

**HOLLISTON, MASSACHUSETTS
FIRE AND EMERGENCY MEDICAL SERVICES
STUDY**

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EXECUTIVE SUMMARY

The team from Municipal Resources is pleased to present this report and subsequent recommendations for the Town of Holliston Fire and EMS Department.

From the onset it was very clear that the town is very fortunate to have Chief Cassidy managing the Department. In today's fire service it is extremely difficult to manage a full on call department for a community the size of Holliston. Chief Cassidy has been very successful in maintaining a solid call firefighting force but like many other departments is struggling to run a consistent EMS agency at the basic life support level when the standard in the area is the Advanced or Paramedic level of service. The Chief is very involved in the community and takes great pride in not only his Department but the entire town.

Some of the key items discussed in this report are outlined below.

The Chief is one person and doing the work of several. As outlined in several areas there is a need for a high ranking officer position (Assistant Chief) to work fulltime to serve many roles. The first will be to bring the EMS system up to the Paramedic level while still maintaining a core of Basic EMTs to work to staff ambulances. As part of any department succession planning is key to the future. Having a single person handling all of the day to day operations as well as short and long term goals leaves no room for continuity of operations during well-deserved time off or retirement.

The Department needs to improve its overall response to EMS calls and to increase the level of service provided. A key bench mark for this need is to stop the amount of incoming mutual aid from other towns to cover the incidents within Holliston.

The fire stations are in need of further evaluation and changes made for efficiency and effectiveness of day to day operations. The Central station needs to be upgraded to accommodate having people work in the building 24 hours a day and be available for calls. There is a definite need for this for EMS response to medical emergencies. Other stations all have needs that will need to be addressed over a period of time. Further evaluation and cost projections will need to be conducted.

Dispatch is a concern that needs to also be further evaluated with changes being made for efficiency. There are some options that have been outlined that will allow for the town to make a decision on when and how they wish to improve this program.

Although there are over one hundred recommendations contained in this report, the overall service provided under the direction of Chief Cassidy is very good. Like with any program there is always room for improvement and it is our hope that from an outside practitioners view point many of the recommendations will be implemented that will allow the department to continue to provide a safe level of service its residents can continue to count on.

HOLLISTON, MASSACHUSETTS
FIRE AND EMERGENCY MEDICAL SERVICES STUDY
APRIL 2022

I. PROJECT OVERVIEW, SCOPE OF WORK, AND METHODOLOGY

PROJECT OVERVIEW

The Town of Holliston contracted with Municipal Resources, Inc. (MRI) to provide an organizational assessment and review of the manner in which the fire department and emergency medical services are provided within the community. Using this as a basis, the MRI team conducted a review of the organization and the delivery of Fire and EMS services within the community that included a target hazard analysis, a review of response metrics, and a review of the current facility and apparatus set. Our project team has developed recommendations for improvements that take into consideration the current and future needs of the Town of Holliston, and recommendations for appropriate modifications to the delivery systems to provide the desired level of services to the Town.

MRI developed this document which contains recommendations for improvements to organizational practices, recruitment and retention efforts, infrastructure, quick reaction, and on-call staffing. The project team outlined appropriate modifications to the fire department, emergency dispatch center, and emergency medical service systems to provide optimum service to the entire community. It also evaluated the efficient use of resources, and whether the current organizational structure is appropriate or if it should be modified.

A key component of the basis of this report is that the Town of Holliston is seeking to evaluate the present-day operations of the current EMS delivery system, to identify the present and future service needs of the community, and to provide recommendations that will assist the community with decision-making for resource allocation and operational planning.

The goal of the project is to review and analyze the current resources and staffing, forecast future demands for service, and make recommendations regarding the future needs of current resources, staffing, and rank structure to fulfill the mission. Part of the objective is to conduct an analysis of the operation of the current EMS with an emphasis on defining the expected service level of the community, and identifying the impact of current response participation levels, demographics, and projected growth within the response area. The results of this study will inform the Town of Holliston of realistic recommendations for providing an efficient and effective EMS system for today and the future.

The task of the project was to conduct a study to determine the potential to achieve the following benefits:

- Increased efficiency
- Improved effectiveness
- Preservation of a level of service
- Provide an enhanced or expanded services
- Reduce costs
- Cost avoidance
- Coordination of regional planning efforts
- Elimination of artificial boundaries
- Standardization of services and programs
- Provide a foundation that may lead to a reduction in Holliston's ISO rating
- Provide a strong foundation that may assist in fire service accreditation efforts
- Produce a positive impact on future state and federal grant funding

SCOPE OF WORK

The project requires an assessment to determine the current level of services provided to the Town of Holliston. In addition, we considered the projected growth in area services due to increases in population and increased service levels that will be needed to provide the Town with an expected level of protective services. A thorough review of existing staffing, funding, management practices, and the regulatory environment was required to identify whether the Department is able to provide a level of service that is in line with generally accepted standards and benchmarks for a community of like character.

This study required intensive involvement by many members of the community. This project included on-site and remote meetings with many members of the public safety departments. The study focused on an assessment to determine whether the existing organizational models, staffing, facilities, apparatus, and equipment of the Town are in line with generally accepted standards and benchmarks, and commensurate with communities of like character. Our team reviewed the background information that impacts the organization and performed an informal comparative analysis of similar communities. Items that were considered as part of this evaluation included:

- Review of incident volume and trends
- Review of fire service data and operational information as provided by the Town
- Review the fire service facilities and equipment
- Policies that determine staffing levels and types of staffing used
- Community population and demographics

- Response times and actions
- Services provided
- Special hazards and risks (i.e., nursing homes, assisted living facilities, lakes, rivers and waterfronts, industrial facilities, hotels, road network, and multi-story buildings)
- Inter-department relationships
- Assessment and evaluation of the Department's current staffing, organization, and delivery of services, with a primary focus on emergency medical response

Our project team analyzed the information listed below to evaluate the overall operations of the Holliston Fire and EMS Department to identify what works and what does not work:

- Analyzed resources and equipment
- Reviewed budget and expenditures
- Reviewed practices and policies of the Department
- Analyzed call volume against the availability of resources
- Reviewed organizational structure for appropriateness
- Assessed the Department's part-time staffing, and recruitment and retention efforts that exist within the community
- Identified major issues and concerns of the community regarding the operations of the organization
- Achieved an understanding and appreciation of the values and "personality" of the community and the local government
- Identified potential areas of risk/liability and made recommendations to reduce those exposures

Much of the research for this report was completed through virtual meetings based upon the guidance provided by the Commonwealth of Massachusetts and the CDC pertaining to travel and meetings during the COVID-19 pandemic. These virtual meetings were complemented by in-person interviews and on-site field visits when possible. Considering the intensity of the COVID-19 pandemic, a high percentage of the research and interviews were conducted remotely.

The project team spent several hours of time collecting and analyzing data, making observations, inspecting facilities, equipment and records, conducting interviews and when possible, touring the departments and the communities. Much of the data received required in-depth analysis to allow for proper comparison and calculations to be conducted.

METHODOLOGY

To provide an appropriate evaluation of these issues, we employed 17 methods which are listed on the following page:

- Conducted industry-based research on the issues presented
- Met with the Town Administration
- Toured the Town of Holliston
- Toured each fire station
- Evaluated information relative to service demand and response times
- Reviewed current operational policies
- Reviewed quality of service issues and interagency communication
- Reviewed EMS equipment
- Interviewed the Fire Chief
- Interviewed the Police Chief
- Interviewed Police Sergeants
- Interviewed Town Planning staff
- Interviewed members of Holliston EMS
- Interviewed members of Holliston Fire
- Reviewed documents and met with ATA - Human Resources
- Reviewed documents and met with Town Finance staff
- Reviewed multiple documents provided (contract, agreements, etc.)

In addition, the project team considered how current and future service demand would impact the location and/or expansion of physical facilities and the need for equipment. This report also identifies whether the current fire and rescue staffing is appropriate or if it should be modified.

Specific items addressed, included but were not limited to, the following:

- A. Identified service needs based on the characteristics of the community, statutory and regulatory requirements for response and delivery, and comparison with current ability to fulfill the needs and expectations.
- B. Identified the public safety risks and prioritized the level of risk that must be covered based on the data and operations of the fire and first response EMS operations. The type, frequency, distribution, response times, mutual aid and/or contractor-provided services, staffing policies, and the reporting of emergency and routine responses to all services was included.
- C. Assessed the current staffing plan for deploying the required number of staff, officers, and supervisors, along with vehicles and apparatus used, and

recommended cost-effective alternatives based on the type of incident. Evaluated whether there were recommended changes to improve efficiency and delivery of service.

- D. Evaluated the response of personnel, including appropriate operational staffing, supervisors, management, and support staff, starting with the initial call for routine or emergency services.
- E. Identified the required staffing levels that meet the needs of the community in the most cost-effective and complete manner including operating costs, personnel impact, and impact on the delivery of service and workload.

During the development of this document, the focus was placed on enhancing current Fire and EMS service operations by augmenting and supporting existing departments as well as seeking to merge the departments in the future. The recommendations contained within this document should be utilized to promote regional discussion and collaboration. The proposed plan and timetable have been developed to allow for flexibility while still moving forward.

To accomplish the goals and objectives, this document has been divided into the following 16 sections:

- I: Project Overview, Scope of Work, and Methodology
- II: Town Data
- III: Fire Department Overview
- IV: Facilities and Equipment
- V: Incident Response Types and TiMMESmes
- VI: Fire Dispatch
- VII: Fire Services
- VIII: EMS Services
- IX: Staffing Levels
- X: Budget and Human Resources
- XI: Grants
- XII: Mapping Out the Future
- XIII: Conclusions and Implementing Change
- XIV: Consolidated Recommendations
- XV: Addendum
- XVI: Project Team Profile

II: TOWN DATA



Holliston is the only town in Middlesex County that borders Norfolk and Worcester Counties. The Town is made up 19.03 square miles including, 18.7 square miles of land and .3 square miles of water. Holliston is located on the southern part of Middlesex County and is surrounded by the towns of Ashland, Sherborn, Millis, Medway, Milford and Hopkinton. According to the 2020 US Census, there are 14,996 residents in Holliston indicating an approximate 10% increase from the 2010 Census. Holliston is a prominent bedroom community with some conservation

and protected property as well as a significant commercial/industrial area. The population density is approximately 790 people per square mile. At the time of this report there were 4,868 households, and the median home value was \$448,600 with 91% of them being owned and 9% rented. The population was spread out, with 30% under the age of 18, 4.8% from 18 to 24, 29.4% from 25 to 44, 26.9% from 45-64 and 8.9% who were 65 of age or older. The median age was 38.2 years. The future development is strong with proposals for an 800K square foot warehouse. There has been a significant development of single-family homes over the past few years. These are significant numbers to be considered when looking at public safety response projections and equipment and staffing needs.

III: FIRE DEPARTMENT OVERVIEW

The Holliston Fire Department consists of five stations and an excellent apparatus set. The Department is overseen by a full-time Fire Chief who administers the Fire and EMS budgets totaling \$1,380,616 for fiscal year 2022. The Department is made up of approximately 44 active personnel on the fire side and 25 active personnel on the EMS side. The Department recently added a part-time clerical position and a part-time inspector position to help with the Chief's daily workload. The



Department operates predominantly as a on-call fire department and a on-call/duty EMS department. The Department operates out of a central fire station as well as five other locations within the Town. The Department has had call volume that is typical with other studies the team has conducted. There has been a consistent drop in call volume between 2019 and 2020 that we believe is attributed to the COVID-19 pandemic. The three-year comparison below is indicating an upward trend in call volume in the years to come.

	Fire	EMS	Total
2019	467	1182	1649
2020	490	1098	1588
2021	499	1176	1675

Figure 1
Three-Year Total Call Volume

The Department appears to be comprised of four different divisions: Administration, Fire Response, EMS, and Dispatch. Each works as its own entity. The Fire, EMS, and Dispatch divisions will be further discussed later in this document.

INSURANCE SERVICES ORGANIZATION RATING

Insurance Services Organization (ISO) is an independent risk company that services insurance companies, communities, fire departments, insurance regulators, and others by providing information about the risks. ISO's expert staff collects information about municipal fire suppression efforts in communities throughout the United States. In each of those communities, ISO analyzes the relevant data and assigns a Public Protection Classification, i.e., a number from 1 to 10. This class rating places the community in the middle of having a commendable fire suppression program for its size. A Class 1 community represents an exemplary fire suppression program, and Class 10 indicates that the area's fire suppression program does not meet ISO's minimum criteria.

The Public Protection Classification (PPC) program provides objective countrywide criteria that may prove helpful in connection with fire departments and communities planning and budgeting for facilities, equipment, and training. When companies have fewer or lower claims to pay, the premiums they collect can be lower. Therefore, by recognizing the potential effect of improved fire suppression on fire insurance losses, in that respect, the PPC program can often serve as an objective mechanism that can help recognize communities that choose to maintain and improve their firefighting services.

PPC can also be an important factor in overall community resilience and provides a consistent measurement tool that can help in these efforts, from the structural fire response perspective. Given the potential effect on fire insurance rates, the PPC could also be a factor considered by some businesses and developers to determine where to make investments.

While ISO's primary focus is to measure the effectiveness of a community's ability to respond to structure fires for insurance purposes, there are many derivative benefits. These include providing a statistically proven method of measuring performance, a methodology that can help as part of planning, budgeting and making improvements, a tool that can be used to further the concept of community resilience, and a metric that can help encourage investment in a community. The ISO rating for Holliston is a **4/4X** which is a good rating. However, some minimal changes could result in obtaining a lower rating.

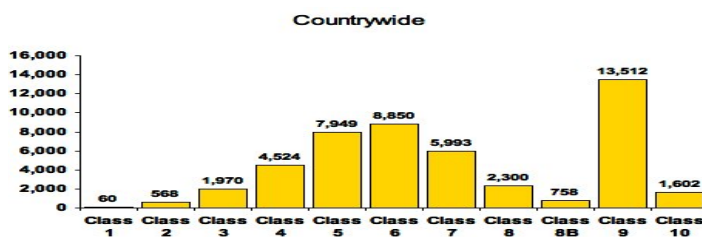


Figure 2
2019 ISO Grading Chart USA

One of the action items developed through the adoption of this study should be to move the Department from the current class to a lower class over five years. Our team believes that this grade reduction could be accomplished through at least focusing on training and water supply inspection and flow testing. The greatest fire safety concern throughout the area is the potential life loss from fires that occur in non-sprinklered, single and multi-family residential dwellings during sleeping hours, which is consistent with national trends. These fires are fueled by new “lightweight” construction and more flammable home contents. The time to escape a house fire has dwindled from about 17 minutes, 20 years ago, to three to five minutes today. This poses a severe risk, not only to occupants, but also to firefighters as they now have less time to do their jobs and save residents’ lives and property.

Although currently not prominent in most of the area, buildings more than three stories in height pose a special risk in an emergency. Fire on higher floors may require the use of ladder trucks to provide an exterior standpipe to be able to deliver water into a building that does not have a system in place. This requires additional personnel to transport equipment up to higher floors. Holliston does have large area buildings sometimes referred to as horizontal high-rises, such as warehouses, malls, and large “big box” stores. These structures require greater volumes of water for firefighting and require more firefighters to advance hose lines long distances into the building. They also present challenges for ventilation and smoke removal.

Although it is not clear how many commercial and residential sprinkler systems there are in Holliston, it is known that automatic sprinklers are highly effective elements of total system designs for fire protection in buildings. They save lives and property, producing large reductions in the number of deaths per thousand fires, and average direct property damage per fire, especially in the likelihood of a fire with large loss of life or large property loss. They do so more quickly, and often more effectively with less damage than firefighting operations. No fire safety improvement strategy has as much documented life safety effectiveness as fire sprinklers, because they extinguish the fire, or at a minimum, hold it in check preventing flashover, until the arrival of the fire department.

IV: FACILITIES AND EQUIPMENT

FACILITIES

Fire stations are critical components of effective Fire and EMS service delivery. In addition to housing apparatus, a modern fire station will provide for the safe housing of staff, and proper storage and maintenance of equipment including personal protective equipment. Modern fire stations should also add safety and efficiencies to the fire department's operations.

Our team made several recommendations for improvements to facilities that all come with a capital cost. We would recommend that the town look at each of these recommendations, group the similar ones and have a cost projection done using State Bid and or prevailing wages as required to build out a capital improvement program that encompasses all the stations. Not knowing what the town is willing to do in terms of the specifics associated with each project presents a challenge. In addition, given the current supply chain issues and escalating inflation, the best strategy to estimate project costs is to develop a detailed scope and place the project out to bid.

The Holliston Fire Department operates five stations although not all of them are utilized for response.

- **Station 1, Central Fire Station, 59 Central Street:** The Central Fire Station is the main station for the Holliston Fire Department. The building was built in 1930. In 1999-2000 the building was renovated including an addition to the apparatus floor, a monitored fire sprinkler system, and the installation of an elevator in the former hose tower. The second floor contains administrative functions for the department. There is a dispatch room on the first floor. There is an area for firefighter decontamination, a fixed SCBA air refilling station, a gear washer and a gear dryer.



Figure 3

Station 1 - Central Station



Figure 4
EMS Report Writing Station - Apparatus Floor



Figure 5
Second Floor - Former Training Room Converted to Storage Area



Figure 6
Former Training Room – Storage Area



Figure 7
Second Floor Hallway



Figure 8
Small Equipment Bays



Figure 9
Basement Equipment Bays

While Station 1 appears to be in overall good condition, the building is lacking adequate administrative and staff workspace as well as some basic safety features. Many of these needed improvements can be accomplished with a modest investment and will help to significantly improve department morale. In an effort to improve essential functions and operations there are needed improvements as listed below:

1. There is a water leak when it rains where the addition roof meets the original building. The rainwater spills down to the apparatus floor onto the computer workstation where the EMTs prepare their PCR run reports (see photo). The roof leak should be repaired. The EMT workstation should be relocated to an administrative area of the building.
2. The second floor administrative area is cluttered with an excessive amount of storage. The main administrative area and hallway are packed with boxes and other storage items. This condition is preventing efficient use of the existing administrative space. The excessive clutter and storage need to be addressed. Shelving, organization of needed storage, and utilization of off-site storage for non-critical essential items will aid in returning this area to its designed administrative purpose. The EMS report workstation could then easily be relocated to this area. This will also help improve the Department 's pride and morale.

3. There was no carbon monoxide detection in the station. This should be added throughout the station.
4. Appropriate smoke detection should be added throughout the station.
5. While there is an apparatus exhaust system on the first floor to protect against carcinogenic exhaust, there is no such protection on the lower level. Apparatus exhaust system coverage should be extended to the lower-level brush truck area to deal with the diesel exhaust carcinogenic concern in that area.
6. There are no provisions for 24/7 staff for sleeping, deconning (showers) or general living space.

Structural apparatus, water rescue equipment and ambulances are located on the first floor. Two forest fire vehicles, spare hose and miscellaneous storage are in a drive-out basement. Pump testing is done annually. Ladder testing is done every 2-3 years; however, every year is optimal. Hose testing has not been done recently and should be completed annually. To avoid creating a burden to on-call staff, most on-call and volunteer fire service agencies contract out hose testing.

Central Station has the following apparatus and equipment:

- Ladder One: 2011 Pierce 100' Aerial Ladder
- Rescue One: 2019 Spartan Heavy Rescue - This vehicle carries hydraulic extrication tools, lifting equipment, air cascade system, stokes basket and water rescue equipment
- Engine One: 2019 Pierce Structural Pumper 1500 GPM, 1000 gallon tank
- Forest Fire One: 2002 Ford F450 250 GPM, 200 gallon tank
- Forest Fire Two: 2014 Ford F350 250 GPM, 200 gallon tank
- Water Rescue One: 1993 Ford F350
- Ambulance One: 2017 Ford F450
- Ambulance Two: 2011 Ford F450
- Ambulance Three: 2007 Ford F450
- Weekend Duty Vehicle: 2015 Expedition - This vehicle is used by the night/weekend duty command officer
- Fire Chief Vehicle: 2020 Chevrolet Tahoe
- Emergency Response Trailer

- **Station 2, Foundry Fire Station, 269 Central Street:** Station 2 is in the Holliston Water Department Facilities. At the time of our site visit, the station was not being utilized due to damage to the apparatus bay door. The Fire Chief indicates the damage should be repaired by the time this report is submitted. The future of this location is being reviewed as part of a planned DPW facility site renovation. While this station may be renovated/replaced in the future, the time frame has not been confirmed. The building is lacking some basic safety features as listed below:
 1. There is no carbon monoxide detection in the station. This should be added throughout the station.
 2. Appropriate smoke detection should be added throughout the station.
 3. An apparatus exhaust system should be installed to deal with the diesel exhaust carcinogenic concern.
 4. The station lacks the facilities necessary to occupy the station, if needed.



Figure 10
Station 2 – Foundry Fire Station



Figure 11
Station 2 – Apparatus Bay

Apparatus assigned to Station 2 includes:

- Engine Two: 2015 Pierce Structural Pumper 1250 GPM, 750 gallon tank (currently housed at headquarters due to the damaged apparatus door)
- Tanker Two: 1985 GMC 1000 gallon tank

- **Station 3, East Holliston Fire Station, 443R Washington Street:** Station 3 was built in 1950 and renovated in 2015. Both construction projects were done utilizing volunteer labor.



Figure 12
Station 3 - East Holliston Station



Figure 13
Station 3 - Second Floor



Figure 14
Station 3 - Apparatus Floor



Figure 15
Station 3 - Engine Three

The building is lacking some basic safety features as listed below:

1. There is no carbon monoxide detection in the station. This should be added throughout the station.
2. Appropriate smoke detection should be added throughout the station.
3. An apparatus exhaust system should be installed to deal with the diesel exhaust carcinogenic concern.
4. There is insufficient clearance for modern fire apparatus.
5. Backup power for lighting and overhead door opener should be installed.

Apparatus assigned to Station 3 includes:

- Engine Three: 2015 Pierce Structural Pumper 1250 GPM, 750 gallon tank
 - Forest Fire Three: 2018 Ford F350 250 GPM, 300 gallon tank
- **Station 4, Pope Industrial Park Fire Station, 52 Pope Road:** Station 4 consists of a leased apparatus bay in Pope Industrial Park.



Figure 16
Station 4 – Pope Industrial Park Station



Figure 17
Station 4 - Engine Four

This rented space was intended to be used as a temporary solution; however, it has been in place **for 17 years**. Additionally, the building is lacking some basic safety features as listed below:

1. There is no carbon monoxide detection in the station. This should be added throughout the station.
2. Appropriate smoke detection should be added throughout the station.
3. An apparatus exhaust system should be installed to deal with the diesel exhaust carcinogenic concern.
4. There is no restroom or cleaning facilities at this station.
5. This station was not recognized as a station in the Insurance Services Organization report dated April 22, 2019, because it did not meet its minimum requirements.
6. There is a reported rodent problem.

Apparatus assigned to Station 4 includes:

- Engine Four: 2005 Pierce Structural Pumper, 1250 GPM, 1000 gallon tank

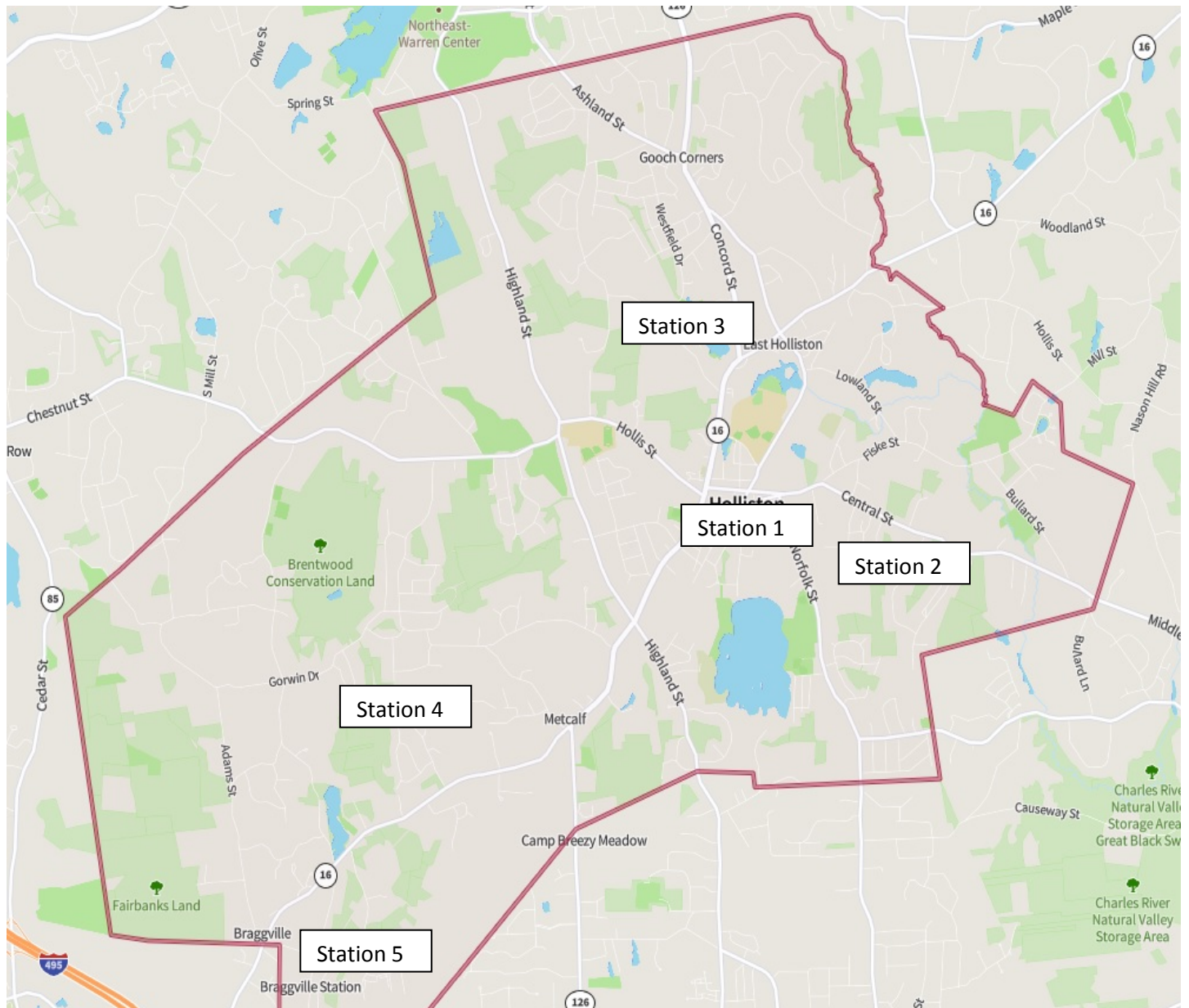
- **Station 5, Braggville Fire Station, 386 South Street:** Station 5 was built in 1954 by volunteers. The building is not currently being utilized as a fire station. No apparatus are assigned to this station as operations have been moved to the leased property at Station 4. An emergency response trailer is stored inside the building. The building is lacking some basic safety features as listed below:
 1. There is no carbon monoxide detection in the station. This should be added throughout the station.
 2. Appropriate smoke detection should be added throughout the station.
 3. If apparatus are to be stored here in the future, an apparatus exhaust system should be installed to deal with the diesel exhaust carcinogenic concern.



Figure 18
Station 5 – Braggville Station



Figure 19
Station 5 – Braggville Station



Approximate Distances from Station 1 to Other Stations:

Station 2 = .53 miles

Station 3 = 1.4 miles

Station 4 = 2.0 miles (not recognized by ISO)

Station 5 = 4 miles (No apparatus at this station)

Figure 20
Station Locations

RECOMMENDATIONS - FACILITIES

- IV-1 Central Station needs to be cleaned up, and items not needed on a daily basis should be moved to a dry storage area such as Station 5. Many outdated items need to be disposed of following procedures (donated to training institutions or destroyed).**
- IV-2 Central Station second floor could be modified to reasonably accommodate a day room, bunk rooms, shower facilities and office space.**
- IV-3 Evaluate all the space at the Central Station for better apparatus placement by moving some equipment (boat) to other spaces or Station 5.**
- IV-4 All stations need to be cleaned and fully evaluated for proper safe working environment.**
- IV-5 Renting of space for Engine 4 should stop. The engine should be located in a Town owned space. Once the door at Station 2 is repaired, this may be feasible.**
- IV-6 The Town should consider a new location and combine two or three stations into one new location. The new area should be large enough for future department staffing 24/7. The MRI team was shown a potential spot located at the Former Axton Cross facility that is in a good location and would allow for proper square footage. It is thought that Stations 2, 4 and 5 could be combined.**



Figure 21
Sample Sub Station

- IV-7 Station 1 roof leak on apparatus floor should be repaired.**
- IV-8 All stations should be evaluated and have exhaust removal systems installed in all areas where there is apparatus and equipment.**
- IV-9 All stations should be evaluated for proper fire/smoke/CO alarm detection and be monitored to protect the Town's assets.**
- IV-10 Station 2 door repairs should be expedited and door eyes should be installed to prevent door from moving when there is something in the way.**
- IV-11 All stations should be evaluated to allow for proper restroom facilities, decontamination areas, and clean and dirty storage areas.**
- IV-12 The empty bay of Station 5 should be converted into a shelved storage area for essential supplies. This would include developing shelving along the exterior walls and rear of the structure and moving the trailer into the center of the two bays.**
- IV-13 All stations should have adequate backup emergency power for heat, lighting and door opening capabilities.**

EQUIPMENT

The Holliston Fire Department maintains a modern and appropriate apparatus set consisting of one aerial ladder, four structural engines, one rescue truck, three forestry trucks, three ambulances, and miscellaneous operational support equipment. A replacement plan for the apparatus fleet is in place and has been successful.

The actual incident response of the apparatus in calendar year 2021 was very low in comparison to other communities of the size and fleet. This is good for the longevity of the apparatus and may allow for adjustments in a capital plan. The nine major pieces of equipment are indicated below with the actual number of responses for the year 2021.

	Incidents		Incidents		Incidents
Engine 1	37	Engine 4	35	Forestry 1	3
Engine 2	29	Ladder 1	41	Forestry 2	10
Engine 3	37	Rescue 1	28	Forestry 3	10
Ambulance 1	876	Ambulance 2	257	Ambulance 3	9

Figure 22
2021 Apparatus Responses

The number of apparatus responding to incidents is concerning when compared to the number of fire incidents reported to the MRI team and what has been reported in the National Fire Incident Reporting System. It appears that there is a very dangerous practice of a personal vehicle, Chief's car, or weekend car responding to investigate a call before moving any apparatus, and it is estimated that this happens approximately 39% of the time. It has been noted in a single week's log provided, that a single person investigated six fire alarm activations, two outside fires, one transformer fire, two downed wires and one leak of some type. Not having the proper equipment and staffing to assure the safety of responders responding to an incident is gambling with not only the life safety of the responders, but also of the residents. Any delay in a proper response of vehicles and equipment to an incident that has the potential to cause harm or damage to humans or property is not only inexcusable, but it also puts the Town in a potential liability situation. Industry best practice is to dispatch at least a single engine to calls with a potential hazard.

Figure 23
Ladder 1



Figure 24
Rescue 1



Figure 25
Engine 1



Figure 26
Engine 2



Figure 27
Engine 3



Figure 28
Engine 4



Figure 29
Ambulance 1



Figure 30
Ambulance 2



**Figure 31
Ambulance 3**



**Figure 32
Forestry 1**



**Figure 33
Forestry 2**



Figure 34
Forestry 3



Figure 35
Dive Rescue



Figure 36
Boat 1



RECOMMENDATIONS - EQUIPMENT

- IV-14: Evaluate the need for keeping three ambulances in service. Most communities of the size and EMS call volume of Holliston keep two ambulances in service. Based on Holliston's current abilities for EMS staffing, reducing the number ambulances will have little, if any, impact.**
- IV-15 Evaluate the need to keep two boats in one station. To free up space at Central Station, consider moving one boat and the dive truck to Station 5.**
- IV-16 When creating/reviewing a capital plan, do a true needs assessment for the number of vehicles and the actual needs and call volume. Just because the Town has it today, does it need to have it today and in the future? The overall number of apparatus is high compared to other call departments with similar incident volume.**

V: INCIDENT RESPONSE TYPES AND TIMES

From the perspective of effective emergency response, there are three main factors that are used to help determine the deployment of resources: response time, travel distance, and call volume. For most evaluations, response time is the most critical factor; an important measuring instrument to determine how well a fire department or first response EMS provider is currently performing, to help identify response trends, and to predict future operational needs. Getting emergency assistance to the scene of a 9-1-1 caller in the quickest time possible may be critical to the survival of the patient and/or successful mitigation of the incident. Achieving the quickest and safest response times possible should be a fundamental goal of every fire department and first response EMS provider. It is not just a cliché that during critical life-threatening situations, minutes and even seconds truly do count.

An analysis of the type of incidents Holliston responded to in 2021 was completed with data provided. The table below shows a broad classification of the types of incidents as reported to the National Fire Incident Reporting System (NFIRS) and an average of the number of responses to each. Regardless of the actual incident address, all responses were calculated as it was a service that was provided by the Fire Department.

NFIRS	2021	
100 Fires	16	2.63%
200 Rupture Explosion	2	0.33%
300 Rescue and EMS	131	21.51%
400 Hazard Condition	78	12.81%
500 Service Call	64	10.51%
600 Good Intent	65	10.67%
700 False Alarm or Call	223	36.62%
800 Severe Weather	12	1.97%
900 Special Incident	18	2.96%
TOTAL	609	

Figure 37
2021 Fire Department by Incident Type

Aside from false alarm or call incidents, the highest demand for service is for medical emergencies. Fires themselves consistently reflect 2.63% of the response volume during the year of the study.

Incidents by day of the week and time of day were also analyzed. The outcome of the data reviewed is very comparable to other departments that have been reviewed over the past few years.

EMS was further looked at for the number of transports and the destination of the transports. The destination location is an important factor to review as the destination travel time to and from demonstrates the time the ambulance and staff are not available to the community.

For the calendar year 2021, there were 779 ground transports, and no medical helicopters were used. In addition, there were 365 incidents that no patient was located or the patient refused transport to the hospital.

Beth Israel/Deaconess	3
Boston Medical Center	1
Brigham and Women's	2
Children's Hospital	3
MetroWest Framingham	465
Mass General	3
Milford Regional	269
Beth Israel/Needham	5
Newton Wellesley	12
UMass Memorial	16
Total Transports	779

Figure 38
Analysis by Hospital Destination

The day of the week was looked at next to see if there was a trend for call volumes and response requests. The cart below indicates that the day of the week has little or no bearing on the call volume as statistically the volume is spread pretty evenly.

Monday	15.78	14%
Tuesday	14.92	15%
Wednesday	13.55	13%
Thursday	11.14	16%
Friday	14.23	15%
Saturday	15.09	15%
Sunday	15.26	13%

Figure 39
Analysis by Day of the Week

Time	Sun	Mon	Tues	Wed	Thu	Fri	Sat	Total	Average
0000-0359	15	7	9	11	8	10	14	74	6%
0400-0759	14	14	21	17	18	16	16	116	10%
0800-1159	34	46	36	38	48	43	34	279	24%
1200-1559	31	30	37	26	43	40	39	246	21%
1600-1959	29	39	40	32	42	42	35	259	23%
2000-2359	31	20	26	22	24	19	31	173	15%

Figure 40
Analysis by Time of Day

The time of day data indicates that the peak time of service (highlighted in yellow) is from 8:00 AM to 8:00 PM. This seems to correspond well with the time most of the residents are up and

about taking care of their daily tasks. Not surprisingly, the time frame from midnight to 6 AM, when most people are sleeping, indicates the slowest time. What is truly clear is that the needs of the public are 24 hours a day. It is important to be able to respond efficiently and effectively to the incidents all day, every day.

Structural firefighting has become far more challenging and dangerous in the last 30 years. A fire can easily at least double in size and intensity every 30 seconds. If firefighters cannot arrive in a timely manner and attack the fire quickly, a strong possibility exists that a dangerous flashover (simultaneous ignition of all combustible materials in a room) will occur. Flashover can occur within five to seven minutes of fire ignition and is one of the most dangerous events that firefighters or trapped civilians can face. When a flashover occurs, initial firefighting forces are generally overwhelmed and will require significantly more resources to affect fire control and extinguishment.

Heart attack and stroke victims require rapid intervention and care, and transport to a medical facility. The longer the time duration without care, the less likely the patient is to fully recover. Numerous studies have shown that irreversible brain damage can occur if the brain is deprived of oxygen for more than four minutes. In addition, the potential for successful resuscitation during cardiac arrest decreases exponentially with each passing minute that cardiopulmonary resuscitation (CPR) or cardiac defibrillation is delayed. The true key to success in the chain of survival is the education and early access to the 911 system by civilians. The early notification coupled with the added skills of properly trained EMS staff that arrive quickly and transport at the appropriate level of care are all key factors in a positive outcome for patients.

Nationally, for EMS incidents, the standard of care based on stroke and cardiac arrest protocols is to have a unit on scene at a medical emergency within six minutes from receipt of the 911 call. Considering the future potential of this regional approach, Paragraph 4.1.2.1(4) of NFPA 1710¹, which would be applicable to departments that provide first response EMS operations since they are primarily provided by in-station per diem staff, recommends that for EMS incidents, a unit with first responder or higher level trained personnel and equipped with an AED, should arrive within four minutes of response (five minutes of dispatch of the call). An Advanced Life Support (ALS) unit should arrive on scene within eight minutes (ten minutes of call receipt). Paragraph 4.1.2.2 recommends the establishment of a 90% performance objective for these response times. CAAS² recommends that an ambulance arrive on scene within eight minutes, fifty-nine seconds (00:08:59) of dispatch.

¹ 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, 2001 edition (National Fire Protection Association, Quincy, MA), outlines organization and deployment of operations by career and primarily career fire departments.

² *The Commission on Accreditation of Ambulance Services (CAAS) is an independent commission that established a comprehensive series of standards for the ambulance service industry.*

Although NFPA 1720 provides essential benchmarks, fire departments often measure baseline performance in terms of *total response time*, which is the time it takes from the call to be received at the Public Safety Answering Point (PSAP) until the first unit arrives on the scene of the emergency incident. Total response time should be measured and reported for all first-due units *and* the effective response force (ERF) assembly. Total response time is composed of call-processing time, turnout time, and travel time:

- *Call processing time* – the elapsed time from the call being received at the PSAP to the dispatching of the first unit.
- *Turnout time* – the elapsed time from when a unit is dispatched until that unit changes its status to “responding.”
- *Travel time* – the elapsed time from when a unit begins to respond until its arrival on the scene.

The response travel time is calculated from the time of dispatch to the time of arrival of the first piece of fire/EMS apparatus. It is also important to keep in mind that there are many possible variables to actual response travel times such as weather, physical location of the incident compared to the location of the station (travel distance) especially during mutual aid responses, as well as other simultaneous calls that may be happening. It is also important to note that the response time of fire staff for non-EMS incidents is typically higher. Before staff leaves the station, they should be wearing all of their personal protective equipment (boots, pants, hoods, and coats).

	Fire	EMS
Jan	8:57	9:47
Feb	10:00	10:13
Mar	8:05	8:47
Apr	7:48	9:32
May	7:14	8:13
June	8:46	8:13
July	9:05	8:21
Aug	9:02	8:54
Sept	9:02	9:38
Oct	8:35	10:22
Nov	10:16	12:11
Dec	10:46	8:11
Average	9:21	9:18
Stats Do Not Include Mutual Aide Time = Dispatch to Apparatus on Scene		

Figure 41
Call Analysis – Response Travel Times

RECOMMENDATIONS

- V-1: Assure proper staffing is scheduled 24/7 for fire incidents. A single crew for fire-based operations should consist of an officer and 2 or 3 certified firefighters that are available to handle the first call.**
- V-2: The primary ambulance should be staffed 24 hours a day, 7 days a week with staff at the station. Others should be on-call for times when additional staff is needed or when a second ambulance needs to be staffed.**
- V-3: When station is staffed with one person and second is on duty from home, have the ambulance respond with a driver only and meet the second person on scene.**
- V-4: Stop a single person investigating an incident and then calling for resources. A single engine (at a minimum) should respond on all CO, gas, wires down, MVA, and alarm investigations (with no immediate phone call to cancel). Running a single person is a very dangerous practice. A single engine company with a staff of two or three is the minimum response. Refer to Section IX of this document for the "two-in/two-out" rule.**
- V-5 Set and publish minimum criteria for active participation and ramifications for not meeting the minimums. A large roster is a false sense of security, and only people with proper training and skills that are dedicated (attend training and incidents) should be active.**

VI: FIRE DISPATCH

The Fire Dispatch Center (serving both Fire and EMS) is located on the first floor of the Central Station and staffed by a single person 24 hours a day with a person assigned to an eight-hour shift. There are three full-time dispatchers. Two work 40 hours per week and one that works 32 hours per week with the balance of the shift covered by part-time staff. The people who staff this center are truly the first responders for all those that live, travel through, or visit the Town of Holliston.

According to the Department's website the Fire Dispatch is also the answering point for the Animal Inspector and Animal Control Officer 24/7, and the after-hours answering point for the Holliston Highway and Water Departments.

The MRI team found the Dispatch Center to be poorly equipped and lacking the technology that is typical in a modern dispatch center. All records are still being done on paper and then eventually moved to a records management system by others. There is no computer aided dispatch software being used, and an old card system is in place. There is no program such as "IamResponding" in place that allows all to know who is and who is not coming, and if they are responding to the station or directly to the scene.

During the project interviews our team learned that the Massachusetts 911 Department prohibited Holliston Fire from providing Emergency Medical Dispatch due to a lack of both training and follow-through on quality assurance and quality improvement programs. Emergency Medical Dispatching (EMD) is used to provide the caller with directions to give appropriate aid to the patient while waiting for responders. This system also allows the dispatcher to gain additional knowledge of the situation and pass that knowledge on to first responders. All 911 calls are currently being answered by a Holliston Police Dispatcher and then transferred to the Fire Dispatcher and Medway Fire, who has been temporarily contracted to provide the EMD for medical calls. **This is, at best, a cumbersome system that lacks the utilization of several industry best practices.**



It appears that Fire Dispatch is a separate entity within the Holliston Fire Department with a distinct separate group of people who staff the center. Currently the staff needs to find their own replacements to take time off.

CONCERNS

We know that calls for service can come in anytime, 24 hours a day, seven days a week. It is not possible to predict when the serious calls will occur, however, through the use of trend analysis we can understand the typical call volume and prepare the resources necessary to answer the call, properly process the call, and accurately track the details (times) of the call including the times of responding resources.

A common theme during interviews with the staff, was that there is a tremendous amount of improvement that could be made in the area of dispatch. Our team concludes that the current service model is not effective or efficient and lacks the use of several basic industry best practices, such as live CAD dispatching and the use of on line structure files and less use of paper and pencil that requires some work to be done more than once. Approximately \$252,344 was spent on Fire Dispatch in 2021, and that does not include the Town's health insurance contribution. There is a salary range of \$20,300 to \$57,800 with an average of \$25,234 for 10 individuals that staff the current operation.

The MRI team feels the town has three options with dispatch and each should be appropriately evaluated for both efficiency and for cost effectiveness. The first option is to keep dispatch where it is with the implementation of recommendations VI-1 thru VI-12. The second option would be to move dispatch to the Police Station and create a central public safety dispatch center. Based on the risks of a single person dispatch model, this should be strongly considered. This move would also free up office space for report writing and other administrative functions for the EMS staff and the fire officers. Even with moving the dispatcher to the Police Station recommendations VI-1 thru VI-12 should all still be considered as improving the overall dispatch model. The third option is for the Town to study the feasibility of moving all dispatching to a Regional Emergency Communications Center (RECC). There are several regional centers in the area that are experiencing a highly successful program with results for the subscribing communities. The MRI team does feel that moving fire dispatch to the Police Station or to a RECC is in the best interest of the Town for effectiveness and efficiency.

RECOMMENDATIONS

- VI- 1 There should be a single person who is a working supervisor for Dispatch that reports to the Fire Chief. This person should be handling all aspects of scheduling and operations within Dispatch.**
- VI-2 The Department should obtain proper training and certification for EMD. EMD could be supervised by the Assistant Chief (new position) who should also be charged with EMS.**

- VI-3 The Department should transition all operations to a cloud-based CAD and records management system (RMS) and use this program "real time" for all incidents.**
- VI-4 The cloud-based RMS system should incorporate pre-planning documents in a dispatch records management system that dispatchers can access.**
- VI-5 The Department should add tablet-based mobile data and pre-planning capabilities to all "first due" apparatus.**
- VI-6 The dispatchers should be operating with a set of Standard Operation Procedures (SOPs). These will need to be developed and incorporated into training and operations.**
- VI-7 There should be a constant review of dispatchers and a quality assurance program implemented for them that follows the same guidance as EMD.**
- VI-8 A procedure should be put into place that allows the dispatcher to be covered for a break and use of the restroom. Currently there are no remote capabilities to accommodate the human and biological needs of dispatch personnel.**
- VI-9 The Department contact list is reportedly extremely outdated and must be updated with current 24/7 contact information.**
- VI-10 A formal dispatcher training program should be created that documents benchmarks and requires mentors/trainers to sign off on.**
- VI -11 The Department should begin to utilize "IamResponding" or a similar first response technology platform.**
- VI-12 Displays for the "IamResponding" or a similar system should be installed on the apparatus floor of every active station.**

VII: FIRE SERVICES

FIRE SWOT PROFILE

A SWOT analysis is a business term utilized to identify the strengths, weaknesses, opportunities, and threats present within an agency's operating environment. This type of analysis involves specifying the objective or mission of an organization and identifying the internal and external factors that are favorable and unfavorable to achieve that objective.



Figure 42
SWOT Analysis

- **Strengths:** Characteristics of the agency that allow it to meet its mission, work toward achieving its vision, or provide exceptional service to a community.
- **Weaknesses:** Characteristics of the agency that may create internal conflict, dysfunction, and/or frustrate organizational performance thus creating a disadvantage to the organization in its efforts to meet the goals established by its mission statement.
- **Opportunities:** Elements that the organization could pursue or develop to its advantage.
- **Threats:** Elements in the environment that could create organizational instability or reduce the ability of an agency to fulfill its mission and/or achieve its vision.

A SWOT analysis aims to identify the key internal and external factors seen as important to achieving an organizational objective. SWOT analysis generally groups key pieces of information into two main categories:

- **Internal Factors:** The strengths and weaknesses internal to the organization.
- **External Factors:** The opportunities and threats presented by the environment external to the organization.

Analysis may view the internal factors as strengths or as weaknesses depending upon their effect on the organization's objectives. What may represent strengths with respect to one objective may be weaknesses (distractions) for another objective. A SWOT analysis can be used:

- To explore barriers that will limit goals/objectives
- To decide on direction that will be most effective
- To reveal possibilities and limitations for change
- To revise plans to refocus on an organization's mission statement
- As a brainstorming and recording device as a means of communication
- To create a series of recommendations in the context of an organizational study

The SWOT analysis in a public safety framework is beneficial because it helps organizations decide whether an objective is obtainable. Therefore, it enables agencies to set achievable goals, objectives, and steps to further the change or enhance organizational development. It enables organizers to take visions and produce practical and efficient outcomes that affect long-lasting change. It also helps organizations gather meaningful information to maximize their potential. Completing a SWOT analysis is a useful process regarding the consideration of key organizational priorities.

This process, undertaken by the project team, included an evaluation of both the external environment, as well as the Fire and first response EMS services internal factors, and the interrelationship between the two. This was accomplished through virtual interviews, along with the analysis of data obtained from various sources. By approaching the SWOT analysis in this way, the process continues to reinforce a primarily, but not entirely, stakeholder-driven perspective.

NOTE: For this and the EMS SWOT analysis, data was collected as part of the site visit by the project team as well as from emails and interviews from current Holliston Fire, EMS, and Town staff.

Strengths:

- The passion and dedication of all fire and fire-based EMS personnel in Holliston – they care and strive to provide excellent service
- The Town's willingness to support the Department with resources
- A strong interest by Fire Department leadership to work with other departments
- A high degree of mission buy-in and ownership
- A high regard for the customer

- High quality apparatus and equipment that appears to be well-supported by the community
- Strong support from Holliston leadership
- Strong support from the residents of Holliston
- A Department that is made up of many people with a wide range of professional skills (contractors, former military, plumbers, electricians, and well-educated people).
- A strong and dedicated group of officers
- Recognition of current and potential challenges
- Recognition that there is not one solution
- High level of engagement in this study

Weaknesses:

- Lack of involvement and use of officers' talents in non-emergency operations
- The American Fire Service has an increasing risk profile such as cancer, active shooter incidents, and more recently, COVID-19, which may change the level of interest of traditional candidates
- Increasing training requirements which consume more leisure time
- Increasing economic pressure on potential responders
- Political change in an increasingly divisive society
- A large gap by the municipal governments in developing a thorough knowledge of what emergency services are delivered to their communities
- Although well-intentioned, a recruitment and retention effort that had only marginal success
- Increasing response metrics
- Lack of education of the public and local officials regarding all facets – including financial – of the fire service delivery system
- Lack of published policies and SOP's
- Lack of pre-planning of structures and educating staff through training on pre-plans
- Lack of succession planning for the Fire Chief's position
- There are no incident reports completed by officers
- Number of POVs on scene creates a lack of accountability and movement of apparatus at scenes
- Command should be in full PPE and in front of the structure after completing a full 360 of the building
- Lack of establishing a fully-trained and equipped RIT team
- Use of mutual aid for an immediate response for RIT and/or suppression staff

Opportunities:

- Use of legislative processes to secure funding at both the local, regional, state, and federal levels
- Updated records management system and technology
- Cross training staff (fire/ems)
- Training development and documentation
- Succession planning for Fire Chief
- Adding an Assistant Chief position
- The ability to work with the community to identify the current level of service and set realistic service level/cost expectations
- Increase in regional collaborations and endeavors within the area
- Address recruitment and retention area-wide, by consolidation of efforts
- Demonstrate problem solving abilities through programs and by providing a model approach to the declining on-call members crisis in Holliston and surrounding area
- Explore new forms of outreach and marketing to inform the community of the challenges ahead
- Marketing and communicating the social identity and benefits of being an on-call firefighter in the Fire Department
- Identify and harness the best practices from across the nation relative to the further development of recruitment and retention strategies
- Train as a department not just as companies. This will assure some degree of standardized training and cohesiveness
- Purchase and distribute department clothing (t-shirts, sweatshirts, caps and hats) as a tool to reward for participation in training and incidents
- Maintain and publish a set standard for annual training and response minimums
- Review the overall command structure. It is unusual to have so many officers on a department in a community of this size

Threats:

- The fire services' ability to improvise and get a mission accomplished despite the absence of appropriate financial resources
- Lack of coordination with dispatch
- Personalities
- The inability to provide a timely response to multiple overlapping emergency calls

- The projection of a problem that does not exist, described as “a crises without evidence”. The fire department sees the service gaps, but the public sees and accepts a level of service continuity that goes against the description of the problem. When they call someone always shows up to help them
- Continued decline of on-call firefighters across the study area, part of an overall nationwide reduction in volunteerism
- Continued exodus of younger, trained on-call personnel to career job opportunities
- The fiscal and operational impact of the COVID-19 pandemic which may significantly impact on-call participation
- Generational and cultural differences in the emergency services that are not always as inclusive as they should be
- The practice of sending a single person in a POV to investigate an incident before toning for an engine is a very dangerous practice
- The lack of an accountability system
- Freelancing at fire scenes
- Lack of true command and control - companies do what they feel is right and not in a coordinated way
- POV responding to the call and station with the use of red lights and sirens with no training, rules and regulations to follow and no "Permit to Display Red Lights" from the Registry as required by MGL Chapter 90 Section 7E.

RECOMMENDATIONS

- VII-1 Create a full-time Assistant Chief position (or other titled high ranking officer) to work with Chief in all Fire and EMS items as part of a succession plan.**
- VII-2: The HFD should develop a five-year plan to enhance training and proper documentation that is housed in a cloud-based records management system.**
- VII-3: With input from officers, there should be a formal Fire and EMS five-year capital plan that is reviewed annually with the Town, and adjustments made based on changing department needs.**
- VII-4: The HFD should conduct a thorough Community Risk Assessment and use the assessment as a tool to move the Department into the future. Over the next year, a plan should be developed to utilize strengths to pursue opportunities and address weaknesses while mitigating threats. This should be an ongoing process that has member involvement and is moved forward by the officer core.**

- VII-5 The HFD should review and or develop a mission, slogan and values that reflect the department and should use these as a basis to educate the community.**
- VII-6 The HFD should develop a formal recruiting program that targets younger people who will be in town for many years.**
- VII-7 The Department should be an active participant in Fire District 14 in attendance at meetings as well as on the many other regional opportunities.**
- VII-8 Create a Safety Officer position for both training and incident response.**
- VII-9 Mandate proper wearing of all PPE at incidents and training.**
- VII-10 Bring on staff who may work full-time elsewhere that could enhance training and response capabilities.**
- VII-11 Create an SOP work group to review drafted SOPs and create new SOPs that document the way the department operates. Once developed, begin to publish and train all members on SOPs.**
- VII-12 Create a set of published rules and regulations.**
- VII-13 Create a work group to develop pre-plans for structures within the community. As part of this group's mission, they should be collecting information for structure files that is shared with the CAD and RMS systems.**
- VII-14 Officers who are on-call and handle calls in the absence of the Chief should be trained and allowed to complete NFIRS reports especially narratives for all calls. The importance of having a first-hand account with details of events at a given incident is crucial. Having an accurate first-hand description of operations creates a professional record in line with industry best practice to help minimize any potential liability to the Town.**
- VII-15 The Department should be looking for a single cloud-based records management system (RMS) that is done in access layers to allow individual people to enter their specific data. The system should allow for remote access.**
- VII-16 The Department should be receiving and giving automatic mutual aid to all surrounding towns in a coordinated effort to provide at a minimum a dedicated Rapid Intervention Team (RIT).**

- VII-17 The Department should train (at a minimum) 12 members to provide the rapid intervention function as a three to four person team.**
- VII-18: The Department should prohibit the response of a single person investigating an incident and then calling for resources. Based on a number of best practices and national standards, a single engine (at a minimum) should respond on all CO, gas, wires down, motor vehicle collisions, and alarm investigations (with no immediate phone call to cancel). Running a single person is a very dangerous practice that places the Town at risk for significant liability.**
- VII-19 Set and publish minimum criteria for active participation and ramifications for not meeting the minimums. A large roster is a false sense of security, and only people with proper training and skills that are dedicated (attend training and incidents) should be active.**

VIII: EMS SERVICES

Emergency Medical Services in Holliston are delivered solely at the basic level with a heavy demand for paramedic level intercept service from other services or from neighboring fire departments. The region has a standard of advanced level of care that is provided from fire and private-based systems. Along with the demand for outside paramedic level service is an increasing trend of needing mutual aid to provide patient transportation. During a recent 12 month period, a total of 115 EMS calls were handled by other agencies due to lack of sufficient Holliston EMS personnel responding to the call.

This situation is of significant concern for two reasons:

- When mutual aid is requested, response times are elongated as they are requested only after it is apparent that Holliston resources are not available. This produces extended response times that in some cases could have a lasting impact on the patient.
- Shifting this level of service demand to adjacent communities consumes their resources and produces a system abuse that goes well beyond the parameters of mutual aid. This concern was the primary issue as we spoke with representatives of adjacent communities.

Currently the Department is trying to staff the ambulance with on-call personnel with shifts that are from 6 AM to 6 PM and 6 PM to 6 AM. A typical crew is comprised of either two or three personnel and may have an additional person for training. Some EMS staff at the station and for non-residents this is a requirement to be on a shift. Other staff responds to the station or may respond directly to the scene.

The Department gives and receives mutual aid to continuous communities on request. Currently the Town receives its Advanced Life Support (ALS) with paramedics from the following:

- Fallon EMS (fee for service)
- Community Ambulance (fee for service)
- Brewster EMS - Framingham Fire based (fee for service)
- Ashland Fire (fee for service)
- Hopkinton Fire (fee for service)
- Medway Fire (fee for service)
- Millis Fire

Although several fire-based ambulances are providing a service to Holliston, it is taking away the service from their own communities at the same time. As mentioned above the concern

that this level of demand extends beyond the parameters of normal mutual aid is a growing concern within adjacent communities.

During the project team's review of EMS, we heard the frustration from community leaders, out-of-town providers, and public safety personnel on scene, waiting for the arrival of a mutual aid ambulance. Often the Holliston Police Department arrived on scene providing aid consistent with their training until EMS arrived. Personnel from the Police Department that we spoke with are very frustrated with this and often receive concerning comments from the out-of-town providers. **This current level of operational deficit should not be dismissed as acceptable, and should be recognized for the operational crisis and risk that it presents to the Town.**

The chart below indicates the number of EMS calls that have been handled by other towns and agencies for the calendar year 2021 and further breaks down by day and shift.

EMS Calls by Other Agencies (2021)			
	Primary	Secondary	Total
Ashland	9	14	23
Brewster	4	5	9
Fallon	2	0	2
Hopkinton	0	2	2
Medway	12	21	33
Millis	0	1	1
Sherborn	11	24	35
TOTAL	38	67	105

Figure 43
Outside EMS Provided to Holliston

Total Calls by Other Agencies by Shift (2021)		
Monday	Day	16
	Night	6
Tuesday	Day	6
	Night	3
Wednesday	Day	4
	Night	1
Thursday	Day	6
	Night	3
Friday	Day	10
	Night	7
Saturday	Day	5
	Night	10
Sunday	Day	20
	Night	8
Total Day		61
Total Night		38
Day Shift = 6 AM to 6 PM		
Night Shift = 6 PM to 6 AM		

Figure 44
Mutual Aid Received by HFD EMS Shifts

Ambulance Billing and Revenue

When a patient is transported by the Holliston Fire Department or a mutual aid service, they are billed for that service. A third-party service provides the billing for the Town. The current agreement pays the billing company a flat 4% of actual collections. Ambulance rates are approved at a public meeting and approved by the Select Board. The current rate schedule (Figure 45) was last approved in 2015 and appears to be in line with industry standards for the area.

Service	Rate
Base Rate for BLS Service	\$ 875.00
BLS Transport Mileage *	\$ 27.50
Base Rate for ALS 1 Service	\$ 1,300.00
ALS 1 Transport Mileage	\$ 33.00
Base Rate for ALS 2 Service	\$ 1,650.00
ALS 2 Transport Mileage	\$ 33.00
Supplies	\$ 93.50
Specialty Care Transport	\$ 1,975.00
Extra Attendant	\$ 110.00
Ambulance Response with No Treatment	\$ 450.00
* Loaded Miles to the Hospital	

Figure 45
EMS Billing Rates

The collection rate is an important figure to consider when looking at service costs versus the ability to recover some of the cost for the program. These numbers are provided to the Town at the completion of each month. It is important to note that when looking at the total charges versus the total collected there is typically a 60 to 90 day delay in getting payments, and many are still seeing longer times with insurance companies processing backlogs as a result of the pandemic and not having sufficient staff to process them. Holliston appears to have a higher than average collection rate of 84.7 % overall from all sources.

Fiscal Year 2020	
Transports	733
Total Charges	\$901,953.55
Total Allowable	\$476,753.70
Total Collected	\$403,969.38
Percent Collected	84.73%
Net Revenue per Call	\$551.11

Figure 46
EMS Revenue FY 20

The following chart is a great indicator of the revenue stream, with the highest source being Medicare. Although billed at the Holliston rates, Medicare and Medicaid have their own rates for service that every ambulance service gets paid. The laws do not allow these patients to be balanced billed for any amounts above what the government pays.

Source	% of Transports	% of Revenue
Blue Cross	6%	13.15%
Medicaid	12%	6.92%
Medicare	59%	50.86%
Other Insurance	14%	25.73%
Veterans Administration	1%	.17%
100 % Self Pay - Insured	4%	2.21%
100 % Self Paid - Uninsured	4%	.96%

Figure 47
EMS Billing Rates

NOTE: For the EMS SWOT analysis, data has been collected as part of the site visit by the MRI team as well as from emails and interviews from current Holliston Fire, EMS, and Town staff.

HOLLISTON EMS SWOT PROFILE

A SWOT analysis is a business term utilized to identify the strengths, weaknesses, opportunities, and threats present within an agency's operating environment. This type of analysis involves specifying the objective or mission of an organization and identifying the internal and external factors that are favorable and unfavorable to achieve that objective.



Figure 48
SWOT Analysis

The SWOT analysis in a public safety framework is beneficial because it helps organizations decide whether an objective is obtainable; therefore, enabling agencies to set achievable goals, objectives, and steps to further the change, or enhance organizational development. It enables organizers to take visions and produce practical and efficient outcomes that effect long-lasting change. It also helps organizations gather meaningful information to maximize their potential.

Completing a SWOT analysis is a useful process regarding the consideration of key organizational priorities.

This process, undertaken by the project team, included an evaluation of both the external environment, as well as the Fire and first response EMS services internal factors, and the interrelationship between the two. This was accomplished through virtual interviews, along with the analysis of data obtained from various sources. By approaching the SWOT analysis in this way, the process continues to reinforce a primarily, but not entirely, stakeholder-driven perspective.

Strengths:

- The passion and dedication of EMS personnel in Holliston – they care and strive to provide excellent service
- Town willingness to support the Department with resources
- Appropriate apparatus set
- A high regard for the customer
- High quality equipment provided by the Town of Holliston
- Strong support from community leadership
- Strong support from the Holliston residents
- Staff has a recognition of current and potential challenges
- Recognition that there is not just one solution
- Staff had a high level of engagement in this study
- EMS is a significant source of revenue for any town

Weaknesses:

- A higher than normal turnover rate of staff
- A lack of a strong leadership that focuses on EMS
- EMS staff morale is low (based on the Fire Department)
- The American Fire and EMS services have an increasing risk profile such as cancer, active shooter incidents, and more recently, COVID-19, which may change the level of interest of traditional candidates
- Increasing training requirements which consumes more leisure time
- Increasing economic pressure on potential responders
- Political change in an increasingly divisive society
- A large gap by the municipal governments in developing a thorough knowledge of what emergency services are delivered to their communities

- Although well-intentioned, recruitment and retention effort that has had only marginal success
- Potential increasing response metrics
- Lack of education of the public and local officials regarding all facets – including financial – of the EMS service delivery system
- Improve inter-department relations
- Create a collaborative approach
- Slow response times with no staff at the station
- Huge pay inequity between Fire and EMS
- Having to rely on mutual aid to provide advanced level of care
- Lack of proper facilities to accommodate in-station staff 24/7
- There are no single gas (CO) meters on the “first in” EMS bags
- Continued use of other communities for ALS service puts a strain on those towns
- Lack of experienced EMS staff on all calls
- Lack of clear understanding of treatment protocols
- Need for strong leadership within EMS

Opportunities:

- The ability to work with the community to identify the current level of service and set realistic service level/cost expectations
- Make the work environment a better place
- Explore new forms of outreach and marketing to inform the community of the challenges ahead
- Marketing and communicating the social identity and benefits of being an EMS provider
- Identify and harness the best practices from across the nation relative to the further development of recruitment and retention strategies
- To remove the barriers between Fire and EMS and make it one department
- Fire and EMS train together
- Train current EMS staff to paramedic level
- To provide the community with a higher level of care when it is needed, using own resources
- Provide uniforms and a uniform policy
- Reduce EMS staff in ambulance from 3 to 2 (a normal staffing level except during training of new staff)
- Train all public safety staff (Fire, EMS and Police) in proper lifting techniques
- Program may be available through the Town’s insurance company

- Future capital improvement to add "auto lift " devices to ambulance. This is a trend that has documented success with lowering injuries to providers
- Add small single gas carbon monoxide meters to "first in" bags. These meters are on 24/7 and alert to levels as responders walk in to a scene
- Dedicate field training staff with written documentation and check/sign offs
- Appoint one or two strong EMS staff to officer level with clear job descriptions and responsibilities

Threats:

- ALS is the standard of care in the region
- Increase in call volume
- Personalities
- Lack of a strong EMS Manager
- Morale has been going down in the past three to five years
- The inability to provide a timely response to multiple overlapping emergency calls
- The lack of a well-documented orientation program including testing for all new hires
- Some senior members with excellent experience will be retiring
- Employees with little to no experience not being paired with seasoned employees
- The projection of a problem that does not exist, described as "a crises without evidence". The EMS Department should see the service gaps, but the public sees and accepts a level of service continuity that goes against the description of the problem
- Injury due to need for proper lifting techniques
- Continued decline of licensed EMS providers across the study area, part of an overall nationwide reduction
- Continued exodus of younger, trained personnel to career job opportunities
- The financial costs to communities who will be required to take over the delivery of EMS service delivery in municipalities due to the closing of providers
- The fiscal and operational impact of the COVID-19 pandemic which may significantly impact participation
- Generational and cultural differences in the emergency services that is not always as inclusive as they should be

RECOMMENDATIONS

- VIII-1 The MRI team believes that the current EMS model with some modifications produces the best value for the Town as opposed to private contracted services which would result in a loss of revenue, and most likely require a significant stipend to be paid.**
- VIII-2 The Department needs to improve moral in an effort to retain a quality EMS staff. The items listed below are some of the ways current members offered as part of their input into this study.**
- VIII-3 Due to the lack of current EMS supervision and coordination, as well as the need to develop an ALS service, the Town should hire an Assistant Fire Chief (or high ranking officer). The new position should be a paramedic position that would be available days to cover EMS calls and also to be the manager of all EMS-related items. The Chief will need to delegate the authority to this position in order to operate efficiently.**
- VIII-4 Create a pool of per diem paramedics to cover open shifts when the Assistant Chief is not on duty. This pool would cover open shifts during peak times as needed seven days a week.**
- VIII-5 The Town will need to license the ambulance to an ALS level once all equipment and a staffing plan is finalized.**
- VIII-6 The ambulance will need to be equipped to the ALS level. A recent study estimated the cost to be approximately \$60,000.00.**
- VIII-7 Existing EMS staff that would like to be trained and certified to the paramedic level should be supported. This would require some type of contract between the attendee with the Town to ensure a return on the Town's investment. Participants should have their tuition paid as well as receive stipends for completing pre-determined benchmarks during the program.**
- VIII-8 A complete quality assurance and quality improvement program should be in place to review 100% of all patient care reports (PCRs) and refusal forms. This could be done by a third-party company or the new Deputy/Assistant Chief.**
- VIII-9 A complete review of the pay structure for EMS staff needs to be done. (Refer to the Budget and Human Resources section of this document for additional details.)**

- VIII-10** In order to maintain staff in the station, several items will need to be addressed that would allow for proper working and living conditions for the on duty staff.
- VIII-11** Regardless of the level of EMS certification, the department should consider requiring two staff members to be stationed at the station 24/7. This would not only cut down on response time, but you would know that two people were on duty to immediately respond to a call.
- VIII-12** The Department should develop, obtain approval and publicly post (on the Fire Department's website) a Billing Policy, Rate Schedule, Collection Policy and HIPAA Policy.
- VIII-13** Work with the Town's Human Resource contact to document a formal hiring process that includes an application, interview, background check, physical exam, and probationary period that outlines the expectations and benchmarks to be accomplished.
- VIII-14** The Department should work to decrease response time by having the duty crew in-station 24/7.
- VIII-15** The Department needs to work on creating a proper working and living environment for staff working in the station.
- VIII-15** The Department should be providing some type of duty uniform for EMS staff.
- VIII-16** Current and future ambulances should be equipped with stretcher auto-lift and load devices.
- VIII-17** All members should be properly trained in proper lifting techniques to prevent injury. This should be offered to all fire and police staff as well. The Town's insurance company may offer this type of training.
- VIII 18** EMS training needs to go back to being done in house with practical evolutions to enhance team approach to calls. "Train the way you work" needs to be the model.
- VIII 19** A formal orientation program with documentation and benchmarks needs to be created, published and followed. The department should assign mentors that have high skill levels and have the right demeanor to work with a variety of people.
- VIII-20** Ensure proper staffing is scheduled 24/7 for on-call fire and in-station EMS crews.

VIII-21 When the station is staffed with one person, and a second person is on duty from home, have the ambulance respond with the driver only and meet the second person on scene.

VIII-22 EMS will need to be evaluated on a regular basis to ensure staffing and response levels are in line with benchmarks and are adjusted as needed.

IX: STAFFING LEVELS

Staffing is the biggest key to the success of any Fire and EMS service response. For the most part the average citizen only sees the amount of shiny red fire trucks and ambulances a department has, and sees that as their fire department. It has often been said that the fire service can have all the best equipment, but that equipment is useless without a good and efficient crew to operate it. In today's world, call and volunteer firefighters are getting harder and harder to not only recruit, but also to retain. This is a nationwide issue that is now becoming a crisis in many communities.

The chart below indicates the overall personnel levels for the Holliston Fire Department as of the Fall of 2021.

Title	Roster	Active
Chief	1	1
Admin (part-time)	1	1
Inspector (part-time)	1	1
Deputy	2	2
Captain	5	5
Lieutenants	4	4
Firefighters	34	34
EMT- B	40	13
EMT- Paramedic	4	3
EMR	1	1
TOTAL	93	65
* Some EMS Staff are also Fire Department Staff		

Figure 49
Current Listed and Active Staffing Levels

Having a number of people listed on a roster may give a false sense of security and be misleading. Their participation in training, working shifts and actual response to incidents shows the real numbers and the level of service the department can actually deliver. To look at this closer a study was conducted on the years of service for each member, the total activity hours, and the total training hours of each person.

Number of Staff on Roster		
	Fire	EMS
Total on Roster	45	44
Average Years of Service	18.5	7.86
Non-Resident	0	17
Years of Service		
Less than 5	9	27
6 to 10	8	6
11 to 15	4	5
16 to 20	2	1
21 to 25	6	1
26 to 30	9	2
31 to 35	3	1
36 to 40	3	0
41 Plus	1	1

Figure 50
Staff - Years of Service

The Chart below indicates the range of hours (left column), the number of people who fell within each range for training hours (middle column), and activity hours (right column).

Participation Level in Training and Incidents		
Total	Total # of Staff	
Annual Hours	Training	Incidents
0	2	2
1 to 25	10	9
26 to 50	33	17
51 to 75	N/A	5
76 to 100	N/A	8
100 plus	N/A	8

Figure 51
2021 Training and Incident Participation Levels

Most firefighters and EMTs are not providing the service to the community for money. As an example, MRI studied a department where 14% of emergency calls received no response from the local community. In an effort to address the situation, the Board of Selectmen doubled wages, but received no associated increase in participation and response. Although this is an extreme case, other retention strategies may be more effective. It is the hope of most

departments to get people interested in performing the services and to keep them as long as they can.

The amount of time that is required to complete training programs should be rewarded. One-time stipends for making certain benchmarks are another way of compensating staff. A consideration to giving one-time stipends for completing Firefighter 1, Firefighter 2, different Fire Officer levels, and EMS certifications is a way of rewarding people for taking the time and completing programs.

There has been much research done by several fire departments on the effects of various staffing levels. One constant that has emerged is that company efficiency and effectiveness decrease substantially, while injuries increase when company/unit staffing falls below four personnel. A recent comprehensive yet scientifically conducted, verified, and validated study titled *Multi-Phase Study on Firefighter Safety and the Deployment of Resources* was performed by the National Institute of Standards and Technology (NIST) and Worcester Polytechnic Institute (WPI), in conjunction with the International Association of Fire Chiefs, the International Association of Fire Fighters, and the Center for Public Safety Excellence. This landmark study researched residential fires, where most of the fire injuries and fatalities occur. ***The study concluded that the size of firefighter crews has a substantial effect on the fire department's ability to protect lives and property in residential fires and occupancies.*** Several key findings of the study include:

- *Four-person firefighting crews were able to complete 22 essential firefighting and rescue tasks in a typical residential structure 30% faster than two-person crews and 25% faster than three-person crews.*
- *The four-person crews were able to deliver water to a similarly sized fire 15% faster than the two-person crews and 6% faster than three-person crews, steps that help to reduce property damage and reduce danger/risks to firefighters.*
- *Four-person crews were able to complete critical search and rescue operations 30% faster than two-person crews and 5% faster than three-person crews.*

The United States Fire Administration, part of the Federal Emergency Management Agency in the Department of Homeland Security, recommends that a minimum of four firefighters respond on or with each apparatus. In its respected textbook *Managing Fire Services*, the International City/County Management Association (ICMA) states, “that at least four and often eight or more firefighters under the supervision of an officer should respond to fire suppression operations”. They further state, “If about 16 firefighters are not operating at the scene of a

working fire within the critical time period then dollar loss and injuries are significantly increased, as is fire spread.”

Beyond the NFPA standard(s), which as standards do not carry the weight of regulation or law, is the Occupational Safety and Health Administration (OSHA) Respiratory Protection Standard, CFR 1910.134, which carries the weight and force of regulation, thus making compliance mandatory. One key provision of the Respiratory Protection Standard that is directly applicable to fire department staffing is known as the “two-in/two-out” rule. In brief, this regulation specifies that anytime firefighters operate in an environment/atmosphere that is “immediately dangerous to life and health” (IDLH), whenever two members enter the IDLH area together/as a team, they must maintain visual or voice communication with two additional firefighters who must remain outside of the IDLH atmosphere, prepared to render immediate emergency assistance to those inside (Figure 52). The OSHA rule does provide an exception, however, and states that the rule does not apply in emergency rescue situations where a person is visible and in need of immediate rescue, or there is credible and reasonable information that potentially viable victims are still in need of rescue.

To comply with the “two-in/two-out” rule, a team of four firefighters must be assembled before an interior fire attack can be made when the fire has progressed beyond the incipient stage, except in an imminent life-threatening situation when immediate action could prevent the loss of life or serious injury before the team of four firefighters are assembled. The serious concern of the MRI project team is that the OSHA “two-in/two-out” rule permits an exception for life hazard or rescue situations. The reality is that in one of the most serious life hazard fire situations that can be encountered, trapped civilians, a firefighter may need to place himself/herself in extreme danger by entering the structure alone.

The OSHA “two-in/two-out” rule is an essential component of operational safety and should be the basis of fire service operations within the study communities. Despite the rural nature of the area, and the reality of some elongated response times, interior operations beyond a visible rescue should not be initiated until four personnel arrive on the incident scene.

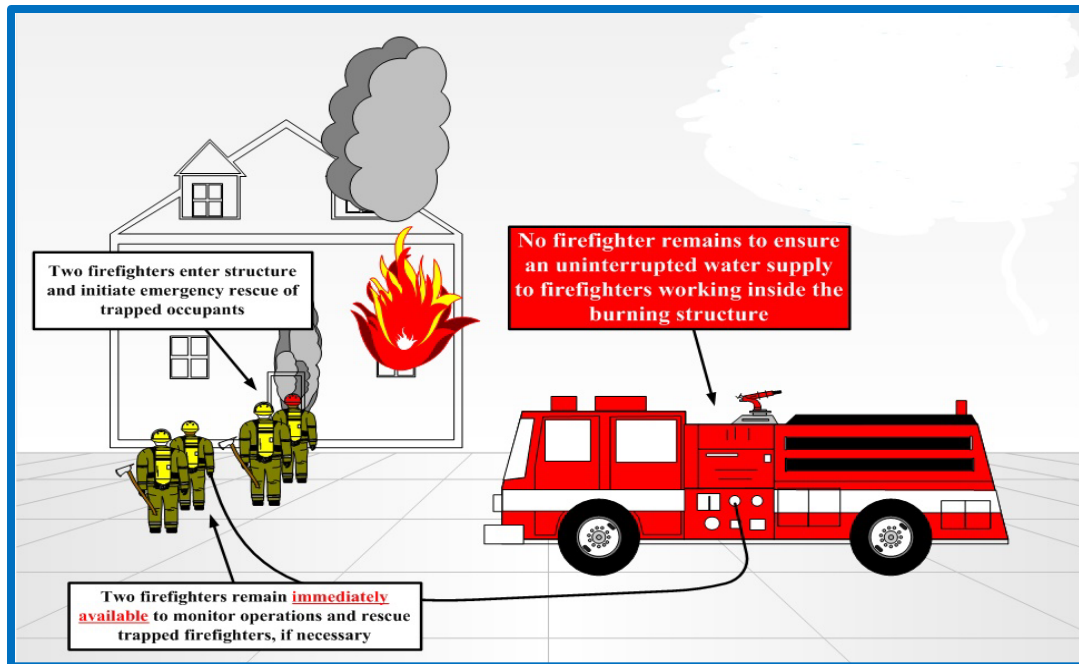


Figure 52
OSHA Two-In/Two-Out
 Image Credit: IAFF 266

Paragraph 4.1, **Fire Suppression Organization** in NFPA 1720³ states, fire suppression operations shall be organized to ensure that the Fire Department's fire suppression capability includes sufficient personnel, equipment, and other resources to deploy fire suppression resources effectively, efficiently, and safely. Paragraph 4.2.2, *Community Risk Management*, states the number and types of units assigned to respond to a reported incident shall be determined by risk analysis and/or pre-fire planning.

The operations necessary to successfully extinguish a structure fire, and do so effectively, efficiently, and safely, requires a carefully coordinated and controlled plan of action, where certain operations, such as venting ahead of the advancing interior hose line(s), must be carried out with a high degree of precision and timing. Multiple operations, frequently where seconds count, such as search and rescue operations and trying to cut off a rapidly advancing fire, must also be conducted simultaneously. If there are not enough personnel on the incident initially to perform all the critical tasks, some will, out of necessity, be delayed. This can result in an increased risk of serious injury, or death, to building occupants and firefighters, and increased

³ NFPA 1720, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Volunteer Fire Departments, 2014 edition (National Fire Protection Association, Quincy, MA) outlines organization and deployment of operations by volunteer/call, and primarily volunteer/call fire departments.

property damage. It is important that all communities give and receive mutual aid to fires with appropriate staffing of at least four personnel, one of which should be an officer. To address this concern the community will need to make a conscious choice relative to service level through budgetary appropriation.

The Federal Government has a version of the Staffing for Fire and Emergency Response (SAFER) grant program that pertains strictly to volunteer and on-call firefighters. It provides competitively awarded funds to municipalities to recruit and retain on-call and volunteer firefighters. The grant provides funds for such things as recruitment campaigns, tuition for college curriculums in fire science, EMT and paramedic training, health insurance for call members, physical fitness programs, uniforms, and various tax incentives offered to attract new candidates to join the Fire Department, and to retain them for an extended period of time.

RECOMMENDATIONS

- IX-1 The Town should encourage cross-trained fire department personnel so that a person can work within the organization to provide both Fire and EMS services.**
- IX-2: The HFD should require its personnel, and strongly encourage its officers, to obtain a certain level of fire officer certification as a job requirement, such as Fire Officer 2 for Captain, Fire Officer 3 for Deputy Fire Chief, and Fire Officer Level IV for Fire Chief.**
- IX-3: The HFD should require that all officers be certified as Incident Safety Officers (ISO). Additional personnel who may be interested should be encouraged to take this training and obtain this important firefighter safety certification.**
- IX-4: As part of the succession planning process, the Fire Chief should work to implement a professional development program to ensure that all officers can perform their superior's duties, as well as identify the core future leaders of the department.**
- IX-5: Working with a training officer, more training should be planned, delivered, and documented. In an effort to keep members interested in training, the department should be creative and offer training that is outside the normal programs. Making programs fresh, fun, and to some degree, competitive may increase the participation by members. If it's the same old training, people will lose interest. Make it so they want to participate and at the same time meet training goals. Training should be conducted as a department and not as companies.**
- IX-6: In consultation and cooperation with its neighboring departments, all participating fire departments should enter into formal automatic aid agreements that specify the number and types of resources that should be dispatched immediately to various types of reported emergencies, such as structure fires. These recommendations**

should be based upon a community-wide risk management process and/or pre-fire/incident plan.

IX-7: Although more stringent than the requirements found in Table 4.3.2 of NFPA 1720 for rural communities, through the utilization of automatic aid agreements with neighboring communities, fire departments should consider the adoption of a *Standards of Cover (SOC) with the goal of attempting to have at least 16 personnel on the scene of any reported structure fire within 14 minutes. This should involve at least one mutual aid town for RIT.

- *“Standards of Cover” is defined as “those adopted written policies and procedures that determine the distribution, concentration and reliability of fixed and mobile response forces for fire, emergency medical services, hazardous materials and other technical responses.”*

IX-8: The Department should make it a priority to improve its first unit on scene response times, including the adoption of an SOC, for the Town. The SOC should be based upon a hybrid of the NFPA 1720/1720 and Commission on the Accreditation of Ambulance Services (CAAS) recommendations.

IX-9: The HFD should review standards of cover benchmarks, to have the first unit responding to emergency incidents within one minute of dispatch (staffed station), and have the first unit on scene within eight minutes after responding to all types of calls, 90% of the time. With the current staffing model in place and no other calls in progress, this is something that can be met, if the staff in the station is properly qualified with the appropriate level of training and qualifications. A closer look at simultaneous calls and calls that run back-to-back (ambulance is transporting, and a second call comes in) should be looked at. At the time of this evaluation the program of having per diem staff in the station was still in its infancy, and it is not known if the station was sufficiently covered while this crew was committed to the first call.

IX-10: The HFD should set a minimum criterion for call members to remain in active status. This criterion should include both minimum training and response to incidents for a determined time period (one year). This criterion should also allow for people to go into an inactive status for a period of time due to approved circumstances. It would be important for inactive-status people to make up any important training prior to being put back on active status.

IX-11: The Fire Chief should expand the HFD social media presence and involve other members of the Department in this endeavor. The use of social media like Facebook and Twitter are what the younger generation use, and a very active social media account has the opportunity to reach out to this group of people for hiring.

- IX-12:** The Fire Chief or his designee should create a quarterly “newsletter” that will highlight the positive things that the Department has done the prior months. This newsletter should be posted on the Town’s web page, shared in social media, given to the Town Administrator who in turn should share with the Select Board. It is important that the public is made aware of all of the great people and all the good things the Department does.
- IX-13:** HFD should develop a series of team-based activities that build involvement in the organization that includes both Fire and EMS staff as well as other Town departments and mutual aid partners.
- IX-14:** All officer positions, from Captain to Fire Chief, should be filled based upon the person’s firefighting/emergency services training, certifications, and experience, commensurate with the position being sought, along with successful completion of a formal, rank appropriate assessment process, and a basic practical skills evaluation.
- IX-15:** The HFD should ensure that all Department members are trained/certified to the minimal NIMS level required for their duties/responsibilities and ranks. In addition to the basic I-100/I-700 training mandated, it is MRI’s recommendation that all officers be trained to the ICS-300 level. All chief level officers should be trained to the ICS-400 level.
- IX-16** HFD should assure that all fire staff are compliant with First Responder and CPR training as required by MGL.
- IX-17** The Department should purchase and train on an Accountability System similar to what Fire District 14 has implemented district wide.
- IX-18** The Chief should require all officers to complete a report including a narrative for all incidents of which they are in charge.
- IX-19** The Chief should assign a group of officers to review and create SOPs for the department. These SOPs must be published and trained on for all staff to operate under.
- IX-20** The Chief should delegate administrative responsibilities to officers and hold them accountable to be completed. The officer pool is very much underutilized, and the Chief who has a tremendous amount of work to handle does not have the time to efficiently do it all.. This will also be key in succession planning for the Chief’s position.

- IX-21 The Department should hold regular officers' meetings for the purpose of sharing ideas and to work through issues, problems, training agendas, equipment needs, preplanning of structures and events, and to help create strategic goals and objectives for the Department.**
- IX-22 Assign a Training Officer to develop a training schedule and to ensure all members are being trained with consistency.**
- IX-23 Assign a Department Safety Officer that oversees all safety and safety issues within the Department. This person should have the training and experience to conduct this type of evaluation for both Fire and EMS, concentrate on the stations and training as a primary focus, and be the lead on incidents if available.**
- IX-24 The Chief should work with the Town's Human Resource contact to document a formal hiring process that includes an application, interview, background check, physical exam, and probationary period that outlines expectations and benchmarks to be accomplished.**
- IX-25 The Department should annually develop a set of goals and objectives for the next year as well as long term goals looking five years out.**

X: BUDGET AND HUMAN RESOURCES

Holliston's Fire and EMS budget is a very modest budget for an all on-call Fire and EMS department. The stipends and hourly rates coupled with the Town providing a tremendous benefit of health insurance like no other the MRI team has seen is a unique and effective strategy to maintaining a strong call force. Compared to the fulltime departments in the chart below Holliston's current fire and EMS budget is very 28% below a modest combination force.

Community	FY 2022 Budget / Full-Time Staff	
Holliston	\$ 1,380,616	(1)
Millis	\$ 1,896,031	(13)
Ashland	\$ 2,337,909	(27)
Medway	\$ 2,782,500	(26)
Hopkinton	\$ 3,555,444	(33)

Figure 53
FY 2022 Budget Comparison of Holliston to Others

The operating budget for FY 2022 is broken down by Fire and EMS.

Fire	\$897,490	65% of total budget	29% of call volume
EMS	\$483,126	35% of total budget	71% of call volume
TOTAL \$1,380,616			

The project team has some reservations on how the pay scale and benefit packages for staff are handled. First and foremost is the disparity of pay rates between Fire and EMS providers and if they are working a 12 hour shift in the station vs. home or not on shift but responds to a call. It is without question that both fire and EMS responders are put in different high risk situations; they are both equally as dangerous of a job and are without question services that are needed in every community.

	Monthly	Monthly	Weekend	Weekend	Hourly	Hourly	2 Hour Training
Deputy Chief	\$ 818.32	\$ 935.90	\$ 423.22		\$ 40.93		\$ 78.82
Captain	\$ 541.96		\$ 423.22		\$ 37.57		\$ 78.82
Lieutenant	\$ 496.24		\$ 423.22		\$ 35.88		\$ 78.82
Firefighter	\$ 489.67		\$ 105.08		\$ 35.26		\$ 78.82
First Responder	N/A	N/A	N/A	N/A	N/A	\$ 23.11	\$ 78.82
EMT- Basic	N/A	N/A	N/A	N/A	N/A	\$ 23.11	\$ 78.82
EMT- Advanced	N/A	N/A	N/A	N/A	N/A	\$ 24.76	\$ 78.82
EMT- Paramedic	N/A	N/A	N/A	N/A	N/A	\$ 25.38	\$ 78.82

Figure 54
FY 2023 Compensation Rate Schedule

	Fire Personnel
	EMS Personnel

The on-call fire staff is very well-compensated and paid well above the average wage rate of area on-call departments. The EMS staff will need to be re-evaluated to bring Fire and EMS staff in line with each other. When the monthly stipends are coupled with the hourly rates, weekend coverage rates, and the opportunity for health insurance coverage, fire personnel are very well-compensated. In March of 2022, the average call firefighter in Massachusetts was being paid \$22.51 per hour. It is unclear if there is any written policy for what the minimum participation is in order to receive the monthly stipend and also to receive the 60/40 split for health insurance. It is highly unusual to see all ranks receive a different rate of pay for training, and for most, that rate is higher than the actual hourly pay rate, especially for EMS providers.

The health insurance benefit that Holliston provides is unprecedented in the call fire department world, especially in Massachusetts. The Town in 2019 voted to do this extraordinary measure to keep call firefighters in town. In reviewing records provided, it appears that 44 call (part-time) people are partaking in some type of insurance with the Town, and 31 of them are getting health insurance at a 60/40 split. In FY 2021, the Department salaries totaled \$1,036,634.23 with an additional \$266,631.38 in Town costs for a variety of insurance types, bringing the total to \$1,303,265.61 in personnel costs.

	12 Hour Shift	Hourly Rate	Hourly in Station Differential	In station Hourly	On Call Not in Station	Massachusetts Average in March 2022	
						Rate	Difference (in station)
First Responder	\$ 98.78	\$ 8.23	\$ 2.30	\$ 10.53	\$ 23.10	N/A	
EMT- Basic	\$ 105.43	\$ 8.79	\$ 2.30	\$ 11.09	\$ 23.11	\$ 17.63	\$ (6.54)
EMT-Advanced	\$ 108.69	\$ 9.06	\$ 2.45	\$ 11.51	\$ 24.76	\$ 24.76	\$ (13.25)
EMT-Paramedic	\$ 118.97	\$ 9.91	\$ 2.55	\$ 12.46	\$ 25.38	\$ 25.38	\$ (12.92)

Figure 55

(NO Benefits included)

FY 2023 EMS Shift Rate Schedule

As shown in Figure 55, the average hourly rate paid to EMS personnel in Holliston is significantly lower than the average hourly rate paid in Massachusetts in March of 2022. It is important to note that Massachusetts has an average rate that is 9% higher than the National average.

In order for Holliston to attract and keep quality EMS staffing for the long range, it will need to increase the pay scale as well as change the work environment as discussed in the Facilities and Equipment section of this document. The MRI team found the differential of \$2.30 per hour to have people (mandated for out-of-town staff) to work 12-hour shifts is not reasonable compared to the ability of residents to stay home and conduct a normal day with minimal restrictions.

In an effort to have a paramedic level service in town, the rate for paramedics will clearly need to increase. There is a tremendous demand for paramedics nationwide, and the number of available licensed paramedics has been decreasing. If the Town wishes to provide this level of service, it is going to need to be competitive in salary and benefits in order to do so.

There has been a lot of discussion on the requirement for call firefighters to retire at the age of 65. Massachusetts General Law Chapter 32 and Chapter 415 of the Acts of 1987 have been reviewed and opinions issued by legal councils for several departments. Since members of the MRI team are not legal experts, we have given information to the Town and have asked for their legal counsel to issue an opinion for call firefighters in Holliston.

RECOMMENDATIONS

- X-1 Create job descriptions for each position within the Department.**
- X-2 Create and publish a policy for all to be eligible and to continue to receive insurance benefits from the Town. Some people do not make enough to cover their part of the costs and are billed.**
- X-3 Increase the rate schedule for EMS staff to be more in line with fire staff. This may bring qualified fire staff to work EMS shifts that currently do not due to rate differences.**
- X-4 Hire a full-time Assistant Chief (or high-ranking officer) paramedic to oversee EMS and provide paramedic coverage weekdays. A paramedic with a strong skill set who has a great deal of experience should be sought for this position. This person would work with an EMT to fill out the primary ambulance staff and would work a rotation working four 12 hour days. It is estimated that with Holliston providing and billing for**

its own ALS level of service, approximately 50% of the full-time Assistant Chief (or high-ranking officer) salary could be offset.

- X-5 Create a per diem pool of paramedics to be used to fill shifts when the full-time paramedics are not on duty.
- X-6 If the Department is unable to fill the three days the full-time paramedic is not scheduled to work, the hiring of an additional paramedic (with no rank) should be considered.
- X-7 Change all Fire and EMS training pay rates to be the hourly rate for the rank or position.
- X-8 Create a payroll policy that pays a minimum number of hours per activity or incident and then compensates at 15 minute increments above that. Best practice is to pay a one hour minimum per call.
- X-9 Consideration should be made to allow current Holliston EMTs to be trained and certified to the paramedic level with some or all of the costs paid for by the Town. MRI would recommend that there be some written agreements made with the individual and the Town that would allow for some type of commitment to Holliston EMS to help offset the investment the Town would make. There are many variations to what communities have done. Some have paid all expenses and time. Others have paid all fees and have given stipends for accomplishing certain benchmarks. It is important to note that it could take 18 to 24 months for an individual to become a certified paramedic.
- X-10 Follow up on Town Counsel's opinion on call firefighters and retirement at the age of 65 and take appropriate actions if warranted.

XI: GRANTS

There are several federal and private grants available for fire departments and communities to consider for supplementing their budgets. If successful in receiving a grant award, most departments can acquire equipment, training, and programs that they would not be able to achieve through the normal budget process. Though the process can be difficult and time consuming, the outcomes can be very beneficial to fire departments.

While the economic challenges of the last decade have had an impact on grants from private entities and foundations, the federal grant programs aimed at the fire service, such as the Assistance to Firefighters Grants for equipment (AFG), the Staffing for Adequate Fire and Emergency Response Grants (SAFER) for personnel, and the Fire Prevention and Safety Grants (FP&S) for fire prevention and public fire education programs, continue to be funded, although not anywhere near their authorized levels.

The AFG program provides financial assistance directly to fire departments to enhance their capabilities with respect to fire and fire-related hazards. The AFG supports fire departments that lack the tools and resources necessary to more effectively protect the life and safety of the public and their emergency response personnel, with respect to fire and all other hazards. Since 2001, AFG has helped firefighters and other first responders obtain critically needed equipment, protective gear, emergency vehicles, training, and other resources needed to protect the public and emergency personnel from fire and related hazards.



The goal of the SAFER grants is to enhance the fire departments' abilities to comply with staffing, response, and operational standards established by NFPA and OSHA (NFPA 1720 and OSHA 1910.134). Specifically, SAFER funds assist the fire department to increase their staffing and deployment capabilities in order to respond to emergencies whenever they may occur. SAFER grants are awarded to departments for both hiring of career personnel, and recruitment and retention of volunteer/call personnel. However, a department cannot apply for both categories of grant in the same year.

Fire prevention and safety grants support projects that enhance the safety of the public and firefighters from fire and related hazards. The primary goal is to target high-risk populations and mitigate high incidences of death and injury.

There are several other grants available to fire departments for various purposes. Some grants that may be available to departments are the Fireman's Fund Heritage Grants, Factory Mutual Grants for fire investigation, and Wal-Mart Community Grants. Other large chains, such as Home Depot and Lowes, are frequently willing to provide funding, and/or enter into partnerships for specific projects. The key to success at this level is finding grants for which the department may be eligible and ensuring that the application is tailored to the grant program's priorities.

Like most fire departments, the experience within the study area indicates that departments have had limited records of success regarding grants for which they have applied. One of the shortcomings in the AFG program is that even though departments that submit grant applications are notified if they are not successful in being awarded the grant, they are not informed as to why they weren't selected. Typically, only about 8% of all grant application submissions are approved and funded. Nearly 50% of the applications fail to make it past the initial computer review where statistical aspects of the application are reviewed to determine their compatibility with the established grant criterion/ priorities. This is included to illustrate the long odds of successfully obtaining a grant even with a strong application.

RECOMMENDATIONS

- XI-1: Although time consuming to accomplish, the Department should apply for funds for eligible items on the AFG grants. Grant awards will help free up Town dollars that can be used for other Department items that are not grant eligible.**
- XI-2: Once the Department has appropriate staffing, the Town and the Department should set their sights towards the State, insurance companies, and other private organizations looking for grant opportunities.**

XII: MAPPING OUT THE FUTURE

“A Road Map to Success with Proper Timing and Funding”

The MRI project team found that there was a common thread to many of the Department’s needs, concerns and desires. Based on all the information analysis and discussion, MRI proposed over 100 recommendations for consideration for today and the future.

It is important to keep in mind that the recommendations made are in no particular order, and are not on the success of the ones before it. The project team has tried to allow the community to implement the ideas that work best for them and take incremental steps to move toward success. Ultimately, it is up to the community and the area as a whole to decide what works best for them and what level of service/fire protection they wish to have.

Regionalization of the fire service is a term that many people are afraid to consider, as there is a thought that the local resources (fire apparatus, fire station and firefighters) will go away, and the local authority will be diminished. There have been several regionalization discussions that have gone nowhere, and some that have been highly successful. There is also a strong thought that regionalization will cost a community less than they are currently paying, and they will get more. Although it is true that regionalizing will no doubt create an economy of scale that can be the foundation of efficient services, it still will come with a cost. In the long term, 10+ years, there may be an indicator of cost savings, or in some areas, the development of a revenue stream to offset the overall costs.

To begin the process, all stakeholders in the Town, including the Fire Chief, Town Administrator, Assistant Town Administrator, Human Resources, and the Board of Selectmen, should take the time to thoroughly read and understand the information provided within this report. This group should sit down as an informal group and discuss the many options they have moving forward. It is MRI’s hope that this discussion will lead to a basic plan where the community can decide the future of both Fire and EMS within the community.

It is suggested that each of the recommendations be considered individually and then prioritized according to the group’s desired plan. To build the collaboration, it is further recommended that the “no cost” items be pursued initially, and after establishing a track record of success, move forward with items that will require cost.

Any and all changes to current operations should be properly evaluated after being made, and if necessary, adjusted. It is generally an excepted practice to do an evaluation in a minimum of 30 day increments and a final in one year. Who does the evaluation and what the benchmarks are should be outlined from the onset.

Looking ahead, the community and the Fire Department should use the SWOT analysis to further define the most critical issues and service gaps facing the Fire and EMS services. These service gaps and critical issues will then be utilized as the framework for establishing the priority for implementation of goals and recommendations in this strategic planning document. Based on the SWOT analysis, the project team believes Holliston has a strong potential to continue to create a robust level of service that is expected by its residents. However, to be effective the community will need to commit to this collaboration and agree to work together to meet future service expectations and provide a high level of operational safety.

THE SEVEN MOST SIGNIFICANT CHALLENGES FACING FIRE AND EMS SERVICES IN HOLLISTON

Based upon the findings and analysis of the team, the most significant challenges facing the participating fire services are:

1. Rapidly diminishing staffing pool for Fire and EMS operations, part of a nationwide trend. The cost associated with addressing this issue will be the biggest challenge ahead for all the stakeholders, both internal and external.
2. Emerging generational differences that often produce a lack of understanding on both sides.
3. The time commitment required for certifications and continued training.
4. Tapping into the high school aged students and the ability to market the fire service.
5. Elongated response times based on a lack of available personnel, requiring mutual aid for even basic operations.
6. The need to adapt to the skill set required in today's high-tech environment.
7. The need to train in new work force prior to the active members aging out.

IMPLICATIONS OF NOT TAKING ACTION

The challenges that are facing the Fire and EMS services in all of the departments in and around the study has sometimes been referred to as, ***“a crisis without evidence”***. The MRI project team heard this multiple times. But make no mistake, there is a crisis that is slowly building, and has been for a considerable period of time. The reason that many stakeholders – municipal leaders and the public – do not see “evidence” is the long tradition in both the Fire and EMS services of “getting the job done”. It has long been known that when people have a problem they don’t know how to deal with, they call the fire department because two things are certain when they do: 1) the fire department will come, and 2) they will figure out how to deal with the problem or find someone that can/will. Despite robust rosters, decreasing participation

translates to longer response times and having fewer appropriately trained personnel on the incident scene.

Looking ahead, the implications of not acting will be quite simple. Service levels will begin to diminish, some companies and EMS agencies may fold under financial pressures, and fewer and fewer (most likely) aging members will be trying to respond to an ever-increasing number of requests for service.

In the end, **ALL** the various stakeholders need to engage in open, frank, and honest dialogues regarding the fire and first response EMS delivery systems. There will need to be increased funding allocated or funding can be re-appropriated. Priority should be given to innovative solutions to the recruitment and retention of on-call personnel which will have costs associated with it, but it will be money wisely invested. Even with success, the reality is that the fire and first response EMS services in the area are going to evolve into more of a combination system with the need for an increasing number of career personnel to supplement on-call personnel. This too will come with an increased cost. However, this cost will be reasonable, and will be money well-invested, to help support what remains of a quality fire and first response EMS delivery system.

It has been said that a fire department can have all the best equipment and facilities, but they are useless without a well-trained work force to use them. Holliston has a very dedicated group of staff on the Fire Department who are proud to serve. The community has had the great fortune of having Chief Cassidy as the leader in Fire - EMS and Emergency Management for many years, and his ability to maintain a vibrant call firefighter force has been admired by many people in New England and beyond. Times are changing, and with some encouragement and support, the Chief will be able to continue to lead emergency services into the future. The Chief has, and always will have, the life and safety of the residents of Holliston be his number one priority.

XIII: CONCLUSIONS AND IMPLEMENTING CHANGE

Based upon the analysis of the current day operations of the Fire Department and EMS, the MRI project team has found the Fire Department to be operating well, but the organization is struggling to provide a consistent proper level of EMS. The Department is well-respected in the area and is continuing to be a leader in retaining a call department model that is working. During their time speaking with people for this project, the project team heard how much the Department does for the community and how much they are appreciated.

Having a sense of common vision is important in any organization to ensure that the organization and its personnel are moving in unison toward a common goal(s). Having a common vision is not only about making sure that all parties are aware that they are in the same boat and rowing, but even more importantly, that they are rowing in the same direction. The impact of not sharing a common vision between the Fire and EMS services will be very noticeable in the quality and quantity of work performed, but also with the spirit and passion that the work of the organization is accomplished.

Fire and EMS lack any type of long-range or strategic plan that charts its projected path to the future. A mission statement, if carefully developed and truly accurate, should provide the very foundation for the departments and why they exist. The mission statements should provide a broad direction that everything else the departments do is going to be built upon. The Fire Department also does not currently have any formal vision statement, nor has it developed any core values that will help to drive the organization forward. It is important that there be a single set of statements that is inclusive all of Fire and EMS functions as a single department.

Looking ahead, the Fire and EMS Departments possess some definitive positive attributes, most notably the dedication of its core membership and the community leadership within each group. This shows there is a strong foundation upon which to build.

However, the Departments are also facing serious challenges both today, and looking toward the future. There are senior staff people who will be retiring, and there is a lack of good solid experienced people coming in to fill the voids as they are created. Nationwide, since the COVID-19 pandemic began, the work force is dropping, there are fewer people taking the challenges of becoming a firefighter and/or emergency medical responder, and we are seeing more and more people leaving the jobs after just a couple of years. The sense of pride and commitment to these professions is also decreasing. Newer people tend to come in the door and work their assigned shifts, not wishing to go above and beyond.

The culture of the Fire and EMS services is very resistant to change. This is not something new and certainly not just within the Town of Holliston. Whatever changes are made to the Departments, they need to be implemented at a reasonable pace and most importantly communicated to all members ahead of time.

In conclusion, the missions performed by the public safety departments are some of the most basic and fundamental functions of government; to ensure the safety and protection of its residents and visitors. The real issue facing the Town, as it is for every community, is to determine an acceptable level of risk and then define an appropriate level of service for the community. There is no “right” amount of fire protection or first response EMS delivery in any community. It is a constantly changing level based upon the expressed needs of the community. Determining the appropriate level of service also involves deciding on the municipalities’ fiscal ability and willingness to pay for the desired level of service. These are decisions that the citizens of the Town and the Select Board will ultimately need to make.

The challenges brought on by the unprecedented responses to the COVID-19 pandemic made this project and research associated with it very different than what MRI would typically do. The lack of in-person, community-based meetings, and the inability to physically see and document more in person is something taken for granted. The tremendous cooperation from all those the MRI team spoke with, especially the Chief, the Town officials, and the Fire and EMS staff, has allowed them to do a fair assessment and provide the information and recommendations included in this document.

It is important that the Town continue to support the Department and help meet the needs in staffing and equipment so they may continue to protect and serve when they are called to do so. The Town is very fortunate to have a great core of dedicated members in its Fire and EMS Department. With some strong work, the Chief and the officer core can lead the Department members forward toward a common set of goals, while navigating through the cultural parameters of the past.

XV: ADDENDUM

Massachusetts General Law

Section 201: First aid training of emergency personnel, including cardiopulmonary resuscitation;

Section 201. Members of police and fire departments, members of the state police participating in highway patrol, persons appointed permanent or temporary lifeguards by the commonwealth or any of its political subdivisions, and members of emergency reserve units of a volunteer fire department or fire protection district shall be trained to administer first aid, including, but not limited to, cardiopulmonary resuscitation by July first, nineteen hundred and seventy-eight, including those appointed on or after January first, nineteen hundred and seventy-six and may be trained in automatic or semi-automatic cardiac defibrillation. The training shall meet the standards for first aid training prescribed by the department and shall not be less than the standards established by the Committee on Cardiopulmonary Resuscitation and Emergency Cardiac Care of the American Heart Association, and shall be satisfactorily completed by them as soon as practical, but in no event more than one year after the date of their employment. Satisfactory completion of a refresher course approved by the department in cardiopulmonary resuscitation each year and in other first aid every three years shall also be required. The training and equipment for automatic or semi-automatic cardiac defibrillation shall meet standards prescribed by the department.

The department shall coordinate the provision, by county, of training required by this section. Such training shall be provided at no cost to the trainee.

This section shall not apply to police officers, fire fighters and persons engaged in police and fire work whose duties are primarily clerical or administrative.

Section 7E: Display of red or blue lights on vehicles; permits; revocation; violations

Section 7E. No motor vehicle operated pursuant to section seven other than fire apparatus, ambulances, vehicles specified in subsection (b) of section 50 of chapter 33, school buses, vehicles specified in section seven D used for transporting school children, and vehicles specified in section seven I shall mount or display a flashing, rotating or oscillating red light in any direction, except as herein provided; provided, however, that nothing in this section shall prohibit an official police vehicle from displaying a flashing, rotating or oscillating red light in the opposite direction in which the vehicle is proceeding or prohibit fire apparatus from displaying a flashing, rotating or oscillating blue light in the opposite direction in which the vehicle is proceeding.

A vehicle owned or operated by a forest warden, deputy forest warden, a chief or deputy chief of a municipal fire department, a chaplain of a municipal fire department, a member of a fire department of a town or a call member of a fire department or a member or a call member of an emergency medical service may have mounted thereon flashing, rotating or oscillating red lights. Such lights shall only be displayed when such owner or operator is proceeding to a fire or in response to an alarm and when the official duty of such owner or operator requires him to proceed to said fire or to respond to said alarm, and at no other time.

No such red light shall be mounted or displayed on such vehicle until proper application has been made to the registrar by the head of the fire department and a written permit has been issued and delivered to the owner and operator. In the event that the operator is not the registered owner of the vehicle, no permit shall be issued until said owner forwards to the registrar a written statement certifying that he has knowledge that such red light will be mounted and displayed on said vehicle.

Any person operating a vehicle upon which flashing, rotating or oscillating red lights herein authorized are mounted shall have the permit for said lights upon his person or in the vehicle in some easily accessible place. Upon termination of the duties which warranted the issuance of the permit, the head of the fire department shall immediately notify the registrar who shall forthwith revoke such red light permit. Upon the written request of the chief of police or chief of fire of the town in which such permitted vehicle is registered, the registrar may revoke such permit. The registrar shall revoke such permit for the unauthorized use of such red lights and the owner and operator shall be subject to a fine as hereinafter provided.

Upon revocation, the registrar of motor vehicles shall notify forthwith the owner and operator of the vehicle for which such permit was issued and the head of the police department and fire department of the town in which his original permit was issued.

XIV: CONSOLIDATED RECOMMENDATIONS

- IV-1 Central Station needs to be cleaned up, and items not needed on a daily basis should be moved to a dry storage area such as Station 5. Many outdated items need to be disposed of following procedures (donated to training institutions or destroyed).**
- IV-2 Central Station second floor could be modified to reasonably accommodate a day room, bunk rooms, shower facilities and office space.**
- IV-3 Evaluate all the space at the Central Station for better apparatus placement by moving some equipment (boat) to other spaces or Station 5.**
- IV-4 All stations need to be cleaned and fully evaluated for proper safe working environment.**
- IV-5 Renting of space for Engine 4 should stop. The engine should be located in a Town owned space. Once the door at Station 2 is repaired, this may be feasible.**
- IV-6 The Town should consider a new location and combine two or three stations into one new location. The new area should be large enough for future department staffing 24/7. The MRI team was shown a potential spot located at the Former Axton Cross facility that is in a good location and of the proper size. It is thought that Stations 2, 4 and 5 could be combined.**
- IV-7 Station 1 roof leak on apparatus floor should be repaired.**
- IV-8 All stations should be evaluated and have exhaust removal systems installed in all areas where there is apparatus and equipment.**
- IV-9 All stations should be evaluated for proper fire/smoke/CO alarm detection and be monitored to protect the Town's assets.**
- IV-10 Station 2 door repairs should be expedited and door eyes should be installed to prevent door from moving when there is something in the way.**
- IV-11 All stations should be evaluated to allow for proper restroom facilities, decontamination areas, and clean and dirty storage areas.**

- IV-12** The empty bay of Station 5 should be converted into a shelved storage area for essential supplies. This would include developing shelving along the exterior walls and rear of the structure and moving the trailer into the center of the two bays.
- IV-13** All stations should have adequate backup emergency power for heat, lighting and door opening capabilities.
- IV-14:** Evaluate the need for keeping three ambulances in service. Most communities of the size and call volume of Holliston keep two ambulances. Based on Holliston's abilities for EMS staffing, reducing the number will have little, if any, impact.
- IV-15** Evaluate the need to keep two boats in one station. To free up space at Central Station, consider moving one boat and the dive truck to Station 5.
- IV-16** When creating/reviewing a capital plan, do a true needs assessment for the number of vehicles and the actual needs and call volume. Just because the Town has it today, does it need to have it today and in the future? The overall number of apparatus is high compared to other call departments with similar incident volume.
- V-1:** Assure proper staffing is scheduled 24/7 for fire incidents. A single crew for fire-based operations should consist of an officer and 2 or 3 certified firefighters that are available to handle the first call.
- V-2:** The primary ambulance should be staffed 24 hours a day, 7 days a week with staff at the station. Others should be on-call for times when additional staff is needed or when a second ambulance needs to be staffed.
- V-3:** When station is staffed with one person and second is on duty from home, have the ambulance respond with a driver only and meet the second person on scene.
- V-4:** Stop a single person investigating an incident and then calling for resources. A single engine (at a minimum) should respond on all CO, gas, wires down, MVA, and alarm investigations (with no immediate phone call to cancel). Running a single person is a very dangerous practice. Refer to Section IX of this document for the "two-in/two-out" rule.
- V-5** Set and publish minimum criteria for active participation and ramifications for not meeting the minimums. A large roster is a false sense of security, and only people with proper training and skills that are dedicated (attend training and incidents) should be active.

- VI- 1** There should be a single person who is a working supervisor for Dispatch that reports to the Fire Chief. This person should be handling all aspects of scheduling and operations within Dispatch.
- VI-2** The Department should obtain proper training and certification for EMD. EMD could be supervised by the Assistant Chief (new position) who should also be charged with EMS.
- VI-3** The Department should transition all operations to a cloud-based CAD and records management system (RMS) and use this program "real time" for all incidents.
- VI-4** The cloud-based RMS system should incorporate pre-planning documents in a dispatch records management system that dispatchers can access.
- VI-5** The Department should add tablet-based mobile data and pre-planning capabilities to all "first due" apparatus.
- VI-6** The dispatchers should be operating with a set of Standard Operation Procedures (SOPs). These will need to be developed and incorporated into training and operations.
- VI-7** There should be a constant review of dispatchers and a quality assurance program implemented for them that follows the same guidance as EMD.
- VI-8** A procedure should be put into place that allows the dispatcher to be covered for a break and use of the restroom. Currently there are no remote capabilities to accommodate the human and biological needs of dispatch personnel.
- VI-9** The Department contact list is reportedly extremely outdated and must be updated with current 24/7 contact information.
- VI-10** A formal dispatcher training program should be created that documents benchmarks and requires mentors/trainers to sign off on.
- VI -11** The Department should begin to utilize "IamResponding" or a similar first response technology platform.
- VI-12** Displays for the "IamResponding" or a similar system should be installed on the apparatus floor of every active station.

- VII-1: The HFD should develop a five-year plan to enhance training and proper documentation that is housed in a cloud-based records management system.**
- VII-2: With input from officers, there should be a formal Fire and EMS five-year capital plan that is reviewed annually with the Town, and adjustments made based on changing department needs.**
- VII-3: The HFD should conduct a thorough Community Risk Assessment and use the assessment as a tool to move the Department into the future. Over the next year, a plan should be developed to utilize strengths to pursue opportunities and address weaknesses while mitigating threats. This should be an ongoing process that has member involvement and is moved forward by the officer core.**
- VII-4 The HFD should review and or develop a mission, slogan and values that reflect the department and should use these as a basis to educate the community.**
- VII-5 The HFD should develop a formal recruiting program that targets younger people who will be in town for many years.**
- VII-6 The Department should be an active participant in Fire District 14 in attendance at meetings as well as on the many other regional opportunities.**
- VII-7 Create a Safety Officer position for both training and incident response.**
- VII-8 Mandate proper wearing of all PPE at incidents and training.**
- VII-9 Bring on staff who may work full-time elsewhere that could enhance training and response capabilities.**
- VII-10 Create an SOP work group to review drafted SOPs and create new SOPs that document the way the department operates. Once developed, begin to publish and train all members on SOPs.**
- VII-11 Create a set of published rules and regulations.**
- VII-12 Create a full-time Assistant Chief position (or other titled high ranking officer) to work with Chief in all Fire and EMS items as part of a succession plan.**
- VII-13 Create a work group to develop pre-plans for structures within the community. As part of this group's mission, they should be collecting information for structure files that is shared with the CAD and RMS systems.**

- VII-14** Officers who are on-call and handle calls in the absence of the Chief should be trained and allowed to complete NFIRS reports especially narratives for all calls. The importance of having a first-hand account with details of events at a given incident is crucial. Having an accurate first-hand description of operations creates a professional record in line with industry best practice to help minimize any potential liability to the Town.
- VII-15** The Department should be looking for a single cloud-based records management system (RMS) that is done in access layers to allow individual people to enter their specific data. The system should allow for remote access.
- VII-16** The Department should be receiving and giving automatic mutual aid to all surrounding towns in a coordinated effort to provide at a minimum a dedicated Rapid Intervention Team (RIT).
- VII-17** The Department should train (at a minimum) 12 members to provide the rapid intervention function as a three to four person team.
- VII-18:** The Department should prohibit the response of a single person investigating an incident and then calling for resources. Based on a number of best practices and national standards, a single engine (at a minimum) should respond on all CO, gas, wires down, motor vehicle collisions, and alarm investigations (with no immediate phone call to cancel). Running a single person is a very dangerous practice that places the Town at risk for significant liability.
- VII-19** Set and publish minimum criteria for active participation and ramifications for not meeting the minimums. A large roster is a false sense of security, and only people with proper training and skills that are dedicated (attend training and incidents) should be active.
- VIII-1** The MRI team believes that the current EMS model with some modifications produces the best value for the Town as opposed to private contracted services. This would result in a loss of revenue, and most likely require a significant stipend to be paid.
- VIII-2** The Department needs to improve moral in an effort to retain a quality EMS staff. The items listed below are some of the ways current members offered as part of their input into this study.

- VIII-3 Due to the lack of current EMS supervision and coordination, as well as the need to develop an ALS service, the Town should hire an Assistant Fire Chief (or high ranking officer). The new position should be a paramedic position that would be available days to cover EMS calls and also to be the manager of all EMS-related items. The Chief will need to delegate the authority to this position in order to operate efficiently.**
- VIII-4 Create a pool of per diem paramedics to cover open shifts when the Assistant Chief is not on duty. This pool would cover open shifts during peak times as needed seven days a week.**
- VIII-5 The Town will need to license the ambulance to an ALS level once all equipment and a staffing plan is finalized.**
- VIII-6 The ambulance will need to be equipped to the ALS level. (A cost factor)**
- VIII-7 Existing EMS staff that would like to be trained and certified to the paramedic level should be supported. This would require some type of contract between the attendee with the Town to ensure a return on the Town's investment. Participants should have their tuition paid as well as receive stipends for completing pre-determined benchmarks during the program.**
- VIII-8 A complete quality assurance and quality improvement program should be in place to review 100% of all patient care reports (PCRs) and refusal forms. This could be done by a third-party company or the new Deputy/Assistant Chief.**
- VIII-9 A complete review of the pay structure for EMS staff needs to be done. (Refer to the Budget and Human Resources section of this document for additional details.)**
- VIII-10 In order to maintain staff in the station, several items will need to be addressed that would allow for proper working and living conditions for the on duty staff.**
- VIII-11 Regardless of the level of EMS certification, the department should consider requiring two staff members to be stationed at the station 24/7. This would not only cut down on response time, but you would know that two people were on duty to immediately respond to a call.**
- VIII-12 The Department should develop, obtain approval and publicly post (on the Fire Department's website) a Billing Policy, Rate Schedule, Collection Policy and HIPAA Policy.**

- VIII-13** Work with the Town's Human Resource contact to document a formal hiring process that includes an application, interview, background check, physical exam, and probationary period that outlines the expectations and benchmarks to be accomplished.
- VIII-14** The Department should work to decrease response time by having the duty crew in-station 24/7.
- VIII-15** The Department needs to work on creating a proper working and living environment for staff working in the station.
- VIII-15** The Department should be providing some type of duty uniform for EMS staff.
- VIII-16** Current and future ambulances should be equipped with stretcher auto-lift and load devices.
- VIII-17** All members should be properly trained in proper lifting techniques to prevent injury. This should be offered to all fire and police staff as well. The Town's insurance company may offer this type of training.
- VIII 18** EMS training needs to go back to being done in house with practical evolutions to enhance team approach to calls. "Train the way you work" needs to be the model.
- VIII 19** A formal orientation program with documentation and benchmarks needs to be created, published and followed. The department should assign mentors that have high skill levels and have the right demeanor to work with a variety of people.
- VIII-20** Ensure proper staffing is scheduled 24/7 for on-call fire and in-station EMS crews.
- VIII-21** When the station is staffed with one person, and a second person is on duty from home, have the ambulance respond with the driver only and meet the second person on scene.
- VIII-22** EMS will need to be evaluated on a regular basis to ensure staffing and response levels are in line with benchmarks and are adjusted as needed.
- IX-1** The Town should encourage cross-trained fire department personnel so that a person can work within the organization to provide both Fire and EMS services.

- IX-2:** The HFD should require its personnel, and strongly encourage its officers, to obtain a certain level of fire officer certification as a job requirement, such as Fire Officer 2 for Captain, Fire Officer 3 for Deputy Fire Chief, and Fire Officer Level IV for Fire Chief.
- IX-3:** The HFD should require that all officers be certified as Incident Safety Officers (ISO). Additional personnel who may be interested should be encouraged to take this training and obtain this important firefighter safety certification.
- IX-4:** As part of the succession planning process, the Fire Chief should work to implement a professional development program to ensure that all officers can perform their superior's duties, as well as identify the core future leaders of the department.
- IX-5:** Working with a training officer, more training should be planned, delivered, and documented. In an effort to keep members interested in training, the department should be creative and offer training that is outside the normal programs. Making programs fresh, fun, and to some degree, competitive may increase the participation by members. If it's the same old training, people will lose interest. Make it so they want to participate and at the same time meet training goals. Training should be conducted as a department and not as companies.
- IX-6:** In consultation and cooperation with its neighboring departments, all participating fire departments should enter into formal automatic aid agreements that specify the number and types of resources that should be dispatched immediately to various types of reported emergencies, such as structure fires. These recommendations should be based upon a community-wide risk management process and/or pre-fire/incident plan.
- IX-7:** Although more stringent than the requirements found in Table 4.3.2 of NFPA 1720 for rural communities, through the utilization of automatic aid agreements with neighboring communities, fire departments should consider the adoption of a *Standards of Cover (SOC) with the goal of attempting to have at least 16 personnel on the scene of any reported structure fire within 14 minutes. This should involve at least one mutual aid town for RIT.
- *"Standards of Cover" is defined as "those adopted written policies and procedures that determine the distribution, concentration and reliability of fixed and mobile response forces for fire, emergency medical services, hazardous materials and other technical responses."*
- IX-8:** The Department should make it a priority to improve its first unit on scene response times, including the adoption of an SOC, for the Town. The SOC should be based upon a hybrid of the NFPA 1720/1720 and Commission on the Accreditation of Ambulance Services (CAAS) recommendations.

- IX-9:** The HFD should review standards of cover benchmarks, to have the first unit responding to emergency incidents within one minute of dispatch (staffed station), and have the first unit on scene within eight minutes after responding to all types of calls, 90% of the time. With the current staffing model in place and no other calls in progress, this is something that can be met, if the staff in the station is properly qualified with the appropriate level of training and qualifications. A closer look at simultaneous calls and calls that run back-to-back (ambulance is transporting, and a second call comes in) should be looked at. At the time of this evaluation the program of having per diem staff in the station was still in its infancy, and it is not known if the station was sufficiently covered while this crew was committed to the first call.
- IX-10:** The HFD should set a minimum criterion for call members to remain in active status. This criterion should include both minimum training and response to incidents for a determined time period (one year). This criterion should also allow for people to go into an inactive status for a period of time due to approved circumstances. It would be important for inactive-status people to make up any important training prior to being put back on active status.
- IX-11:** The Fire Chief should expand the HFD social media presence and involve other members of the Department in this endeavor. The use of social media like Facebook and Twitter are what the younger generation use, and a very active social media account has the opportunity to reach out to this group of people for hiring.
- IX-12:** The Fire Chief or his designee should create a quarterly “newsletter” that will highlight the positive things that the Department has done the prior months. This newsletter should be posted on the Town’s web page, shared in social media, given to the Town Administrator who in turn should share with the Select Board. It is important that the public is made aware of all of the great people and all the good things the Department does.
- IX-13:** HFD should develop a series of team-based activities that build involvement in the organization that includes both Fire and EMS staff as well as other Town departments and mutual aid partners.
- IX-14:** All officer positions, from Captain to Fire Chief, should be filled based upon the person’s firefighting/emergency services training, certifications, and experience, commensurate with the position being sought, along with successful completion of a formal, rank appropriate assessment process, and a basic practical skills evaluation.
- IX-15:** The HFD should ensure that all Department members are trained/certified to the minimal NIMS level required for their duties/responsibilities and ranks. In addition to the basic I-100/I-700 training mandated, it is MRI’s recommendation that all officers
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be trained to the ICS-300 level. All chief level officers should be trained to the ICS-400 level.

- IX-16** HFD should assure that all fire staff are compliant with First Responder and CPR training as required by MGL.
- IX-17** The Department should purchase and train on an Accountability System similar to what Fire District 14 has implemented district wide.
- IX-18** The Chief should require all officers to complete a report including a narrative for all incidents of which they are in charge.
- IX-19** The Chief should assign a group of officers to review and create SOPs for the department. These SOPs must be published and trained on for all staff to operate under.
- IX-20** The Chief should delegate administrative responsibilities to officers and hold them accountable to be completed. The officer pool is very much underutilized, and the Chief cannot handle it all. This will also be key in succession planning for the Chief's position.
- IX-21** The Department should hold regular officers' meetings for the purpose of sharing ideas and to work through issues, problems, training agendas, equipment needs, preplanning of structures and events, and to help create strategic goals and objectives for the Department.
- IX-22** Assign a Training Officer to develop a training schedule and to ensure all members are being trained with consistency.
- IX-23** Assign a Department Safety Officer that oversees all safety and safety issues within the Department. This person should have the training and experience to conduct this type of evaluation for both Fire and EMS, concentrate on the stations and training as a primary focus, and be the lead on incidents if available.
- IX-24** The Chief should work with the Town's Human Resource contact to document a formal hiring process that includes an application, interview, background check, physical exam, and probationary period that outlines expectations and benchmarks to be accomplished.

- IX-25** The Department should annually develop a set of goals and objectives for the next year as well as long term goals looking five years out.
- X-1** Create job descriptions for each position within the Department.
- X-2** Create and publish a policy for all to be eligible and to continue to receive insurance benefits from the Town. Some people do not make enough to cover their part of the costs and are billed.
- X-3** Increase the rate schedule for EMS staff to be more in line with fire staff. This may bring qualified fire staff to work EMS shifts that currently do not due to rate differences.
- X-4** Hire a full-time Assistant Chief (or high-ranking officer) paramedic to oversee EMS and provide paramedic coverage weekdays. A paramedic with a strong skill set who has a great deal of experience should be sought for this position. This person would work with an EMT to fill out the primary ambulance staff and would work a rotation working four 12 hour days. It is estimated that with Holliston providing and billing for its own ALS level of service, approximately 50% of the full-time Assistant Chief (or high-ranking officer) salary could be offset.
- X-5** Create a per diem pool of paramedics to be used to fill shifts when the full-time paramedics are not on duty.
- X-6** If the Department is unable to fill the three days the full-time paramedic is not scheduled to work, the hiring of an additional paramedic (with no rank) should be considered.
- X-7** Change all Fire and EMS training pay rates to be the hourly rate for the rank or position.
- X-8** Create a payroll policy that pays a minimum number of hours per activity or incident and then compensates at 15 minute increments above that. Best practice is to pay a one hour minimum per call.
- X-9** Consideration should be made to allow current Holliston EMTs to be trained and certified to the paramedic level with some or all of the costs paid for by the Town. MRI would recommend that there be some written agreements made with the individual and the Town that would allow for some type of commitment to Holliston EMS to help offset the investment the Town would make. There are many variations
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to what communities have done. Some have paid all expenses and time. Others have paid all fees and have given stipends for accomplishing certain benchmarks. It is important to note that it could take 18 to 24 months for an individual to become a certified paramedic.

- X-10** Follow up on Town Counsel's opinion on call firefighters and retirement at the age of 65 and take appropriate actions if warranted.
- XI-1:** Although time consuming to accomplish, the Department should apply for funds for eligible items on the AFG grants. Grant awards will help free up Town dollars that can be used for other Department items that are not grant eligible.
- XI-2:** Once the Department has appropriate staffing, the Town and the Department should set their sights towards the State, insurance companies, and other private organizations looking for grant opportunities.

XVI: TEAM PROFILES

Project Manager

David Houghton is a devoted fire and emergency management professional who recently retired from the Wayland Massachusetts Fire Department after a distinctive 38-year career from being a call firefighter and rising through the ranks to Fire Chief. Along with dedicating his service to the Town of Wayland, he continues to work for the Massachusetts Department of Fire Services as both an instructor and in the Special Operations Division doing special projects. In 1999 he was given the challenge by the State Fire Marshal to develop and implement what today is known as Special Operations. This development included designing, building and implementing specialized equipment and staffing to respond to emergency and planned incidents throughout the Commonwealth. This program was a shared vision between David and the Fire Marshal, and today has been shared in whole or in part in other areas of the country. David has a B.S. degree in Fire Science, an A.S. Degree in Fire Science and Technology, and has completed a Local Government and Management program with Suffolk University and the Massachusetts Municipal Association. David has a diverse background Firefighting, EMS (ALS and BLS), Dispatch, Fire Prevention, Emergency Management and Operations. He is a nationally certified Firefighter, Fire Instructor, Fire Inspector, and Fire Officer. He is a certified Emergency Medical Technician both at the National Level and in the Commonwealth of Massachusetts. David has most recently continued his fire service career by being appointed as a call firefighter with the Town of Moultonborough Fire Rescue and is a certified New Hampshire Emergency Medical Technician. He continues to be active with the Commonwealth of Massachusetts Fire and Ambulance Mobilization Team in the continuous updating and redevelopment of the program. Prior to his retirement as Fire Chief, David was an active member in the Massachusetts Fire District 14 where he was a driving force behind the creation of the district operational budget, an operation manual and the formalizing of the various specialized teams within the district. David was also selected as the Chief overseeing the Fire District communications team and equipment as well as serving on several other progressive programs within the district. He is a member of the Fire Chiefs Association of Massachusetts, and the International Association of Fire Chiefs.

Project Team

Mark Cotreau is currently the Fire Chief in Rye, NH. Working with department staff and town leaders, Mark has significantly improved the department's capital plan, upgraded key equipment and purchased several critical pieces of fire apparatus. Mark instituted Rye's coastal ocean rescue program. He is also leading the department through a multi-year staffing improvement plan. Formerly, Mark was a long-time member of the Concord, MA Fire Department serving 34 years; 16 as Shift Commander and nine as Fire Chief/Emergency Management Director. He was a 19-year member of the Massachusetts Regional Hazmat

Response Team, having served in several key roles. During his tenure as Fire Chief, Mark steered the department through the organizational recovery due to a major fire loss in a fire station. This included a relocation of services, major renovation of the fire station, and replacement of several pieces of fire apparatus and an ambulance. Mark also led the expansion of the EMS service to add a second staffed ambulance to bridge a critical service gap. Mark has extensive experience as an emergency manager and LEPC Coordinator.

Mark has a bachelor's degree in Fire Science Administration from Salem State College. He is a graduate of the National Fire Academy Executive Fire Officer (EFO) program. He is also a credentialed Chief Fire Officer by the Commission on Professional Credentialing. Mark has taught at the National Fire Academy in the Managing Officer program and New Fire Chief series. He is also a guest lecturer in the Chief Fire Officer program at the Massachusetts Fire Academy. Mark served on the Executive Board of the CMERA Regional ALS service for eight years, the last five as Board Chairman. Mark currently serves on the Seacoast START hazmat team executive board and is the NH Coordinator for the Transcaer hazmat training group.