



Office of the City Manager

CONSENT CALENDAR
May 7, 2024

To: Honorable Mayor and Members of the City Council

From: Dee Williams-Ridley, City Manager

Submitted by: David Sprague, Chief, Fire Department

Subject: Grant Application: Funding from the Federal Emergency Management Agency (FEMA) to hire additional firefighters to meet NFPA 1710 standards and recommendations from the City Gate, LLC Standards of Coverage and Community Risk Assessment

RECOMMENDATION

Adopt a Resolution authorizing the City Manager to apply for and accept a grant, and any amendments, from the Federal Emergency Management Agency (FEMA) for up to \$7,703,926.83 with no matching city funds to hire nine additional firefighters to help the City meet the National Fire Protection Association (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* and to partially accomplish one of the recommendations from the City Gate, LLC Standards of Coverage and Community Risk Assessment.

FISCAL IMPACTS OF RECOMMENDATION

There are no matching funds required for this grant award. Grant funds cover the salaries and benefits of these employees for three (3) years after which time the Department will either obtain new funding to add them to the baseline budget, absorb the FTE through attrition and reduce to pre-award staffing levels, or release them.

CURRENT SITUATION AND ITS EFFECTS

The Department recently completed its first Standards of Coverage and Community Risk Assessment (SOC). The SOC found that first-unit travel performance is 1:53 minutes slower than the recommended 4:00-minute best practice goal (Table 1).

Table 1				
Response Component	Best Practice		90 th Percentile Performance	Performance Versus Best Practice and Current Goal
	Time	Reference		
Call Processing / Dispatch	1:30	NFPA	2:29	+ 0:59
Crew Turnout	2:00	Citygate	2:05	+ 0:05
First-Unit Travel	4:00	NFPA	5:53	+ 1:53
First-Unit Call to Arrival	7:30	Citygate	9:32	+ 2:02
ERF Call to Arrival	11:30	Citygate	18:50	+ 7:20

The SOC evaluated Unit-Hour Utilization (UHU), which is a measure of system performance (Table 2). UHU is calculated using the number of responses and duration of the responses to show the percentage of time that a response resource is committed to an active incident during a given hour of the day. According to Citygate LLC, a unit-hour utilization of 30 percent or higher over multiple consecutive hours becomes the point at which employee begin to experience fatigue and burnout and other responsibilities, such as training, do not get completed. The Department has five of seven engine companies with a UHU of greater than 30% for two or more consecutive hours.

Table 2							
Unit Hour Utilization of Berkeley Fire Department Engine Companies							
Hour	Engine 5	Engine 1	Engine 2	Engine 6	Engine 4	Engine 3	Engine 7
00:00	23.23%	15.11%	17.16%	9.62%	10.14%	11.33%	0.58%
01:00	25.88%	10.21%	15.51%	11.19%	6.41%	9.09%	3.37%
02:00	18.81%	12.81%	10.79%	11.12%	9.66%	7.74%	3.56%
03:00	13.47%	6.63%	12.40%	6.71%	7.76%	4.40%	2.06%
04:00	11.55%	13.59%	10.26%	10.62%	7.61%	7.62%	1.69%
05:00	15.01%	6.44%	7.62%	3.69%	9.87%	4.93%	2.59%
06:00	11.08%	19.01%	10.05%	9.78%	13.02%	5.63%	3.00%
07:00	25.01%	21.97%	20.84%	18.37%	13.97%	8.97%	6.10%
08:00	30.47%	31.19%	22.80%	20.58%	20.92%	13.10%	5.44%
09:00	38.00%	31.75%	22.75%	28.75%	21.67%	14.57%	5.65%
10:00	41.58%	42.32%	28.32%	23.47%	25.77%	19.88%	11.49%
11:00	52.86%	31.20%	35.07%	41.62%	28.02%	23.70%	7.28%
12:00	49.05%	28.41%	31.70%	34.37%	20.78%	18.56%	9.29%
13:00	53.48%	43.37%	30.66%	31.32%	31.70%	29.91%	7.95%
14:00	45.24%	43.90%	39.12%	34.42%	36.53%	25.40%	15.68%
15:00	38.09%	38.93%	32.49%	31.93%	20.30%	18.31%	7.38%
16:00	47.27%	34.35%	34.50%	28.96%	22.18%	20.99%	12.14%
17:00	44.46%	33.94%	34.26%	22.25%	22.90%	20.69%	8.62%
18:00	32.84%	31.45%	30.75%	22.85%	23.40%	20.74%	11.46%
19:00	29.80%	30.92%	25.06%	29.59%	21.39%	18.51%	10.09%
20:00	25.59%	32.76%	23.66%	24.96%	20.72%	15.76%	9.20%
21:00	29.23%	20.37%	20.49%	18.23%	12.64%	12.76%	6.77%
22:00	26.99%	21.79%	16.67%	12.63%	9.51%	12.90%	4.69%
23:00	19.81%	24.27%	15.45%	21.47%	16.11%	8.64%	3.85%

In response to the SOC the Department has re-configured itself to upstaff three of six

companies from three to four firefighters without impacting the General Fund. A grant award will provide funding for the City to hire an additional nine firefighters and increase the staffing of the remaining three engine companies from three to four firefighters for the three years of the grant performance period.

The increased staffing this grant will provide in key areas of the City will decrease the amount of time it takes to assemble the necessary number of responders on the scene of an incident and reduce the amount of time it takes personnel to begin and complete critical interventions to mitigate the emergency.

BACKGROUND

The SOC found that while Berkeley has a relatively small land area of 10.43 square miles, it has developed a metro risk profile based on density, development, and congestion. The City is already the second most dense City (behind only San Francisco) in the top 51 most populated cities in California. This intensification of land uses and population have made the emergency response needs more typical of larger metropolitan cities. The SOC recommends the Department grow from a suburban agency to that of a major urban fire department in staffing, unit types, and facility locations.

Studies performed by the International Association of Fire Fighters (IAFF) demonstrate that four-person firefighting crews are more efficient than three-person crews. A fire engine staffed with four people completed the same number of fireground tasks 5.1 minutes faster than the three-person crew. The four-person crews were able to complete necessary fireground tasks on a residential structure fire nearly 25% faster than the three-person crews.

The importance of shaving even seconds off the time it takes to assemble and complete firefighting and search and rescue of trapped occupants of a fire becomes clear when evaluating the data from the Underwriter Laboratory's (UL) Firefighter Safety Research Institute (FSRI) study "New Comparison of Natural and Synthetic Home Furnishings" which demonstrates that modern fires develop faster than legacy fires, leaving occupants under 5 minutes post ignition to escape vs over 30 minutes before.

Similarly, in emergency medical incidents, there are a significant number of actions that need to occur simultaneously and expeditiously in order to provide residents with the best chance of survival. The Department runs just over 17,500 incidents per year. Of those, approximately 700 patients were classified in a category where the time it takes responders to arrive on the scene, the swiftness with which that crew initiated critical medical interventions, or speed with which the patient is transported to the emergency department is likely to have had a direct impact to outcome and survival.

ENVIRONMENTAL SUSTAINABILITY AND CLIMATE IMPACTS

There are no environmental impacts from this grant.

RATIONALE FOR RECOMMENDATION

The Department is responsible for evaluating the risk profile of the community to ensure it is operationally prepared to mitigate the types of incidents in ways that meet or exceed national recommendations, industry best practices, and community expectations.

ALTERNATIVE ACTIONS CONSIDERED

Submitting a budget request for additional firefighters in the FY25-26 budget process. This is not feasible given the current budget situation the City is facing.

CONTACT PERSON

David Sprague, Fire Chief, 510-981-3473

Attachments:
1: Resolution

GRANT APPLICATION: FUNDING FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) TO HIRE ADDITIONAL FIREFIGHTERS TO MEET NFPA 1710 STANDARDS AND RECOMMENDATIONS FROM THE CITY GATE, LLC STANDARDS OF COVERAGE AND COMMUNITY RISK ASSESSMENT

WHEREAS, the City contracted with Citygate Associates, LLC to complete a Standards of Cover and Community Risk Assessment study (SOC) to better understand how our service levels compare to what is recommended based on national standards, and

WHEREAS, the SOC found that while Berkeley has a relatively small land area of 10.43 square miles, it has developed a metro risk profile based on density, development, and congestion. The City is already the second most dense City (behind only San Francisco) in the top 51 most populated cities in California, and

WHEREAS, this intensification of land uses and population have made the emergency response needs more typical of larger metropolitan cities. The SOC recommends the Department grow from a suburban agency to that of a major urban fire department in staffing, unit types, and facility locations, and

WHEREAS, the SOC found that first-unit travel performance is 1:53 minutes slower than the recommended 4:00-minute best practice goal, and

WHEREAS, the SOC evaluated Unit-Hour Utilization (UHU), which is a measure of system performance (Table 2). UHU is calculated using the number of responses and duration of the responses to show the percentage of time that a response resource is committed to an active incident during a given hour of the day. According to Citygate LLC, a unit-hour utilization of 30 percent or higher over multiple consecutive hours becomes the point at which employees begin to experience fatigue and burnout and other responsibilities, such as training, do not get completed. The Department has five of seven engine companies with a UHU of greater than 30% for two or more consecutive hours, and

WHEREAS, Citygate offered several recommendations to bring the Department into alignment with the city's current and future service needs including a recommendation to up-staff six of nine fire companies from three to four firefighters, and

WHEREAS, the Department has re-configured itself to upstaff three of six companies from three to four firefighters without impacting the General Fund.

NOW THEREFORE, BE IT RESOLVED by the Council of the City of Berkeley that the City Manager or her designee is authorized to apply for and accept a grant, and any amendments, from the Federal Emergency Management Agency (FEMA) for up to \$7,703,926.83 with no matching city funds to hire six additional firefighters to help the City meet the National Fire Protection Association (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* and to partially accomplish one of the recommendations from the City Gate, LLC Standards of Coverage and Community Risk Assessment.

