

Fire Station Configuration Advisory Committee Composition and Charge

Composition

Invitations to serve on the advisory committee (“Committee”) shall be extended as follows:

- Fire Chief/Fire Chief’s Designee;
- Police Chief/Police Chief’s Designee
- Two Chelmsford firefighters as designated by the Chelmsford firefighters’ union;
- DPW Director/DPW Director’s Designee;
- Two Chelmsford residents.

Charge

Criterion Associates provided and presented a report entitled “Analysis of Fire Station Location Alternatives Town of Chelmsford, Massachusetts” dated November 2019. The advisory committee shall consider the impact to the safety of the public and to the responding firefighters in conducting its work. The committee shall undertake research and analysis to consider and report upon the following:

1. Number and location of fire sub-stations {2, 3, and 4};
2. Projected fire department response time based upon 2, 3, and 4 fire sub-station configuration;
3. Estimated construction cost to renovate/expand/construct each existing/new fire sub-station in order to provide adequate space for fire apparatus and equipment, decontamination spaces, living areas, sleeping quarters, and other elements found in modern fire rescue facilities;
4. Estimated annual cost to operate and maintain each of the fire stations;
5. Estimated annual cost to purchase and maintain fire apparatus at each of the fire stations;
6. Alternative staffing levels at each of the fire stations;
7. Estimated annual cost to staff each of the fire stations;
8. Estimated total annual cost for each alternative {center fire headquarters supported by 2, 3, and 4 fire sub-stations};
9. Upon the completion of the above-listed tasks, the advisory committee shall offer its recommendation.

1. Number and location of fire sub-stations {3, 4, and 5}:

The Town shall maintain its existing center fire station/fire headquarters. The Committee shall consider configurations of the current fire department headquarters support by 2, 3, and 4 fire sub-stations.

2. Projected fire department response time based upon 2, 3, and 4 fire sub-station configuration:

The Criterion Associates report examined over three years of calls for service (2016 – summer of 2019) and entered them into a geographic information system (GIS) which is capable of performing highly complex spatial analysis. The software analyzed the response times from the existing fire headquarters and fire sub-station locations, as well as scenarios that only leaves the existing center fire station headquarters as a fixed location.

The model provided the following response time projections:

<u>Sub-Stations:</u>	<u>Drive Time % Calls Reached in 3/5/7 Minutes</u>
2	66.3%/94.6%/99.1%
3	68.7%/96.8%/99.4%
4	72.5%/99.0%/99.5%

The Committee shall examine these projections and pursue and report on any further information regarding response time.

3. Estimated construction cost to renovate/expand/construct each existing/new fire sub-station in order to provide adequate space for fire apparatus and equipment, decontamination spaces, living areas, sleeping quarters, and other elements found in modern fire rescue facilities:

The Criterion Associates report notes that a typical three-bay fire sub-station with training space and living quarters has between 9,000 – 11,000 square feet of space. It lists the current construction cost for the metro-Boston area at between \$550 - \$650 per square foot. The report notes an annual construction inflation rate of 6.5%. Utilizing these assumptions, the current projected construction cost for a new fire sub-station, assuming no land acquisition costs and minimal site preparation is described in the following table:

<u>Size Range (sf)</u>	<u>\$550/sf</u>	<u>\$650/sf</u>
9,000	\$4,950,000	\$5,850,000
11,000	\$6,050,000	\$7,150,000

The report asserts that renovations and additions to existing fire sub-stations is expected to be a more cost-effective approach.

The Committee shall consider new construction and renovation/expansion alternatives. The Committee shall report the estimated cost to provide adequately-sized space for 2, 3, and 4 fire sub-station configurations.

4. Estimated annual cost to operate and maintain each of the fire stations:

The Committee shall investigate and report the estimated annual cost for building operations and maintenance for the existing fire headquarters that would be supported by 2, 3, and 4 fire sub-station configurations.

5. Estimated annual cost to purchase and maintain fire apparatus at each of the fire stations:

The Committee shall investigate and report the estimated annual debt service, vehicle operating cost and vehicle maintenance costs for apparatus, including reserve apparatus, to be housed at the existing fire headquarters that would be supported by 2, 3, and 4 fire sub-station configurations.

6. Alternative staffing levels at each of the fire stations:

The Town currently staffs its Fire Department from a center fire headquarters and four fire sub-stations with a 12 personnel minimum as follows:

<u>Station</u>	<u>Location</u>	<u>Minimum Staffing</u>
Station 1	50 Billerica Road	3 (1 Captain, 2 Firefighters)
Station 2	35 Princeton St	3 Firefighters
Station 3	263 Old Westford Rd	2 Firefighters
Station 4	115 Riverneck Rd	2 Firefighters
Station 5	295 Acton Rd	2 Firefighters

The National Fire Protection Association (NFPA) Standards 1710 and 1500 and the Occupational Health and Safety Administration (OSHA) calls for fire engine companies to be staffed by a minimum of four on-duty members to perform basic fire fighting at fires, including search and rescue, in a “2 In” and “2 Out” manner. The buddy system allows for awareness of the location and condition, and provides for rapid assistance to a firefighter in the event of an emergency.

The Committee shall investigate and report upon the functional ability to serve the public, along with considerations for the personal safety of responding firefighters, who would travel from each fire sub-station at a staffing level of 2, 3, and 4 firefighters.

7. Estimated annual cost to staff each of the fire stations:

The Committee shall investigate and report the estimated annual operating cost, including employee benefits and other employment related costs, to staff the Chelmsford Fire Department from a center fire headquarters supported by 2, 3, and 4 fire sub-stations. The analysis for minimum staffing shall range from the current minimum of 12 fire department personnel {1 Captain and 11 firefighters} to a maximum of 21 fire department personnel. This may include Lieutenant positions, who may supervise a response from each responding station.

8. Estimated total annual cost for each alternative {center fire headquarters supported by 2, 3, and 4 fire sub-stations}:

Based upon the information gathered for each of the above-listed tasks, the Committee shall develop a matrix for a center fire headquarters supported by 2, 3, and 4 fire sub-stations. The matrix shall illustrate the estimated total annual cost to operate the Chelmsford Fire Department as a result of the construction/renovation-expansion of fire sub-stations, operating and maintaining the fire stations, providing and maintaining fire apparatus at the fire stations, and staffing each fire station.

9. Upon the completion of the above-listed tasks, the advisory committee shall offer its recommendation.

Committee Logistics

Committee members shall serve in a voluntary capacity.

Committee meetings shall be posted and minutes of its meetings shall be kept in accordance with the Massachusetts Open Meeting Laws.

Public input shall be provided at each Committee meeting.

The Committee shall hold at least one public hearing prior to the completion of its work in order to receive commentary and information from the community.

The Committee shall present its findings and recommendation at a Board of Selectmen meeting.

Town Officials and employees shall be available to assist the Committee in the performance of its tasks.

Prepared on November 14, 2019