F I N A L R E P O R T

Village of Ossining
Ossining Fire Department
Ossining, New York

Fire Department Management Study

August 2009

Mitchell Associates Architects

MANITOU INCORPORATED

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Manitou. Inc. wishes to acknowledge those involved in completing this report. A report of this type, requires outstanding cooperation. We are pleased to have received just such cooperation from the Village officials and Fire Department representatives we contacted during this study. Many organizations approach outside evaluations with some reservation. The members of the Ossining Fire Department were very cooperative, and we appreciate their assistance and candor in helping to complete this study.

Special thanks go to:

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Thomas Reddy, 1st Assistant Chief , Ossining Fire Department
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We would also like to recognize the staff and consultants who produced this report.

Charles Jennings, Ph.D. MiFireE, Project Manager
Thomas Vaughan, GIS Analyst
John Cochran, Consultant

Robert Mitchell, Mitchell Associates Architects

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Executive Summary

The following report is an assessment of the Ossining Fire Department with major objectives of:

- ✓ determining that the Village is getting value for money spent
- ✓ an assessment of deployment of apparatus and stations
- ✓ recommendations for improved effectiveness and efficiency

In many ways, an analysis of a career fire department is simpler – employees are motivated by wages, there is a limited number of staff, and equipment. The problem is one of maximizing utilization of a scarce resource. In a volunteer organization, the problem of too many people is comparatively rare. Volunteers are motivated intrinsically, by a myriad of attractions that may lie entirely out of the control of local government and elected officials. Changes made in such an environment must be made with regard for causing minimal disruption to this web of inducements and bonds that motivate volunteers.

A volunteer fire service represents something with intangible benefits for the community. The ethic of neighbor helping neighbor is at the essence of civic engagement. As long as this service is provided effectively, and at a comparative cost advantage to alternatives, there is little reason to change a successful formula. The marginal benefits of potentially reducing the capital costs associated with maintaining seven fire stations and the apparatus is more than offset by the likelihood of increased response times, and the potential for reduced participation.

The effort t produce this report was considerable, and included geographic information systems analysis of current and potential future station locations,

Any comments made in the report are made in a spirit of strengthening the Ossining Fire Department, and in no way diminish the excellent service they provide, or the evident dedication of their members.

Major findings of this analysis are as follows:

- ✓ Response times and member turnout are excellent -- almost unheard of. They are well above average regionally and nationally.
- ✓ The cost of operating the Department is less than comparable jurisdictions within the County, and on a per capita basis, is the second-lowest in the County.
- ✓ Record keeping is marginal, and “pen and paper reports” are still the norm. Little or none of this information is computerized, nor is it analyzed. A computerized records system is vastly underutilized. Chief officers spend hours doing routine paperwork, to the detriment of higher-level management and long-range planning for the organization.
- ✓ Dispatching is satisfactory, but adequate data are not being captured to permit analysis of basic performance measures. The current arrangements need to be examined more closely.

- ✓ Training needs to be more systematic – there are too few training activities, and they are too loosely planned.
- ✓ Many of the Department's problems can be addressed with creation of a part-time administrative position to enter data, and support decision-making by the volunteer Chiefs.
- ✓ The organization appears healthy, and membership levels appear to be stable, given the limited data we have.
- ✓ There is a widely-held perception among members that the Department is not adequately appreciated by the Village government. A need for a more intensive dialogue is apparent.

In brief, the public is well-served by the Ossining Fire Department. The system is working well, and with some mainly administrative improvements, can provide increased transparency to the Village government, and better document what is working well, as well as areas for improvement.

A list of detailed recommendations are included in the body of the report, and summarized at the end of the report.

Introduction

Description of Study

Mitchell Associates Architects, a well-known firm with previous experience within the Department, began discussions to follow up on previous work around design of a new facility on Hawkes Avenue. Manitou Incorporated, a fire and public safety management and policy firm, entered into initial discussions with the Ossining Fire Department over issues of the need to potentially renovate or replace fire stations. Given the long-term nature of these decisions, a broadened scope of work was proposed and accepted to look not only at operational needs of "where" and "what" apparatus should be, but also the long term viability of the volunteer and company system and its overall efficiency. Both firms worked in partnership, following a model developed in previous engagements, to deliver a closely coordinated study that would maximize efficiencies.

Mitchell Associates began with an architectural and engineering assessment of the current facilities, while Manitou would make recommendations on desirable facility locations and apparatus configurations. These recommendations would be coordinated with Mitchell Associates to expedite the process of programming for renovated or new facilities.

The firms entered in a contract with the Village of Ossining in Winter 2008. This report is the final deliverable for the Manitou, Inc. portion of the project, although we will continue to consult with Mitchell Associates through the programming and design phase for any new or renovated facilities.

Description of Scope

The scope of work specifically included both operational and administrative reviews. Data was gathered from available reports, County, State, and federal data, and interviews.

1. Comparative data on expenditures and service levels – One way to assure that the Village is receiving good value for its fire protection expenditures is to compare expenditures with other fire departments locally and across the State.
    1. Westchester County
    2. New York State
2. Attendance audit – informal review of records against observed performance.
3. Summary statistics on service levels – Response times and numbers of members attending calls for service will be examined over time to reveal any possible trends.
4. Long-term trends in membership and stability – given available data
5. Survey of membership – a mail survey of membership was mounted. This would permit

anonymous participation, and would produce statistics rapidly. The survey could be retained by the Village and repeated periodically to reveal changes.

6. Focus groups – a small group interview session, in which members would have the opportunity to discuss issues in detail. The focus group was used to refine the survey.

7. Suggestions for improved cost effectiveness

Extensive analysis was done on the department's data. Much of this data was not computerized, which required hand tallies and sampling to support our findings.

Description of OFD

The Department responds to fire and rescue incidents only, and does not do Emergency Medical Services (EMS) first responder service. This practice is credited with controlling the number of responses, and helping to maintain the Department's ability to retain an all-volunteer staffing profile. EMS Services are provided by the Ossining Volunteer Ambulance Corps, who provides basic life support transport, and advanced life support services are provided regionally through a fly-car model. Recently, an ambulance services district was formed encompassing the Town and Village of Ossining.

The Department is widely known within the State for its robust volunteer membership and participation.

Organization and History

The Ossining Fire Department (OFD) originated with oldest continuously operating fire company in Westchester County – Washington Hook and Ladder, which was founded in 1812. Based on a system of independent and semi-autonomous companies known as the "Company System," the companies come under operational control of a commonly elected slate of Chief Officers, and an integrated chain of command in which company officers are recognized throughout the Department. The founding dates of the companies is listed in Table 1.

Table 1: Ossining Fire Companies by Date of Incorporation

Fire Company	Incorporation Date	Approx Years in Existence
Washington H&L Co.	5/12/1812	197 years
Ossining Hose Co.	9/8/1856	153 years
Senate Hook & Ladder	5/21/1857	152 years
Cataract Hose Co.	5/25/1857	152 years

Steamer Co.	1876	133 years
Monitor Hose Co.	7/11/1891	118 years
Holla Hose Co.	4/2/1900	109 years
Independent Hose Co.	1911	98 years
Fire Police/Emergency Squad	1922	87 years

The OFD is well-known, and is one of the largest all-volunteer fire departments in the State of New York. The OFD is a major institution in the Village's history and social life. Its membership represents generations of families who have played leading roles in Village institutions.

The Department protects the Village of Ossining. Under a very long-standing agreement, the OFD also provides protection to a large part of the Town of Ossining. This agreement is based upon the assessed valuation of property protected.

By any "objective" measure the Ossining Fire Department has a surplus of companies and facilities to provide service for the 5.6 square mile area it protects. However, the Department is a unique and healthy functioning example of the volunteer fire service organized along 19th century lines.

While many communities retain the system of semi-autonomous fire companies working together under direction of a commonly chosen chief, Ossining is exceptional because it has maintained a membership large and active enough to sustain its original complement of nine fire companies, which range in age from 197 years to the newest, formed in 1922. Regarding long critical measures such as staffing and response times, the Department provides service that is exemplary.

In a withering membership environment, the Company system can be a liability, by spreading "too-few" members across "too many" companies. Sustaining companies also takes considerable time, which can ultimately detract from provision of emergency service and training. Ossining has not yet entered the phase in which the company system is a detriment.

The traditional operational divisions between companies have relaxed in recent years. , While members retain the sense of intense loyalty and identification for their companies, operational needs now find that company members may respond to the closest fire station, rather than their "home" fire station. While this has always been the policy of the Department, it is becoming more common, especially for apparatus drivers. This easing of boundaries is a recognition of the need to work together to provide the best service for the public. This shows the adaptation of the company system.

Current Apparatus Complement

For the area served the OFD is well equipped with an adequate number of apparatus assigned to engine and ladder truck companies. There are a sufficient number of pumpers to meet the needs of fire flow

requirements with apparatus to spare to adequately cover the roughly five square miles of area served by the department. With 6 pumpers currently in front line service, each engine theoretically serves less than one square mile; well below the recommended area of 4.5 square miles based on ISO and related nationally recognized best practices. Because of the Department's large fleet of apparatus, no reserve equipment is maintained, and when a company's vehicle is out of service for maintenance or other reasons, there is no apparatus kept in "reserve" status..

Tables 2 and 3 show the location of the stations and apparatus, as well as their original purchase price and date of purchase. The fleet consists of:

- 6 pumpers
- 2 aerial ladder trucks
- 1 rescue truck
- 1 rapid intervention team truck[1]
- 3 command cars

Table 2: Ossining Apparatus Complement and Location

Station	Location	Companies Assigned	Type of Unit(s)
Headquarters	21 State St.	Senate Ladder Co. 41 Ossining Fire Police Emergency Squad Co. 14	1 Ladder Truck 1 Rescue Truck 1 RIT* Truck
Northside	21 Snowden Ave.	Ossining Hose Co. 96 Washington Ladder Co. 42	1 Pumper 1 Ladder Truck
Cataract	4 Waller Ave.	Cataract Hose Co. 97	1 Pumper
Steamer	117 Main St.	Steamer Co. 98	1 Pumper
Monitor	57 Central Ave.	Monitor Hose Co. 99	1 Pumper
Holla	2 Lafayette Ave.	Holla Hose Co. 100	1 Pumper
Independent	19 Campwoods Rd.	Independent Hose Co. 101	1 Pumper

The Village maintains a replacement plan for apparatus, based no the age of the apparatus. Given experience with maintenance costs and increased down-time as apparatus ages, this replacement plan should be continued, and is in accordance with national standards. A list of major apparatus and photographs are included as Appendix 1 at the rear of this report.

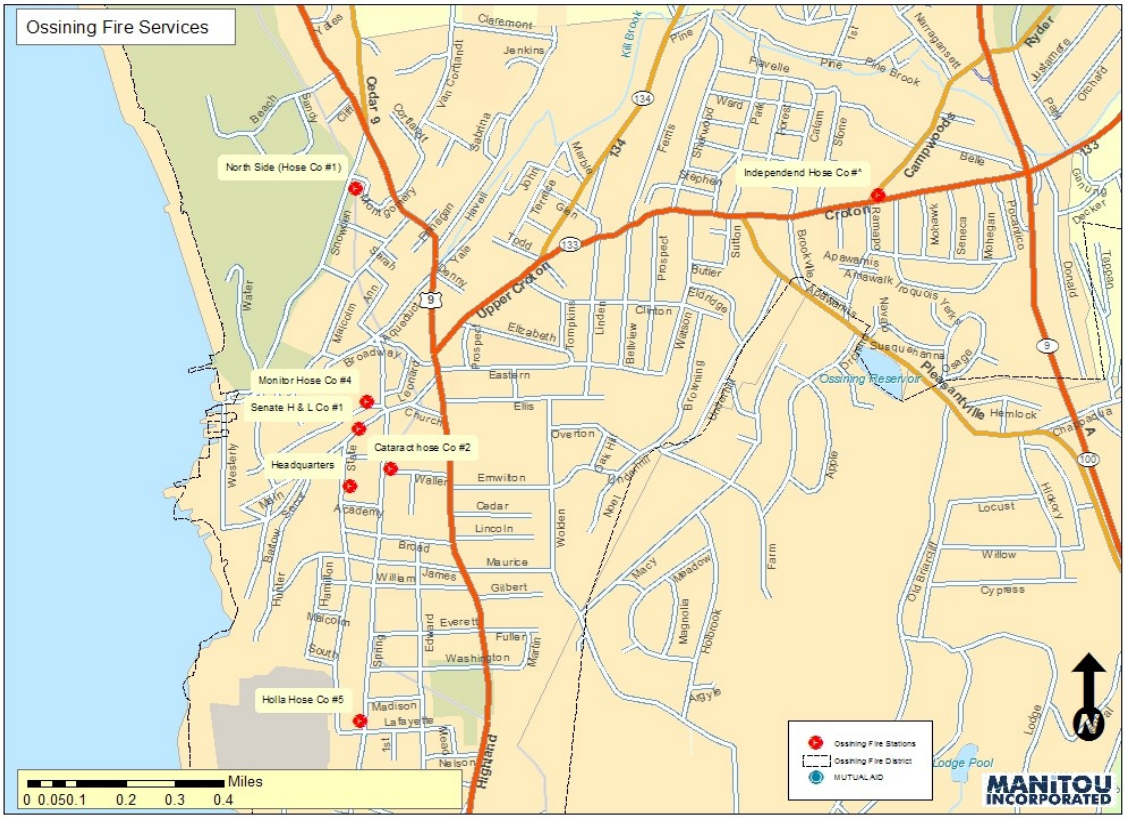
1 A medium duty commercial chassis with a compartment body, used primarily for fireground firefighter safety and rescue functions.

Table 3: Total apparatus by type

Asset #	Description	Original Cost (thousands $)	In Service Date	Manufacturer	Model Number
2862	Engine 96	287	6/1/1999	Seagrave	Class A Pumper
2863	Engine 97	220	6/1/1990	E-One	Class A Pumper
2864	Engine 98	273	6/1/1996	E-One	Class A Pumper
2865	Engine 99	235	6/1/1989	Spartan/Ward	Class A Pumper
2866	Engine 100	362	6/1/2000	American La.	Class A Pumper
2867	Engine 101	250	6/1/1993	E-One	Class A Pumper
2868	Ladder 41	705	6/1/2003	KME	Ladder Truck
2869	Ladder 42	305	6/1/1990	E-One	Ladder Truck
2870	Rescue 14	242	6/1/1995	E-One	Rescue Truck
3431	Engine 98	285	6/1/1996		
3432	Utility Truck	25	6/1/2001		
3434	2001 Tahoe	30	6/1/2001	Chevrolet	
3435	2003 Tahoe	30	4/15/2003	Chevrolet	
3886	2005 Tahoe	32	1/1/2005	Chevrolet	
3972	2007 Tahoe	35	7/1/2007	Chevrolet	

The current mix of station locations reflects the 19th Century origins of the Department. The newest facility, the headquarters station built in 2007, houses Senate Hook and Ladder Company and the Fire Police Emergency Squad. The old locations for both companies were within blocks of the new location. While many stations are not in their original locations, a similar pattern has been maintained in locating replacement facilities, such that five of the OFD's nine companies are located within a few blocks of each other near the Village's historic center. Three others are located approximately one mile north and one-half mile south from the Village's commercial center. The remaining company, an engine, is located near the border of the Town and Village on Campwoods Rd, approximately 1.6 miles from headquarters. The location of OFD stations is shown in Figure 1.

Figure 1: Ossining Fire Department Station Locations



Being a volunteer fire department, Any station is dependent on volunteers to staff and operate any equipment that would be placed there, so the benefits of a shorter driving time from the station to a potential incident must be weighed against possibly longer driving times for volunteers to go from their workplace or homes, to the station to retrieve apparatus. Another consideration is that Ossining permits its members to respond directly to the scene of emergencies, which further reduces some of the benefit of locating a facility solely based on time to drive from the station to the scene. In summary, we must locate stations not only to minimize the driving distance to emergencies, but must consider the time it takes for volunteers to reach the stations.

Current Roster

Measuring membership over time can be difficult. Like most volunteer organizations, membership requirements have changed over time, and social and fraternal bonds make it distasteful to remove a volunteer from the roster, particularly as they maintain a connection with the company. As a consequence, it is very difficult to quantify the change in membership.

The Department's active membership is by all accounts, declining. This is not unusual, and is consistent with experience in other volunteer fire departments. However, the Department's is capable of meeting the demand or service. Because of the nature of membership, it is difficult to formally distinguish between members who are "active," as this designation applies to members who remain on the rolls, but may have reduced their participation in emergency calls due to advanced age, health limitations, or due to living outside the district for part or most of the year.

In order to get a better gauge on the number of members providing emergency response services, we collected data on members who either 1) participated in training during the last two calendar years, or 2) responded on emergency calls during the same period.

The department's current member roster has 484 names. Of this number, 152 attended training in the past year. We obtained this information by manually tabulating training records against the Department's roster. Another measure of the Department's membership is that there are approximately 290 pagers currently in the Department's inventory. This number includes both pagers issued by the Department, as well as pagers owned by members. The difference between the number of pages and the number of members attending training gives some indication of the number of members who may be attending calls, but are not necessarily attending departmental training on a regular basis.

By closely tracking member status and participation, the department can establish a baseline for better understanding the dynamics of its membership. These statistics should be included in quarterly reports to the Village government.

Member Characteristics (age and residence)

One key concern in a volunteer organization is the age of members. If newer members are not brought in, the active membership ages and there is a risk of a sudden decline in participation if members leave the area or become unable to meet the intense physical demands of firefighting. Records on ages of members were not always complete in the computerized files we obtained. As a surrogate for age, and as a measure of experience, we did an analysis of the number of years each member was active in a company. We calculated this based on the date a members joined using records from their company roster.

Next, we examined the residence of members. Each member was classified according to the address listed on the Department roster. The numbers of members are categorized by a) live in Ossining; b) live in Westchester (outside Ossining); c) live in New York State, and d) live out of State. It is common practice for senior members to remain on the rolls if they reside mainly out of the area, as long as they retain some connection to the Department.

From a response standpoint, members who do not reside in the Village or nearby are generally not available on a timely basis for response to emergencies. While some of these members may work in the area, and respond from work, some may be very limited in their participation in calls for service.

Table 4 presents the summary of member residence and experience by Company. In terms of members

living in Ossining, the largest membership is Washington Hook & Ladder (Ladder 42) with 53 members. The lowest number of members living in Ossining, and overall is in the Fire Police and Emergency Squad (Rescue 14) with32 members. Interestingly, the Emergency Squad also has the highest percentage (21.9%) of its members residing out of State.

Table 4: Company Members by Experience and Residence

Company	# of Members	Live in Ossining	Live in Westchester	Live in NY	Live out of State	Average Years of Service	Median years of Service
Engine 96	56	34	9	7	6 (10.7%)	24.8	22
Engine 97	37	32	2	2	1 (2.7%)	20.2	18
Engine 98	47	30	6	7	4 (8.5%)	20.9	13
Engine 99	61	39	12	7	2 (3.3%)	23	23
Engine 100	50	37	9	1	3 (6%)	25.2	24
Engine 101	62	33	9	13	7 (11.3%)	28.9	32.5
Ladder 41	42	29	4	7	2 (4.8%)	23.2	22
Ladder 42	73	53	10	0	10 (13.7%)	23.5	21
Rescue 14	32	19	4	2	7 (21.9%)	25.4	27.5
	460	306	65	46	42		

In terms of experience, the most experienced membership is in Independent (Engine 101) at 32.5 median years of experience. The youngest company in terms of median years of experience is Steamer (Engine 98), with 13 years of median experience. Medians were used in lieu of averages, to control for the effect of very small and very large years of experience.

ISO Rating

The Insurance Services Office (ISO), a for profit organization funded by the fire insurance industry, surveys all municipalities and related public fire protection districts throughout the United States in order to establish rates for fire premiums. The surveys are conducted as part of ISO's Public Protection Classification (PPC) where field representatives apply the Fire Suppression Rating Schedule (FSRS). Using the Schedule, credit is given to various items to determine an overall PPC score.

The FSRS addresses primarily three broad areas:

Fire department, including equipment, staffing levels, training, and geographic distribution of fire companies. A maximum of 50 credits may be earned in this area.

Water supply system, including condition and maintenance of hydrants, and a careful evaluation of the amount of available water compared with the amount needed to suppress fires. A maximum of 40 credits may be earned in this area.

Fire alarm and communications systems, including telephone systems, telephone lines, staffing, and dispatching systems. A maximum of 10 credits may be earned in this area.

The areas are surveyed based on structural fire protection only. Over the years there has evolved a misnomer by municipal officials and the general public that ISO's surveys and subsequent ratings is a sign of overall efficiency for all services provided by the fire department. In actuality, the rating does not reflect the level of service for fire prevention services, non-structural fire protection, emergency medical or rescue services, or response to hazardous material incidents.

Based on information gained from PPC surveys, each municipality is then given a classification rating on a scale from 1 through 10. Class 1 generally represents superior property fire protection, and Class 10 indicates that the area's fire-suppression program doesn't meet acceptable level of fire protection per the FSRS. Generally speaking, it savings in the way of annual fire insurance premiums can be expected in municipalities with a lower ISO rating. In some cases a split rating is established where a class 9 is given to those outlying areas of a municipality where fire hydrants are farther apart or non-existent. Most municipalities are surveyed at a minimum of at least every 10 years. Ossining was last surveyed during the summer of 1999.

Ossining's Latest ISO Rating

In February 2000, ISO granted the Village of Ossining an improvement to their classification rating from a split rating of 5/9 to a 3/9. The reduced rating has allowed those insured homes in the Class 3 area an annual savings for the typical homeowner by as much as $50 or more. The Class three applies to insured properties in the community within 1,000 feet of a fire hydrant, five (5) road miles of a fire station, and with a needed fire flow of 3,500 gallons per minutes or less. Class 9 applies to insured properties within (5) road miles of a fire station but beyond 1,000 feet of a fire hydrant.

1999 ISO Survey – PPC Survey Detail

Area	Credit Allowed	Credit Earned
Fire Department	50.00	34.18
Water Supply	40.00	32.72
Communications	10.00	7.17
	100.00%	71.38%

Current ISO Classification and Current Fire Station Locations

As part of that portion of the survey that addresses the fire department, ISO field representatives review the distribution of fire stations. In urbanized municipalities such as Ossining, the FSRS utilizes a distribution model that applies the response distance of 1.5 road miles from engine companies to properties protected. ISO assumes the average speed of fire apparatus responding to a fire emergency is 35 miles per hour. At this speed a modern pumper can cover 1.5 road miles in 3 minutes and 12 seconds. Combine this time with the time a fire company takes to "turnout" their fire apparatus and there is approximately 4-5 minutes ISO expects to have the first due company to arrive at the scene of a fire. The FSRS applies similar response distance criteria of 2.5 road miles for ladder truck distribution.

Based on station location analysis conducted as part of this study it would appear the area of the community that benefits the least from the 1.5 mile response criteria is in the most northern section of the Village and Town where current travel times are in the 3-5 minute response range.

Training Summary

Adequate fire department training programs are essential to quality public fire protection. This comes in many basic forms including management and delivery of the training program, qualified instructors, adequate scheduling of drills and classroom sessions, and proper training equipment and facilities. Rising standards have required that documentation be kept, and that training follows recognized standards and curricula. The Department needs to explicitly adapt its training program for this environment. We found no evidence that personnel were not proficient, but informal training, no matter how effective, can not be relied on exclusively to maintain skills.

Training is coordinated by the 2nd Assistant Chief. There are two internal means for members to obtain training. Drills are held on a monthly basis on a Department-wide level. Each company also offers its own training. The Company drills tend to be more focused on operation of equipment unique to a particular company. Driver training is commonly conducted in conjunction with Sunday "fuel up," in which apparatus is driven and equipment is checked each week.

In addition, personnel sign up for classes at the Westchester County Fire Training center or other outside venues through the Assistant Chief. Records of outside training are kept in an individual training record for each member. The State of New York also maintains a list of Department members with all State fire training classes they have completed.

Attendance at training programs is limited. In 2008, attendance at company training programs averaged 7.3 members. There were 72 company drills held, which averages 8 drills per company. Departmental drills had an average attendance of 22.5 members.

Ideally, the training program would be planned around the needs of members. Some of this is done now, but a better understanding of training needs and members' outside training could be used to plan training topics.

A suggested training program might begin with the objectives below:

Management and delivery of the training program includes mission driven subjects, scheduling of sessions, and the recording of course and drills offered and the logging of participants in attendance.

A department training coordinator along with a cadre of certified instructors must be in place to insure a drill and course work is delivered in accordance with state level standards.

The scheduling of all course work and drills should be developed in advance to insure all fire companies are aware of upcoming training opportunities including those that are mandatory and those that are of extracurricular in nature.

Proper training equipment and facilities should be in place including proper classroom space, drill grounds, drill tower, library materials and teaching aids.
Each year, at minimum, all active members (non-social) of each company should participate at a minimum in the following drills:

Eight half-day (3 hours) company drills
Four half-day (3 hours) multiple company drills
Two night (3 hours) company drills

At a minimum, the drills should include the following subjects:

- Laying supply lines to support engine and ladder company
- Advancing and operating attack hose lines
- Attacking and extinguishing interior structure fires (offensive operations)
- Tactical line placement for confining structural fires to the building of origin (defensive operations)
- Master stream placement and operations
- Ground and aerial ladder carries and raises
- Rope tying and practices
- Forcible entry operations
- Donning of self-contained breathing apparatus
- Firefighter protective clothing and equipment
- Use of portable fire extinguishers
- Salvage and overhaul operations
- Water supply
- Ventilation operations
- Use and Application of foam
- Radio communications
- Incident command
- Firefighter safety
- Department Standard Operating Procedures

In addition, special courses and drills should be offered for officer and driver/operator development including:

Officers (minimum of 12 hours per year):

- Company officer
- Fire attack strategy and tactics
- Structural fire size-up
- Engine company operations
- Multi-company operations
- Transfer of command from company to chief officers
- Conducting building familiarization
- Preparing operational pre-fire planning
- Operations at buildings protected with automatic sprinklers and standpipe systems

- Fire hazards in special occupancies

Driver/operator (minimum of 12 hours per year):

- Driving and operating pumpers and ladder trucks
- Basic hydraulic skills
- Defensive and safe driving
- Hydrant and drafting operations

New recruits should receive minimum standard training that covers all the aspects of firefighting, rescue and hazardous materials responses. Ideally, each active member of the department should log at least 2 hours of training every two months. At a minimum, each active member should log as much as 20 hours per month to insure safe and effective operations.

Based on information obtained during focus group interviews, training is occurring with minimal oversight and recording. While reviewing the department's training records for 2007 it was determined that out of the 190 members on the training roster only an average of 22, or roughly 11 percent attending training during the year. Further, the scope of training offered little in the way of basic firefighting skills. Strides can be made in the quality of training through implementing initiatives such as the following:

- Assign a department-wide training officer with each company assigning a training coordinator.
- Develop an annual training program including a schedule of drills and course work
- Expand the administration and management of the training program including consistently recording of all sessions and drills.
- Identify those sessions and drills that are mandatory vs. those that are for extra credit.
- Secure facilities for training including classrooms facilities and drill grounds.

Many records are kept manually and no summary reports are produced, nor are trends monitored from year to year. Although the Department's records management system has a module to track training, this information is not entered. The Second Assistant Chief is responsible for training, but much of their time is consumed with routine details such as filling out forms to enroll members in courses, and collecting paper reports and filing. Company Captains are also encouraged to lead their own training, they may or may not be trained as instructors and the quality and intensity of training varies as would be expected from officer to officer and company to company.

Dispatching – the OFD is dispatched by the Ossining (Village) Police Department, which serves as the PSAP for all 9-1-1 calls within the Village. The Ossining Police take the basic information for the call, and then categorize the call with regard to severity, and then location. There are several geographical areas within the Village and Town. Depending on the nature of the call and location of the call, the Department's coded horn system is activated, and an announcement of the call is made simultaneously via radio for those members who carry pagers.

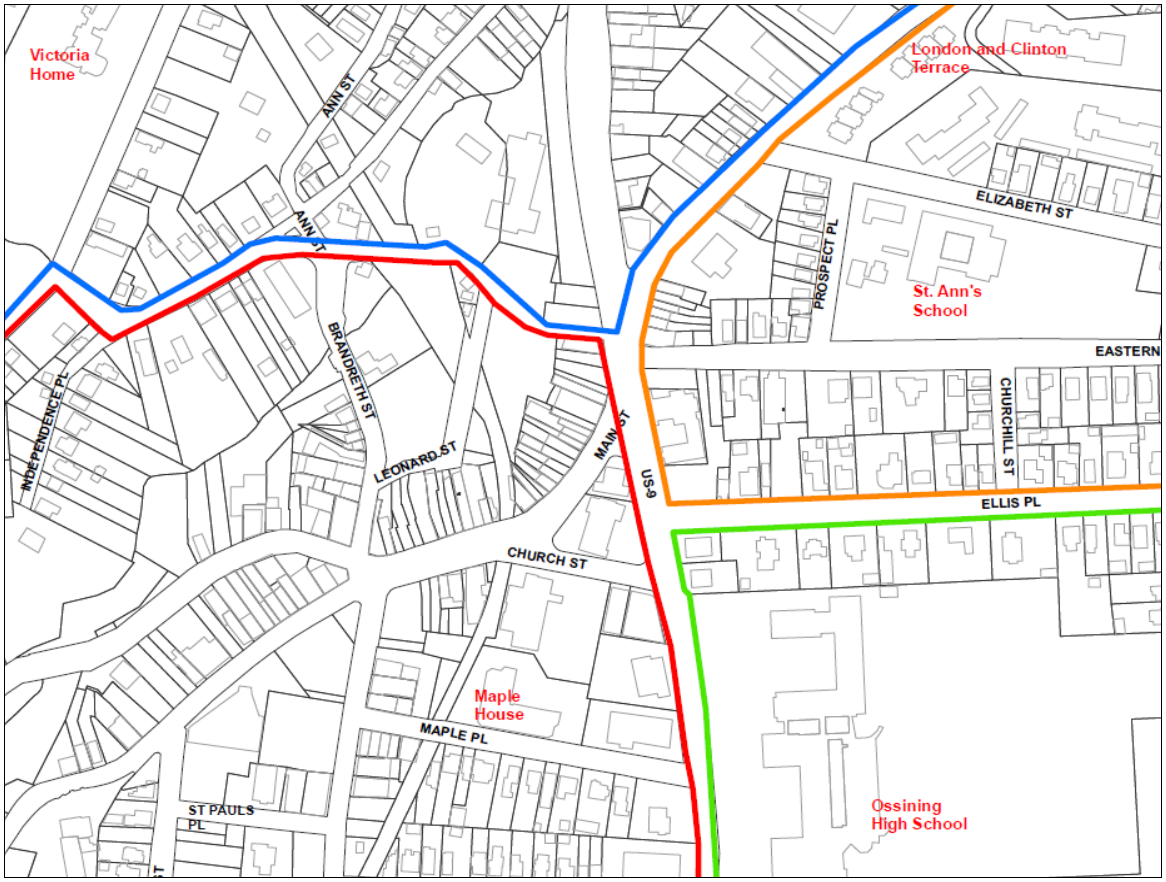
Once the incident is dispatched by the Police, they essentially end their involvement with the call. During weekdays, when the OFD has a dispatcher working, the OFD dispatcher immediately assumes responsibility for monitoring the radio, logging times that apparatus responds or arrives on the scene,

and makes notifications to agencies such as conEdison, or request mutual aid be dispatched via 60 Control.

Chief Officers also have Ossining Police frequencies programmed into their radios, so that they can contact police dispatchers directly when needed. This is useful for raising the attention of dispatchers, particularly when they have not recently dispatched a call, and also can serve as a means to request assistance without tying up the fire department's frequency, which is shared.

When the OFD dispatchers are not working, the fire radio goes essentially unattended for several minutes until a member can respond to fire headquarters. On minor alarms, no dispatcher may respond. While the OFD would argue that if any emergency arose, a chief officer could contact 60 Control or the Ossining Police for any needed help, serving as this communications link is not and should not be the chief's primary responsibility. An important implication of this system is that on a large share of calls for service, there is no data saved in any readily accessible form to document precise response times or other milestones of an incident. The only way data could be retrieved to authoritatively document this information would require examination of logged radio audio files, kept by the Ossining Police or 60 Control. For these incidents, the time the call was dispatched and the time the last unit goes into serve are recorded.

Figure 2: Detail of Police Sector Map Showing Border Between Four Sectors around Main St. and Route 9



The Town of Ossining Police took over their own dispatching responsibility a few years ago, meaning that fire calls within the Town are first answered by police in the Town, then transferred to the Village Police, who alert the OFD.

Wireless (cell phone) calls go to the New York State Police, who then transfer the calls to the appropriate agency, or if they are unable to or unaware of the appropriate agency, route the calls to Westchester County fire and rescue dispatch, known as “60 Control.” Sixty control then contacts the Ossining Police via a speed dial telephone line to relay the information. Because of Ossining's location along the Hudson River, it is not uncommon that wireless calls may be answered in Rockland County, who then transfer the calls to Westchester.

While this flow of call processing is not ideal, it is typical of Westchester County, and with the exception of wireless calls, delays are probably less than one minute over calls made direct to Ossining Police via landlines.

The OFD dispatchers positions are on-duty from 0800 to 1600 on weekdays. Their primary duty is communication with OFD apparatus and personnel during incidents, but they are also engaged in a number of routine administrative tasks

The dispatchers are drawn informally from the ranks of senior department members, and there are no formal requirements for the position beyond this. There is no formal position description.

The dispatchers also answer the department's main phone number during the day, and act as a receptionist for building visitors, receive mail and packages, and complete purchase documentation and vouchers. Their computer skills vary from none to very good.

Budget and Comparative Financial Data

In order to better understand the costs of maintaining the OFD, its budget is reviewed, and then expenditures for fire services in Ossining are compared with those of other Westchester County units of government, and with other Villages throughout the State. This analysis was restricted to funds raised through local taxes at the Departmental level. We did not examine expenditures of funds at the level of the individual fire company. We will discuss the issue of company funds and their usage within this section, however.

Ossining Fire Department Budget

The Ossining Fire Department's operating budget is roughly $760,000. Table 5 shows the detailed budget by major category from 1999-2008. The largest expenditure is repairs to fire apparatus. This category varies from year to year, but most reflects additional costs associated with maintaining several apparatus that are nearing replacement. The second highest category is “Miscellaneous Equipment.” This is firematic equipment that does not appear under any other category. Spending in this line varies based primarily on replacement or acquisition of major equipment that is not suitable for a capital bond. Personnel services reflect mainly the costs of dispatchers. The “Share of Town Contract” reflects the service agreement with the Town of Ossining.

The Village maintains a long-standing contract with the Town of Ossining for fire protection provided by the OFD. In 2009, this agreement, which is based on assessed valuation protected, amounted to $464,000 of the overall costs of the Fire Department being offset by these payments. The agreement is mutually beneficial, and offers considerable benefits to both the Town and Village.

The operating budget overall appears to be frugal, particularly with regard to maintenance of facilities. An annual cost of $60,000 to maintain seven facilities is less than minimal. We understand that traditionally, fire companies pay some of the costs of facility repairs and upgrades. Based on our previous experience, funding at this level is not sufficient to keep facilities from degrading.

The Capital budget, designed to cover major expenditures with a life of at least five years, is an important but often overlooked aspect of costs of fire protection. The two main contributors to capital costs for fire protection are for major firefighting apparatus (vehicles), and major facility renovations or replacement.

The Village's preliminary 2009 Capital Plan includes several items for the Fire Department (Table 6). Several major items were originally requested for FY2009, and some are being deferred. In FY2009, a replacement for E99 was proposed at a cost of $550,000 but it is being deferred to FY2010, when Ladder 42 (Washington H&L) is also scheduled for replacement. Other items proposed but deferred include a Chief's vehicle; Bailout Ropes[2]; generators at two stations; and improvements and

2 Bailout Ropes are emergency rope decent devices carried by firefighters to allow them to exit a burning building via a window if they become trapped. They were mandated in New York State following a fire in New York City in 2007 in which several firefighters were injured and killed after being forced to jump from windows to escape a fast moving fire.

replacement of the ramp and sidewalk at Holla Hose.

Debt service (Bonds and Bond Anticipation Notes) being carried for fire department expenditures is $441,000 annually, which includes the State Street fire station. Based on 2007 expenditures, the Fire Department represents 3.24% of the Village's overall operating budget of $23.8 million.

Our analysis of the operating and capital budgets did not reveal any significant areas for savings, or any significant areas where funds appeared to be excessive or misdirected. By overall measures, the costs of fire protection appear to be very reasonable, particularly when considering the size of the Department and the level of service provided.

A concern was raised during the study about the use of funds deriving from the State's tax on foreign fire insurance premiums. In particular, the Village government believes that as entity of the Village government, that they should have greater oversight over the disposition of these funds. These funds collected pursuant to New York State Insurance Law §§ 9104 and 9105, are a 2-percent tax on fire insurance premiums from insurance companies with headquarters located outside New York State. For the Ossining Fire Department, these revenues amount to just over $100,000 annually.[3]

The New York State Office of the Comptroller is authorized to conduct audits of these funds. The law with regard to use of these funds, especially by all-volunteer fire departments, is very permissive. While there is no prohibition on use of these funds for firefighting equipment, the funds are not allowed to be used for any purpose other than the benefit of the fire department and its members. That is, the members can spend the money as they see fit, as long as the use is not illegal or contrary to public policy.

Within the OFD, 2-percent funds are overseen by representatives of each fire company, collectively called “Commissioners.”[4] This group, chaired by the Chief of Department, meets regularly and divides funds among the companies and approves the purchases made with these funds. Although some firematic items are purchased with these funds, they are largely spent on social activities that are used to recognize members, mark special events, and serve as recruitment and retention opportunities. This practice is common, and represents the vast majority of uses of these funds across the State. Considering that nine active fire companies are supported by these funds, and a membership of over 200 members is supported, the total amount of the funds is quite reasonable.

This use of these funds is a source of frustration to many local governments, who feel that “2-percent” funds could be better used to pay for operating costs or help reduce the burden on local budgets. However, the law is very clear that municipalities have minimal oversight of these funds. In large measure, the 2-percent monies are essentially a matter between the fire companies and the Office of the State Comptroller.

The Village has asked that the Department report its use of these funds with an implication that greater transparency in use of these funds would increase the likelihood that the Department's budget may be

3 The amount of funds will vary slightly from year to year based upon changes in insurance coverages and carriers.

4 This title should not be confused with a Fire District Commissioner, who has considerable legal authority over the operation of a fire district.

increased. The Department's position in response to both the Village and the consultant is that under New York State law, and a precedent of over 40 years, the OFD has not reported its use of these funds to the Village, and is not obliged to now. Based on consultation with the Office of the Comptroller, the Department appears to be legally correct in its interpretation.

The Village government and OFD must approach this question with an attitude of mutual respect if greater sharing of information is to take place. That portion of funds coming from the Town contract could be subject to reporting to the Village, but only by negotiation with the parties to the contract. At present, if the Village can request that the Office of the Comptroller conduct an audit of these funds, but has limited capability to do anything itself. The Village should be careful not to create an impression that operating funds are being withheld to gain leverage over the 2-percent monies.

Tables 5 and 6: OFD Operating Budget 1999-2008; and Capital Budget

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
FIRE DEPARTMENT	Expended	Expended	Expended	Expended	Expended	Expended	Expended	Expended	Expended	Expended
PERS. SERVICES-RGLR	41,786.30	44,419.53	47,132.16	42,909.73	47,243.52	42,359.00	43,978.96	45,688.99	47,402.40	49,180.85
STIPENDS								-	6,000.01	-
EQUIPMENT								-	29,645.05	-
POLES,PIKES ETC.	198.00	603.50	-	888.30	-	3,601.13	1,751.92	414.00	1,277.75	-
AUTOMOBILES	29,591.05	-	35,179.05	28,898.00	34,134.44	-	43,807.65	-	44,542.30	-
PROTECTIVE EQUIP.	1,560.00	4,708.94	1,653.20	24,042.76	13,223.46	48,750.40	26,485.81	54,721.70	41,271.46	7,105.10
HOSE	2,727.84	4,126.00	579.90	5,126.40	4,587.30	-	15,468.44	11,314.84	742.00	-
MISC. EQUIPMENT	50,623.01	40,768.76	48,066.83	119,732.60	58,393.60	58,271.81	233,298.02	58,214.40	67,647.99	42,415.86
TELEPHONE CHARGES	22,416.32	22,124.40	23,220.74	21,282.26	14,113.91	7,135.59	9,463.17	7,947.87	7,321.22	5,742.10
ELECTRICITY	37,793.89	35,493.86	36,336.50	33,117.30	35,189.05	29,735.11	33,548.32	40,008.95	49,837.07	54,127.13
HEAT	22,028.35	43,452.24	47,047.47	24,774.97	40,748.88	45,653.57	56,178.84	52,519.56	54,657.61	60,150.12
PRINTING & POSTAGE	588.10	450.63	443.48	252.83	-	-	896.67	7,425.38	5,933.19	56.72
OFFICE & MISC. EXPENSES					-	-	5,524.98	-	-	769.04
CONVENTIONS & BUSINESS	4,934.21	4,534.98	3,019.12	3,271.14	3,004.10	5,087.69	4,344.88	6,031.15	5,484.83	380.00
VEH. OP. EXPENSE	13,314.33	19,038.37	16,426.56	15,453.97	19,454.27	18,646.10	7,988.53	6,770.48	6,349.72	407.38
FUEL					-	-	18,423.06	17,157.07	20,738.06	27,518.85
RADIO SUPPLY & REPAIRS	1,511.84	2,674.56	13,371.21	6,473.72	11,152.51	9,019.41	25,304.37	26,347.37	31,217.16	27,115.17
MATERIALS AND SUPPLIES	12,842.05	8,713.97	8,213.21	12,926.89	9,178.42	11,903.44	14,854.34	15,470.70	14,593.42	18,677.58
MAINT. OF FIRE ALARM	250.00	770.00	2,186.62	458.20	500.00	805.00	1,310.00	1,000.00	1,000.00	117.00
FOAM	249.75	487.25	-	-	-	-	2,190.00	1,991.28	-	2,637.08
STANDBY	2,319.75	1,652.04	2,822.21	1,476.66	1,783.90	2,009.07	2,571.95	1,317.51	2,251.42	749.83
SHARE OF TOWN CONTRACT	72,417.00	80,786.00	98,025.00	94,640.00	86,473.00	89,301.50	96,947.00	104,717.00	110,162.00	110,162.00
PHYSICIANS FEES	1,756.75	1,080.00	1,975.00	2,835.00	5,035.00	2,435.00	2,550.00	2,750.00	2,270.00	4,570.00
INSPECTION	8,500.00	10,000.00	10,000.00	10,000.00	12,000.00	12,000.00	12,000.00	12,000.00	12,000.00	13,500.00
RENTAL OF PROP/BLDG	19,470.00	18,940.33	18,446.74	24,760.30	21,255.98	18,732.95	22,936.10	21,642.52	23,168.70	22,677.64
BLDG.&GR MAINT.	26,772.55	27,307.28	24,985.25	22,003.66	37,851.99	36,283.24	32,449.73	45,435.95	58,796.74	65,591.62
CONSULTING SVCS.	-	13,292.02	-	-						-
TRAINING SCHOOL	627.26	103.00	140.00	485.00	175.00	740.00	1,922.58	4,051.48	1,280.56	2,050.24
CONTRACT. - CLERICAL	2,500.00	-	1,200.00	1,200.00	900.00	1,200.00	1,200.00	1,200.00	1,200.00	600.00
REPAIRS-FIRE APPARATUS	35,596.75	44,610.05	48,956.95	69,964.27	49,692.62	62,501.07	66,614.90	65,638.17	85,192.68	68,909.97
EQUIP. REPAIR	10,756.50	11,918.48	7,494.02	17,699.06	11,700.43	10,886.82	9,744.20	16,479.15	15,105.31	13,729.19
FIRE PREV. EXPENSE	4,138.20	5,584.97	-	1,830.00	3,880.53	5,011.28	7,148.39	5,983.00	5,957.53	1,704.85
OSHA PHYSICALS	17,512.10	9,840.00	31,718.00	20,650.00	31,531.00	28,118.00	33,611.00	30,944.46	16,409.80	15,901.00
TOTAL	444,781.90	457,481.16	528,639.22	607,153.02	553,202.91	550,187.18	834,513.81	665,182.98	769,455.98	616546.32

VILLAGE OF OSSINING 12/2/2008
FIVE YEAR CAPITAL BUDGET
For Fiscal Year 2009 and Years 2010 through 2013

PROJECT:	BUDGET APPROPRIATION CODE	PRIOR YEAR ADOPTED FY 2008	DEPARTMENT REQUESTED FY 2009	TENTATIVE PROPOSED FY 2009	BOARD ADOPTED FY 2009	HOW FUNDED	FY 2010	FY 2011	FY 2012	FY 2013
2.VEHICLES & EQUIPMENT										
VEHICLES:										
b. Fire Department										
Chief Vehicle	001.3410.0207		$47,500	$0		General Fund 3410.0207	$47,500	$50,000		
Note: 2009 Dept Head Requested in General Fund; 2009 Proposed to Capital Fund. Requires Board resolution to purchase.	505.3410.20##			$47,500	$0	Debt				
Fire Engine - Monitor Hose E-99	505.3410.20##		$550,000	$550,000	$0	Debt	$550,000			
Washington Hook & Ladder Truck L-42						Debt	$900,000			
Fire Engine - Cateract Hose E-97						Debt		$575,000		
Fire Engine - Independent Hose E-101						Debt				$600,000
Fire Engine E98 in 2016 $600,000										
Fire Engine E96 in 2019 $650,000										
Fire Engine E100 in 2020 $675,000										
Ladder Truck L41 in 2023 $999,000										
Utility Truck U51 in ???										
b. Fire Department										
Fire Boat - Marine 14	505.3410.20##		$500,000	TBD	$0	Debt				
Bailout System	505.3410.20##		$60,000	TBD	TBD	Debt				
Generator - Northside & Holla Hose 1-08,1-09	505.3410.20##		$37,500	TBD	TBD	Debt	$37,500			
Portable Radios	001.3410.0200	$20,000	$20,000	$20,000	$20,000	General Fund 3410.0200	$20,000	$20,000	$20,000	$20,000
Note: Prior years accounted for in Capital Fund (505.3410.2091)										
Vehicle Exhaust Removal System	505.3410.20##		$15,000	TBD	$15,000	Debt, Homeland Security (?)	$15,000	$15,000		
Holla Hose Ramp and Sidewalk	505.3410.20##		$55,000	TBD	TBD	Debt				
Outside Study of OFD	505.3410.2100	$52,075				Residual Equity of Closed Capital Projects				
Washing Machines/Installation (for Turn Out Gear)	505.3410.20##		$20,000	TBD	TBD	Debt				
(24) AED's and Training	505.3410.20##		$55,000	TBD	$55,000	Debt or State Aid Grant				
For above items, requires Board resolution to purchase.										
g. Emergency Services										
Rescue and enforcement boat, from Naval Malitia. Start-up costs and operating costs, OFD radio	001.3389.0260 001.3389.04xx				$43,000	General Fund 3389.xxxx Proceeds of sale of OFD boat				
3. PUBLIC IMPROVEMENTS										
b. Fire Department										
New firehouse facility (pending fire dep't study)			TBD	TBD	TBD	Debt				

Comparative Budget Analysis

Understanding the expenditures in Ossining is important, but examination of other jurisdictions costs for fire protection allows us to better understand how costly services are relative to other municipalities or government entities.[5]

We first examine the OFD in comparison to other Westchester municipalities and special districts, then we compare the OFD to Villages statewide.

Data for Westchester County, and New York State were drawn from the New York State Comptroller's database. In examining these records, no attempt was made to control for differences in the character of communities. In order to provide better basis for comparison, we developed custom population estimates for Westchester fire districts, whose boundaries do not always correspond to major political subdivisions. This enabled us to prepare estimated *per capita* costs for fire protection. The chapter presents highlights of this analysis, but a complete listing of comparison jurisdictions is included in Appendix 2..

In interpreting the financial data, it is important to note that fire districts commonly show higher expenditures, because they must include a host of services and supports that are normally provided by the local government and may not be reflected in the budget.

No effort was made to verify data reported to the Comptroller, but given that this information was to be collected using the same methodology, we believe it to be useful and valid for comparison.

Our first analysis compares fire protection costs among Villages in Westchester County. These numbers are directly comparable, because they use common definitions. They typically only include operating budget items, and omit capital budget items and debt service.

Figure 3 presents the fire protection costs for Villages in Westchester County. The Village of Ossining appears in the middle of the group. The lowest costs appear to be in the Village of Buchanan, which reported spending $233,000 for fire protection, the highest cost for a Village of Scarsdale, which operates a substantially career (paid) department. Scarsdale reported spending $4.5 million on fire protection. Several Villages (Bronxville, Harrison, and Tuckahoe) were omitted from this analysis because they are provided fire protection under a fire district, or reported no costs for fire protection.

Of course, looking at absolute costs for fire protection is not helpful, as communities vary in size. We divided fire protection costs by the number of Village residents to obtain per capita costs. These are shown in Figure 4. This figure shows clearly that Ossining has among the lowest fire protection costs in Westchester County ($42.73), second only to the Village of Dobbs Ferry ($28.70).[6] If the population protected in the Town of Ossining is included, the per capita cost is $34.76.

5 A total budget of $1.9 million was used in these comparisons, which reflects operating costs, plus workers compensation and debt service. Offsets from the Town contract are not included.

6 An brief review of Dobbs Ferry's budget indicates that the fire service budget is less than $200,000 when hydrant fees are deducted. Their reported budget figures do not include workers compensation and some other costs that are included in the Ossining figures reported to the State Comptroller's Office.

Figure 3: Fire Protection Costs: Westchester Villages (2007)

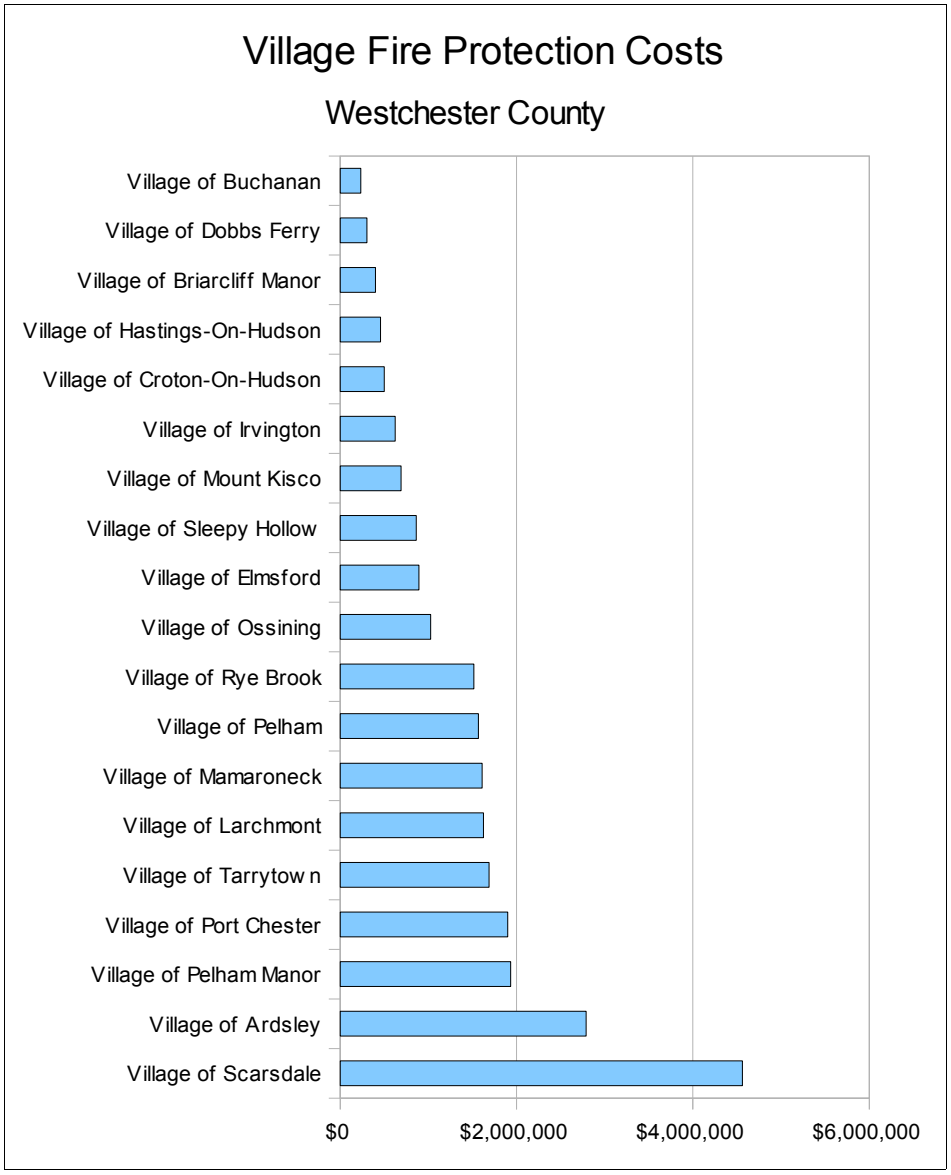
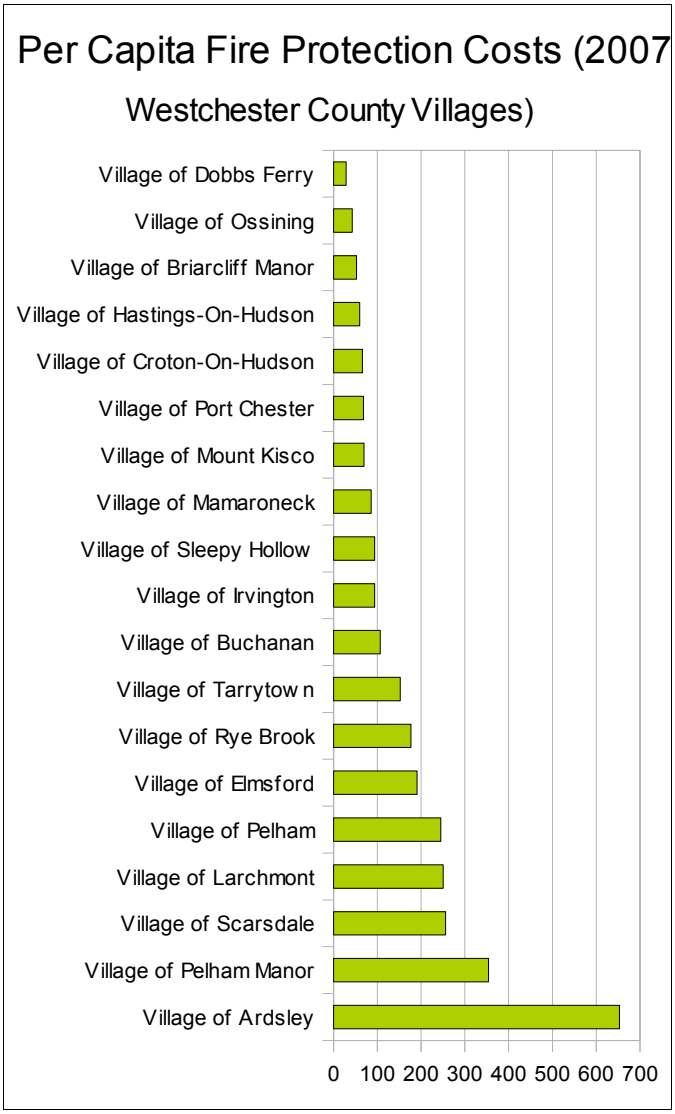


Figure 4 Per Capita Fire Protection Costs – Westchester Villages



We next examined costs of fire protection in Villages in New York State. Using data from the New York State Comptroller, we ranked Villages by fire protection costs per capita.[7] We first omitted records where villages were shown with no fire protection costs, as these probably represented areas served by

7 New York State Office of the State Comptroller *Local Government and School Accountability, Financial data*- Leveltwo07.xls.
http://www.osc.state.ny.us/localgov/datanstat/findata/index_choice.htm

fire districts, and some data is simply reported erroneously[8]. To control for the large numbers of very small villages, we used per capita figures. Of the roughly 430 villages in the report that had non-zero fire protection expenditures, Ossining ranked 179 out of 439, or in the 40th percentile in the State. With Town residents included, the per capita costs were $35.36, or 148 out of 439, or in the bottom third of costs statewide.

This comparison does not make any reference to service levels, but Ossining would compare favorably to other villages in New York State in terms of the level of service provided.

OFD Performance Data

Incidents

The following section of the report summarizes incident data for the Ossining Fire Department. It should be noted that the numbers of incidents varies slightly depending on the source of information is used. The Department's own records are kept manually, and although the Ossining Police Department maintains a record of each dispatch, they do not necessarily code each incident in a "fire" category, making retrieval of counts using a simple search difficult. The OFD's numbers should be viewed as definitive, although they may not include calls for which only a Chief Officer is alerted, and could be subject to human error in counting.

One major problem in the department's records is the incomplete entry of incidents into the computerized records system. While the Department participates in the New York Fire Incident Reporting System (based on the national fire incident reporting system), basic call information is completed for each incident, but these reports typically do not contain information on the response times, or numbers of members responding. These records exist in hard copy for many incidents, but they are not entered into the system.

More seriously, a lag in the entry of incident reports occurs, and there is a practice of "stopping" entering incidents at the end of the calendar year. A part-time administrative person enters these data for the Department. Presumably, the thought is to attempt to stay up to date on the following year, but the result is that for several years running, incident reports end in late November of early December. As a consequence, this means that the count of incidents within the computerized system is incomplete (see Tables 7).

Because of this limitation, we distinguish between data *as entered* and *estimated* numbers of incidents that we calculated by extrapolating total incidents based on part-year data as entered. To gain a better understanding of the number of incidents and the information on response times and numbers of members attending, we performed a manual count, using a sample of four months from 2008. The official count of total incidents was 530, meaning that 72 incidents were not in the computerized system for 2008.

8 There were approximately 115 Villages with no fire protection costs.

Table 7 presents incidents by type per year based on part-year records from the computerized system. The relative proportion of incidents is useful to gain an understanding of the workload of the OFD. The most common type of incident is accidental alarms, where a fire alarm system is activated without malicious intent and without a documented performance failure of the system. The next most common alarm is for a hazardous condition, which includes situations such as electrical wires down, natural gas leaks, or other chemical releases. The remaining incident types are all less than 5 percent. Most interestingly, because the OFD does not do first response EMS, their number of EMS responses is very low, and is comprised mostly of rescue-related incidents such as serious motor vehicle accidents. Similarly, fires are overrepresented as a share of overall incidents but this is a function of the small number of EMS calls.

Table 7: Incidents by Type, OFD Records (Partial Year)

Total Incidents	*2005*	*2006*	*2007*	*2008*	*Total*	*Pct of Total*
Accidental Alarms	222	126	161	193	702	0.38%
Cover Assignment	5	11	14	10	40	0.02%
Emergency Medical Service	6	8	4	5	23	0.01%
False Alarms and False Calls	11	36	15	35	97	0.05%
Fires	78	96	90	74	338	0.18%
Hazardous Condition	109	67	137	107	420	0.23%
Miscellaneous Alarm	43	40	14	6	103	0.06%
Motor Vehicle Accident	15	7	9	7	38	0.02%
Rescues	22	8	21	21	72	0.04%
Total	511	399	465	458	1833	1%

In the next table (Table 8), we present the estimated composition of incidents by type. Based on the known total number of incidents, we assigned missing incidents based on our sample count to estimate the actual number of incidents by type.

Table 8: Estimated Incidents by Type, OFD, 2008

Total Incidents	2008 computer	2008 estimated
Accidental Alarms	193	220
Cover Assignment	10	12
EMS	5	6
False Alarms and False Calls	35	38
Fires	74	88
Hazardous Condition	107	124
Miscellaneous Alarm	6	10
MVA	7	8
Rescues	21	24
Total	458	530

Incident reports within the Department are initially recorded on pen and paper, and are forwarded by each company to the Chief's office. These reports are then collated by a fire department dispatcher, and key information on the incident are summarized on a report for the incident. While the information on this form is desirable, the practice is that not all areas of this summary form are completed.

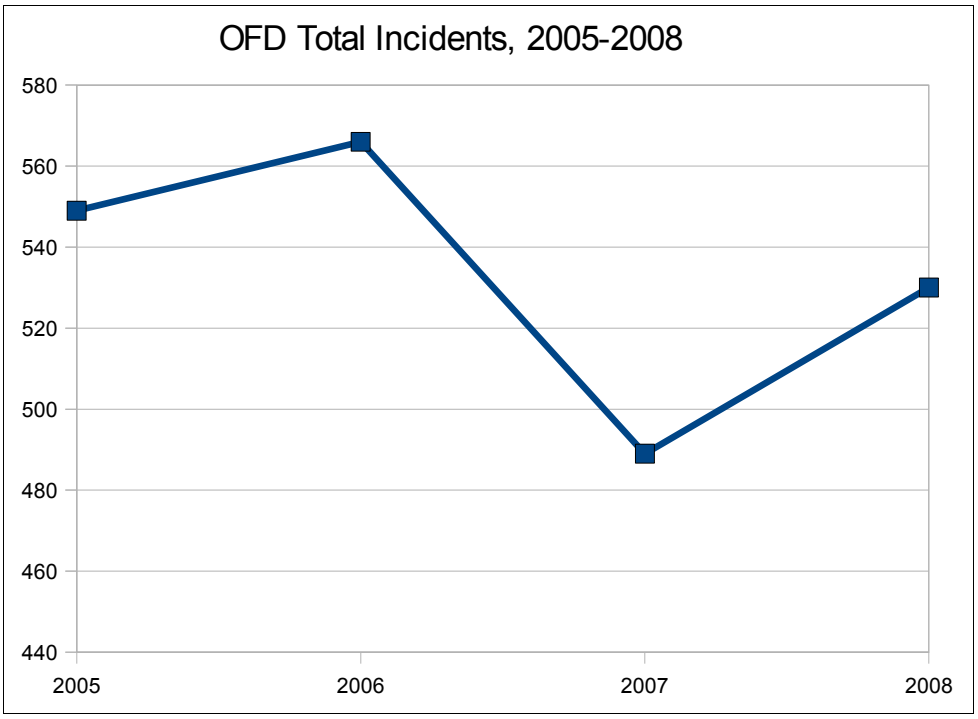
Another data system used by the Department is a computerized records management system designed to operate on an enterprise basis. This software, known as *Firehouse Software*®[9] is a popular and well-designed software package. It has the capacity to record information on incidents, equipment, training records, inventory, and other features. The capabilities of this software are not being fully utilized. Training records are not computerized, nor are individual member attendance records or response times, meaning that any reports on these subjects require a laborious manual search of records.

Table 9 lists incidents by type as a percentage of the department's overall workload. While the numbers are not complete, the percentages of each type of incident should be fairly consistent with actual experience.

It is important to distinguish between incidents – which are calls for service from the public received via telephone or automatic alarm; and responses – which represent a fire company response to a reported emergency. A single incident can generate multiple responses.

9 Firehouse Software is a trademark of Affiliated Computer Services Software.

Figure 4: OFD Total Incidents (actual) 2005-2008



The time of day for incidents is also of interest when considering the demand on the emergency response system. In systems with limited staffing or demand for service, uniform staffing is a reasonable practice, because serious fires are rare events which can be argued to occur at random. However, certain types of emergencies do not occur at a uniform rate, and are subject to systematic variation. Typical among these are emergency services. Private sector EMS providers often staff based on the historic demand for service. Because the OFD relies on volunteer membership, the most challenging time for calls in during the day, when most members are at work.

Table 9 shows the temporal distribution of incidents on three time periods in a day. Table 10 presents the same information based on records of the Ossining Police Department.

Table 9: Ossining Fire District – Emergency Incidents by Shift							
Incident Type	Day	Evening	Night	Total	% Day	% Evening	% Night
Accidental Alarms	380	271	120	771	49%	35%	16%
Cover Assignment	16	18	11	45	36%	40%	24%
EMS	14	12	6	32	44%	38%	19%
False Alarms and False Calls	55	42	12	109	50%	39%	11%
Fires	169	175	49	393	43%	45%	12%
Hazardous Condition	209	212	47	468	45%	45%	10%
Miscellaneous Alarm	74	56	15	145	51%	39%	10%
MVA	19	11	8	38	50%	29%	21%
Rescues	35	36	13	84	42%	43%	15%
Total	971	833	281	2085	47%	40%	13%

Most incident types are typically overrepresented during daytime hours. Highest among these are accidental alarms and hazardous condition alarms. Hazardous Conditions include gas leaks, wires down, and related emergencies. Table 10 shows these two categories of incidents by time of day over the last four years. Three out of the four years had higher incidents during the evening hours rather than the daytime hours.

Data from the Ossining Police Department was also examined, but due to coding of incidents in their computer records management system, it is not possible to readily identify all fire calls without additional research. We understand that this is primarily attributable to both fire and burglar alarms being listed under a common code.

Recommendation – Establish a separate code for fire alarms, so that the Police can maintain an easily retrieved count of alarms for the fire department.

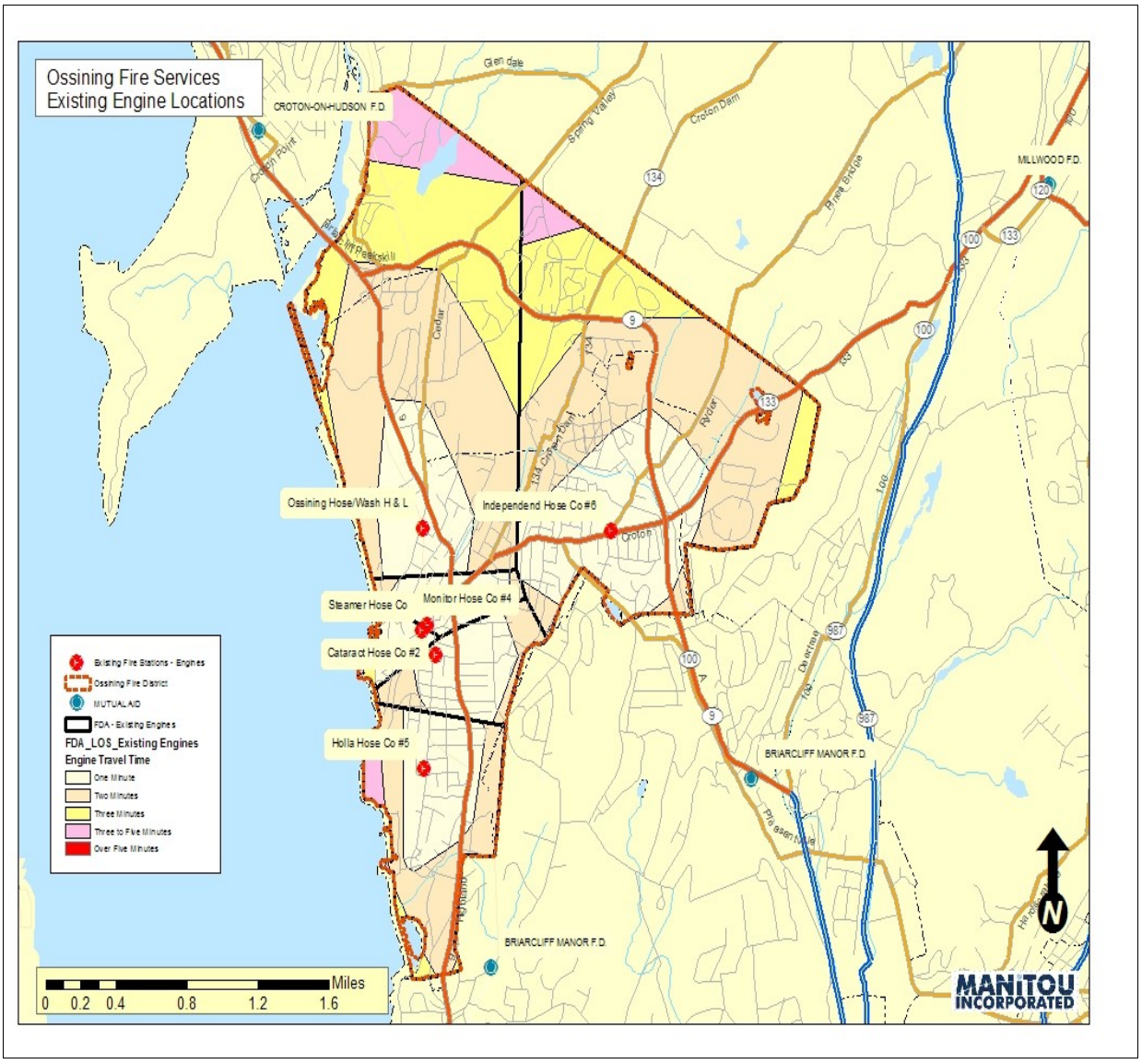
Table 10: OFD Calls by Time of Day 1994-March 2009

Time	Day 0800-1600	Evening 1601-2400	Night 0000-0759	Total
Number of incidents	1,409	1,602	441	3,452
Percent	40.8	46.4	12.7	

Response Times

Figure 5 shows the response time contours for the current complement of engine companies. The headquarters station, located at 21 State St., does not have an engine company. We examine engine company coverage because engine companies are the basic units of the fire service, and respond to any fire situation. The one-minute driving time is shown in the lightest color surrounding the stations. As we can see, the Village is essentially blanketed with coverage.

Figure 5 : OFD Engine Company Coverage, Current Stations



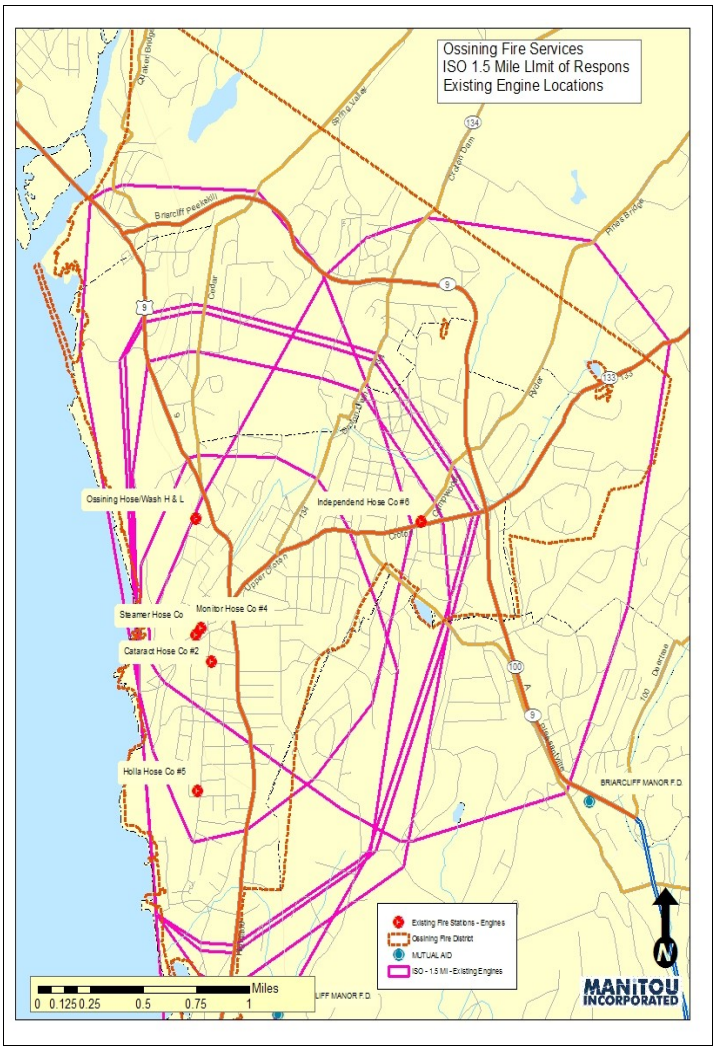
Areas of the Town, particularly in the north and east, have the longest response times currently.

However, our analysis indicates that the most remote sections of the service area can be reached in 5 minutes, which is acceptable by national practice, but comparatively long by local service levels.

At first glance, the fact that there are no fire stations located in the Town, which has a long-standing service agreement with the Village, seems problematic. However, the Independent Engine Company's quarters are located in proximity to the Town, and can reach many areas of the Town within acceptable limits.

We next examine the engine company coverage using Insurance Services Office (ISO) recommendations. The ISO recommends a maximum response distance of 1.5 miles for an engine company. As we can see in Figure 6, the OFD exceeds these minimums, and could probably meet ISO requirements with 2-3 stations.

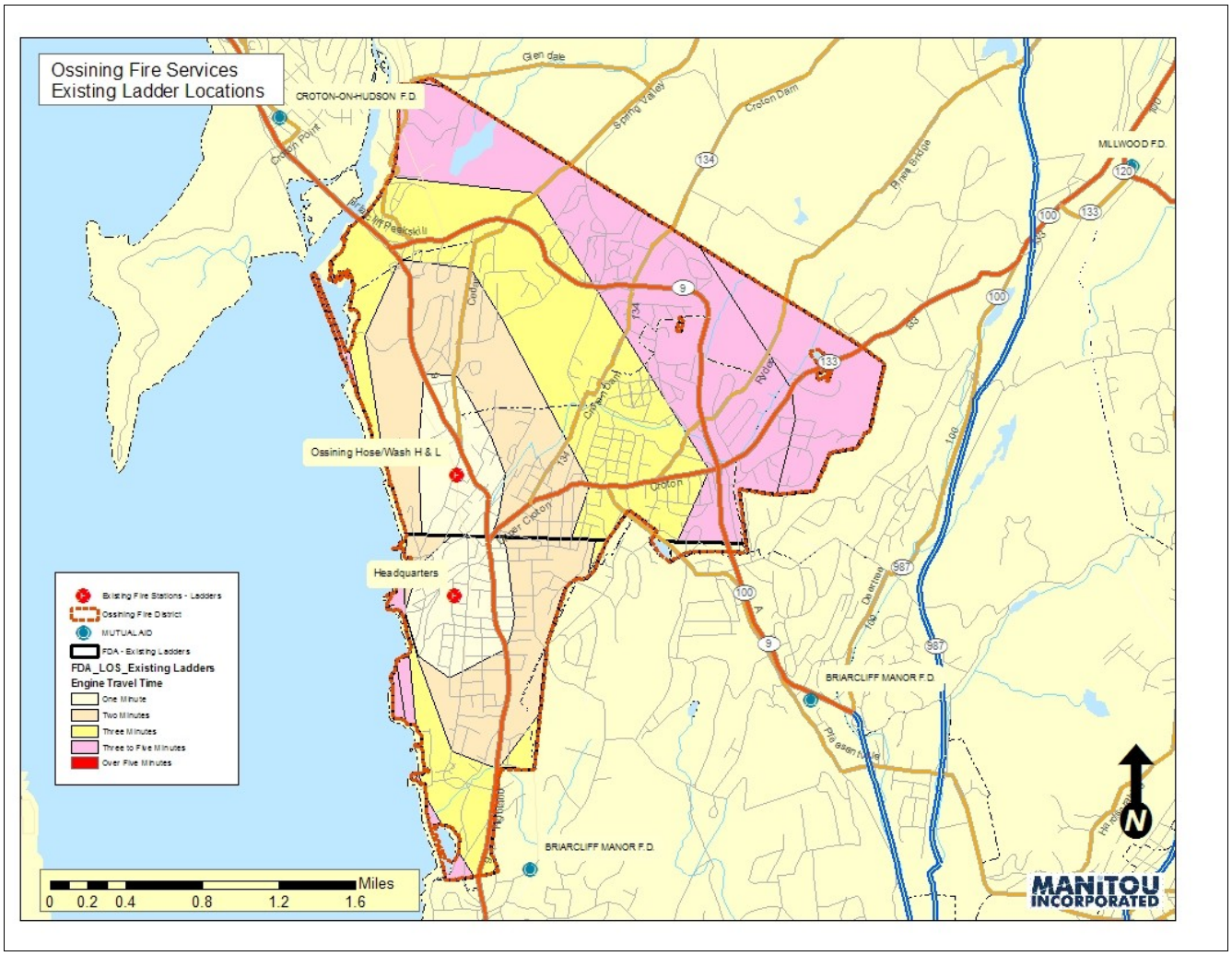
Figure 6: ISO Response Distances, Engine Company Coverage



The Department's two ladder companies are located in the Village, approximately one mile apart at headquarters and the “northside” (Snowden Avenue) stations. While these two locations are relatively close, because of the Department's operating philosophy, their proximity to the built-up areas of the Village are not inappropriate. Their locations will be discussed further later in the report.

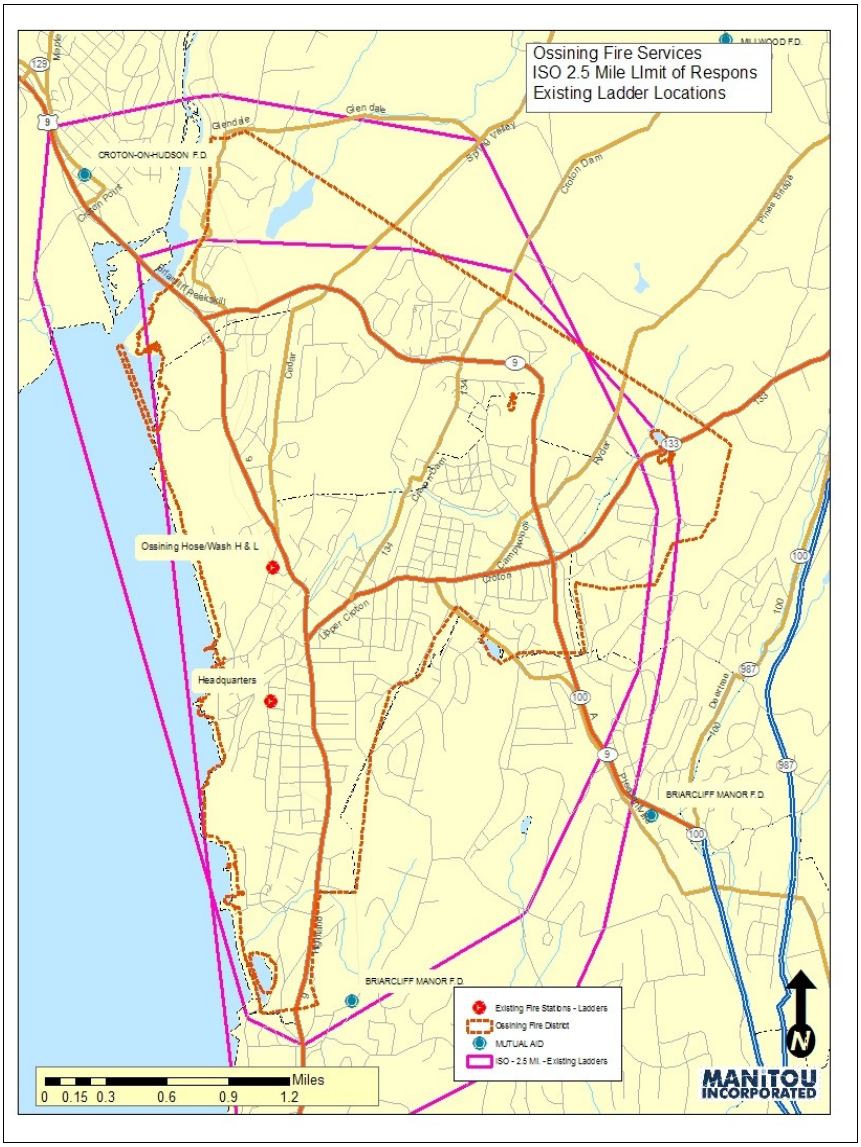
Figure 7 shows the existing ladder company driving time from the current station locations. As can be seen, the center of the Village is very well covered, but driving times approach or exceed five minutes for a ladder company in many parts of the Town.

Figure 7: Existing Ladder Coverage



ISO recommendations for ladder company credit require a ladder company to be within 2.5 miles of built up areas. Figure 8 shows that the entire service area of the Village and Town can be served from the existing facilities, or from one facility if necessary.

Figure 8 ISO Driving Distances, Existing Ladder Company Locations



Existing Station Conditions

There are two reasons driving the need to examine the location of fire stations in Ossining. The first is their age and ability to continue to function; the second is the need for fire services in the Village and Town moving into the future. A lesser but important concern is the cost-effectiveness of maintaining seven separate stations for a relatively small geographic area.

Based on the architectural and structural and mechanical engineering analysis of the existing stations, it was determined that a majority of facilities, namely, Monitor Hose and Steamer are not suitable for

continued service as fire stations. Aside from a shortage of space for programmatic needs, the stations are so small that newer fire apparatus can not fit inside. These two stations are so small, that apparatus doors can not be completely opened without hitting the walls, requiring members to "squeeze" into the drivers seat. Regrettably, even the new headquarters station was not designed with adequate space to open compartment doors to maintain or inspect equipment without moving apparatus outside the station.

Independent Hose and Cataract both has considerable deficiencies from a design standpoint, and will require special attention in the future to apparatus specification to assure that equipment will fit into these facilities. Consideration should be given to renovation or reconstruction of these facilities as well.

Attendance

For the reasons discussed in the previous section, definitive data on response times and numbers of members attending alarms is not available short of a manual count. To get a better understanding of these important measures of service, we manually recorded data from four months of paper records to gather information on response time and numbers of members responding. We used four months from 2008, which amounts to one-quarter of all data for the year. This should give a fairly close estimate.

Average response time to all incidents was 3.48 minutes from time of alarm until the first piece of firefighting apparatus arrived on scene. This time explicitly omits response times for chief officers, which in most cases, tends to be even faster. We are thus presenting a conservative case for response times. By any standard, this is an acceptable standard. For an all-volunteer fire department, it is exemplary. There are departments staffed with career personnel who have times that are longer than these.

Figure 9: Members standing by at an automatic alarm call

The numbers of personnel responding to alarms was also examined for the same sample of incidents. There was an average of 16.personnel responding to each alarm. The numbers ranged from a low of 1 person for investigation calls (only a chief officer) to 81 members for a structure fire. Our interviews and limited observation support the numbers of personnel responding and the timeliness of response. One daytime alarm we observed has a response time of approximately two minutes, with a turnout of 8 members.

Table 11 presents the numbers of members responding and response average response time for a sample of incidents. As would be expected, the numbers of members responding is greatest for reported fires. However, the OFD has standard response policies depending on the nature and location of the alarm, and a very consistent number of fire companies respond to each type of alarm. This consistency indicates that companies do not have problems getting members out for alarms.

Figure 10: Number of Personnel Responding 2007-2008

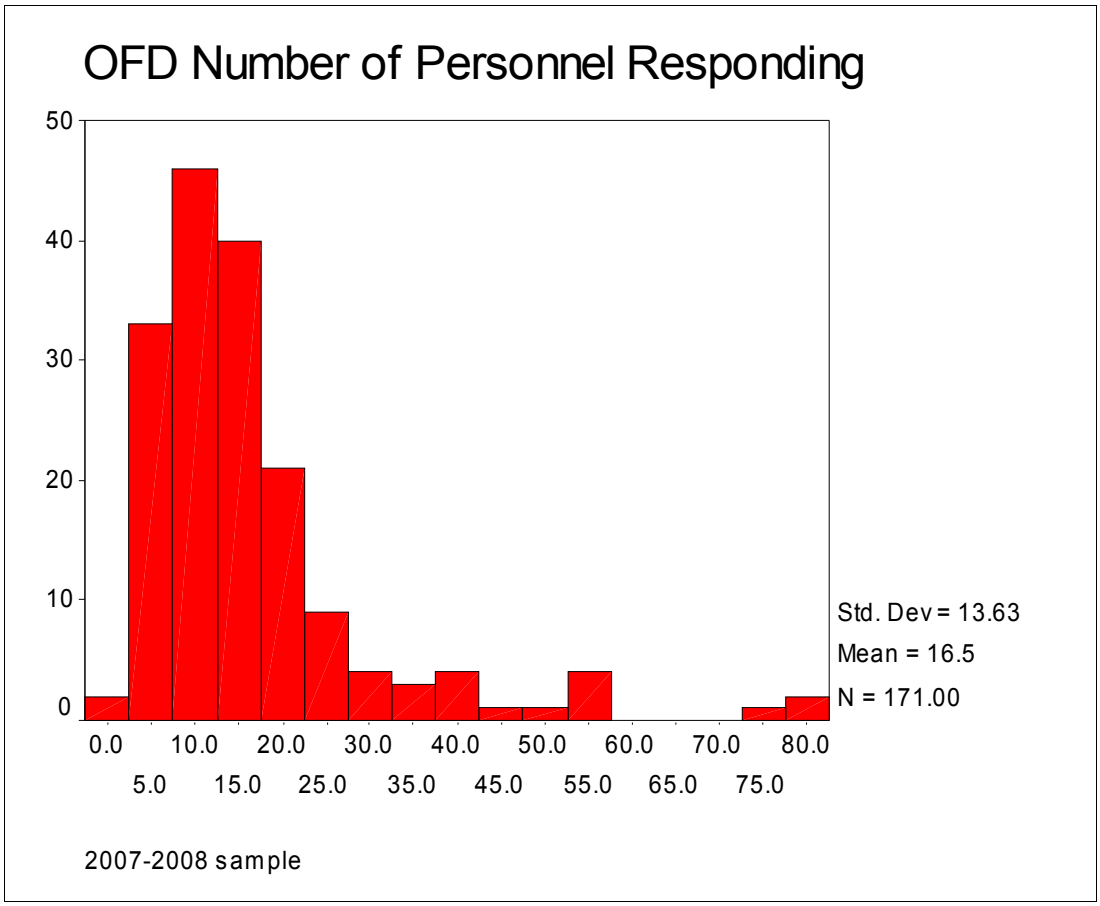


Figure 10 shows the number of members responding on alarms based on the sample of incidents from 2007 and 2008. The average number of members responding was 13.63, which reflects personnel who arrived on scene and had their presence noted with their company officer. The number of personnel responding on alarms went as high as 81.

The numbers of personnel for specific types of incidents varied. All reported fire calls received an average response of 34 personnel, which is excellent. Table 11 shows the average number of personnel responding by type of incident.

Table 11: Personnel Responding by Type of Incident

TYPE	Mean	Number	Std. Deviation
Automatic Alarm	13.89	70	6.24
Car Fire	10.38	8	4.03
Fire	28.19	37	19.07
Haz. Cond.	13.11	37	10.11
Mutual Aid	9.30	10	5.68
Motor Vehicle Accident	6.33	3	3.21
Rescue	7.00	3	7.81
Total	16.51	171	13.63

Another way to view this data is on a scatter plot. In this display, the number of members is on the X-axis, and the number of engines responding is on the Y-axis. We can see that staffing corresponds with the number of engine companies responding (see Figure 11).

Response times averaged 3.5 minutes from the time the call was dispatched until the first unit was on scene. For this analysis, the first unit had to be an engine, ladder, or rescue. Tat is, the Chief's vehicle did not serve to “stop the clock.” In many incidents, the Chief often arrived before a piece of fire apparatus. The 3.5 minute average response time is outstanding. The Department arrives at the scene of roughly 80 percent of all incidents within 4 minutes. These times rival or exceed those of a fully-paid department.

Figure 12 presents response times by minute.

Figure 11 Number of Engines Responding v. Number of Personnel Responding

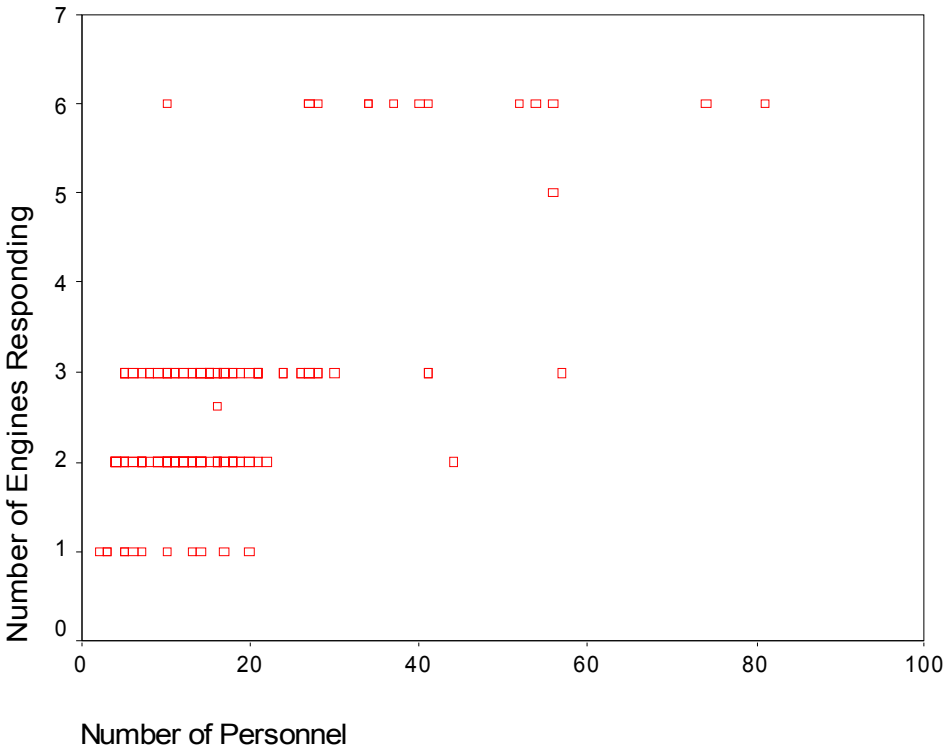
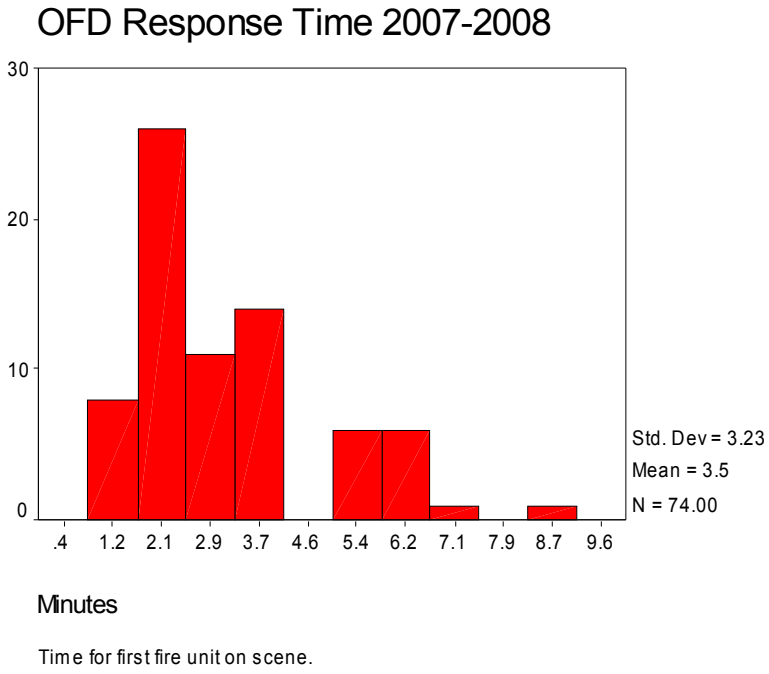


Figure 12:Average Response Time by Type of Incident



Observations

The Ossining Fire Department is consistently turning out an adequate number of members and apparatus. Response times are exemplary, and speak to a very healthy organization. In the analysis of a sample of data, there were no instances in which the Department failed to respond the minimum number of apparatus designated in its policies for the type of alarm being reported. The ability of the Department to meet its response obligations regardless of time of day or day of week is impressive.

These findings should be qualified by the limitations on the data, which did not permit a detailed analysis of the skills and qualifications of members answering alarms. However, the overall response numbers are excellent with regard to both numbers and timeliness of response. Our observations indicate that the Department is meeting the needs of the community, and far exceeds the level of service provided by other volunteer organizations in similar-sized communities.

Member Survey and Focus Groups

Member Survey

To obtain a better an understanding of members' opinions and perceptions of the department and its strengths and weaknesses, two efforts were undertaken as part of this study. First, two focus groups were held in March, 2009 consisting of 2-3 members of each Company. These focus groups we designed to gather in depth information on perceptions of members and complex concepts. They were also used to verify issues to be included in survey of membership. A survey was also delivered in February 2009. The surveys were distributed in Company meetings, and returned via the Chief's office. Members also had the option of returning the surveys by mail direct to the consultant. Use of a survey was useful as a matter of efficiency, particularly in a large and complex organization such as the Ossining Fire Department, with many members in different companies.

One hundred and twenty-six members responded to the survey, which was thought to represent a majority of active members. The results of the survey are presented below. Additional data from the survey is summarized in Appendix 3. The members responding to the survey were predominantly drawn from those attending company meetings, which lends itself to sampling the more active elements of the Department. This is important, in that this survey gives us view into the most active members, which my differ from the membership at large. However, since these are the members are delivering the service, this is a desirable group to have overrepresented.

Residency

One of the key concerns of the study was the viability of a potential fire station in the Town of Ossining. Of the members responding, 93,or approximately 73.8 percent, reported living in the Village. Another 19 members reported living in the Town of Ossining. The remaining members (10) lived outside the Village or Town but within Westchester County, and 4 members, or 3 percent, reported living outside Westchester. This is consistent with the Department's policy to permit members who work, but do not live in the service area, and the retention of members who may continue their membership after moving out of the immediate area.

Age, Race, Gender, and Ethnic Origin

Respondents to the survey were predominantly male, with only 4 responses from female members.

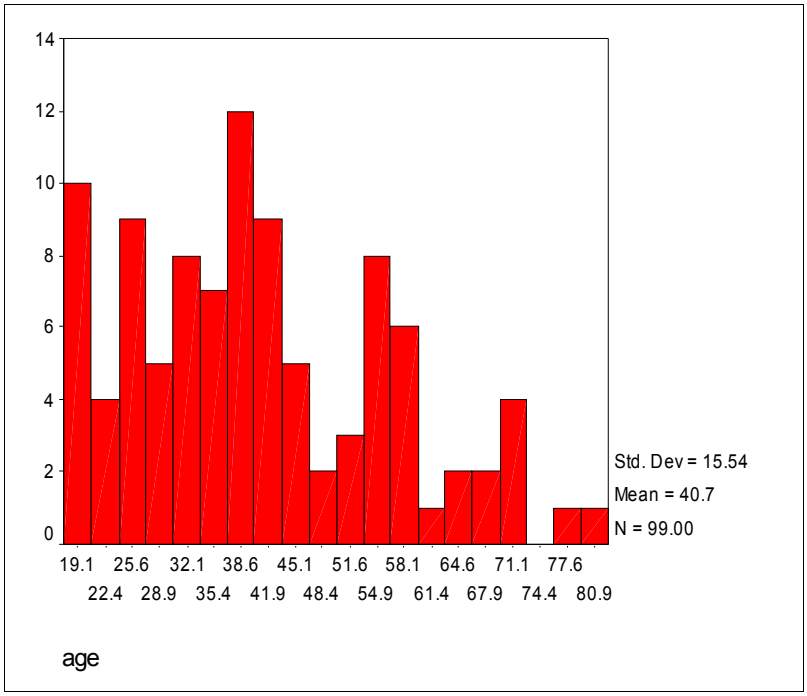
Eighty-two percent of members identified as White or European ancestry; followed by 6 percent African American, 5 percent Latino or Hispanic; 5 percent Native American; 2 percent Caribbean Islander, and 3 percent indicated “other”. Internal department data fro 2007 indicated that there were 21 African-American or Caribbean Islanders; 29 Hispanic; 2 Asian, and 1 Arab-Americans active in the Department. Of 14 female members, one was Asian, and the other was Hispanic.

Table 11: Ethnicity of Survey Respondents

Ethnicity	Number	Percent
African American, Black	6	5%
American Indian, Native American, or Alaskan Native	5	4%
Asian	0	0%
Caribbean Islander	2	1.70%
European American, White	100	82.60%
Latino or Hispanic	5	4%
Other (please specify)	3	2.50%
Left Blank	5	

The ages of members ranged from 18 to 81, representing the extremes of participation in the department (Figure 13). The average age of members responding to the survey was 40.7 years of age.

Figure 13: Age of Respondents to Survey



The members responding to the survey had volunteer firefighting experience ranging from less than one year to “26 years or more.” Because the survey maximized experience at “26 years or more, there were over 37 percent of respondents in this category. Fifteen percent of the respondents had less than 4 years of experience, indicating a healthy intake of new members. Each experience category had at least 5 percent of members, with the second highest single range being the 4 to 6 years category.

Figure 14 : Years of Experience

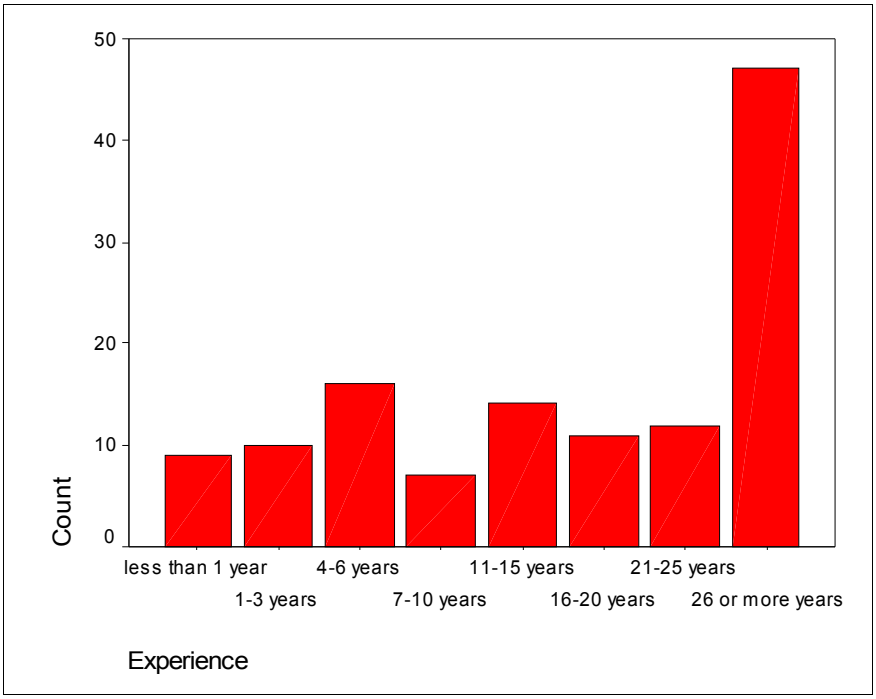


Table 12: Years of Experience – Survey Participants

Years of Experience	Frequency	Percent
Less than1 year	9	7.1
1-3 years	10	7.9
4-6 years	16	12.7
7-10 years	7	5.6
11-15 years	14	11.1
16-20 years	11	8.7
21-25 years	13	10.3
26 or more	46	36.5

The composition of company membership among those participating in the survey ranged from a high of 16.7 percent for Cataract Hose and Washington Hook and Ladder to a low of 1.6 percent for Rescue 14, which had only two members respond to the survey. All other companies had at least ten members

responding to the survey. The primary company affiliations are presented in Table 13.

Table 13: Company Affiliation of Survey Members

Company	Number of Participants	Percent
Cataract	17	13.5
Independent	21	16.7
Holla	12	9.5
Monitor	14	11.1
Ossining	13	10.3
Steamer	16	12.7
Senate H&L	10	7.9
Washington H&L	21	16.7
Rescue 14	2	1.6

One phenomenon that was indicated in our interviews was that members might switch companies. Interestingly, 12 percent of members responding to the survey indicated that they had been a primary member (not social) of another company at some point in the career in Ossining. This was attributed to members joining one company, and later, by reasons of temperament, social network, or other factors, switching to another company. It is also reported that members of one company may simultaneously hold social memberships in other companies.

Just over 75 percent of members responding to the survey indicated that they were employed. Of these, a lesser number of people answered the question about their employment. Forty-eight percent of respondents worked for government, with the rest reporting working for private or non-profit employer. Over 15 percent of members reported working for either the Village or Town of Ossining, which is an important finding. The policy of releasing Village and Town employees to answer emergency calls is an important component of the Department's continued success, particularly for daytime calls for service. Table 14 shows the relationship between employer and ability to respond to daytime calls.

Table 14: Employer by Response from Work

Employer	Do Not Respond from Work	Respond from Work
Ossining Village	5	12
Ossining Town	1	1
Other Govt.	19	4
Private/Non-Profit	22	21

Another interesting finding is the number of members who are able to respond from work versus their company membership. This analysis does not include members who did not respond to the survey, nor does it reflect members who are retired or not working (Table 15).

Table 15: Company Membership and Response from Work

Company	Do Not Respond from Work	Respond from Work
Cataract	13	2
Independent	10	8
Holla Hose	7	4
Monitor	10	4
Ossining Hose	4	6
Steamer	7	8
Senate H&L	6	2
Rescue 14	2	
Washington H&L	13	6

Motivation for joining

To better understand why people join the Ossining Fire Department, we asked a series of questions. We had originally intended to measure intensity and frequency of choices, but several of the responses we received did not appear to understand the instructions, so we were only able to measure frequency (more or less common) response.

The most frequent reason given for joining was “wanted to help people in times of a genuine emergency” (82.5 percent); followed by a “desire to be part of a firefighter community. The obvious pride in membership and strong identity maintained by the department and its companies must play a role in this finding. The third and fourth most common reason for joining was attributed to family being involved in firefighting, followed by friends being involved. Together, these two responses account for over 88 percent. This reinforces the notion that having family or friends active in the department remains the principal reason for joining, coupled with a desire to help people.

To gain insights as to how these motivations may change over time, over 72 percent of respondents indicated that their motivations had not changed over time. One quarter stated that their motivations had changed slightly, and just under five percent indicated that their motivations had changed considerably over time.

To understand what keeps members volunteering, we asked a slightly different set of questions based on research by Thompson and Bono.[10] The most common response was "I enjoy being part of my community" (69.8 percent) followed by "I feel connected to my firefighting company specifically (59.5 percent) and "I feel like I am a strong contributing member of my firefighting team" (53.2 percent).

To reinforce the importance of company experiences to retention of members, we asked directly "how important is company membership to you?" ninety-four percent of respondents indicted that it is "very important." Only 1.6 percent of respondents marked "not very important" for company membership.

Interestingly, this was a higher percentage than indicated that department membership was "highly important" (83.7 percent). This supports the notion that company membership is most important in Ossining.

Risk Factors

The next section of the survey was designed to collect information on factors that threatened the participation of members. The number one constraint was "work" (54.8 percent), followed by "limited time due to family/home related responsibilities (50.8 percent). The next most common concern was "working too many hours," (28.6 percent), which made work concerns by far the biggest threat to volunteerism.

Two questions were designed to assess members' opinions about the future of the department. Twenty percent indicated that concerns about the future of the department were a risk factor from outside the department, while 30 percent indicated that concerns about the future of the department was the number one factor inside the department that came between them and volunteering. The next most common internal risk factors were company responsibilities/commitment, tied with training requirements (19.8 percent each); followed by attendance requirements for non-emergency events (18.3 percent). Sharing quarters with another company was identified by 11.9 percent of members, while "too many emergency calls" was a concern for only 10.3 percent of members responding to the survey. This lends credence to statements by members that division of responses among the companies maintains workload at a level acceptable to the members.

The final question (B7) addressing threats was directed at concern for the department, not to the individual members participation. While the most common response was "no concerns" (31 percent), "inadequate financial resources" was cited by 26.2 percent of members, and "communication should be more open or two-way" was cited by 23 percent.

10 Thompson, Alexander and Barbara Bono. *Work Without Wages: The Motivation for Volunteer Firefighters.* American Journal of Economics and Sociology, vol. 52, no. 3, July 1993.

Table 16: Concerns for Future of the Department

Concerns for the Future of the Department	Number	Percent
I have no concerns	39	31%
Communication should be more two-way or open	29	23%
My input is not valued	10	7.9%
My contribution/accomplishments are not recognized	14	11.1%
Conflicts are not addressed openly	15	11.9%
Conflicts are not addressed in a timely manner	11	8.7%
Awards are distributed unevenly		
New volunteer selection is not scrutinized enough	12	9.5%
Training opportunities are minimal	10	7.9%
Inadequate financial resources	33	26.2%

The final series of questions (B10) were designed to assess satisfaction with different aspects of the department. Members appear to be satisfied with the frequency and quality of technical training, company and departmental requirements. The perception of the public valuing my services showed slightly poorer support, with 13 percent marking “not satisfied.” Far and away the least satisfactory area was “Village government valuing my service”. Only 12 percent of respondents indicated that they were “highly satisfied,” while another 25 percent marked “somewhat satisfied.” A majority of respondents (almost 58 percent) indicated that they were “not at all satisfied” with the Village government valuing their services.

Special Analyses of Survey Data

The first special analysis looked at company affiliation versus citing “sharing quarters with another company” as a concern. This question is of interest for two reasons: first, some consolidation of facilities is being considered as a means for dealing with the aging fire stations currently in service; second, opinions of companies who are currently sharing quarters can be an indicator of potential stressors associated with a shared facility.

Analysis for sharing quarters being cited as a concern showed that for Ossining Hose and Washington H&L, no members indicated this as a concern. This is probably a reflection of the long-standing shared facility they occupy as well as an indication that they are sharing the facility effectively. The other companies sharing a facility more recently --- Senate &L and Rescue 14 had a different finding. Over 27 percent of Senate members expressed some concern over sharing their facility, while no members of Rescue 14 did. Because only 2 members of Rescue 14 participated in the survey, it is not possible to

state conclusively that there are no concerns.

Concern among other companies was difficult to trace to a particular issue. The highest percentage of members expressing concern about consolidation of facilities was among Steamer (31.2 percent), followed by Independent, Cataract, and Holla Hose. Members of Monitor Hose, which inhabits a cramped downtown facility, did not express any concerns in the survey.

Table 17: Survey Respondent Concern Over sharing Quarters

Company	Percent of members Indicating Sharing Quarters was a Concern
Cataract	12.5
Independent	19
Holla	9
Monitor	0
Ossining	0
Steamer	31.2
Senate H&L	27.3
Rescue 14	0
Washington H&L	0

These findings are worthy of further study, and may warrant some follow up polling as potential consolidations of facilities are considered in the future.

Focus Groups

Manitou team members conducted two focus groups consisting of 2-3 representatives of each company in March 2009. These groups were effective in understanding the "state of the membership" and issues facing the department.

The members who participated in our focus groups demonstrated a very strong intrinsic motivation to belong to the Department. In fact, members reacted negatively to the mention of a length of service awards (LOSAP) program. These programs have been touted by some departments as a means for retaining members. This negative reaction demonstrates a strong and admirable sense of pride at being a volunteer fire department, and is very positive sign for the commitment of the membership.

During our focus group interviews, it became apparent that Rescue 14 is experiencing a shortage of members. Whether this is a cyclic process, or whether this is a more serious situation remains to be

seen. Some have speculated its relatively high number of responses or that loss of the fire boat may have reduced the attraction to join the company. Determining these causes was beyond the scope of this report, but both the department and the company are aware of the situation. Some members of the company believe that their membership is starting to increase again, and this is part of a normal cycle.

Future Growth and Development

As part of the study, a review of the Ossining Comprehensive Plan was conducted. The intent of the review was to determine if plans are in place that could pose a significant impact on the fire department's ability to provide services to the public.

The plan revealed that much like its fire department, the village of Ossining has a rich and colorful heritage. Originally named Sing Sing, The small hamlet was incorporated in 1813 and became one of the primary industrial communities along the Hudson River Valley and Westchester County, New York. In 1901 the Village changed its name to Ossining in an attempt to distinguish itself from the famous Sing Sing prison. Today the Village is the home of 24,000 people who live within its three square miles. Most of the residents work in the region or partake in the daily 40 mile commute to New York City.

Most of the land within the Village boundaries are developed and contain a mixture of residential and commercial. Much of the older downtown area consists of buildings historic in nature. Over the years much of the Village's historic downtown and the industrial developments along the river front have declined due to shifts in commerce and industry practices.

The Village consists of approximately 8,227 households of which contain 5,339 families. The population density is roughly 7,464.8 people per square mile. The racial makeup of the village is 60.47% White, 20.23% Black or African American, 0.48% Native American, 4.18% Asian, 0.01% Pacific Islander, 10.44% from other races, and 4.18% from two or more races. Hispanic or Latino of any race is 27.71% of the population. The age distribution of the population is spread out with 20.7% under the age of 18, 8.3% from 18 to 24, 39.1% from 25 to 44, 20.9% from 45 to 64, and 11.0% who were 65 years of age or older. The median age is 36 years. For every 100 females there were 117.6 males. For every 100 females age 18 and over, there were 119.4 males.[11]

Over the years there have been several attempts to implement various plans in place to address zoning and land use. One of the earliest on record was the original development plan of 1959. Since then, at least 11 related plans have been created mostly with limited implementation or support.

In 2005 the Village began the process to develop a Comprehensive Plan. Since that time the all encompassing Plan has been completed and is divided into six areas: waterfront, downtown, transportation, infrastructure, housing, and neighborhood quality of life. Specifically, the Plan calls for specific strategies that include:

- Mixed land use for waterfront redevelopment
- Revitalize the downtown district

11 U.S. Census Bureau data.

- Improve vehicle, pedestrian and public transportation systems
- Upgrade existing utility and related infrastructures
- Develop policies for affordability of current and future housing
- Sustain quality of life in residential neighborhoods

Much of the Plan incorporates programs and policies that as a whole can improve and enhance public fire protection and emergency services. If implemented, the Plan calls for the revitalization of existing residential, commercial, and industrial structures, improved circulation of streets and roadways, upgrades of infrastructure systems including water lines; all of which as a whole can reduce the severity of the fire threat and improve the fire department's ability to quickly and efficiently respond to emergencies.

Growth is forecast to occur mainly through infill development in the Village, and through additional new construction in the Town areas. The growth patterns do not indicate a major shift is demand for fire and rescue services. Existing policies whereby the Fire Department reviews major development plans should continue, to ensure that

Station Location Recommendations

Based on the previous analysis, we were tasked with selection of station sites appropriate for the department's future. The methodology used in this process consists of four primary steps: 1) review of existing coverage and use of aerial maps to identify potential sites for new or relocated stations; 2) use of geographic information systems (GIS) to map drive-times from potential and current sites; 3) detailed analysis of each site; and 4) recommendations based on the overall configuration of stations and apparatus (equipment).

This final step includes an assessment of potential sites with regard to future demand for service, and location of volunteer members. Building fire stations under a volunteer system has to consider the potential for attracting members in the vicinity of a station, as well as the members already active in the department. The increased demands for training coupled with the fast pace of life makes attraction of members who can complete training and contribute years of service to the department increasingly challenging.

Numerous sites were examined to at least some stage in the above process. In addition to sites we normally identify based on evaluation of existing coverage and current needs, we were supplied a list of sites identified jointly by the Ossining Village Planning Department and the Ossining Fire Department. Appendix 5 lists all of these sites. Not included specifically on this list is evaluating the potential for expansion of existing facilities, which was also undertaken. We did not include a discussion of each site within the main body of the report. Rather, we focused on the final set of recommendations with regard to station locations.

This report only discusses prospective recommendations for new or expanded fire stations. It does not summarize the detailed mechanical and architectural analysis done on each facility by Mitchell Associates Architects. Of the existing facilities – Steamer is completely unsuitable, Monitor is close behind, and only the Headquarters Station, Cataract, and Holla stations currently accommodate apparatus with adequate room for normal usage within the station.

These sites include locations on Highland Avenue, Croton Dam Road, Hawkes Avenue and adjacent to 21 Snowden Avenue. Existing station sites were evaluated for their capacity to accommodate expansion, including need to acquire adjacent parcels, and topographic or other site limitations. Numerous other locations were evaluated for their ability to favorably influence response times, bearing in mind that response time includes both driving time from the station, but driving time for volunteers to reach the station.

When considering the locations of new facilities – the most apparent area for improvement is in the Town of Ossining, which currently has no station. The Independent station, is however, very near the Town border, and serves much of this area as a first due company. The reader is reminded that according to national norms, the Ossining Fire Department is able to provide service throughout its

service area within acceptable time frames.[12] Nonetheless, the Town area have generally higher response times than do areas of the Village, owing to the proximity of fire stations. Areas for stations within the Town must be evaluated with attention to the street network, so as to site a facility to provide the best possible ability to cover territory. The irregular street network in the Town complicates this process.

An attempt was made in 2003 to locate a new station in the Town, with a site selected along Hawkes Avenue near Route 9. A parcel was to be donated by a land developer. This effort was not successful, and the site originally intended was since purchased by another buyer and taken off the market. a limited street network and relatively few readily buildable areas greatly complicates this search.

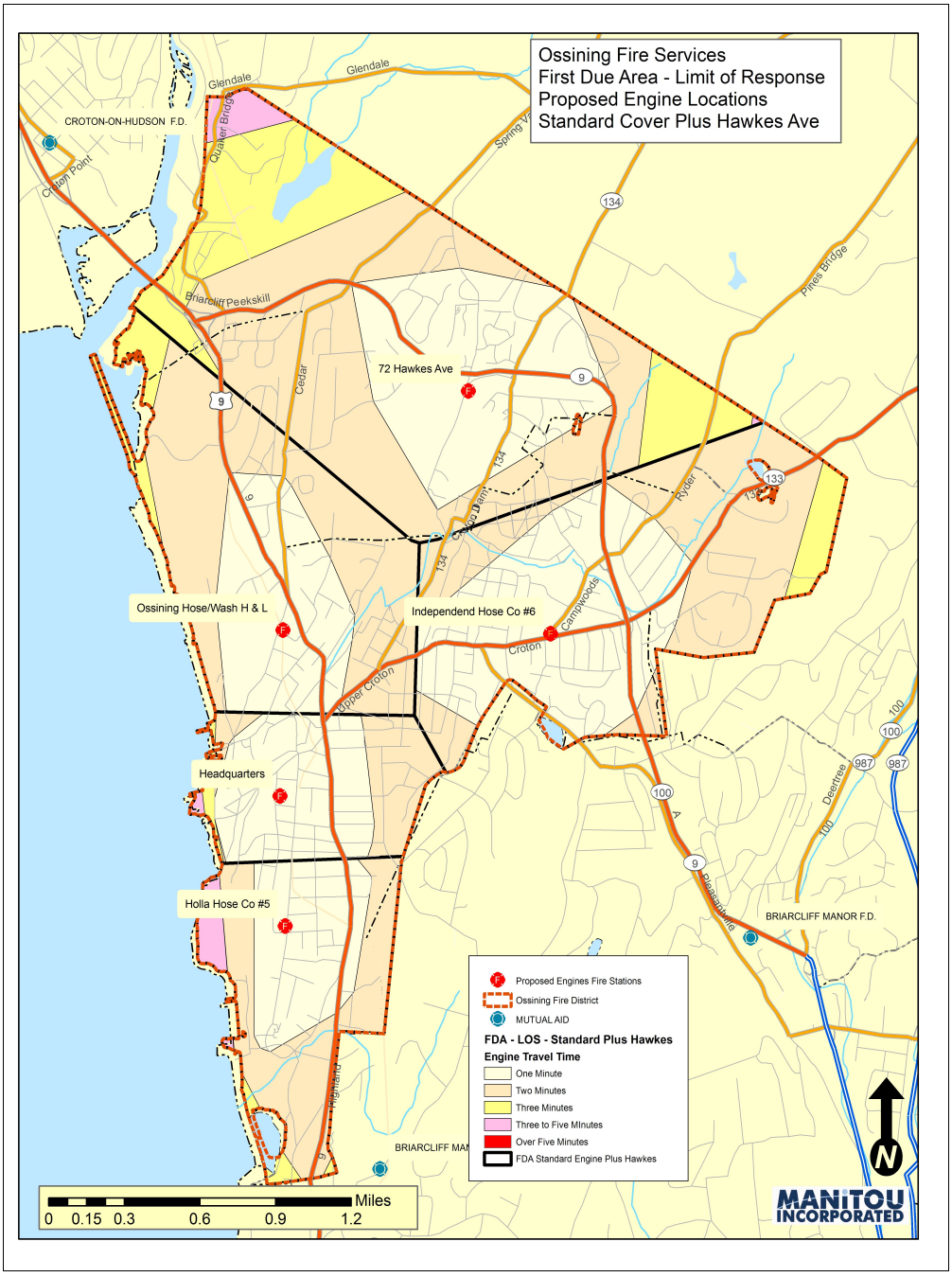
Our analysis of alternate locations in the Town or northern end of the Village showed that the Hawkes Avenue location identified after the 2003 study, was well-positioned, should a facility be built to improve coverage in the Town.

Figure 15 Aerial photo of Hawkes Avenue Area

We understand that there is a possibility of acquiring property across from the cemetery on Hawkes Avenue. This site provides decent response time benefits. Figure16 shows drive times from current serviceable stations and a potential new facility on Hawkes Avenue. Figure 15 shows an aerial view of the potential site for the Hawkes Avenue facility. The Briarcliff-Peekskill Parkway (NYS Route 9A) runs horizontally across the photo, and Hawkes Avenue runs vertically down the center. The site is envisioned at the southern end of Hawkes Avenue in this photo.

12 This analysis was based on a sample of responses as indicated previously in the report.

Figure 16: Drive Times from A Potential Station on Hawkes Ave



Hawkes Avenue is not the only fire station site that could potentially provide for improved service. Other sites evaluated and considered suitable include 40 Croton Dam Road (Stony Lodge) and 55 Stormytown Road (School District property). From the standpoint of improving service in the Town, each of these three sites would be considered suitable. Selection of a site should be based on cost, planning and neighborhood concerns, and ease of acquisition. Figures 17 and 18 show drive-time contours for the Croton Dam Road and Stormytown Road sites, respectively. The map of the Croton

Dam Road site shows the approximate location of the station. These figures show the overall configuration of stations and the resulting response coverage.

Figure 17: Drive Times from a Potential Site on Croton Dam Road

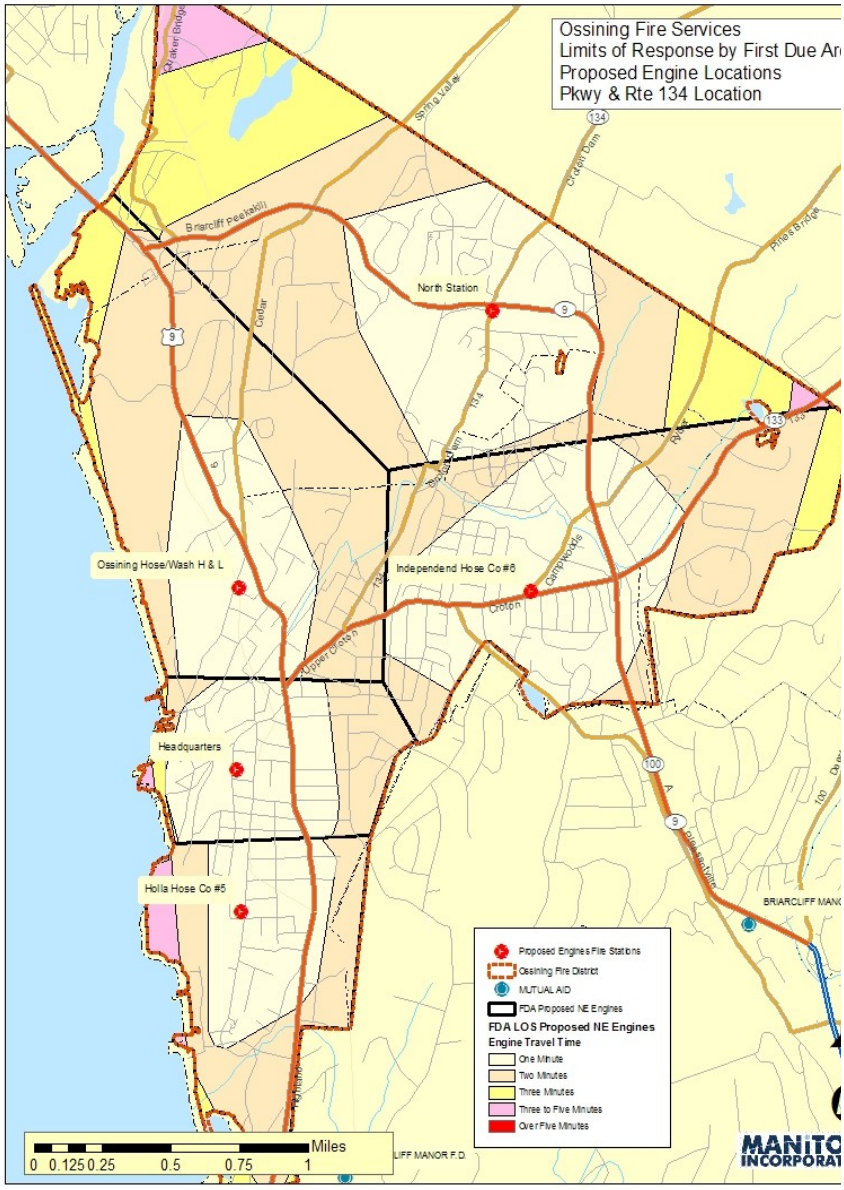


Figure 18: Drive Times from a Potential Site on Stormytown Road

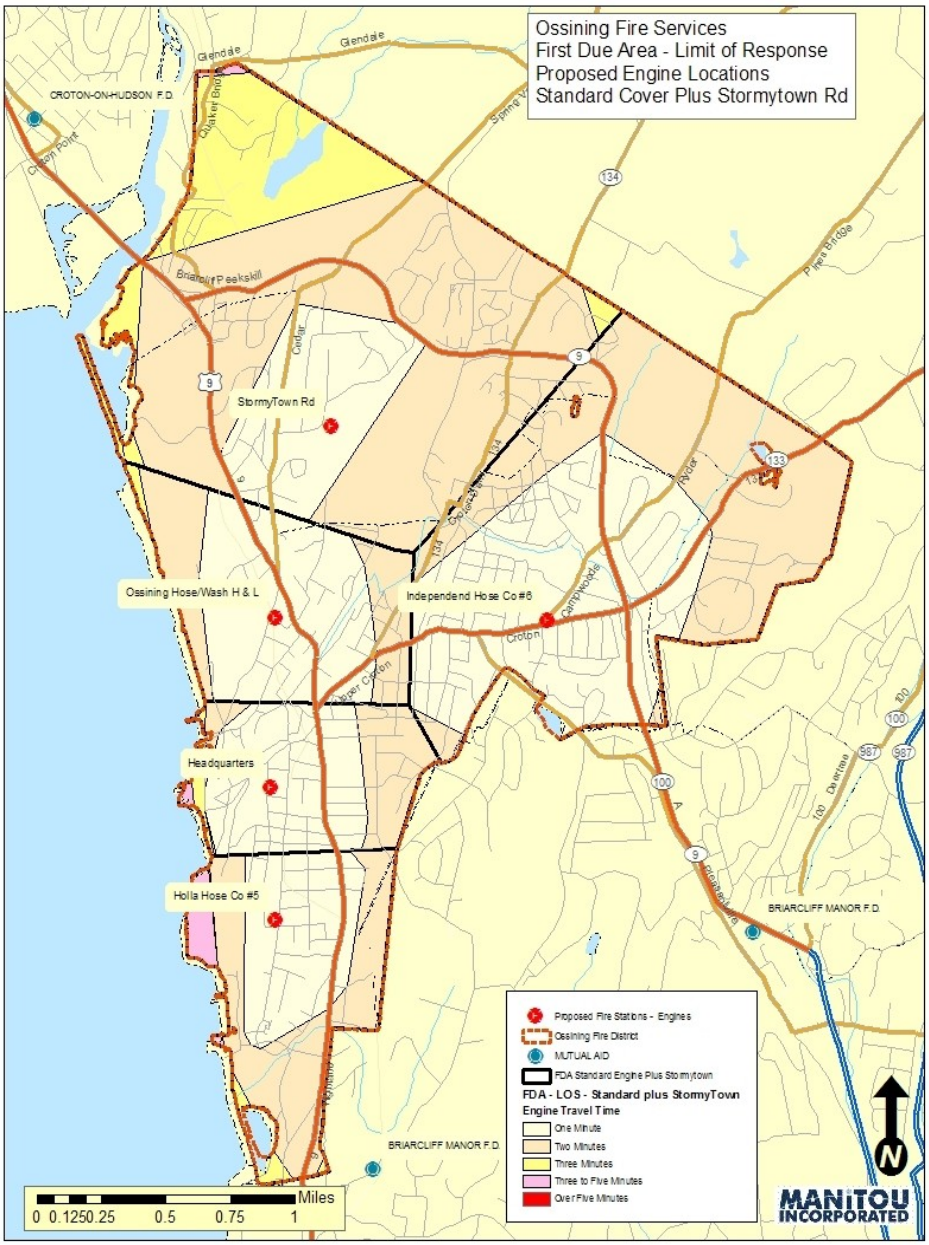


Table 18 summarizes the movement of companies under the proposed fire station plan. This table does not include all facility modifications or improvements, only the movement of companies.

Table18: Summary of Major Changes in Deployment with Station Plans

Station	Location	Companies Assigned	Current Type of Unit(s)	Action/Change in Company Location
Headquarters	21 State St.	Senate Ladder Co. 41 Ossining Fire Police Emergency Squad Co. 14	1 Ladder Truck 1 Rescue Truck 1 RIT* Truck	Change Configuration from 3 to 2 bays, move RIT truck.
Northside	21 Snowden Ave.	Ossining Hose Co. 96 Washington Ladder Co. 42	1 Pumper 1 Ladder Truck	Expand facility to accommodate an additional engine company and support space
Cataract	4 Waller Ave.	Cataract Hose Co. 97	1 Pumper	No action
Steamer	117 Main St.	Steamer Co. 98	1 Pumper	Move Company to Town station, abandon existing station
Monitor	57 Central Ave.	Monitor Hose Co. 99	1 Pumper	Move Company to enlarged Snowden Avenue station, abandon existing station
Holla	2 Lafayette Ave.	Holla Hose Co. 100	1 Pumper	Company remains, add support space.
Independent	19 Campwoods Rd.	Independent Hose Co. 101	1 Pumper	Company remains, add new bay.

The new facility to be built in the Town should have a two-bay configuration to permit storage of equipment, particularly if another station is being renovated or repaired. Steamer Engine would occupy this new facility in the Town. In addition to the new facility, we propose the following major station recommendations.

Expand Snowden Avenue Station – The existing facility should be expanded, with acquisition of the building next door for use as Departmental support space. A new bay, constructed between the two existing structures, would accommodate a new ladder company anticipated to replace the existing Washington Ladder. The existing bay formerly used by Washington Ladder could be used by Monitor Hose.

Convert Headquarters Station to 2-Bay Configuration – The existing Headquarters should be renovated to a two-bay configuration, leaving adequate room for the two companies housed there. This would require that the FAST Team vehicle be moved to another station. One option would be to run it from Holla Hose.

Independent – Acquire adjacent land to the east of the station to relocate the driveway. Build a new apparatus bay on the site of the current driveway.

Holla Hose – Acquire adjacent parcel to the east and build an addition to achieve ADA compliance, and add office and support space.

Management and Operational Recommendations

The section of the report provides an overall review of Department management, and contains recommendations based on the analysis in the previous sections of the report. Suggestions for improvement to the cost effectiveness of services are minimal. The current budget, as indicated, compares favorably with peer communities, and does not reflect considerable in-kind support provided by members to improve and perform routine maintenance on the existing stations.

Administration

The Ossining Fire Department is a one million dollar organization being run almost exclusively without compensation. Delivery of services appear to be well managed, and the level of service is very high. While the delivery of fire services can and should remain a dedicated volunteer function, the administrative necessities of managing the Department should be supported by creation of part-time clerical position. This position would be responsible for maintenance of records, production of reports, and providing assistance to Chief Officers with administrative tasks such as preparation of reports to Village government, regulatory agencies, and preparation of correspondence. Some of this burden could be undertaken by dispatchers, but due to the personnel nature of some of these tasks, a dedicated administrative position, preferably from someone not directly involved as a member of the Department, would be appropriate.

The operational demands of managing the Department are sufficient that typing, filing and clerical tasks should not consume the available time of the volunteer Chiefs. Their energies are best devoted to initiatives such as oversight of the companies, design of training programs, specification of apparatus and equipment, liaison with the Village government and other stakeholders, and other related duties.

Recommendation 1 – Hire a part-time administrative person to be the records management system administrator. This person should be computer-fluent, and be familiar with or capable of being trained in use and administration of the Firehouse software system. Ideally, they could work with the Chiefs to identify efforts to centralize and coordinate the various records systems and filing systems being used within the Department.

Information Management

Virtually no information is tracked at the Departmental level with regard to members' activity on alarms, administrative duties, or training. Statistics on the number of members responding are not tallied, and there is no history of recognition for members with outstanding participation. The existing paper records could be used to extract considerable information for examining patterns and trends in member activity, a well as allow reports to be produced that would identify trends.

We understand that the department's response has always been so strong that this was never a concern in the past. Similarly, the esprit de corps and intrinsic motivation of the members appears to be so high that member recognition appears to play a much smaller role on a departmental level than is commonly found in volunteer fire departments. While we do not have any indication of a problem with an adequate number of members in the Department, this information should be tracked in the future to provide a fact-based awareness of conditions.

Recommendation 2 – The Department should prepare quarterly reports to detail calls for service, response times, changes in the membership roll, and other issues facing the organization. The production of a formal report can be a useful exercise for managing the Department, for tracking trends in performance, and in providing transparency to elected officials.

Equipment and Operations

Recommendation 3 – Maintain the Gamewell audible warning system. One of the sites for this system is currently in need of repair, and is not functioning properly. The entire system should be serviced and regularly maintained.

Recommendation 4 – Purchase Life-Saving Ropes These ropes to comply with New York State Labor law[13]. Our understanding is that, at a minimum, such devices should be furnished for each self-contained breathing apparatus set, although limitations on the timely use of such devices may require that some equipment be furnished for each interior firefighter qualified member.

Recruitment and Retention

The department has relied primarily on its traditional methods for recruiting new members – word of moth from family and friends. These methods have been successful to this point. The Department has recently started a "venturing" program in collaboration with the High School. This program is credited with attracting some young members who have moved into full membership roles with the department. This program should be continued, and results monitored so that the program can be strengthened. Reaching out to young people can be important because they may have the time to undertake the initial training without the distractions and competing demands for their time.

This is particularly important in light of Ossining's diversity, and to assure that all prospective members are considered, and reached with messages about the opportunities for community service within the fire department.

Recommendation 5 -- The department should move beyond its traditional member base of friends and family of current members, and begin a recruitment campaign emphasizing the most popular motivations to join. With data being collected, the most active members can be polled to see how they may differ from other members, and to further target recruitment efforts.

Recommendation 6 – The Department should establish criteria for active membership. This will

13 NY State Public Employee Safety and Health Act Article 2, Section 27a of New York Labor Law, Sec. 24.4.c

provide a more realistic basis for measuring progress on training and other objectives. In addition, minimum training requirements and physical requirements should be set to maintain this status. Based on the criterion of attending training at least one per year, there are approximately 150 people currently meeting this minimal requirement. Ideally, a minimum activity level in terms of call attendance should also be established. This definition will be useful in identifying members who need protective equipment, and can be monitored over time.

Recommendation 7 – The department may find it advantageous to develop multiple levels of training and certification. This would address some member's concerns of being overwhelmed with the depth and complexity of training.

Firefighter	Minimum state firefighting standards with annual refresher
Firefighter Specialist	Minimum standards plus specialized training in areas such as: EMT Hazardous materials Rescue Operations (Rope, water, etc.)

This approach would insure a set minimum level of capabilities for all active members while allowing a cadre of members with interest to provide specialized service. By not requiring all members to participate in all training, particularly in specialized subjects, more efficient use of abilities and talent can be made while retaining interest of most members.

Communications and Dispatch

Recommendation 8 – 24-hour monitoring and control of the radio frequencies is necessary. The current arrangement splits responsibility between the Ossining Police and the OFD. There are gaps when a dispatcher is not present. This can present a problem during a rapidly evolving emergency. To achieve 24-hour coverage, the Department should consider using Westchester County's fire and EMS dispatch "60-Control " to handle radio traffic and record unit response times. Initial dispatch could be retained by the OPD, although for maximum efficiency with record keeping, 60-Control would handle the dispatch from beginning to end. Ossining Police would still receive the initial call, and would monitor the call after transferring it to 60 Control. To reduce the delay in transferring the call, the Ossining Police could still activate the audible alerts, and notify the OFD dispatcher when they are on duty. This should be considered on a 24-hour basis, but at a minimum, should be considered for any times that the OFD dispatchers are not on duty.

Recommendation 9 – To speed call processing and reduce errors, fire box areas should be made to align with police patrol sectors. While we understand that fire box areas may predate the police designations, the reality is that police officers dispatch fire calls, and this process needs to be as seamless as possible.

Station Locations

Recommendation 10 – Develop an implementation plan to a) Construct a station in the Town (either

on Hawkes Avenue, Stormytown Road, or Croton Dam Road). b) Renovate Independent, Holla, and Headquarters; and c) Construct an Addition to the Snowden Avenue station.

Conclusions

The Ossining Fire Department is doing a good job in the most critical measures – response time and member turnout to calls for service. The Department's membership is able to sustain the nine fire companies currently in operation, and appears to be maintaining at a healthy level.

The Department has operated for its entire history in a climate of relative isolation form the mundane record keeping requirements that are common to most government agencies. There is a need for a more systematic effort to collect, store, and analyze the information that the Department now collects in manual form, or is distributed throughout the organization.

Much of this information is already being collected, it is just not in a form suitable for analysis. By investing resources in using this data, the organization will be better prepared to document its success and manage resources for the future.

Several existing stations need to be taken out of service or renovated to continue their use with newer fire apparatus, and to meet modern needs. By building a new facility and expanding or renovating others, the Department can have a set of stations that will serve it for the foreseeable future of the Village and Town.

The Department delivers a good value for the money spent by the taxpayers, and there is no evidence of excessive spending. The participation by individual fire companies in the maintenance of their stations is a welcome sign, and demonstration of goodwill and cooperative spirit that exists between the Department and Village government.

Better tracking of membership information, and a more formal recruitment effort will help to assure local officials and the public that the Department's membership base is solid. This effort will include efforts to better define active members, and set minimum requirements for participation in emergency response activities.

The Department boasts a large, active roster of members. There is nothing in the analysis we have done to indicate that there is any particular near-term problem with recruitment of new members to replace the large cadre of long-serving dedicated members, who by virtue of age, are forced to reduce their activity. While membership is down, the effects of added training and general social and societal conditions coupled with more stringent membership requirements makes it difficult to say these declines are cause for any concern in the near term.

Appendices

Appendix 1: OFD Major Apparatus

Equipment	Description	Company Name
	**Engine 96** 1999 Seagrave Marauder 1250gpm/500gals	Ossining Hose
	**Engine 97** 1990 Emergency One Hurricane 1500gpm/500gals	Cataract
	**Engine 98** 1996 Emergency One CycloneTC 1500gpm/750gals	Steamer
	**Engine 99** 1989 Spartan/Ward79 Gladiator 1500gpm/500gals	Monitor
	**Engine 100** 2001 American LaFrance Eagle 1500gpm/600gals	Holla Hose
	**Engine 101** 1993 Emergency One CycloneTC 1500gpm/750gals	Independent

	**Ladder 41** 2003 KME 105' Aerial	Senate Hook and Ladder
	**Ladder 42** 1990 Emergency One Hurricane 110' Aerial	Washington Hook and Ladder
	Rescue 14	Fire Police and Rescue Squad
	**Utility 51** Chevrolet	FAST Team

Appendix 2: Westchester Village Fire Protection Costs

Municipal Name	Population	Fire Protection	Cost per Capita
Village of Dobbs Ferry	10,622	$304,904	28.7
Village of Ossining	24,010	$1,025,858	42.73
Village of Briarcliff Manor	7,696	$401,119	52.12
Village of Hastings-On-Hudson	7,648	$456,413	59.68
Village of Croton-On-Hudson	7,606	$500,083	65.75
Village of Port Chester	27,867	$1,901,504	68.23
Village of Mount Kisco	9,983	$691,983	69.32
Village of Mamaroneck	18,752	$1,611,216	85.92
Village of Sleepy Hollow	9,212	$862,682	93.65
Village of Irvington	6,631	$622,404	93.86
Village of Buchanan	2,189	$233,657	106.74
Village of Tarrytown	11,090	$1,689,558	152.35
Village of Rye Brook	8,602	$1,517,826	176.45
Village of Elmsford	4,676	$892,814	190.94
Village of Pelham	6,400	$1,566,195	244.72
Village of Larchmont	6,485	$1,624,343	250.48
Village of Scarsdale	17,823	$4,560,467	255.88
Village of Pelham Manor	5,466	$1,934,764	353.96
Village of Ardsley	4,269	$2,789,318	653.39

Population is 1990 population data form U.S. Census Bureau. Financial data drawn from:

Appendix 3: Raw and Percentile Survey Responses

Questionnaire for Ossining Volunteer Fire Fighters

Manitou, Inc., a public safety management consulting firm, was contracted by the Village of Ossining to conduct a review of the Ossining Fire Department. Understanding members' opinions is critical to assessing the Department. Please complete this survey as soon as possible and return it via the enclosed envelope by February 6, 2009. It should only take 10-15 minutes to complete the survey.

Thank you for participating in this survey! We would like to ask a few background questions about you, where you live, and your experience as a volunteer fire fighter. The survey is anonymous, and your participation is voluntary.

A1. Residency: Are you a resident of?

93	___Village?
19	___Town?
10	___ Other Westchester County?
4	___ Outside Westchester County.

A2. Gender: Please indicate your gender:

4	___Female
122	___Male

A3. Age: What is your age?____

A4. Ethnicity: What is your ethnicity or national origin? (Mark one answer please)

6	African American, Black
5	American Indian, Native American, or Alaskan Native
	Asian
2	Caribbean Islander
100	European American, White
5	Latino or Hispanic
3	Other (please specify) _____

A5. Experience: How long have you been a volunteer firefighter? (Mark one answer please)

9	____Less than 1 year
10	____1-3 years
16	____4-6 years
7	____7-10 years
14	____11-15 years
11	____16-20 years
12	____ 21-25 years
47	____ 26 or more years

A6. Fire Company Membership: What Fire Company do you *primarily* belong to?

Cataract -16	Independent-21	Holla Hose-12
Monitor-14	Ossining Hose-13	Steamer-16
Senate H&L-11	Rescue 14-2	Washington H&L-21

A7: The following questions should be marked Yes or No.

Yes	No	Question
15	110	a. Were you ever a member of another Ossining Fire company? (not socially)
95	25	b. Are your employed? * 6 blank (retired)
40	73	c. Do you respond to calls from your place of employment?

A8. Please circle your employer (if employed)

Ossining Village	Ossining Town	Other Government	Private/Non-profit
17	2	24	46

Now, we are very interested in understanding what being a volunteer firefighter means to you, the reasons you became involved and what continues to inspire you to remain a volunteer firefighter. There are no right or wrong answers in this section.

B1. Think back, before you became a volunteer firefighter, what were the top 3 reasons for joining? Mark the phrase that best applied to your situation in order of importance (1 is most important, 3 is least important)

104	I wanted to help people in times of a genuine emergency.
1	I wanted to fulfill or express my religious beliefs
32	I had a desire to use my skills and experience in firefighting
37	I had a desire to acquire new skills or expand job-related opportunities
75	I had a desire to be a part of a firefighter community *specifically*
17	I was searching for something interesting and volunteer firefighting seemed like a good idea at the time.
14	I became a volunteer firefighter for personal reasons related to being **personally** affected by fire or firefighting
60	I became a volunteer firefighter for personal reasons related to **family** being directly involved in firefighting
51	I became a volunteer firefighter for personal reasons related to **friends** being directly involved in firefighting
	Other reasons not listed above: _____ (please specify)

B2. In your opinion, since becoming a volunteer firefighter, would you say your initial reasons have:

89	Not changed at all over time
30	Changed slightly over time
6	Changed considerably over time

B3. In your opinion, after joining an organization, other reasons for **continuing to be a volunteer firefighter are**: (Mark your top three reasons, from 1 to 3)

88	I enjoy being a part of my community in general
26	I have the benefit of working in a structured environment where results are achieved.
58	The work provides opportunities to learn new skills and grow as a person
14	The work is spiritually fulfilling
63	I enjoy the challenge of applying my skills/experience when volunteer firefighting
9	Volunteer firefighting gives me the flexibility to make decisions without always having to seek permission
67	I feel like I am a strong contributing member of my firefighting team
75	I feel connected to my firefighting company *specifically*
	Other reasons not listed above: _____ (please specify)

B4. In your opinion, how important is company membership to you? (Mark one please)

117	Very important
5	Somewhat important
2	Not very important

B5. Risk Factors: What are the top three ranking factors *outside the Department* that come between you and volunteering? (Mark no more than three reasons from 1 to 3)

69	Work related time constraints
36	Working too many hours
23	Employer will not release me for calls
21	Possibility of moving out of the area
64	Limited time due to family / home related responsibilities
16	Personal health reasons
26	Concerns about future of the department
31	Other personal hobbies
8	Community needs are not strong enough
	Other reasons not listed above: _____ (please specify)

B6. Risk Factors: What are the top three ranking factors in*side the Department* that come between you and volunteering? (Mark no more than three reasons)

13	Too many emergency calls
25	Company responsibilities/commitment
25	Training demands
38	Concerns about future of the department
23	Attendance requirements for non-emergency events
9	Community needs are not strong enough
15	Sharing quarters with another company
	Other reasons not listed above: _____ (please specify)

B7. Currently, what are your concerns about the future of the **department**? (Please mark all that apply except if you mark the first answer)

39	I have no concerns
29	Communication should be more two-way or open
10	My input is not valued
14	My contribution/accomplishments are not recognized
15	Conflicts are not addressed openly
11	Conflicts are not addressed in a timely manner
	Awards are distributed unevenly
12	New volunteer selection is not scrutinized enough
10	Training opportunities are minimal
33	Inadequate financial resources
	Other reasons not listed above: _____ (please specify)

B8. What level of importance do you place on department (not company) membership? (Mark one please)

103	Highly important
17	Somewhat important
3	Not very important

B9. Please describe any problems you would have should there be an increase in workload:

B10. In the last year, at what level of satisfaction do you have in the following areas:

a. Frequency of Technical Training (Mark one please)

49	54	5	9
Highly Satisfied	Somewhat Satisfied	Not at all Satisfied	Not Applicable

b. Quality of Training (Mark one please)

62	49	2	8
Highly Satisfied	Somewhat Satisfied	Not at all Satisfied	Not Applicable

c. Company Requirements (Mark one please)

68	44	4	4
Highly Satisfied	Somewhat Satisfied	Not at all Satisfied	Not Applicable

d. Departmental Requirements (Mark one please)

55	57	2	5
Highly Satisfied	Somewhat Satisfied	Not at all Satisfied	Not Applicable

e. Village government valuing my service(s) (Mark one please)

15	31	70	5
Highly Satisfied	Somewhat Satisfied	Not at all Satisfied	Not Applicable

f. The public valuing my service(s) (Mark one please)

49	50	16	5
Highly Satisfied	Somewhat Satisfied	Not at all Satisfied	Not Applicable

C1. Please comment on anything else which you feel is important at this time.

Questionnaire for Ossining Volunteer Fire Fighters

(Answers given in Percentage format**)**

Manitou, Inc., a public safety management consulting firm, was contracted by the Village of Ossining to conduct a review of the Ossining Fire Department. Understanding members' opinions is critical to assessing the Department. Please complete this survey as soon as possible and return it via the enclosed envelope by February 6, 2009. It should only take 10-15 minutes to complete the survey.

Thank you for participating in this survey! We would like to ask a few background questions about you, where you live, and your experience as a volunteer fire fighter. The survey is anonymous, and your participation is voluntary.

A1. Residency: Are you a resident of?

73.8%	___Village?
15.1%	___Town?
7.9%	___ Other Westchester County?
3.2%	___ Outside Westchester County.

A2. Gender: Please indicate your gender:

3.2 %	___Female
96.8%	___Male

A3. Age: What is your age?____

A4. Ethnicity: What is your ethnicity or national origin? (Mark one answer please)

5%	African American, Black
4%	American Indian, Native American, or Alaskan Native
	Asian
1.7%	Caribbean Islander
82.6%	European American, White
4%	Latino or Hispanic
2.5%	Other (please specify) _____

A5. Experience: How long have you been a volunteer firefighter? (Mark one answer please)

7.1%	____Less than 1 year
7.9%	____1-3 years
12.7%	____4-6 years
5.6%	____7-10 years
11.1%	____11-15 years
8.7%	____16-20 years
9.5%	____ 21-25 years
37.3%	____ 26 or more years

A6. Fire Company Membership: What Fire Company do you *primarily* belong to?

Cataract- 12.7%	Independent-16.7%	Holla Hose-9.5%
Monitor-11.1%	Ossining Hose-10.3%	Steamer-12.7%
Senate H&L-8.7%	Rescue 14-1.6%	Washington H&L-16.7%

A7: The following questions should be marked Yes or No.

Yes	No	Question
12%	88%	a. Were you ever a member of another Ossining Fire company? (not socially)
75.4%	19.8%	b. Are your employed? 4.8% blank (retired)
35%	65%	c. Do you respond to calls from your place of employment?

A8. Please circle your employer (if employed)

Ossining Village	Ossining Town	Other Government	Private/Non-profit
19%	2%	27%	52%

Now, we are very interested in understanding what being a volunteer firefighter means to you, the reasons you became involved and what continues to inspire you to remain a volunteer firefighter. There are no right or wrong answers in this section.

B1. Think back, before you became a volunteer firefighter, what were the top 3 reasons for joining? Mark the phrase that best applied to your situation in order of importance (1 is most important, 3 is least important)

82.5%	I wanted to help people in times of a genuine emergency.
.8%	I wanted to fulfill or express my religious beliefs
25.4%	I had a desire to use my skills and experience in firefighting
29.4%	I had a desire to acquire new skills or expand job-related opportunities
59.5%	I had a desire to be a part of a firefighter community *specifically*
13.5%	I was searching for something interesting and volunteer firefighting seemed like a good idea at the time.
11.1%	I became a volunteer firefighter for personal reasons related to being **personally** affected by fire or firefighting
47.6%	I became a volunteer firefighter for personal reasons related to **family** being directly involved in firefighting
40.5%	I became a volunteer firefighter for personal reasons related to **friends** being directly involved in firefighting
	Other reasons not listed above: _____ (please specify)

Percentage based on number of times answered / 126

B2. In your opinion, since becoming a volunteer firefighter, would you say your initial reasons have:

71.2%	Not changed at all over time
24%	Changed slightly over time
4.8%	Changed considerably over time

B3. In your opinion, after joining an organization, other reasons for **continuing to be a volunteer firefighter are**: (Mark your top three reasons, from 1 to 3)

69.8%	I enjoy being a part of my community in general
20.6%	I have the benefit of working in a structured environment where results are achieved.
46%	The work provides opportunities to learn new skills and grow as a person
11.1%	The work is spiritually fulfilling
50%	I enjoy the challenge of applying my skills/experience when volunteer firefighting
7.1%	Volunteer firefighting gives me the flexibility to make decisions without always having to seek permission
53.2 %	I feel like I am a strong contributing member of my firefighting team
59.5%	I feel connected to my firefighting company *specifically*
	Other reasons not listed above: _____ (please specify)

Percentage based on number of times answered / 126

B4. In your opinion, how important is company membership to you? (Mark one please)

94.4%	Very important
4%	Somewhat important
1.6%	Not very important

B5. Risk Factors: What are the top three ranking factors *outside the Department* that come between you and volunteering? (Mark no more than three reasons from 1 to 3)

54.8%	Work related time constraints
28.6%	Working too many hours
18.3%	Employer will not release me for calls
16.7%	Possibility of moving out of the area
50.8%	Limited time due to family / home related responsibilities
12.7%	Personal health reasons
20.6%	Concerns about future of the department
24.6%	Other personal hobbies
6.3%	Community needs are not strong enough
	Other reasons not listed above: _____ (please specify)

Percentage based on number of times answered / 126

B6. Risk Factors: What are the top three ranking factors in*side the Department* that come between you and

volunteering? (Mark no more than three reasons)

10.3%	Too many emergency calls
19.8%	Company responsibilities/commitment
19.8%	Training demands
30.5%	Concerns about future of the department
18.3%	Attendance requirements for non-emergency events
7.1%	Community needs are not strong enough
11.9%	Sharing quarters with another company
	Other reasons not listed above: _____ (please specify)

Percentage based on number of times answered / 126

B7. Currently, what are your concerns about the future of the **department**? (Please mark all that apply except if you mark the first answer)

31%	I have no concerns
23%	Communication should be more two-way or open
7.9%	My input is not valued
11.1%	My contribution/accomplishments are not recognized
11.9%	Conflicts are not addressed openly
8.7%	Conflicts are not addressed in a timely manner
	Awards are distributed unevenly
9.5%	New volunteer selection is not scrutinized enough
7.9%	Training opportunities are minimal
26.2%	Inadequate financial resources
	Other reasons not listed above: _____ (please specify)

Percentage based on number of times answered / 126

B8. What level of importance do you place on department (not company) membership? (Mark one please)

83.7%	Highly important
13.8%	Somewhat important
2.4%	Not very important

B9. Please describe any problems you would have should there be an increase in workload:

B10. In the last year, at what level of satisfaction do you have in the following areas:

a. Frequency of Technical Training (Mark one please)

41.9%	46.2%	4.3%	7.7%
Highly Satisfied	Somewhat Satisfied	Not at all Satisfied	Not Applicable

b. Quality of Training (Mark one please)

51.2%	40.5%	1.7%	6.6%
Highly Satisfied	Somewhat Satisfied	Not at all Satisfied	Not Applicable

c. Company Requirements (Mark one please)

56.7%	36.7%	3.3%	3.3%
Highly Satisfied	Somewhat Satisfied	Not at all Satisfied	Not Applicable

d. Departmental Requirements (Mark one please)

46.2%	47.9%	1.7%	4.2%
Highly Satisfied	Somewhat Satisfied	Not at all Satisfied	Not Applicable

e. Village government valuing my service(s) (Mark one please)

12.4%	25.6%	57.9%	4.1%
Highly Satisfied	Somewhat Satisfied	Not at all Satisfied	Not Applicable

f. The public valuing my service(s) (Mark one please)

40.8%	41.7%	13.3%	4.2%
Highly Satisfied	Somewhat Satisfied	Not at all Satisfied	Not Applicable

C1. Please comment on anything else which you feel is important at this time.

We would like to thank you for taking part in this survey. Should you have any other comments and questions which you would like to discuss further, please feel free to contact:
Charles Jennings, Manitou, Inc. 1008 Main St, #201, Peekskill, NY 10566
cjennings@manitouinc.com or 914-437-8749

Appendix 4: Station Sites Considered But Not Selected

The following section of the report contains information on fire station sites that were considered but were not selected. The majority of these sites were submitted by the Village of Ossining Planning Department. Others were identified by the Fire Department. Other sites were evaluated by the consultant, but only those believed to offer promise as a station site are included in the main report. Based on the extensive mapping already undertaken for the study, small variations on sites already evaluated can be considered without developing new maps.

The Village Planning Department assembled a list of six sites for our consideration. Each of these sites was examined in the following steps:

- Review of aerial photos – aerial photos are reviewed to reveal general topography. This includes examination of the street network, proximity of impediments to response such as sharp curves, narrow streets, and visual inspection for slope or other restrictions. Nearby uses or traffic generators were examined. Ideally facilities would not be in an area of excessive traffic congestion, as that would delay the egress of apparatus from the station, as well as volunteers making their way to the station to staff apparatus.
- Drive-time mapping – Using GIS mapping software, and calibrated with the local street network and Manitou's experience in observing and modeling fire service response in multiple communities, we calculate approximate driving times from each of the candidate station sites. In this case, because we are modeling a volunteer fire department, we also consider the location of current volunteer members relative to potential station sites.
- Detailed Analysis – If a candidate site is still under consideration after these steps, we then conduct a site visit to examine the site. Information on property boundaries, detailed site characteristics, and other information is gathered to assist in prioritizing the site. The potential size of the site and ability to accommodate different types of apparatus are also considered.
- Site Recommendations – Based on the foregoing analysis, we develop a list of potential recommendations for new sites based on a proximity of other stations, demand for service, forecasts of growth in demand for service and local requirements and preferences for consideration of land acquisition and land use.

The list of sites suggested by the Village and Fire Department (in no order of preference) and evaluated as part of the study are:

- 5 Sherman Place
- 217 North Highland Ave.
- 299 North Highland Ave
- 40 Croton Dam Road
- 72 Hawkes Avenue

These sites were not the only sites examined. In addition to current station sites, numerous potential sites were also examined based upon the preliminary analysis undertaken as described above. Sites numbers 4 and 5 were described in the main report, so we will briefly describe the remaining sites here.

Sherman Place

This site was not considered because it was very close to the existing Independent Engine Company house, which itself provided better coverage from its current location. Figure * shows the proposed site.

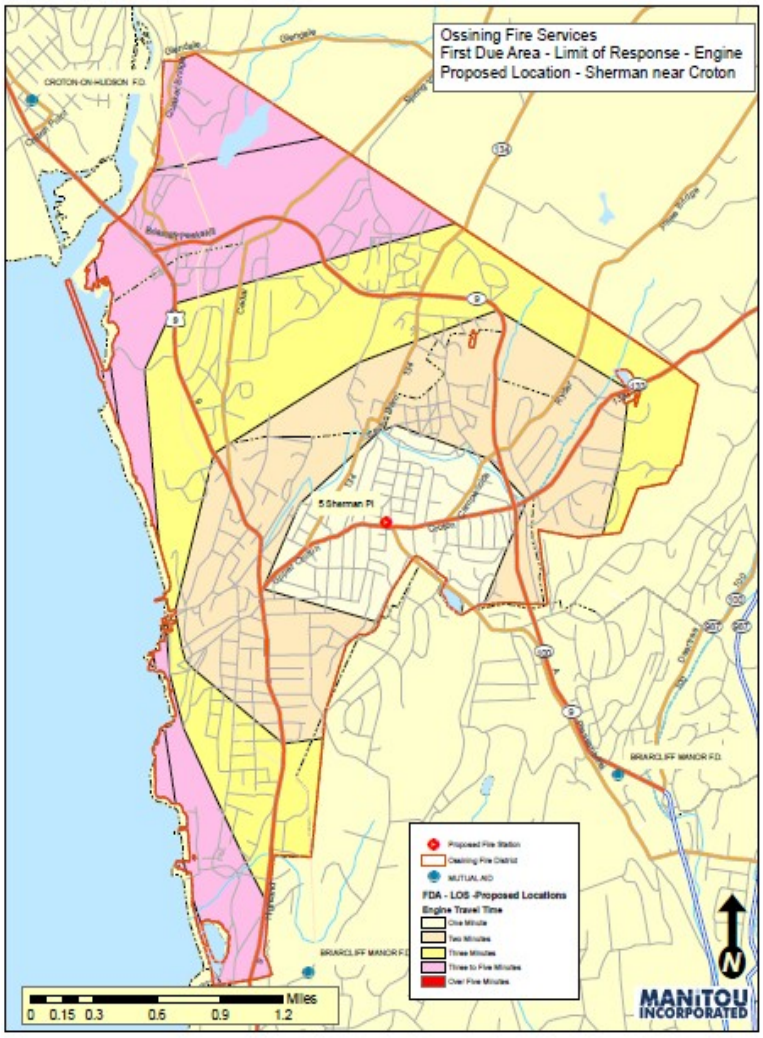


Figure A.4-1: Sherman Place Fire Station Site Drive Time

217 North Highland Avenue

The next site we evaluated but did not select was 217 North Highland Avenue. This site, located on property adjacent to the BASF facility on North Highland Avenue, had several issues working against it. The site is lower than Route 9, requiring a sloping driveway to exit onto Route 9. The site is also

adjacent to the old Croton Aqueduct, which has an easment prohibiting construction over the waterway. In likelihood, a fire station constructed on this site would have to have a driveway or parking area over the aqueduct.

Other concerns limiting the desirability of this site include its close proximity to the existing Northside station on Snowden Avenue, and the response patterns that would require a sharp left-hand turn and negotiation of a steep grade when responding up Cedar Lane from Route 9 (Highland Avenue). Figure A4-2 shows the site at 217 North Highland Avenue.

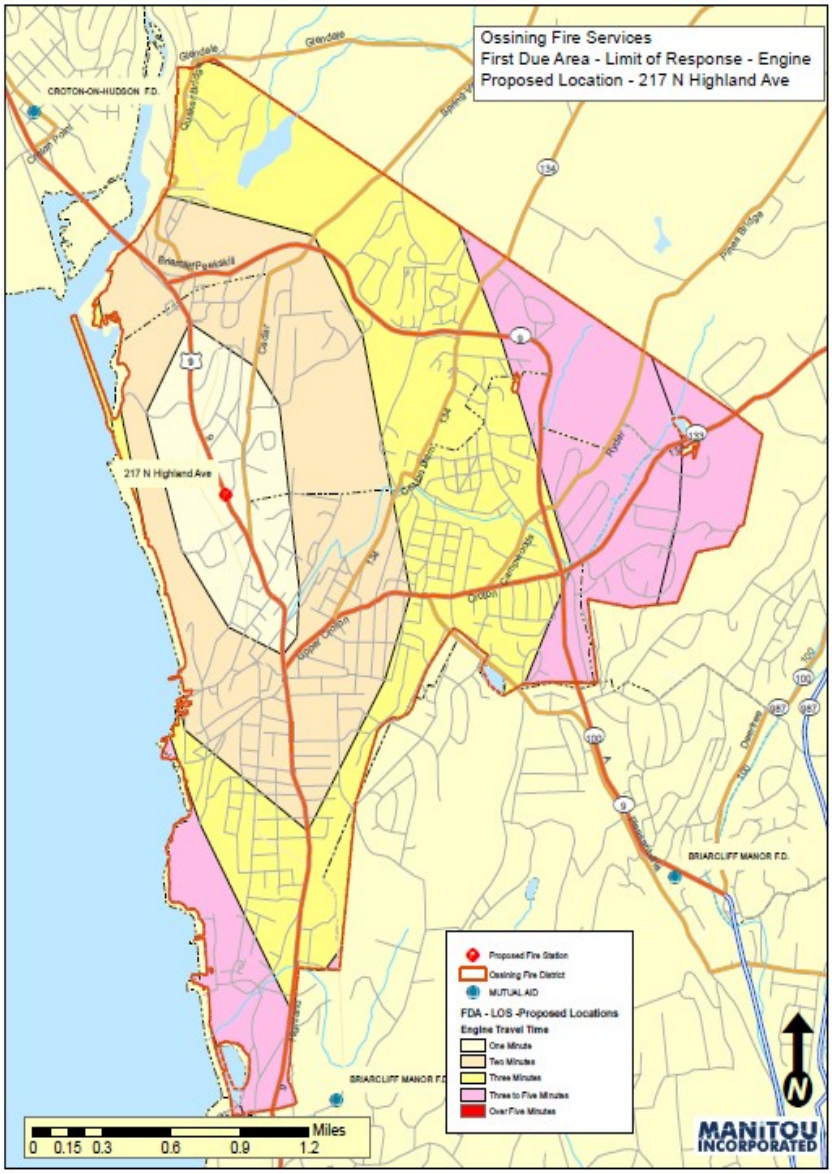


Figure A4-2: 217 North Highland Station Site Drive Time Analysis

299 North Highland Avenue

This site, located on the property of the Mariandale Retreat and Conference Center. This site shares many similarities with the 217 North Highland site, with the exception of the Croton Aqueduct. The elevation change form the potential station site to Route 9 is even greater than that at 217 North Highland Avenue.

However, this site, while improving coverage in the northern end of the Fire Department's service area, is located very near the Village's northern border. Our drive-time analysis shows that this station is only one minute from the border, meaning that much of its optimal service area would be located outside the Town and Village.

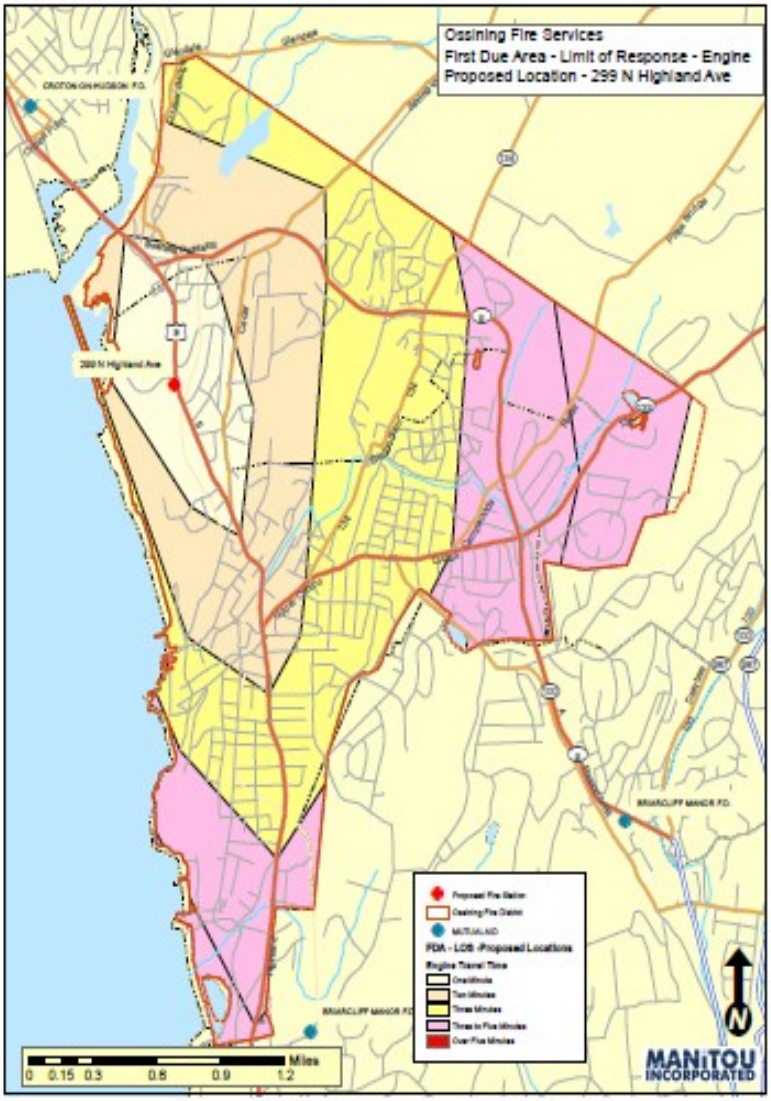


Figure A4-3: 299 North Highland Avenue Station Site Drive Time Analysis