

BOARD OF SELECTMEN  
AGENDA  
Monday, December 7, 2015

Regular Meeting – 7:00 p.m.                      Selectmen’s Hearing Room, Town Hall

\*\*\*\*NOTE\*\*\*\*

As a result of changes in the Open Meeting Law, the chair must announce at the outset of every meeting that the meeting is being recorded and transmitted via cable television.

- |           |   |
|-----------|---|
| 7:00 p.m. | Pledge of Allegiance                              |
|           | Appointment of Veterans Services Officer          |
|           | Fire Dept. staffing report                        |
|           | Recycling center and leaf policy                  |
|           | Resignation from Council on Aging                 |
|           | Application for Conservation Commission alternate |
|           | Appointment of election officers                  |

- |                                |  |
|--------------------------------|--|
| <b>Use of Town facilities:</b> | Nativity scene on common, Mary Stewart |
| <b>One-day liquor license:</b> | None                                   |
| <b>Minutes:</b>                | November 16, 2015                      |
| <b>Proclamations:</b>          | None                                   |
| <b>Administrative matters:</b> | Signing of warrants                    |

Lynnfield Fire Department 2015 Staffing Study

Mark W. Tetreault, Fire Chief

Lynnfield Fire Department

## Table of Contents

Abstract	4
Goals	5
History	5
Problem	7
Service Demands	7
Call Volume	8
Response Times	10
Time of Day/Day of Week	11
Recruitment	11
Training	12
National Problem	14
Overtime	14
Conclusion	15
Steps So Far	16
Recruitment	16
Platoon System	16
Late Calls	17
Collective Bargaining	17
Recommendations	17
Staffing Model	17
Cost	19

Overtime/Call backs	21
Ambulance Coverage	22
Summary	22

### Abstract

In 1971 the Lynnfield Fire department hired their first career firefighters. The staffing model implemented at that time is largely the same staffing model we use today. Over the years the mission of the fire department has changed, the community has grown, the 9-1-1 call volume of the fire department has risen dramatically, and the life of our firefighters has become much more complex.

With all the increasing pressure and increasing demands on the fire department, things like response times began to suffer. In order to adequately cover the 9-1-1 calls our career staff has been relied up to respond back incurring overtime.

We have taken a number of steps to try and remedy these problems with limited success. We have tried to recruit new call firefighters, implemented a structured call back system, and attempted to limit overtime as much as possible within the collective bargaining agreement.

After evaluating our call volume, conducting research on other combination fire departments and seeking input from our members we developed a strategy and a new staffing model to move the fire department forward. A system utilizing a combination of career, call and part time staff to provide coverage in the stations 12 hours a day, seven days a week was developed. The benefits of this system are: immediately improves response times to an additional 35% calls; it reduces the opportunities for call back overtime by 35%; relieves the stress now being put on the call company and will likely allow us to maintain the combination call/career system into the

foreseeable future; and allows us to reallocate our financial resources to minimize additional cost to the community.

### Goals

The primary goal of the fire department is to continue to provide the best possible services at the most economical cost to the residents of Lynnfield. We feel this can be accomplished by maintaining a culture where career and call firefighters are valued equally. By effectively blending our staff, the department hopes to maintain an active and vibrant combination career/call fire department into the future.

### History

In 1971 the Lynnfield Fire Department transitioned from a completely on call fire department to a combination career/call department. Five career firefighters were hired to provide fire protection to the community Monday through Friday 08:00am to 4:30pm.

At that time the community was largely a bedroom community and many of the call firefighters worked out of town leaving few firefighters in town during the day during the week. Career staff during the day would fill the void, nights and weekends the fire department would remain an on call department.

In 1971 the fire department responded to approximate 600 emergency calls per year. The purpose of the fire department was predominately fire protection. The fire department did not provide emergency medical transport or advanced life support. Hazardous materials response and technical rescue were typically not the responsibility of the fire department.

In 1971 family life was much simpler, typically there would be a “bread winner” in the family and the other adult in the house hold would be the home maker and primary child care provider. A typical call firefighter was available to respond to emergencies without regard for child care or other family commitments. In some cases employers would even let call firefighters leave the work place to go to a fire emergency.

In 1987 the fire department increased it’s career staffing to 6 firefighters to allow for three career firefighters to be on duty at both the Center and the South Stations. In 2000 the fire department took over the ambulance and began providing basic emergency medical care to the community. In 2003 the level of emergency medical care was increased to advanced life support.

In 1969 the town put a full time Chief Officer on the fire department. Finally in 2013, largely due to the commercial growth of the community, a full time fire prevention officer was added to the fire department.

### Problem

The problem is the fire department has not grown to scale with the growth of the community or the increased service demands of the fire department. Between 2010 and 2014 The Town of Lynnfield was ranked as the 8<sup>th</sup> fastest growing community in Massachusetts by the *University of Massachusetts, Donahue Institute*. The result is unacceptable increases in response times and untenable increases in the fire department overtime budget.

#### Service Demands:

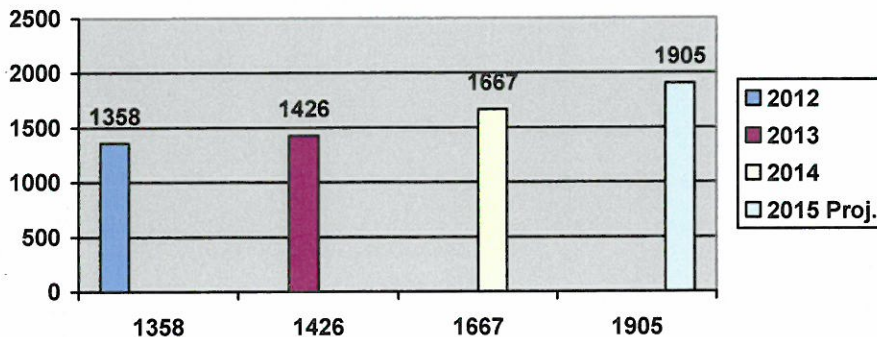
Demands for service have increase significantly over the past several years. In 1971 the mission of the fire department was to fight fires and occasionally a motor vehicle crash. A modern fire department is an all hazard mitigation and response service. The fire department of 2015 provides advanced life support emergency medical care and transport. Statistically, medical emergencies account for 60% of our calls. In addition to fire and medical emergencies the fire department respond to hazardous materials incidents, technical rescues, water emergencies, search and rescues, elevator rescues, complex vehicle extrications, weather emergencies and untold number of service calls. A modern fire department also provides full service fire prevention. Fire prevention includes public fire education, code enforcement, technical plan review, inspections of new construction, and fire cause determination.

#### Call Volume:

Calls for service (9-1-1 emergency calls) have increased significantly over the past several years. Between 2012 and 2014 our call volume has increased 23%. Based on our call volume thus far we are projecting our call volume will increase another 14% in 2015. This will represent a 40% increase in emergency calls over the past four years.

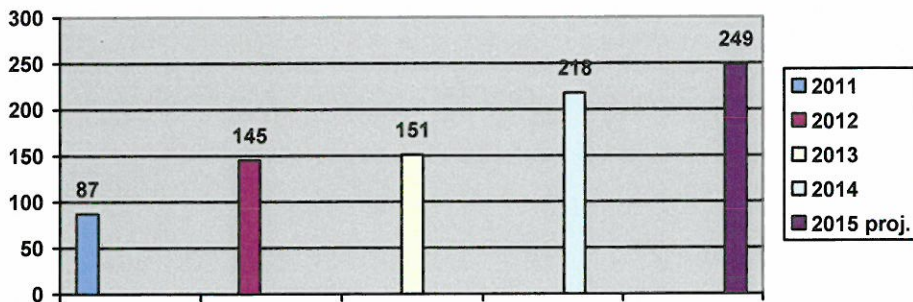


*Emergency Call Volume Analysis*



With increases in call volume there is an increase in the number of simultaneous calls. A simultaneous call is when we have crews tied up at one emergency and another emergency call is received. Between 2011 and 2014 the number of simultaneous calls has increased by 150%. Based on our call volume to date, we project the number of simultaneous calls will increase another 14% in 2015. This represents a 186% increase in simultaneous calls since 2011.

*Simultaneous Call Analysis*

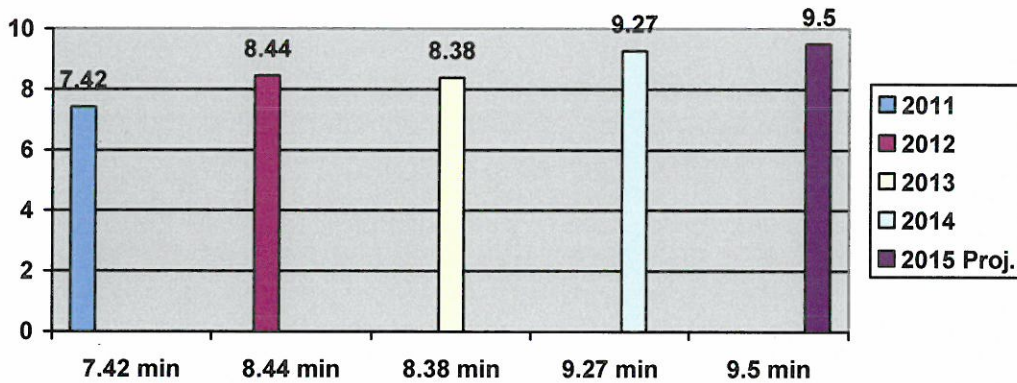


Response Times:

The response times, when we have people in the station ready to immediately respond to an emergency, has remained relatively consistent over the years. Unfortunately the same cannot be

said for nights and weekends, when the stations are not staffed. Between 2011 and 2014 the average response time (when the stations are not staffed) has increased by 25%. Response time is measured from the time someone calls 9-1-1 until the arrival of adequate staffing to mitigate the incident. Based on our calls thus far in 2015 we project our response time to increase another 2.5%. In 2015 if you call the fire department during the night or weekend shift you can expect to wait 9.5 minutes for help to arrive. As we know in an emergency seconds and minutes can literally mean the difference between surviving a fire or medical emergency or not.

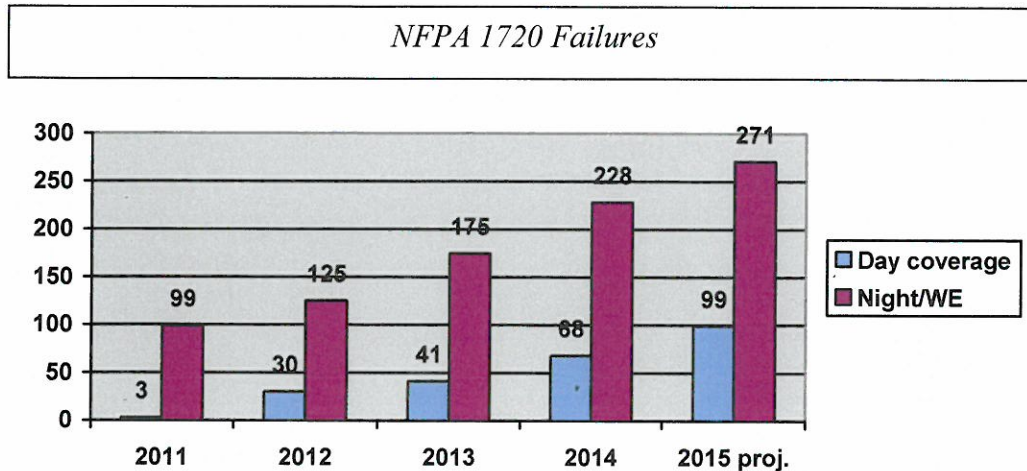
*Night/Weekend Response Time Analysis*



\* Response time is based on the time it takes for a basic crew to arrive on scene to mitigate the incident.

The National Fire Protection Association (NFPA) publishes a standard (NFPA 1720) that, among other things, establishes response time criteria for communities. In Lynnfield this response time should be under nine minutes from the time you call 9-1-1 until help arrives with a full crew. Between 2011 and 2014 the number of time the fire department has failed to meet this standard has increased by 193%. In 2015 based on our current call volume to date, we project the number

of NFPA 1720 failures to increase by another 26%. This represents a 266% increase in our 1720 failures since 2011; the vast majority of those failure occurring nights and weekends.

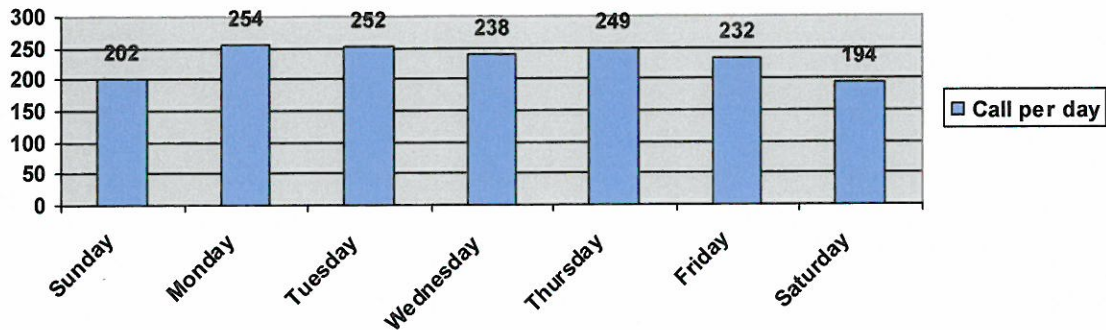


All signs are pointing to the fact that our current system is working beyond its capacity. Once a system has reached its capacity the likelihood of failure becomes a very real possibility. The Lynnfield Fire Department has been able to maintain the current predominantly on call system for more than 40 years, longer than any other comparable fire department in the area.

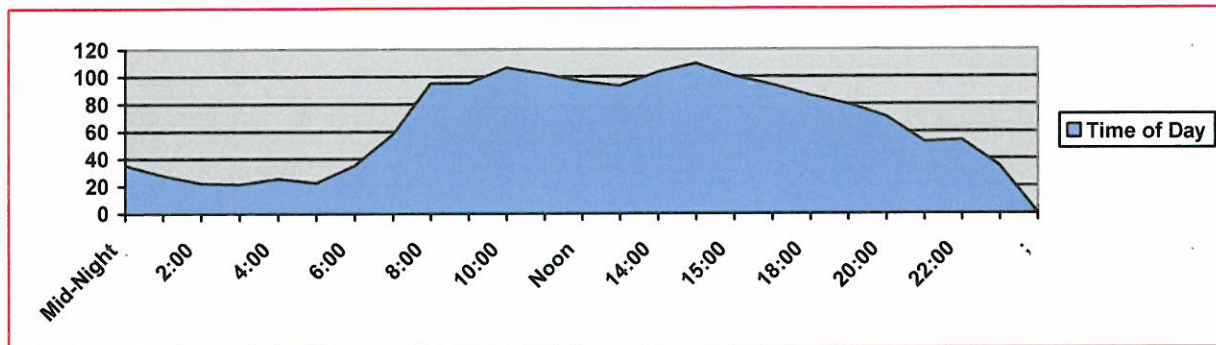
**Time of Day/Day of the Week:**

In order to critically evaluate the fire department service model we evaluated when we receive the highest number of calls. The good news is our career staff covers 8 of the busiest hours of the day. In our current system, career staff is on duty for 25% of the hours. During these 8 hour shifts, staff is in the stations immediately ready to respond. Below are graphic representations when our calls are received based on time of day and day of the week.

*Day of Week Call Analysis*



*Time of Day Emergency Call Analysis*



**Recruitment:**

Like I stated earlier in 1971 life was much simpler and more people were able to commit to being an on call firefighter. A traditional home had one bread winner, with the second adult staying home to raise the children. Having a built in childcare provider made it easier for the second adult to respond to emergencies day or night.

In a modern family typically both adults work full time careers. Single parent households are common place. Life has become much more hectic with families juggling things like sports, arts activities (like dance) after school activities, civic commitments, adult learning, career(s), part-time jobs, social functions, and much more! With no designated child care provider in the family and juggling responsibilities, even firefighters who are- home may still be unable to respond to emergencies due to family commitments.

#### Training:

Training requirements for call firefighters are far more then they were in 1960's. In 1971 if you wanted to be a call firefighter you met with the fire chief, he issued you an old fire coat a pair of rubber boots and a helmet, and you were appointed as a firefighter. Today's fire service has evolved into a true profession. The fire service figured out we were killing way too many firefighters due to lack of training. During this same time frame the fire service evolved into an all hazards response agency, we are no longer just fighting fires. Both career and call firefighters are expected to have the same basic level of training. In 2015 before you are allowed to respond to a fire you must complete the Massachusetts Certified Firefighter program. This program consists of over 300 hours of training. For call firefighters this training takes place 2 nights a week and weekends over a four month period. Within the first year a call firefighter is expected to become an Emergency Medical Technicians, an additional 166 hours of training in first aid and basic life support.

New career firefighters are expected to be paramedics, most will have a degree of some type as well. Bellow is a sample of some of the training required to be a firefighter. The top items are required within the first year of becoming a call firefighter (510 hours).

- Firefighter 1 = 212hrs
  - Firefighter 2 = 116hrs
  - EMT = 166hrs
  - ICS = 16hrs
- Additional Training
- AEMT = 190hrs
  - EMTP = 1200hrs
  - Driver = 90 hrs
  - Officer = 120hrs
  - Instructor = 40hrs
  - Inspector = 40hrs
  - **Continuing Education = 50 hrs**

In 1971 weekends were looked upon as days where families would stay locally or at home and relax. In 2015 families are more mobile and willing to travel further on a more regular basis for a weekend get away. Weekends have become a very busy time taken up by things like: sporting events both as participants or spectators, travel, social events, do it your self home improvement projects, civic events, fund raising events, work (second job/overtime/nontraditional schedules), and child care. In 2015 weekends can be an even busier time for the family than the week days. In 1971 we could rely on call staff to be around and respond to alarms on the weekends. That paradigm has shifted with fewer people available on the weekends than in the past.

#### National Problem:

Nationwide reliance on call or volunteer firefighters is becoming increasingly challenging. Lynnfield is not unique in that regard and not immune. The International Association of Fire Chiefs describes the problem as “one of the most daunting challenges facing local government leaders and fire service leader across the country”. The continued growth of our community and increases in service demands has compounded this problem.

#### Overtime:

Because the Lynnfield Fire Department utilizes a call back system to staff apparatus nights and weekends, each time there is an alarm it is an opportunity for our career staff to come back for overtime. Many of our most experienced and highest trained firefighters are career staff. Without our career staff coming back on calls, it is likely our fragile call back system would have already failed. The amount of funds dedicated to overtime could likely be utilized in a more efficient manner.

In manufacturing when demand for production increases managers have two options: hire current workers back and pay over time or hire more workers. If it is a small to moderate increase in demand it is cheaper to hire workers back and pay overtime to meet demand. The overtime option is more economical because it is still cheaper than paying new employees with benefits to meet the demand. As demand continues to increase and overtime hours increase the economics of overtime become less attractive. Workers who are over worked become less productive and more susceptible to on the job mistakes and injuries. At some point it is more efficient to hire additional workers to meet the demand. Like in business, the Lynnfield Fire Department has

reached the point where the cost of overtime has become untenable. This leaves us with the second option, adding more staff. In the fire service it is not possible to eliminate overtime, it is possible to curtail overtime costs and become more efficient.

### Conclusions

All the signs are pointing to the fact that our current system has exceeded capacity. Increases in call volume and increases in the number of simultaneous calls have resulted in alarming increases in response times nights and weekends. Our call firefighters have been overtaxed resulting in fewer responders and longer response times. The amount of money we spend in overtime for call backs has reached the point of not being the most efficient service delivery model. The largest impact we can make on call back overtime is to reduce the number of times we are calling back our career firefighters. Under the current system restricting our career staff from responding would exacerbate the current problems with response and response time.

In 2009 the community hired an independent consultant to evaluate the fire department. This report commended the fire department for preserving a very efficient staffing model. At the same time the consultant cautioned the community that incremental adjustments in the system would be necessary to **maintain** the staffing model as long as possible. Six years later we are still operating under the same staffing model we were operating under in 2009 and the same staffing model we were operating under in 1971. It is no longer practical to continue with a “business as usual” approach.



### Steps so Far

#### Recruitment:

We have taken several steps to in an attempt to address these issues. First in accordance with the 2009 consultants report we have been actively recruiting new call firefighters. Although this has been challenging we have been able to keep our group of call firefighters as close to maximum as possible. We recently put a classified add in the newspaper trying to attract more candidates, but we only received two applicants. Nationwide the retention rate for call firefighters is less than 50 %, for every 5 candidates we can expect to retain less than 2.5. These numbers have proven true in Lynnfield, even with an active recruitment program we are hovering around 32 call members. We have also implemented a Fire Explorer program. This program introduces young adults age 14-18 to the fire department. This program has proven to be very effective in training and recruiting new members into the fire service.

#### Platoon System:

We have implemented a more structured call back system. Previously when we had an emergency call after hours we put out the call and hope someone comes back. We have implemented a call night/weekend on call system. Staff is required to be on call one night a week and 1 weekend day shift a month. This has so far been somewhat successful; however this has significantly increased the commitment of our call firefighters. We simply have too many hours to cover with too few people. Our response times are not necessarily getting significantly better, but the trend of increasing response times has slowed.

#### Late Calls:

We have limited the hold over of career staff for late calls. In the past if we had an emergency call at the end of the day shift we would hold all career members to cover the stations for subsequent calls. We have implemented a policy of only holding over two members to staff a second ambulance. This has had marginal success as well. In some cases the call comes in close to the end of the shift so career staff needs to respond resulting in holding over staff. Second if we hold over our career staff they get paid only for the hours we hold them for. If we release them and then need to call back for a subsequent alarm the firefighters get a two hour minimum.

#### Collective Bargaining:

In the future we should consider changes to our collective bargaining agreement with the career firefighters. These changes are necessary to reflect the changes within our evolving system and provide for more efficient use of our call and career staff. The nature of our system is such that these changes will not result in large scale savings but could more efficiently utilize our staff.

### Recommendations

#### Staffing Model:

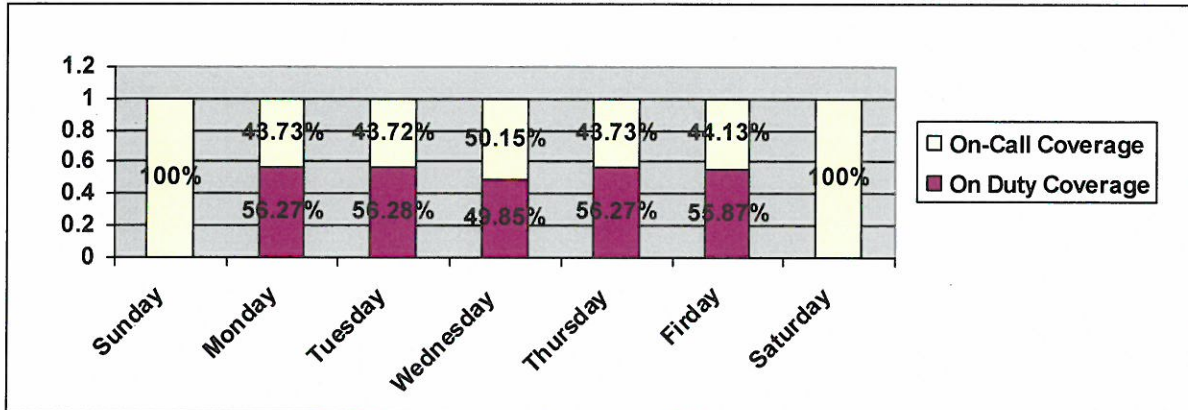
Our current staffing model has been very efficient and has worked for Lynnfield since 1971, longer than any comparable fire department in the area. If we increase the amount of time we cover the fire stations from 8 hours a day 5 days a week to 12 hours a day 7 days a week we remedy a number of challenges facing the fire department and our community.

1. We immediately and dramatically improve response times. While we have staff in the stations response times are 5.15 minutes, when we do not have staff in the station our response time is 9.09 minutes. A twelve hour model would improve response times to an additional 34 % of our calls.  
  
By relieving some of the pressure on our call force we project our response times during the hours the stations are not covered will also improve.
2. Each call received when the stations are not covered is an opportunity for overtime. By covering the Stations 12 of our busiest hours of the day we significantly reduce the opportunity for overtime. Under our current system career staff is eligible for overtime for 60% of our calls. By covering 12 hours we reduce the overtime opportunities to 26% of the calls. Think of our manufacturing analogy.
3. By covering the stations longer hours and weekends we have fewer on-call “platoon” shifts that need to be covered, relieving some of the pressure on our call system.
4. By covering the stations 12 hours a day we reduce the reliance on our call firefighters to take time away from family and other commitments.

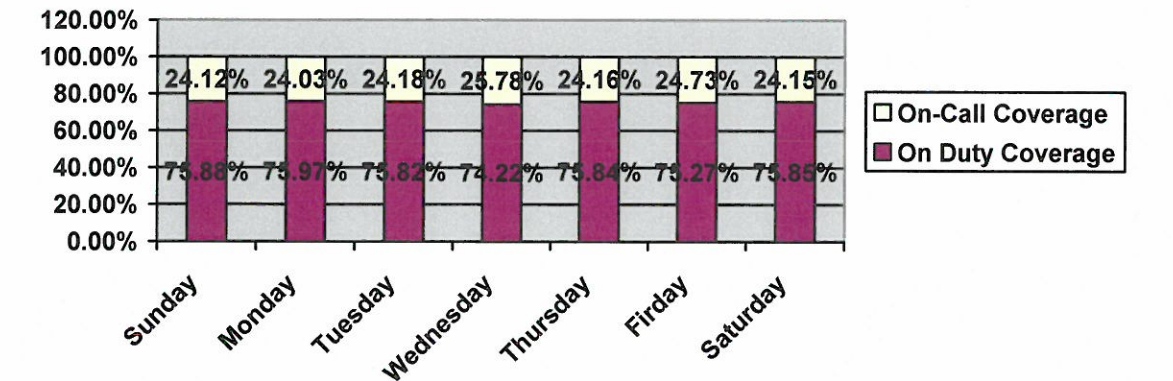
The tables below illustrate the percentage of calls covered by duty crews in the stations eight hours a day versus the percentage of calls that would be covered utilizing a twelve hour model. As you can see under our current system we cover the station 25% of the time and cover

approximately 40% of the 911 calls. By increasing our coverage to 50% of the time we would cover 74+% of the 911 calls.

*Eight Hour Emergency Response Coverage*



*Twelve Hour Emergency Response Coverage*



Cost:

Naturally the next question asked is what would a twelve hour staffing model cost? Although there are is an additional cost for personnel we have taken steps to minimize those costs. Some

of the cost will depend on the collective bargaining agreement negotiated with the career firefighters, below is a working budget that outlines the anticipated cost of the additional staff.

**Proposed budget:**

<b>Line:</b>	<b>Description</b>	<b>Increase</b>	<b>Off-set</b>	<b>Total</b>
511000	Firefighter Salaries	\$118,980	\$0.00	614,550
513000	Firefighter Overtime	\$10,898	\$8,860	\$53,436
513003	Firefighter Salaries	\$8,718	\$0.00	\$49,783
514100	Firefighters Holiday	\$5,740	\$0.00	\$26,879
519050	Telephone All.	\$500	\$0.00	\$2,000
513000	EMS Overtime	\$0.00	\$37,714	\$46,697
519300	FT EMS Coverage	\$0.00	\$0.00	\$128,133
511000	Call Firefighter Sal.	\$234,134	\$54,425	\$488,515
511023	Call Firefighter Sal.	\$0.00	\$70,040	\$84,555
511030	Call EMS Coverage	\$0.00	\$0.00	\$160,467
Total		\$378,970	\$171,040	\$207,930

**Overtime and call back:**

Because we would be calling our career and call staff back less often there are some off setting savings. By utilizing a 12 hour staffing model, off setting savings would specifically minimize overtime costs. Call firefighters would also be called back for calls less often resulting in savings in these lines. The graphic below represents the 911 calls over the past three years.

Every time we receive a 9-1-1 call and there is not staff in the stations we incur cost for call firefighter call back and overtime for our career staff to respond back.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
0:00	16.66	16.37	16.22	16.53	15.4	12.11	13.41	
1:00	12.66	12.6	12.18	12.56	11.7	9.81	10.19	
2:00	10.17	10.12	9.78	10.09	9.4	8.19	7.8	
3:00	12.21	12.15	11.74	12.11	11.29	9.46	9.83	
4:00	9.87	9.82	9.49	9.79	9.13	7.78	7.95	
5:00	10.02	9.97	9.64	9.94	9.27	7.9	8.07	
6:00	16.51	16.42	15.87	16.38	15.26	12.78	13.09	
7:00	26.46	26.32	25.44	26.25	24.46	20.49	21.3	
8:00	44.78	44.55	43.06	44.43	41.4	34.68	36.55	
9:00	43.95	43.72	42.26	43.6	40.63	34.04	35.38	
10:00	50.14	49.87	48.21	49.74	46.35	38.83	40.36	
11:00	46.89	46.65	45.09	46.52	43.35	36.32	37.75	
12:00	52.1	51.82	50.09	51.68	48.16	40.35	41.34	
13:00	42.75	42.52	41.1	42.41	39.54	33.11	34.41	
14:00	48.63	48.37	46.76	48.24	44.95	37.66	39.15	
15:00	51.27	51	49.3	50.86	47.39	39.71	41.27	
16:00	47.35	47.1	45.53	46.97	43.77	36.67	38.11	
17:00	44.25	44.02	42.55	43.9	40.91	34.28	35.63	
18:00	40.56	40.35	39	40.35	37.49	31.41	32.65	
19:00	37.32	37.12	35.88	37.02	34.5	28.9	30.04	
20:00	32.19	32.02	30.95	31.93	29.76	24.93	25.91	
21:00	23.67	23.55	22.76	23.48	21.88	18.33	19.05	
22:00	24.27	24.15	23.34	24.08	22.44	18.8	19.59	
23:00	15.6	15.52	15	15.48	19.42	12.08	12.56	

Calls covered by on duty staff 8 hour model

Additional Calls covered by on duty staff 12 hour model

If we were to simply hire 6 additional career firefighters the cost for these firefighters would be significant. In addition we would incur cost for benefits, such as health insurance, vacation time,

In order to minimize the additional cost we propose utilizing a combination of staff including career, part-time, and call firefighters. By utilizing a combination of staff we save nearly \$90,000 in salaries and approximately \$66,000 in fringe benefits. Utilizing our call staff helps to

accomplish our goal of blending our career and call staff and keep the call firefighters integral to the operation of the Lynnfield Fire Department.

#### Ambulance coverage:

Under our current system there is one person assigned to the ambulance 24 hours a day 7 days a week. When we have staff in the stations, this system works well.

Nights and weekends the single ambulance person responds immediately to the calls. Unfortunately, the ambulance person may arrive on scene and be alone for several minutes. In my opinion this level of staffing is unacceptable. This give the public a false sense of security, someone has arrived at their emergency, but their ability to provide definitive care is very limited.

Part of this proposal is to also put two people on the ambulance on the overnight. By having two people on the ambulance, we can begin definitive patient care and treatment immediately upon arrival at the scene of an emergency.

#### Summary

In 1971 the Lynnfield Fire department hired their first career firefighters. The staffing model implemented at that time is largely the same staffing model we use today. Over the years the mission of the fire department has changed, the community has grown, the 9-1-1 call volume of the fire department has risen dramatically, and the life of our firefighters has become much more complex.

With all the increasing pressure and increasing demands on the fire department, things like response times began to suffer. In order to adequately cover the 9-1-1 calls our career staff has been relied up to respond back incurring overtime.

We have taken a number of steps to try and remedy these problems with limited success. We have tried to recruit new call firefighters, implemented a structured call back system, and attempted to limit overtime as much as possible within the collective bargaining agreement.

After evaluating our call volume, conducting research on other combination fire departments and seeking input from our members we developed a strategy and a new staffing model to move the fire department forward. A system utilizing a combination of career, call and part time staff to provide coverage in the stations 12 hours a day, seven days a week was developed. The benefits of this system are: immediately improves response times to an additional 35% calls; it reduces the opportunities for call back overtime by 35%; relieves the stress now being put on the call company and will likely allow us to maintain the combination call/career system into the foreseeable future; and allows us to reallocate our financial resources to minimize additional cost to the community.



## Yard Waste Collection Center Information

The Yard Waste Collection Center located behind the Town Hall will be open to Lynnfield residents only, who have current recycling stickers, beginning the first Saturday in April(weather permitting) and closing December 1st.

The Center will be open on **Wednesdays and Saturdays from 7:30am-3pm** starting the first Saturday of April(weather permitting) until November 30<sup>th</sup> to accept brush, tree limbs, grass clippings and leaves. Starting **November 1st and running till December 1st**, the Center will be open additionally on Sundays from 7:30 am- 3 pm.

The Center cannot accept any limbs larger than 6 inches in diameter and is not open to landscapers, contractors or vehicles with commercial plates.

To use the Center you must have a current recycling sticker. Recycling stickers are valid from July 1st to June 30th each year. Next season's Recycling Center stickers will be sold beginning June 15th.

If you need to purchase a recycling sticker you may do so by stopping by the DPW Office at Town Hall before entering the Recycling Center on Wednesdays or on Saturdays they may be purchased from the attendant at the Center with registration of the vehicle that will be used. **Vehicles with commercial plates are prohibited.**

The cost is **\$10 (\$5 for seniors over 65)**. If you have any questions you may call the DPW Office at 781-334-9500 or email us at [dpw@town.lynnfield.ma.us](mailto:dpw@town.lynnfield.ma.us)

Brian R. Lopez  
5 Stanley Road  
Lynnfield, Ma. 01940

brl1954@aol.com

Dec 1, 2015

James M. Boudreau  
Town Administrator

Town Selectmen

Philip Crawford Chairman  
Thomas Terranova Vice Chairman  
Christopher Barrett Clerk

RE: Resignation from Board of Directors for Council on Aging.

Dear Sir;

This letter serves as my immediate resignation from the Board of Directors for Lynnfield's Council on Aging, effective today December 1, 2015.

It is with mixed emotions that I leave this position, but for me the time has come to move on.

I have served for several years as an associate member and as an officer on this board.

I want to thank you, the Board of Selectmen and my fellow board members for the support given to me during my tenure on the board. It has been both a learning experience and an enjoyable experience. Thank you again for affording me this opportunity.

Sincerely,

  
Brian R. Lopez