



# TOWN OF NORTHFIELD EMS

## Future Considerations

### Abstract

Northfield EMS is at a major decision point to expand or maintain its current level of service. This document will give the reader the background of Northfield EMS, the issues facing the organization and options for consideration.



Franklin Regional  
Council of Governments

## Contents

Northfield EMS, Inc – Introduction .....	2
Northfield EMS' Goals for the Future .....	3
Northfield EMS Staffing Model and Descriptions .....	3
Growing and Growing Older .....	5
Conclusion.....	7
The Case for Continuing To Fund and Support the Growth of Northfield EMS.....	7
References .....	9

## Northfield EMS, Inc – Introduction

The original Northfield Rescue was founded within the police department in the late 80's. In the early 90's it transitioned to a standalone department. In 2005, the name was officially changed by the Selectboard to Northfield EMS to help reduce confusion between what the department does (medical) and the fire department's rescue truck (specialty extrication). The staffing model is volunteer based, which changes constantly as members join and resign. As of today, Northfield EMS has 21 total members of which 11 are Advanced Life Support providers. All of the members have other full time employment that results in difficulty staffing the department 24/7/365.

Northfield EMS currently operates two ambulances. Both are equipped and capable of providing paramedic level care. One is a 2007 van type II, manufactured by AEV, model Trauma Hawk. This ambulance was paid for partially by donations (over \$35k) and the balance (\$30k) by a proposition 2 1/2 override vote.

The newest ambulance is a 2017 Ford F550 type 1, manufactured by Horton, model 457. The 2017 Ford replaced a model year 1993 ambulance which was donated by the town of Rochester Fire Department. It was equipped and repaired, at a cost of \$15,000, by funds from the enterprise excess revenue without tax payer assistance. The 2017 is being paid for by the Town of Northfield with tax dollars on a five-year note, of which two years remain. It is expected, through the enterprise excess revenue line item in the Northfield EMS budget that replacement for the 2007 Trauma Hawk should be paid for without the need for additional tax payer funding.

Northfield EMS has the ability to provide both Advanced Life Support (ALS) and Basic Life Support (BLS) service. ALS is defined as "care requires medical monitoring and care by a licensed EMT-Paramedic and may include monitoring vital signs, advanced drug therapy, cardiac monitoring, oxygen and IV therapy. The ALS ambulance is equipped with state-of-the-art heart and blood pressure monitoring equipment, pulse oximetry, IV pumps, oxygen delivery devices including a CPAP and advanced medications used to treat a variety of illnesses and provide pain relief." (Metro Atlanta Ambulance Service, n.d.) When an EMT-paramedic is not available to be on the ambulance, Northfield EMS functions as a basic life support ambulance, which is defined as requiring "medical monitoring by a licensed EMT-Intermediate and may include monitoring vital signs, oxygen and IV therapy. The BLS Ambulance is equipped with state-of-the-art equipment including an automatic external defibrillator, blood pressure monitoring equipment, and pulse oximetry and oxygen delivery devices." (Metro Atlanta Ambulance Service, n.d.)

Northfield EMS has steadily increased its level of service and its budget has increased commensurate with the service increase. Northfield EMS is currently the primary responding agency for Bernardston. The increase in budget has allowed for more hours of advanced life support service available to the residents of Northfield. Northfield EMS has consistently responded to the vast majority of calls in Northfield—in the past year, they have responded to 90% of calls, which is above average for a volunteer based service in western Massachusetts. The remaining 10% were serviced by mutual aid partners with no adverse effects to the patients despite the longer response time. Recently, current staffing levels has resulted in a great need for mutual aid.



## Northfield EMS' Goals for the Future

- Provide ALS level service to its customers every day and at every time. This will require consistent staffing of the station, which will necessitate a consistent volunteer base.
- Work to increase revenue through expanding the service via contracts with other communities that are interested in providing an ALS level service for their residents. Currently Bernardston, currently receiving EMS service for free, and Erving are interested in contracting with Northfield EMS for ambulance service.

## Northfield EMS Staffing Model and Descriptions

Northfield is using the three staffing definitions below to provide the current level of coverage. All of the staff are considered volunteers with none of them taking home a salary or consistent paycheck. None of the employees are given any benefits other than training. An employee of Northfield EMS can fill any of the three roles below depending on how they assign themselves each month.

*Paid In-Station* – This person is located in the station and is prepared to respond to a call without having to first respond from a location outside of the station (such as their home). They are paid an hourly wage for staffing the station in what is generally an eight hour shift. This person is still a volunteer, because they are not obligated to sign up for a shift, but they have the incentive of making a living wage. In general, paramedics are given preference over BLS providers when considering scheduling.

*Paid On-Call* – This person is being paid half of the full hourly rate in exchange for being available to respond to a call. They are not required to spend their shift at the station, but be able to respond to the station in a very short amount of time. When they report to the station for a call, they receive the full hourly wage. This person is still a volunteer, because they are not obligated to sign up for a shift.

*Volunteer*- This person is not paid unless they respond to a call. They are not required to be near the station in an effort to respond quickly. They are not required to respond to every call.

Keeping a large cadre of volunteers is important, yet difficult. Out of a set of volunteers, you may only have a small subset of the cadre that is active. According to the Chief, if the number of active volunteers is reduced much more than it currently is, it will be impossible for Northfield EMS to continue with its current level of service. This will mean longer response times or needing to rely on mutual aid partners which may not be an ALS service.

In nearly all of Franklin County, people have come to rely on volunteers to run and operate emergency medical services. In the past, the people of Franklin County could rely on robust volunteering numbers to fill the gaps. Unfortunately, the number of people volunteering has dropped dramatically.

According to the Journal of Emergency Medicine,

*Our capability to provide adequate pre-hospital care to citizens in need across the country has become greatly diminished. Depleted volunteer numbers and lack of adequate career staffing levels have impacted our ability to provide high quality care. The current staffing shortages in EMS have taxed our response system, increased response times and left patients without adequate levels of care. We will continue heading down this path until*



*everyone is made aware of the problem and measures are taken to stave off impending disaster. (Peluse, 2015)*

An article in the Worcester Telegram and Gazette offers a perspective from a town in Worcester County:

*It's deja vu for Fire Chief James W. Dolan. A depletion of hours when on-call emergency medical personnel are available is causing problems again in staffing the town's ambulance service, according to the chief.*

*"We need more personnel," he said. "Either more on-call personnel to fill in the gaps or regular paid personnel that we definitely know are available."*

*This staffing problem has been experienced in many area towns. Fewer and fewer volunteers are available to serve as on-call EMTs, either because of time constraints or because they no longer work in town, the chief said.*

*"You gain one (EMT), lose one; gain two, lose two," Chief Dolan said. "That's the way it's been for the last 10 years."*

*The law requires that two EMTs be on board the ambulance before it can go to a call. Warren has two full-time EMTs, one part-time EMT and four on-call EMTs. The on-call people are available certain days of the week for specific periods of time. Losing a key utility on-call EMT really hurts, the chief said.*

*The on-call personnel come with constraints, he said. "They all work out of town."*

*Ideally, the chief said, the town should hire one or two full-time additional firefighter/EMTs to solve the problem for the long range. (Ellery, 2006)*

There are multiple reasons why people are finding it difficult to be available to volunteer for their local EMS agency.

- While they may live in a town with a volunteer EMS organization, they may work a large distance away.
  - Using averages, employees in Franklin County, MA have an average commute time of 22.6 minutes. Additionally, 2.43% of the workforce in Franklin County, MA have "super commutes" in excess of 90 minutes. (Data USA, n.d.)
  - Most employers do not allow their employees to leave if called to an emergency.
- Family dynamics make finding time for volunteering difficult.
  - Most two parent homes rely on both parents to work which makes them more focused on spending their free time with family.
  - Single parent homes have issues with childcare.
- Community populations are aging.
- EMS has some of the highest and most stringent standards to become a volunteer. It takes four months of classes, which costs approximately \$2,000, volunteer time in a hospital or ambulance

to become a basic EMT, and a difficult exam. Once you have that qualification you still need to maintain your certification through continuing education credits.

- The old way of recruiting, which was to hand a sign on a door and wait for people to respond to a call for volunteers, is now obsolete.
- Trained members are hired by full time EMS services.

As the quotes above point out, the lack of volunteers has had a profound impact on EMS services. If the trend of declining volunteerism continues, there are two options for volunteer services such as Northfield EMS: either the service becomes full-time, and thus the budget needs to be increased, or it is no longer able to provide the level of service the citizens would like and the town it serves will need to contract for EMS services from another agency to take over or fill the gap.

## Growing and Growing Older

The estimated 2015 population for the Town is 3,032, with 22% of the population being 65 years of age or older (US Census Bureau). The Town has seen its population increase every decade since 1980 (US Census Bureau) by an average of 3.5%. The trend is for an increase in population of those 65 and older, which will make a more robust Northfield EMS that much more necessary. While it could be thought that an aging population would be a source of increased revenue via increasing the number of calls the reality is that residents 65 years and older who are on Medicare pay significantly less for an ambulance transport than those on private insurance. Medicare simply will not pay more than the prescribed amount. For a relatively simple ambulance call and transport Medicare pays less than \$400 whereas private insure may pay five times what Medicare would pay.

The addition of Thomas Aquinas College to the former Northfield Mount Hermon campus, along with additional developments on that property, will only prove to boost the population of Northfield, which will increase the total call volume of Northfield EMS. The upside to this increase is that it is anticipated that any calls to this property will be paid for by private insurance, which pays significantly more for an ambulance transport than public insurance sources.

## ALS Level Medical Service Is Far Away

The next closest ALS service to Northfield is American Medical Response located in Greenfield, followed by the Orange Fire Department. Both of these options result in a much longer response time. According to Google Maps, it would take AMR approximately 18 minutes to get to a house in Northfield on Route 142 that abuts the Massachusetts – Vermont state line. It would take Northfield EMS only 9 minutes to respond.

## Contracting With Other Towns to Increase Revenue

Northfield EMS needs to be able to have more *Paid-in-Station* time in an effort to avoid relying on people *choosing* to respond to a call from home and then having to wait for that person to arrive at the station. Increased revenue will have the benefit of increasing staffing levels and staff retention by allowing people to make a living through working for Northfield EMS. This increase in revenue can be accomplished with either or both options below:



- Ask Northfield's taxpayers to continue support for Northfield EMS by continuing to appropriate funds as they did with the \$40,000 they approved at last year's town meeting.
- Become the paid primary EMS service for Bernardston and western Erving. This would require Bernardston and Erving to agree to financially support Northfield EMS operations.

The information presented below illustrates the multiple ways that assessments to Bernardston, Erving, or other communities could be determined. The term EQV is used in Alternatives A through D.

While EQV is a very fair way to determine the prosperity of a town it does tend to make projects such as this one difficult to produce a fair distribution. A single town could be asked to pay a large portion of the budget but have the fewest service calls or vice versa.

For each of the alternatives listed below the estimated yearly insurance revenue is included except for Alternative F. All options are based on Northfield EMS' FY20 operating budget of \$322,749. As a point of reference, in 2015, the FROCG successfully assisted multiple towns in eastern Franklin County in determining assessments for a shared ambulance service. That group decided Alternative E was the fairest equation to use.

You will notice that Northfield's share of the overall budget is significantly higher than the other two towns. Northfield's share is calculated by subtracting the sum of Bernardston and Erving's assessments from the overall budget.

	Alternative A	Alternative B	Alternative C
	Total budget divided by Population	Total budget divided by EQV	By 50% Pop/50% EQV
Bernardston	\$29,181.96	-\$12,878.64	\$8,151.66
Erving	\$52,317.77	\$128,058.06	\$90,187.91
Northfield	\$241,249.27	\$207,569.58	\$224,409.43
	Alternative D	Alternative E	Alternative F
	By 75% Pop/25% EQV	By % of Calls	Total budget by % of average calls for last 3 Fys Minus 50% Insurance Revenue
Bernardston	\$18,666.81	\$37,583.00	\$72,583.00
Erving	\$71,252.84	\$20,205.40	\$35,205.40
Northfield	\$232,829.35	\$264,960.60	\$214,960.60

*The amounts listed above are **NOT** finalized assessment amounts. The model used to determine the amounts use fiscal year 2020 budget and the current staffing model. They also take into account estimated insurance revenue that Northfield EMS would receive.*



## Conclusion

In general, people are expecting better service from their public safety professionals. Possible reasons for this expectation is an ignorance on how much their public safety organizations rely on volunteers and/or people migrating to Franklin County from larger, more affluent communities that have the ability to provide full time public safety services. In addition, as the population's average age increases they, and their families, need an EMS service that can be relied upon to have fast response times and highly qualified personnel.

In order to meet the needs of the people of Northfield the options presented before you are:

	Option	Result	Needed to Accomplish this Option	Impediments to this Option
<b>A</b>	Northfield EMS is funded to consistently provide for ALS level response.	This will afford Northfield with the highest level of emergency medical response with the quickest response time.	Northfield will need to continue to support Northfield EMS with funding unless the revenue from contracting with other towns fills the gap.	Town funding could fluctuate yearly making it difficult to plan for future expansion of services.
			Northfield EMS will need to contract with other communities to increase revenue.	Towns under contract could decide to not use Northfield EMS.
<b>B</b>	Northfield EMS will provide a mix of ALS and BLS to the community	This will afford Northfield with fairly consistent EMS service. The responding ambulance's certification could be either ALS or BLS. Response times will be increased compared to the first option.	Northfield will need to continue to support Northfield EMS with funding unless the revenue from contracting with other towns fills the gap.	A reduction in financial support from Northfield and/or contracting with other towns does not take place.
				A reduction in volunteers would further reduce the effectiveness of Northfield EMS
<b>C</b>	Northfield EMS will provide very basic EMS service	Longer response times. Less in-station coverage. More calls being served by mutual aid partners. A reduction in ALS service to Northfield.	There is no financial support from Northfield. Northfield EMS does not contract with other towns.	There is a possibility that through a reduction of volunteers due to a lack of adequate compensation Northfield EMS could have difficulty continuing to service Northfield.

## The Case for Continuing To Fund and Support the Growth of Northfield EMS

For every call, Northfield EMS must rely on a *volunteer* to arrive at the station prior to an ambulance response. Northfield EMS is on the cusp of not having to rely on people in the volunteer role to report to a call. It is currently able to pay for one person to staff the station for sixteen hours in the Paid In-Station role and many *Paid On-Call* shifts.

This decision comes down to deciding the level of service that the people of Northfield, and then Bernardston and Erving wish to afford to their citizens. How important is it to have a high quality EMS service located in Northfield? Northfield, EMS is uniquely positioned to provide high quality care in a very cost effective manner. Unfortunately, even as efficient as it is there is a need for a larger budget to complete the transformation to a service which could provide some of the best care in western Massachusetts to its citizens.

It is the author's opinion that Northfield should choose Option A. My rationale for this decision is that Northfield EMS has already proven itself to provide top level service and be financially successful. That



Northfield EMS is located in an area of Franklin County that does not have competing EMS services whether they be from for-profit enterprises or fire departments which include EMS services. Finally, there are two towns who have already stated they are interested in the service which Northfield EMS provides. These three arguments point to the chances of Option A succeeding. Option A nearly eliminates the most probable cause of a volunteer organization's failing via the reduction in volunteer numbers.

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