
0-9	7560	7560	7200	7020	5580	6984
10-19	2400	2400	2640	2640	3840	2784
20+	1800	1800	2100	2400	3300	2280
Total Accrued	11760	11760	11940	12060	12720	12048
% Annual Change	**n/a**	**0.0%**	**1.5%**	**1.0%**	**5.5%**	**8.2%**

Observation:
Staffing strategies established today via relief multipliers, slot allotments, and policies governing unscheduled leave should remain reliably stable through 2027 as the Agency can reasonably expect an ~8% increase in vacation accrual from 2023 thru 2027.

Optimal Vacation Slots

Currently the department provides two 24-hour slots for scheduled leave each shift. This represents a scheduled leave capacity of 17,520 hours annually. The accrual rates of current personnel accumulate 11,760 hours annually. When combined with the 51% utilization of Holiday time for leave, the total annual leave liability produced is 15,281.9 hours. Thus, 2,238.1 slot hours remain available for use beyond what can presently be accrued annually (Table 10). The 87% ratio of usable capacity provides a suitable buffer level of at least 10% for the department. In other words, two slots are appropriate for current staffing levels.

Observation:
Two (2) 24-hour vacation slots per day are sufficient for Agency personnel to use their annually accrued leave.

Table 10: Scheduled Leave Capacity

Scheduled Annual Leave Category	Hours
Leave Slot Capacity	17520.0
Vacation Earned	11760.0
Holiday Used	3521.9
Total Scheduled Leave	15281.9
Total Hours Delta	2238.1
Ratio of Earned to Available Time	**87%**

Consideration was given to when additional slots might be added. Under current conditions, a third slot would drop the usable capacity ratio to 58% providing substantially more time off availability than personnel could earn and utilize while increasing the potential for vacancy OT when all three slots are utilized. As previously stated, two slots provide sufficient capacity for the use of scheduled leave. In fact, the agency could add six additional FTEs and still have 7% of their two-slot capacity remaining. As many as 12 FTEs could be added before all available slot capacity is consumed by scheduled leave accrual.

Observation:
The Agency could add 6-12 more FTEs before all available slot capacity is consumed by scheduled leave accrual.

As an alternative strategy to adding slots as FTE counts increase, the department could reconsider its practice of allowing personnel to use Holiday time as leave. Presently, restricting the use of Holiday time for leave would introduce another 20% of capacity back into the current two slot space. In other words, if Holiday could not be used for time off, the Agency could sustain adequate slot capacity for earned leave up to a total of 89 FTEs. However, as previously stated, to account for variance, levels should be maintained around 90% which would be a total of 80 FTEs.

Recommendation:
The Agency should consider alternative strategies related to the use of Holiday time for leave to provide greater flexibility when evaluating the need to add additional vacation slots to each shift

Staffing Influences on Time-Off

The following table demonstrates the relationships between the FTE count, slot count, and daily minimum staffing number. Information for each year is based off current and planned deployment. Options 1-3 for 2024 consider how adjustments to the FTE count can influence the potential for vacancy OT liabilities. The "FTE Balance/Shift" value shows the remaining FTEs after

accounting for slots and minimum staffing. The closer the value to zero, the more sensitive the deployment is to the effects of unscheduled leave.

As seen in the table, the 2022 FTE Balance/Shift was 0.3 when the Agency registered 9,282.5 vacancy OT hours. Conversely, 2023's FTE Balance/Shift is 2.3 due to the extra FTEs hired for the FY24 ambulance deployment. This study does not include 2023 OT data, but staff already reports a drastic reduction in FY23 OT cost.

Table 11: FTE Balance per Shift

FTE Balance/Shift after Minimum staffing + Vaca Slots						
Category	**2022**	**2023**	**2024**	**2024 Option 1**	**2024 Option 2**	**2024 Option 3**
FTE Count	52.0	58.0	58.0	60.1	61.5	64.1
Count/Shift	17.3	19.3	19.3	20.0	20.5	21.4
Vaca Slots	2.0	2.0	2.0	2.0	2.0	2.0
Min Staffing	15.0	15.0	17.0	17.0	17.0	17.0
FTE Balance/Shift	0.3	2.3	0.3	1.0	1.5	2.4

FTE Balance/Shift values influence the organization's ability to absorb incursions of unscheduled leave. As seen in the table below, the average of daily scheduled leave equates to 1.72 FTE's. With the addition of the average unscheduled daily leave, the FTE value increases to 2.63 FTEs. Vacancy OT is subsequently incurred when the FTE Balance/Shift value is exceeded by the leave taken. This impact is further potentiated with FTE counts below staffing multiplier values. Thus, in 2022, an equivalent of 1.06 FTEs were on overtime hire back per shift.

Table 12: 2022 FTE Equivalent for Leave and OT

2022 - Daily FTE Value of Leave and OT					
Category	**Vaca/Hol**	**SL**	**Misc**	**Vacancy OT**	**Total**
Hours/Shift Annually	-5031.33	-2451.00	-202.92	3094.17	-4591.08
Hours/Shift Daily	-41.35	-20.15	-1.67	25.43	-37.73
FTE Daily Equivalent	-1.72	-0.84	-0.07	1.06	-1.57

In October of 2023, the daily minimum staffing number will increase to 17 and the resulting FTE Balance/Shift will be 0.3. Thus, the Agency can anticipate vacancy OT at a rate similar to 2022. However, by realigning the FTE count with updated staffing multipliers, the agency can rebalance the deployment and migrate away from a reliance on vacancy OT. In addition to reducing OT cost, sufficient FTE Balance/Shift values will better equip the department to absorb unscheduled leave without triggering forced hiring.

Table 13: Cost of FTE Adjustments vs Vacancy OT

Cost of FTE Adjustments vs Vacancy OT			
Category	**2024 Option 1**	**2024 Option 2**	**2024 Option 3**
FTE Diff from 2024 Planned	2.0	4.0	6.0
Firefighter Year 1 cost	$214,742.20	$429,484.40	$644,226.60
2022 Vacancy OT	$384,547.65	$384,547.65	$384,547.65
Balance	**-$169,805.45**	**$44,936.75**	**$259,678.95**

As Tables 12 and 13 above demonstrate that two (2) FTEs could significantly reduce the rate of daily vacancy OT at a cost that's $169,805 lower than paying the OT. With four (4) additional FTE's, the daily vacancy OT rate is nearly eliminated with $44,936 of new funding. Staffing to levels that are not dependent on vacancy OT provide the most stable, reliable, and predictable deployment model.

Recommendation:
To Agency should consider increasing the FTE allotment to a level that is not dependent on vacancy OT to meet daily minimum staffing needs.

Staffing Assessment

STAFFING MULTIPLIERS

To evaluate the currently funded operational staffing levels, five years of payroll data were reviewed which summarized total non-worked time by employee job classification. The following evaluates current usage of time-off/non-work time by fire department shift personnel and assesses if budgeted positions to maintain minimum staffing levels are sufficient.

Non-work time includes vacation, sick, FMLA, and any other payroll codes reflecting that the employee was not available to be on shift. Based on a shift schedule of 24 hours on/48 hours off, the Agency plans for operational personnel to work 2,912 hours annually. This information is summarized in the table below. From a shift perspective, and based on current minimum staffing requirements, the 2022 allocated number of 51 FTEs represents a shortage of personnel capacity as was also reflected in the previous section. The data reflects that in 2022, 53 FTEs was the minimum required for the most efficient use of budgetary resources, but without any excess capacity. Accordingly, the need for additional shift staffing have increased since the previous assessment. This staffing value is reflected in the 2024 Option 1 column of Table 11 above.

Table 14: 2022 Staffing Multiplier and Required FTEs

Position Title	Scheduled	Non-Work Hours	Available Hours	Total Hours per Year	Staffing Multiplier	FY23 Minimum Staffing / Shift	Required FTEs
Battalion Chief	2912	816.0	2096.0	8,760	4.18	1	4.18
Lieutenant	2912	490.4	2421.6	8,760	3.62	3	10.85
Apparatus Operator	2912	613.1	2298.9	8,760	3.81	3	11.43
Firefighter	2912	444.9	2467.1	8,760	3.55	8	28.41
TOTAL	**2912**	**435.0**	**2477.0**	**8,760**	**3.54**	**15**	**53.05**

The Agency currently has 58 shift-based FTEs in preparation for deploying a third ambulance in October of 2023. When this occurs, minimum staffing will increase to 17 and require 60 FTEs with 11 being paramedics (Table 15).

Table 15: FTE counts at Annual Average Leave Usage

Unit	Count	Min Staff	Seat Count	FTE Count	ALS Seats	PM Count
Engine	2	3	6	21.2	0	0.0
Truck	1	4	4	14.1	0	0.0
Squad	2	2	4	14.1	2	7.1
Battalion	1	1	1	3.5	0	0.0
FY23	**6**	**10**	**15**	**53.0**	**2**	**7.1**
Ambulance	1	2	2	7.1	1	3.5
FY24	**7**	**12**	**17**	**60.1**	**3**	**10.6**

Observation:
The Agency currently has 58 shift-based FTEs in preparation for deploying a third ambulance in October of 2023. When this occurs, minimum staffing will increase to 17 and require 60 FTEs with 11 being paramedics.

Alternative Staffing Multiplier Considerations

The staffing multiplier calculated above follows the same methodology used in the 2021 study. Following common industry practice, the averages of actual recorded time-off are used to determine the non-work hours. As noted, this produces a minimum value with no excess capacity. In order to provide an efficient level of capacity for unscheduled leave, two alternative methodologies can be applied. Alternative-1, the time-off can be figured at the total average value accrued by the current employee group annually, resulting in a multiplier of 3.62. Alternative-2, the time-off can be figured at the maximum accrual values available to the employee group annually, resulting in a multiplier of 3.77.

Both alternatives introduce capacity and the ability to absorb the impacts of unscheduled leave, just at varying degrees. The FTE count associated with Alternative-1 is 61.5 as reflected in Table 16 below. Alternative-1 is also reflected in the 2024 Option 2 column of Table 11 above. The FTE count associated with Alternative-2 is 64.1 as reflected in Table 17 below. Alternative-2 is also reflected in the 2024 Option 3 column of Table 11 above.

The Agency should consider utilizing one of these alternative methodologies to provide a more reliable and stable deployment model. This will also reduce vacancy OT and provide a more programmatic and foreseeable fiscal liability. Additionally, the "Use-it-or-lose-it" policy position incentivizes maximizing the use of accrued leave which furthers the need for additional FTE capacity.

Table 16: FTE counts at Average Annual Leave Accrual

Unit	Count	Min Staff	Seat Count	FTE Count	ALS Seats	PM Count
Engine	2	3	6	21.7	0	0.0
Truck	1	4	4	14.5	0	0.0
Squad	2	2	4	14.5	2	7.2
Battalion	1	1	1	3.6	0	0.0
FY23	**6**	**10**	**15**	**54.3**	**2**	**7.2**
Ambulance	1	2	2	7.2	1	3.6
FY24	**7**	**12**	**17**	**61.5**	**3**	**10.9**

Table 17: FTE counts at Maximum Annual Leave Accrual

Unit	Count	Min Staff	Seat Count	FTE Count	ALS Seats	PM Count
Engine	2	3	6	22.6	0	0.0
Truck	1	4	4	15.1	0	0.0
Squad	2	2	4	15.1	2	7.5
Battalion	1	1	1	3.8	0	0.0
FY23	**6**	**10**	**15**	**56.6**	**2**	**7.5**
Ambulance	1	2	2	7.5	1	3.8
FY24	**7**	**12**	**17**	**64.1**	**3**	**11.3**

Recommendation:

The Agency should consider utilizing one of the two alternative staffing multiplier methodologies presented in this section to stabilize the deployment model and reduce vacancy OT while enabling a more programmatic and foreseeable fiscal liability.

MINIMUM STAFFING CONSIDERATIONS

The department maintains a minimum staffing policy to ensure daily operational needs are met. Under the current policy, 15 members are required to be on-duty each day. This provides enough personnel to deploy all of the department's frontline apparatus. Beginning October of 2023, the addition of an ambulance will require 17 members to be on-duty. These counts are summarized in the preceding tables.

The agency has also expressed a desire to evaluate minimum staffing requirements through the lens of NFPA 1710. The 2020 Edition of NFPA 1710[1], *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments* provides minimum recommendations for the provision of emergency services by career fire departments. This elective standard addresses the structure and operations of professional fire departments.

Response Time

NFPA 1710 suggests a 4-minute travel time at the 90th percentile for first due arrival of Basic Life Support (BLS) to EMS incidents and Engines to structure fires. The 2020 edition added a benchmark for second-due engines of 6-minutes at the 90th percentile. The arrival of an Advanced Life Support (ALS) unit to EMS incidents and the initial full alarm to low/medium structure fire incidents is recommended at 8-minutes travel time by NFPA 1710.

For fire related incidents, first arriving primary front-line BFD units to calls within BFD's jurisdiction had an average travel time for fire related incidents of 4.6 minutes; performance at the 90th percentile for travel time was 7.7 minutes. A total of 134 of 534 calls with travel times (25.1%) experienced travel times of three minutes or less, and 45.3% of calls (242/534) experienced travel times of four minutes or less. The average response time for fire related calls was 6.8 minutes; performance at the 90th percentile for response time was 10.1 minutes.[2] Thus, while BFD is able to meet the ALS unit performance benchmark set within NFPA 1710, they are unable to meet it for the first-due engine and initial full alarm performance for structure fire responses.

Analyses were completed utilizing a "hybrid" approach which included the three existing stations and then determined the remaining locations that would be necessary to achieve the desired performance by focusing on the current concentration and distribution of calls. From here, additional stations were optimally located. An optimized fourth station deployment plan, in

[1] National Fire Protection Association. (2020). NFPA 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*. Boston, MA: National Fire Protection Association.

[2] May 2021 Burleson Fire Department Data Analysis; Fitch and Associates, LLC.

addition to the three current stations, could respond to 53.08% of all calls within 4 minutes or less travel time; ten (10) stations would be required to respond to 90.28% of all calls within 4 minutes or less travel time.[3]

Unit-Level Staffing Considerations

While it is understood that per-unit staffing is largely a local policy decision, NFPA 1710 recommends 4-person staffing on fire apparatus such as engines and ladder trucks, however, most agencies in the country struggle to comply with 4-person staffing. Currently, BFD deploys 3-person apparatus on all units except the ladder truck (4). There are agencies that have an ISO 1 rating that are also internationally accredited with 3-person staffing.

The National Institute of Standards and Technology (NIST) conducted a study years ago that suggested that the 4-person crews were the most efficient on the fire ground and then later replicated and posited the same conclusion on EMS events. This aligned well with the pre-existing standards suggested in NFPA 1710. Notwithstanding, in actual practice, it is difficult to find empirical evidence that 4-person staffing is more effective in outcomes, safety, work injuries, etc. that can't also be mediated through multi-unit responses, early arrival, training, passive mitigation systems, and well-aligned standard operating guidelines. In other words, if desired, the agency has the flexibility to evaluate the totality of workload, risks, costs, and return on investment when making staffing decisions. Therefore, the data doesn't identify a deficiency that would drive increased staffing from three to four on a unit, nor would it have a strong foundation to decrease staffing from four to three: it is a local policy choice.

Per unit staffing policy consideration is a matter of priority. For example, this report suggests that there is a need for at least 2 additional FTEs to appropriately staff the FY24 deployment model, the need for additional resources within the five-year planning period, and the need to ensure appropriate resourcing for the Department's newly expanded EMS mission. The City and Department would have to establish the order of priorities and which reinvestment strategy provides the greatest return on investment. Given the potential future fiscal constraints, investment in deployment that enhances availability, response time, and system resiliency would provide a greater system benefit than adding additional costs to existing resources.

Observation:
While it is understood that per unit staffing is largely a local policy decision, NFPA 1710 recommends 4-person staffing on fire apparatus such as engines and ladder trucks, however, most agencies in the country struggle to comply with 4-person staffing.

[3] September 2021 Burleson Fire Department GIS Analysis; Fitch and Associates, LLC.

Observation:
There are agencies that have an ISO 1 rating that are also internationally accredited with 3-person staffing.

Observation:
The data doesn't identify a deficiency that would drive increased staffing from three to four on a unit, nor would it have a strong foundation to decrease staffing from four to three: it is a local policy choice.

Recommendation:
Given the potential future fiscal constraints, it is recommended that the department invests in deployment that enhances availability, response time, and system resiliency which would provide a greater system benefit than adding additional costs to existing resources.

Effective Response Force

The agency has also expressed a desire to meet the Effective Response Force (ERF) benchmark established in NFPA 1710 for structure fire responses to single family wood frame dwellings of 2000 sq. ft. or less. This would require the delivery of 17 personnel on a first alarm response which is an increase of two personnel from the previous edition of the standard.

Currently the agency deploys a minimum daily staffing of 15 personnel. With the addition of a third ambulance in October of 2023, the daily minimum staffing will be 17. The Agency has also maintained inter-local agreements for purposes of mutual/automatic aid with the following fire departments:

- Fort Worth Fire Department
- Alvarado Fire Department
- Joshua Fire Department (combination agency)
- Crowley Fire Department
- Johnson County Emergency Services District (combination agency)
- Briar Oaks Volunteer Fire

While these agreements do provide the community with additional resource capacity, including support in assembling an ERF, there are some limitations within the context of NFPA 1710 performance.

All analyses of all the existing regional auto/mutual aid partners demonstrate that only Fort Worth Station #42 could substantively contribute to any analysis with travel times between 4 and

8-minutes. In other words, only Fort Worth Station #42 is geographically close enough to contribute to a first unit distribution advantage.[4]

Without reliance upon external partners, BFD would need to commit all of its daily deployed resources to a structure fire response in order to assemble its desired ERF of 17. Thus, the City may choose to consider a daily staffing strategy that would still provide for a singular available resource if this were to occur. For instance, by increasing all heavy fire apparatus to a minimum of four personnel, the City could assemble an force of 17 firefighters while still having an ALS ambulance for the higher frequency EMS mission. The following table shows the FTE requirement for each staffing strategy.

Table 18: FY24 Staffing and Associated FTE Counts

Unit Type and Staffing	Count of Unit Type	Daily Seats / Unit	Sum of Daily Minimum	FTE Count (Avg Accr)	FTE Count (Max Value)
Battalion Chief (1)	1	1	1	3.6	3.8
Engine (3)	2	3	6	21.7	22.6
Quint / Truck (4)	1	4	4	14.5	15.1
Squad / Ambulance (2)	2	2	4	14.5	15.1
Current Total	**6**	**10**	**15**	**54.3**	**56.6**
Battalion Chief (1)	1	1	1	3.6	3.8
Engine (3)	2	3	6	21.7	22.6
Quint / Truck (4)	1	4	4	14.5	15.1
Squad / Ambulance (2)	3	2	6	21.7	22.6
FY24 Planned Total	**7**	**10**	**17**	**61.5**	**64.1**
Battalion Chief (1)	1	1	1	3.6	3.8
Engine (4)	2	4	8	29.0	30.2
Quint / Truck (4)	1	4	4	14.5	15.1
Squad / Ambulance (2)	3	2	6	21.7	22.6
FY24 w/4 per Eng. Total	**7**	**11**	**19**	**68.8**	**71.6**

Observation:
Without reliance upon external partners, BFD would need to commit all of is daily deployed resources to a structure fire response in order to assemble its desired ERF of 17.

Future Station Deployment

As planning progresses toward a fourth fire station in the Chisholm Summit area, consideration should be given to the most likely apparatus and staffing needs of the facility. Anticipated

[4] Long-Range Master Plan – Burleson Fire Department, October 2021 by Fitch & Associates, LLC.

development consists of thousands of new residential housing units in addition to community commercial development consisting of light to medium intensity properties. The Chisholm Trail Corridor would be primarily non-residential with large-scale professional campuses such as offices parks and medical centers.[5] High density residential, mixed use residential, and large-scale professional centers underscore the need for a versatile fleet of fire protection apparatus that can not only deliver adequate fire flows but also facilitate elevated streams, access, and rescue capabilities. Furthermore, the expected influx of population and daily activity will continue to increase demand for emergency medical services.

The Agency should consider an incremental approach to resourcing Station 4 that addresses the needs of the newly developed area while enhancing its jurisdictional capabilities. The department currently deploys two engines and one quint/truck daily for fire suppression activities. Thus, deploying another quint/truck company would provide a greater level of independent redundancy for the agency. This apparatus type would also be appropriately aligned with the level of proposed risk within the development area. Keeping with the department's current staffing practices, this unit could be staffed with three to four personnel daily adding another 11 to 15 FTEs to the organization. However, the Agency's current plans to staff the unit with four personnel is a reasonable operational strategy.

As a peripheral response zone, the agency should also consider deploying the unit with ALS capabilities. This will allow the agency to deliver ALS care rapidly within its first due area in the absence of a dedicated ambulance. While the facility should be constructed to accommodate up to three units and personnel, including a dedicated EMS unit, this is unlikely to be needed within the next five years. Instead, once established, the workload of the Engine should be monitored annually. Once the unit approaches a .15-.17 UHU, the Agency should begin planning for an additional EMS resource.

Observation:
The high density residential, mixed use residential, and large-scale professional centers planned for the City's Chisholm area underscore the need for a versatile fleet of fire protection apparatus that can not only deliver adequate fire flows but also facilitate elevated streams, access, and rescue capabilities

Recommendation:
The City should consider deploying another quint/truck company from its fourth fire station in the Chisholm area.

[5] Imagine Burleson – Comprehensive Plan, 2020 Midpoint Update. Retrieved from: https://www.burlesontx.com/DocumentCenter/View/22322/Comprehensive-Plan-2020-Midpoint-Update-

PHASE IN STRATEGY

To smooth the fiscal impacts of deploying a new fire station and unit, the City should consider a phased strategy that builds incrementally to the required staffing levels. It is possible that the 5-year future state deployment for Station 4 could consist of one ALS Engine and one ALS Ambulance. This would require 22.62 FTEs by the maximum accrual value multiplier. Although the date this full deployment would be needed is undetermined, the total estimated annual personnel cost by the current pay plan would be around $2.94mm. However, the City could incrementally onboard staffing that successively addresses both current and emerging needs to smooth out the fiscal impacts as demonstrated in the table below. The estimates take into account the FTEs need for each functional position and their progression through the pay plan.

Table 19: Phase in Strategy for Fourth Station

Fiscal Year	Action	Required Daily Seats	Previously Added Seats	New Daily Seats	New FTE Count	Cumulative FTE Count	Year-over-Year Cost Increase	Annual Totals
FY24	Daily Minimum to 19	2	0	2	**7.54**	7.54	**$809,578.09**	$809,578.09
FY26	BLS Engine	3	2	1	**3.77**	11.31	**$690,592.92**	$1,500,171.01
FY27	ALS Engine	4	3	1	**3.77**	15.08	**$477,160.88**	$1,977,331.89
TBD	BLS Eng and ALS Amb	5	4	1	**3.77**	18.85	**$463,288.02**	$2,440,619.91
TBD	ALS Eng and ALS Amb	6	5	1	**3.77**	22.62	**$967,841.38**	$2,945,173.27

As stated in the previous study, recognizing the anticipated mix of land uses, the City should consider a 30-year plus facility that will accommodate housing of at least three major apparatus with associated personnel. This might consist of an Engine, Ladder, and Ambulance deployed from the Station in order to meet the developed level of commercial and high-occupancy risk in the Chisholm area.

Recommendation:
The City should consider a phased strategy that builds incrementally to the required staffing levels for its fourth fire station over the next four (4) fiscal years.

ADMINISTRATIVE ASSESSMENT

The factors relevant to determining the proper level of administrative staffing are as numerous as they are variable and unique to each community. Therefore, the FITCH team assesses the appropriateness of administrative and support staffing by the processes and outcomes of the agency. Administrative equilibrium is achieved when all essential programs, functions and responsibilities are timely and effectively met within the production capacity of the established workforce.

BFD's current organizational structure is reflected below. Based on the current mission and budgeted FTEs, this framework appears consistent with a lean and functional organization. Responsibilities that may often be assigned to 40-hour staff have, by necessity, been taken on by shift personnel. For example, there is no dedicated logistics position, thereby relying on shift personnel to manage the maintenance and compliance items associated with specialty equipment such as PPE, SCBA, hose, and ladders to name a few. Shift personnel also handle quality assurance reviews of EMS and fire calls. In total, there are 10 field personnel handling administrative functions or roles (Table 20). These responsibilities, in addition to the public education and fire inspection duties, reflect a continued push for efficiency as the agency addresses its growing needs in balance with its available resources. However, this reliance on shift personnel also causes concerns that this additional workload may have an unintended negative impact on operational readiness and inhibits planning for future demands related to increased population and call workload.

Figure 2: Current Organizational Chart

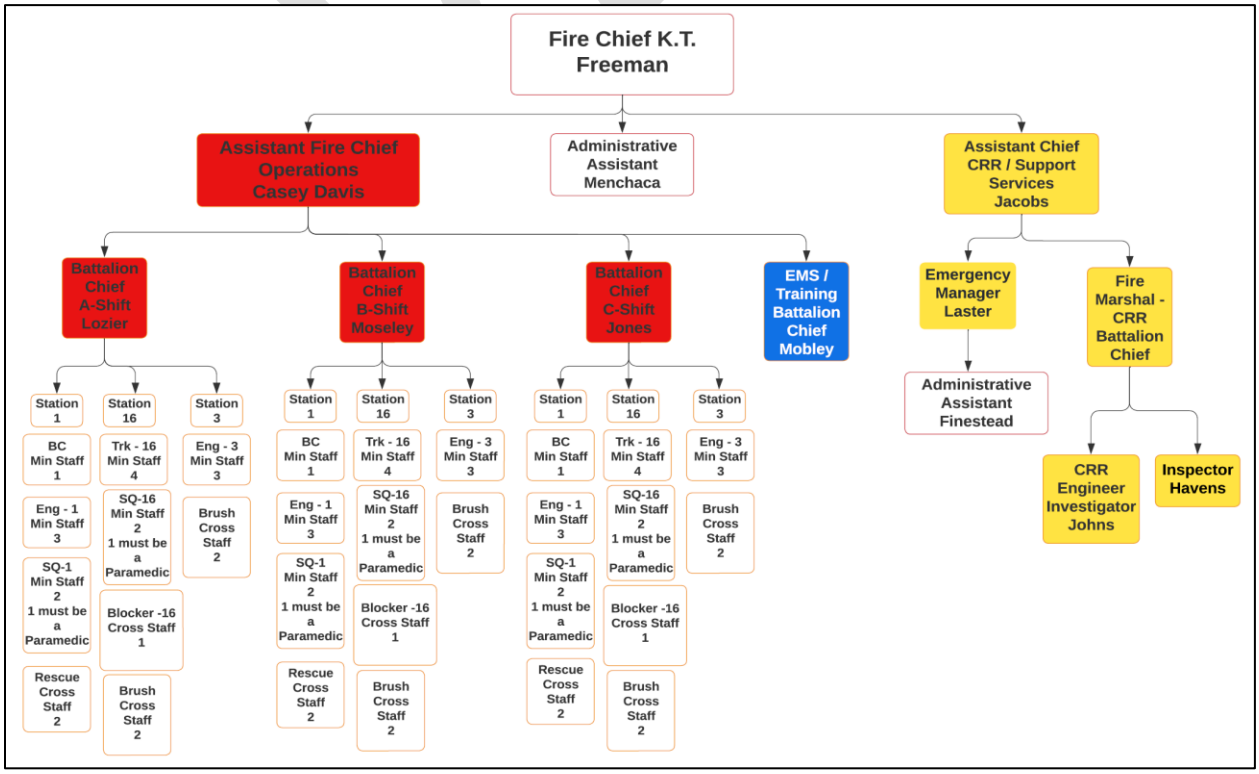


Table 20: Administrative Roles Delegated to Operation Personnel

Administrative Roles Delegated to Operational Personnel	FTE Count
Battalion Chief	**3**
Compliance for TCFP, DSHS, ISO	1
PPE, SCBA, hose testing, ladder testing, special projects, SLATE software manager	1
Uniforms, Special Projects	1
Lieutenant	**5**
Assist with ImageTrend truck checks and SIMUSHARE training software	1
Assist with Training	1
IT needs, Radios	1
Manages AED Program for the City	1
Manages ISD fire academy	1
Engineer	**1**
Assist Training and EMS	1
Firefighter	**1**
Assist Arson Investigation	1
Grand Total	**10**

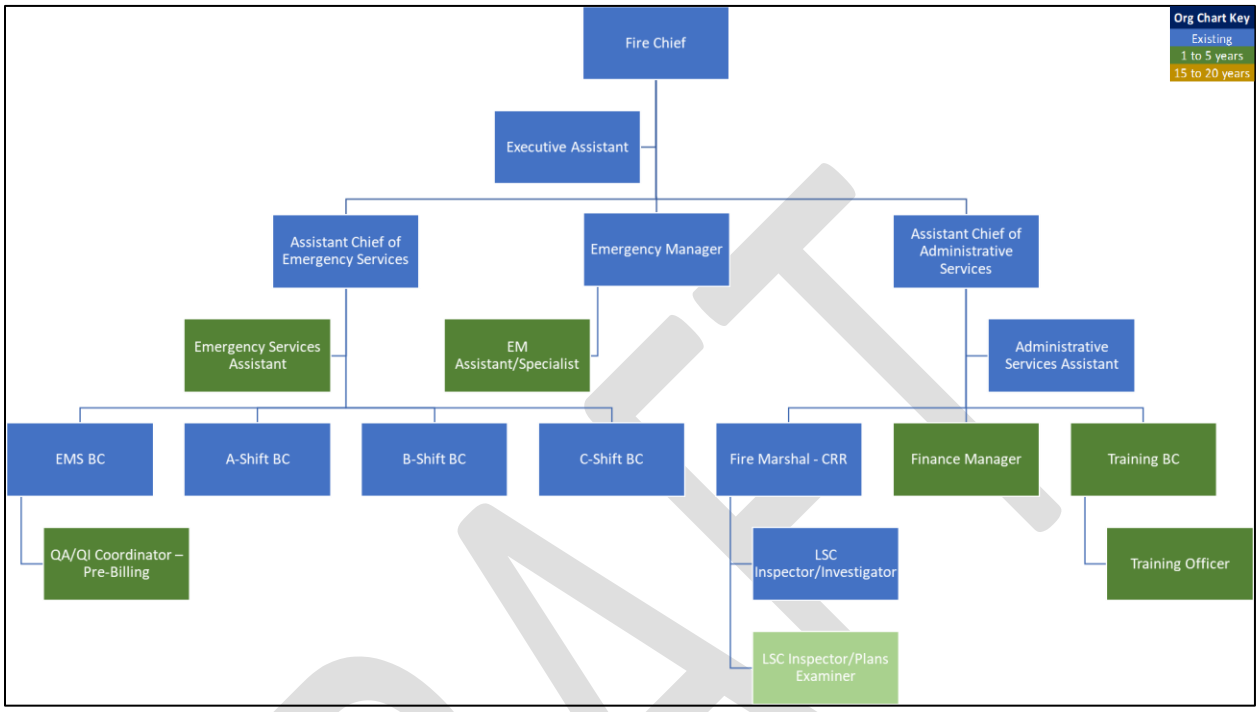
Future Administrative State

The current level of demand on the fire department administration is significant. With anticipation of continued growth, and desire to maintain and enhance community programs, there is a need for administrative capabilities to expand to meet growing demands. Since the earlier study, the department has made some improvements with the addition of an administrative Battalion Chief to oversee EMS and Training as well as an additional Administrative Assistant. Some reporting structures have also been improved to increase operational efficiency. However, with the community's planned growth and the Agency's expanding services and demands, additional administrative capacity should be considered over the next five-year planning period. The following organizational chart (Figure 3) shows a desirable state for the administrative structure five years from now. In total, this proposed structure would add six (6) new positions and one (1) adjusted position. A brief explanation for these changes is provided below.

The City should also consider the mid to long-term administrative needs from a capital expenditure perspective. As the level of administrative staffing expands by necessity, additional work space will be needed. Modern approaches to office space design and layout can also serve to improve operational functionality and efficiency. Thus, the City should evaluate its ability to appropriately accommodate the expanding administrative needs of the Fire Department. Options for adding space to the existing administrative offices, building new administrative offices, or partnering with public safety city-wide to build a shared Public Safety

Complex should be evaluated and prioritized. Smaller to mid-size communities can realize fiscal and operational efficiencies with shared public safety complexes.

Figure 3: Proposed Five-Year Organizational Growth Chart



Recommendation:
Added administrative capacity should be considered over the next five-year planning period which might include up to six (6) new positions and one (1) adjusted position

Recommendation:
The City should evaluate the Fire Department's emerging administrative space needs with options for adding to existing spaces, building new administrative offices, or partnering with public safety citywide to build a shared Public Safety Complex.

Organizational Nomenclature and Structure

As community demands evolve, the mission scope of the fire service expands well beyond its singularly traditional role of fire suppression. However, many agencies have not adopted their organizational terminology or structures to align with the needs and services of the modern-day fire service. Not surprisingly, antiquated nomenclatures contribute to organizational culture clashes as program missions get inadvertently prioritized in level of importance. As agencies expand their EMS roles, much as BFD is, these challenges can become even more pronounced. Thus, agencies following best practices are purposefully aligning their nomenclature and structures to reflect the emerging needs of their communities.

The Agency should consider establishing three major branches directly under the Fire Chief: 1) Emergency Services, 2) Administrative Services, and 3) Emergency Management. Emergency Services would oversee the operational delivery of all community issued service requests. Additional program specialties like EMS, Suppression, or Special Ops would fall under the Emergency Services Assistant Chief and be managed by members of equal rank and authority. This helps to establish an organizational culture inclusive of all services provided by the Agency. Administrative services would be responsible for all of the support and enable functions of the Department under the direction of an Assistant Chief. Finally, Emergency Management would operate directly under the Fire Chief as it facilitates preparedness and response Citywide, dealing largely with other City directors and administrators.

Recommendation:
The Agency should consider establishing three major branches directly under the Fire Chief: 1) Emergency Services, 2) Administrative Services, and 3) Emergency Management.

FINANCE MANAGER

Among the responsibilities of the administrative staff, the duties related to finance and budget are shared among several positions. Additionally, the Department's continued growth and complex operational services such as EMS transport will continue to produce more finance and budget task obligations. With these emerging challenges, the lack of a centralized finance function will add to the operational challenges of accountability and efficiency.

It is recommended that the Department establish a Finance and Budget Manager (FBM) position and centralize all related tasks under their functional area. Ideally, the FBM would be a management level position reporting directly to the Assitant Chief of Administration Services. To illustrate the functionality of this position, their duties might consist of the following:

- Provide support and related supervisory functions to the department in budget formulation and coordination, cost analysis, payroll/personnel and other administrative or fiscally-related activities.
- Oversee financial administration, including journal entries, zero dollar invoices, IGWOs, invoices, and other miscellaneous transactions; conducts financial analysis, including creating, running, and analyzing various department reports and making recommendations/decisions based on data; oversees grant budgeting and reporting.
- Coordinate and assemble departmental budget recommendations; prepare divisional budgets and formulate the Capital Improvements (CIP) and Operating budgets; monitors budget.

- Maintain analyses of budget and CIP expenditures, providing guidance and support in curtailing costs.
- Serve as support to the Assistant Chief for all emergency management activities during disaster or emergency events; coordinate reports and information necessary for reimbursement and tracking of costs related to a disaster or emergency event.
- Manage EMS billing and revenue cycles including billing vendor contracts, performance, and collections. Facilitate process for reimbursement for Certified Public Expenditures (CPE) which helps to cover the gap between the cost of service delivery and Medicaid reimbursement.

Observation:
The Department's continued growth and complex operational services such as EMS transport will continue to produce more finance and budget task obligations, which will add to the operational challenges of accountability and efficiency.

Recommendation:
The Department should consider establishing a Finance and Budget Manager (FBM) position and centralize all related tasks under their functional area.

EMS Chief and Quality Assurance/Improvement

The Department recently added an Administrative Battalion Chief that is tasked with overseeing the Training and EMS programs. A core responsibility of EMS program oversight is the Quality Assurance and Quality Improvement (QA/QI) process. Currently, this responsibility is distributed among company level personnel. These personnel are responsible for performing the primary QA review for all Patient Care Reports (PCRs) originating from their shift. The QA program does not necessarily have a goal driven strategic approach other than attempting to review 100% of all patient care records. However, their review is purely clinical and not designed to provide a pre-billing review.

The current QA process creates several challenges for the organization that will become more significant when the Agency begins their transport services. The decentralized approach of using company personnel unavoidably creates an inconsistent level of QA. While much QA is objective, there is also a subjective component to every PCR and therefore, every evaluator provides a variable level of QA scrutiny. Collaterally, this inconsistency stifles the QI portion since a consistently applied expectation is an essential tenet for improvement. Additionally, the EMS Chief could be inordinately tasked with filling the gaps on the QA process. This takes away from

the Chief's ability and responsibility, to provide strategic and proactive leadership to the program. For instance, the EMS Chief should be able to focus on directing QI efforts in response to the QA process. Without capacity for a robust QI process, the efforts of the QA process are not fully leveraged.

It is recommended that Agency establish and staff a full-time Quality Assurance Coordinator position. This position would be responsible for all clinical QA and pre-billing for all PCRs. This would establish a centralized and therefore consistent process for QA subsequently increasing the rate of QI. By handling QA and pre-billing, the QA Coordinator liberates the EMS chief to focus on EMS program leadership, Quality Improvement, and performance compliance. This will serve to shore up collections, clinical efficacy, and full leveraging of EMS performance measures. This will also enable the Agency to provide a focused QI program that is grounded in an analysis of current performance. The QI program should be designed so that it provides the necessary training and education to promote improvement in addition to monitoring for change. This would manifest itself through the development of an EMS training plan that is folded into the Agency's overall Training Plan.

Additionally, as the EMS program grows, the Agency should monitor the capacity of the EMS/Training Chief to effectively oversee both program areas. At the full potential deployment of resources over the next five years, the Agency could likely validate the need for dedicated Training program oversight.

Observation:
The Agency presently engages in QA efforts with the dedicated commitment of company level personnel.

Observation:
The current process of administering the QA program lends itself to inconsistent paramedic evaluation, gaps in clinical evaluation, and the potential to negatively impact EMS transport revenues.

Recommendation:
It is recommended that Agency establish and staff a full-time Quality Assurance Coordinator position to be responsible for clinical QA and pre-billing for all PCRs.

Recommendation:
The Agency should monitor the capacity of the EMS/Training Chief to effectively oversee both program areas with the understanding that a dedicated Training Chief position will likely be needed over the next five years.

PLANS EXAMINER

The Fire Marshal's responsibility is largely focused on the enforcement of fire prevention codes and fire safety education for the public. This is accomplished by conducting new development site plan reviews, building construction plan reviews, performing inspections of schools, businesses, and other public assembly venues within the city, delivering fire safety programs, and investigating fire-related criminal acts. However, building plan reviews for fire alarm and fire protection sprinkler systems must be reviewed by outside consultants. Given the substantial scope of the City's emerging development, it would be prudent to ensure the Agency can provide the full scope of plans review services in-house. Initially, this could be accomplished by credentialing one of the existing Inspectors to perform plans reviews. The Agency would then be well positioned to establish a dedicated Plans Review position when the demand for services would warrant it. Often, these thresholds are established by evaluating the Agency's ability to keep pace with adopted inspection cycles and plans review performance metrics.

Recommendation:
The Agency should strive to provide the full scope of plans review services in-house by initially credentialing an existing Inspector to perform plans reviews and eventually transitioning to a dedicate position based on a set of adopted performance metrics.

ADMINISTRATIVE ASSISTANTS

As the Agency grows, leadership will face more complex and labor-intensive challenges. To ensure the command structure has the capacity for strategic leadership through intensive periods of growth, the City should consider establishing Administrative Support for each major branch of the Department. The purpose is to ensure the leadership team does not get bogged down with the administrative and clerical work of their program areas. Increasing clerical demands are inevitable as the agency expands its services and deployment. As demonstrated earlier, a good portion of administrative support is provided by company level personnel. While effective for the Agency's current stake, this strategy will struggle to keep pace with the future demands of the organization as a four or five station fire department providing ALS transport services.

Recommendation:
To ensure the command structure has the capacity for strategic leadership through intensive periods of growth, the City should consider establishing Administrative Support for each major branch of the Department.

TRAINING OFFICER

The establishment of an EMS/Training Chief position in November of 2022 was essential to meet the growing demands of the department. However, by the end of 2027, Burleson Fire Department could be a four station all hazards emergency services department with close to 80 line-level personnel. This approximately 38% increase in personnel will significantly increase the demands on the training program. The program will need to deliver sufficient in-service training for incumbent personnel to meet ISO requirements, train new personnel to meet growing deployment needs, expand EMS training for the Transport program, and facilitate promotional processes and professional development for the growing number of leadership positions. Thus, the City should consider adding a Training Officer, reporting directly to the Training Chief, as part of its fourth station expansion plans.

Observation:
The Agency is likely to experience substantial increases on the demands of the training program over the next five years, including an increases in personnel of nearly 38%.

Recommendation:
The City should consider adding a Training Officer position, reporting directly to the Training Chief, as part of its fourth station expansion plans.

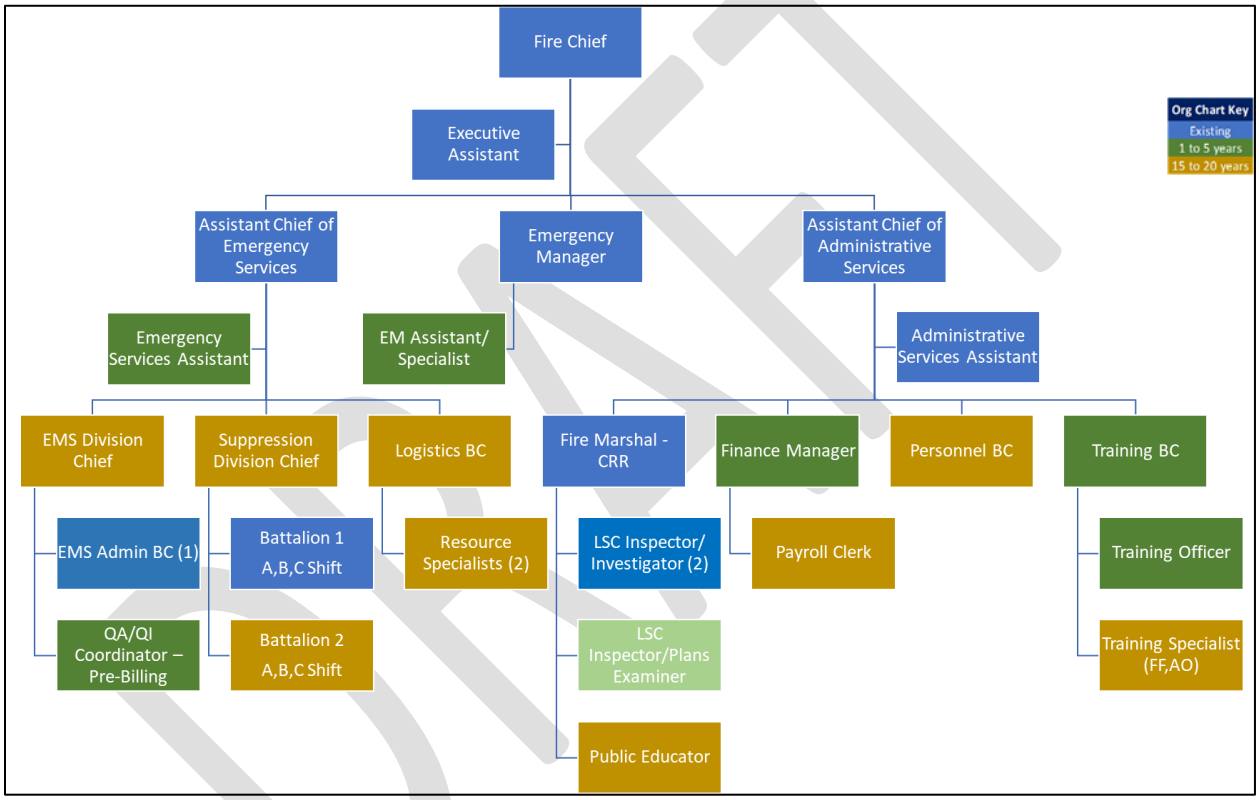
Long-Range Administrative Projection

To help inform long-range capital and fiscal planning, the Agency asked FITCH to develop a prospective long-range administrative structure. The outlook is focused on how the organization might be structured 15 to 20 years from the present. The Agency provided the deployment assumptions that served as the basis for the prospective administration based on their own estimates of development, populations, and demand growth within the community over the same period. These assumptions are provided in the Table below. The subsequent administrative structure (Figure XX) reflects industry standards for the appropriate level of administrative function and support to effectively operate the organization as posited.

Table 21: BFD Provided Long-Term Deployment Assumptions

Location	Seats per Unit					Total Seats	FTE Count
	Engine	Truck	Ambulance	BC	Light/Air		
Station 1	3	4	2		1	10	37.7
Station 16	3	4	2	1		10	37.7
Station 3	3		2			5	18.85
Station 4	3	4	2	1		10	37.7
Station 5	3		2			5	18.85
					Totals	**40**	**150.8**

Figure 4: Prospective 15-20 Year Organizational Growth Chart



EMERGENCY SERVICES DIVISIONS

The two primary functions of the Emergency Services branch are the delivery of EMS and suppression services. With 16 front-line units and 150 firefighters, the associated geography, demand, and scale would need focused oversight. Thus, two divisions would form, each under the direction of a Division Chief. The equal ranks help reserve the equality of import for each function while the elevated rank supplies the necessary hierarchy to direct training needs and operational oversight. The current EMS BC position becomes a deputy to the EMS Division Chief providing succession planning and development while producing essential administrative

capacity in support of daily operations. This helps to ensure the EMS Division Chief can focus on executive level EMS management, strategy, and leadership functions.

LOGISTICS SECTION

An agency with six fixed facilities, 16 front-line apparatus, and 150 firefighters will require significantly more logistical support that the current state. This section will oversee facility maintenance and repair; apparatus maintenance, repair, and replacement; procurement and distribution of consumable EMS supplies; procurement and distribution of capital equipment; critical inventory maintenance; NFPA compliant care for personal protective equipment (PPE); and management of purchasing agreements sand contracts. The second Resource Specialist would be added based on demand and capacity when needed.

PERSONNEL SECTION

The personnel section would be responsible for all of the human resource functions of the agency including recruitment, hiring, promotional testing, professional standards, and credentialing. The rate of hiring and promotion will increase exponentially from the present state. Additionally, 150 line personnel will produce a consistent stream of professional standards work for the agency. At this scale, the work could no longer be managed by the Administrative Services Chief.

FINANCE SECTION

Fire Rescue organizations have complicated payrolls related to atypical schedules, industry specific Fair Labor Standards Act (FLSA) requirement, and specialty pays related to roles and functions. Agencies with 150 or more personnel benefit from focused payroll personnel to ensure compliance and fidelity with all applicable regulatory and policy elements related to compensation.

COMMUNITY RISK REDUCTION SECTION

Community risk reduction is arguably the most important function of a public safety agency. The ability of the agency to prevent an emergency is linked to its ability to keep pace with the community's risk profile. As the community grows, two key factors require focus: 1) the cyclic life safety code enforcement cycle should be closely monitored to ensure inspectable properties are reviewed within the adopted cycle, and 2) proactive community risk reduction activates should be administered through a dedicated public education program. At the proposed agency scale, dependency solely upon line level resources becomes intendable. Thus, a dedicated Public Educator can direct strategic efforts which contribute to risk reduction and the Agency's ISO classification level. A second life safety code inspector should be added when the Agency can no longer keep pace with adopted inspection cycle.

TRAINING SECTION

As the Agency grows to potentially deploy 150 firefighters, the principles provided with the near-term administrative expansion are amplified. An approximately three-fold increase in personnel will significantly increase the demands on the training program. The program will need to deliver sufficient in-service training for incumbent personnel to meet ISO requirements, train new personnel to meet growing deployment needs, sustain EMS training for the Transport program, and facilitate promotional processes and professional development for the growing number of leadership positions. Thus, the section will likely need an addition position to meet the increased demand.

SUMMARY OF RECCOMENDATIONS

Recommendation:
The agency should conduct a detailed study of the Worker's Compensation utilization within the fire department to identify drivers and potential remedies.

Recommendation:
The City should consider implementing additional overtime pay codes to better track the use and drivers of overtime within the agency.

Recommendation:
The City should consider implementing a cap for the accrual of sick leave and a policy to define and govern the abuse of sick leave that's based on the frequency and amount of use.

Recommendation:
The Agency should consider alternative strategies related to the use of Holiday time for leave to provide greater flexibility when evaluating the need to add additional vacation slots to each shift

Recommendation:
To Agency should consider increasing the FTE allotment to a level that is not dependent on vacancy OT to meet daily minimum staffing needs.

Recommendation:
The Agency should consider utilizing one of the two alternative staffing multiplier methodologies presented in this section to stabilize the deployment model and reduce vacancy OT while enabling a more programmatic and foreseeable fiscal liability.

Recommendation:
Given the potential future fiscal constraints, it is recommended that the department invests in deployment that enhances availability, response time, and system resiliency which would provide a greater system benefit than adding additional costs to existing resources.

Recommendation:
The City should consider deploying another quint/truck company from its fourth fire station in the Chisholm area.

Recommendation:
The City should consider a phased strategy that builds incrementally to the required staffing levels for its fourth fire station over the next four (4) fiscal years.

Recommendation:
Added administrative capacity should be considered over the next five-year planning period which might include up to six (6) new positions and one (1) adjusted position.

Recommendation:
The City should evaluate the Fire Department's emerging administrative space needs with options for adding to existing spaces, building new administrative offices, or partnering with public safety citywide to build a shared Public Safety Complex.

Recommendation:
The Agency should consider establishing three major branches directly under the Fire Chief: 1) Emergency Services, 2) Administrative Services, and 3) Emergency Management.

Recommendation:
The Department should consider establishing a Finance and Budget Manager (FBM) position and centralize all related tasks under their functional area.

Recommendation:
It is recommended that Agency establish and staff a full-time Quality Assurance Coordinator position to be responsible for clinical QA and pre-billing for all PCRs.

Recommendation:
The Agency should monitor the capacity of the EMS/Training Chief to effectively oversee both program areas with the understanding that a dedicated Training Chief position will likely be needed over the next five years.

Recommendation:
The Agency should strive to provide the full scope of plans review services in-house by initially credentialing an existing Inspector to perform plans reviews and eventually transitioning to a dedicate position based on a set of adopted performance metrics.

Recommendation:
To ensure the command structure has the capacity for strategic leadership through intensive periods of growth, the City should consider establishing Administrative Support for each major branch of the Department.

Recommendation:
The City should consider adding a Training Officer position, reporting directly to the Training Chief, as part of its fourth station expansion plans.

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