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## **STAFFING THE CLARENDON HILLS, ILLINOIS FIRE DEPARTMENT**

**FINAL REPORT**

**October 2007**

**Presented by The PAR Group**

## I. INTRODUCTION

The following is the report of The PAR Group on staffing the Clarendon Hills Fire Department. Its main purpose is to present certain concepts of fire department staffing that are germane to the Village of Clarendon Hills and to recommend alternative staffing patterns for the Clarendon Hills Fire Department that solve existing and potential staffing problems. Data on which this report is based was gathered for the most part by the Village Fire Chief, the Finance Director, and the Management Analyst assisted by The PAR Group. The analysis and recommendations, however, are solely those of The PAR Group.

This report contains several sections as follows:

### **Staffing, Activity, and Response of the Clarendon Hills Fire Department**

In this section the staffing pattern of the department is described and analyzed. On-duty staffing always consists of two personnel. Noted is the difficulty in the response of the paid on-call (POC) firefighters to supplement the on-duty personnel. This problem is more prevalent in the daytime although nighttime response is sometimes delayed.

Also in this section the call volume and staffing of the fire department over the past ten years are described. While the call volume has increased, the number and availability of POC firefighters has decreased over this ten year period.

### **Fire Department Staffing Models**

This section describes the various staffing models followed by fire departments in the United States. Clarendon Hills has the model followed by over 94 percent of the fire agencies in the U.S. serving communities the size of Clarendon Hills, i.e., a combination of full-time, part-time, and POC personnel.

### **Staffing and Response Standards**

Over the past several years, several national standards affecting fire department staffing have been promulgated. Most are advisory. This section describes these standards.

### **Staffing and Compensation Comparison With Other Area Departments**

Chosen for comparison were several area departments which were either deemed comparable to Clarendon Hills mostly on the basis of population served but also the type of operation, i.e., mainly

POC or part-time staffing, or in two cases (Hinsdale and Westmont) proximity. In almost all aspects surveyed, i.e., call volume, operating budget, on-duty staffing, and compensation, Clarendon Hills ranks lowest.

### **Alternative Staffing Arrangements**

Five alternative staffing arrangements are discussed in this section. These are: (1) abandoning the current arrangement and going to all full-time personnel; (2) contracting with a private provider for on-duty staff; (3) contracting with another municipality for service; (4) joining a neighboring fire district (a special taxing district); and (5) adding part-time personnel. Within the last alternative, four different staffing patterns are presented. They are based on our review of the staffing patterns in other similar fire departments that use part-time staff supplemented by POCs, the current availability of Clarendon Hills POCs, and the overall call volume of the Clarendon Hills Fire Department.

### **Institution of Duty Shifts**

As is well known, the number of citizens willing to become POCs or volunteers is decreasing. One step progressive fire/EMS administrators are taking to offset the massive amount of time required in the modern fire/EMS service is to institute duty shifts for the POCs. In the case of Clarendon Hills, the current POC membership (30 members) would be divided into three duty shifts to cover the hours from 6 p.m. to 6 a.m. and on weekends to respond to EMS and routine calls, e.g., trouble alarms, service calls, etc. Each crew would be assigned to a duty shift every third day. In the report the advantages and disadvantages of the duty crew system are described.

### **Built-In Fire Protection and Fire Department Staffing**

Clarendon Hills is one of several area communities that have adopted a residential sprinkler ordinance. There is no question that residential sprinklers are important in saving lives and property damage. There are numerous examples where residential sprinklers have been successful in containing a fire to the room of origin as well as saving lives. The question is, will residential sprinklers have an impact on fire department staffing?

## II. STAFFING, ACTIVITY, AND RESPONSE OF THE CLARENDON HILLS FIRE DEPARTMENT

The Clarendon Hills Fire Department is categorized as a combination department consisting of a combination of full-time, part-time, and paid on-call members. The full-time members are the Fire Chief and the Fire Prevention Officer. There are 13 part-time firefighter paramedics who serve Clarendon Hills on their days off from other fire departments. These members are classified as part-time members. The remaining members of the department are 30 individuals who are classified as paid on-call (POC) members. They serve no other fire department and are either residents of Clarendon Hills or nearby communities.

There are two members on duty at all times. One of these on-duty members is a part-time firefighter paramedic and the other is a POC who is qualified as an emergency medical technician-basic (EMT-B). They work 12-hour shifts with one shift beginning at 6 a.m. and the other at 6 p.m. Their primary responsibility is providing emergency medical and ambulance service. Fire and other calls are mainly responded to by the POC members with the assistance of the on-duty shift personnel.

Staffing problems of the department revolve primarily around the lack of availability of POCs for response during the daytime hours during the week. Ten years ago the department could count on as many as 15 POCs to respond during the day. In 2006 this number had dwindled to 6 or 7 with only 3 of these within 5 minutes of the station. Generally, the availability of the POCs during the nighttime hours is not a problem. Moreover, 23 of the 30 POCs live in Clarendon Hills and the others live close to the village border. Although the availability of POCs during the nighttime hours is much greater than during the daytime, for various reasons the response times are greater. In short, the department's staffing problems are across the clock. Of the 30 POCs, the Chief has indicated that there is a core group of 15 who can be regularly relied on.

Table 1 indicates the principal features of the Fire Department's work load for the years 1997 through 2006. From 1997 to 2006, total calls increased 62.3 percent with EMS calls increasing the most - 74.3 percent. Although there was a significant increase in calls in the last ten years, even so the department responded to an average of less than three calls daily. This number of responses is considered a modest workload.

As to the type of call, 58 percent of the calls were categorized as fire and miscellaneous calls and 42 percent as EMS calls. Of the fire and miscellaneous calls, the overwhelming majority were not fire related. A good example would be in the year 2005 where of the 553 fire and miscellaneous calls, 334 or 60.1 percent involved alarm system malfunctions or unintentional activations. Another 134 or 24.2 percent were service calls. Only 11 or 2.0 percent were received as actual fire calls and these mainly involved grass, rubbish, trash, and the like.

| Table 1                                   |        |        |         |           |          |        |          |       |      |      |  |
|---|--------|--------|---------|-----------|----------|--------|----------|-------|------|------|--|
| EMERGENCY ACTIVITY AND STAFFING           |        |        |         |           |          |        |          |       |      |      |  |
| CLARENDON HILLS, ILLINOIS FIRE DEPARTMENT |        |        |         |           |          |        |          |       |      |      |  |
|   | 1997   | 1998   | 1999    | 2000      | 2001     | 2002   | 2003     | 2004  | 2005 | 2006 |  |
| <b>CALLS FOR SERVICE</b>                  |        |        |         |           |          |        |          |       |      |      |  |
| Fire and Miscellaneous Calls              | 391    | 269    | 396     | 415       | 496      | 451    | 447      | 488   | 553  | 608  |  |
| EMS Calls                                 | 253    | 259    | 292     | 331       | 299      | 387    | 399      | 417   | 465  | 441  |  |
| Total Calls                               | 644    | 528    | 688     | 746       | 795      | 838    | 846      | 905   | 1018 | 1049 |  |
| <b>FIRE DEPARTMENT STAFFING</b>           |        |        |         |           |          |        |          |       |      |      |  |
| Full -Time                                | 1      | 1      | 1       | 1         | 1        | 1      | 1        | 1     | 2    | 2    |  |
| Part-Time                                 | 0      | 0      | 9       | 9         | 9        | 9      | 13       | 13    | 13   | 13   |  |
| Paid-On-Call                              | 38     | 38     | 38      | 38        | 36       | 36     | 34       | 30    | 30   | 30   |  |
| POC Day Availability                      | 15     | 15     | 13      | 13        | 12       | 12     | 10       | 10    | 7    | 6    |  |
|   | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Total |      |      |  |
| <b>2006 CALLS BY TIME AND DAY</b>         |        |        |         |           |          |        |          |       |      |      |  |
| 6A-6P                                     |        |        |         |           |          |        |          |       |      |      |  |
| 6-7                                       | 1      | 3      | 6       | 6         | 5        | 8      | 3        | 32    |      |      |  |
| 7-8                                       | 2      | 7      | 10      | 10        | 7        | 6      | 7        | 49    |      |      |  |
| 8-9                                       | 6      | 4      | 9       | 8         | 2        | 9      | 1        | 39    |      |      |  |
| 9-10                                      | 15     | 8      | 12      | 7         | 16       | 8      | 9        | 75    |      |      |  |
| 10-11                                     | 8      | 4      | 5       | 7         | 14       | 7      | 6        | 51    |      |      |  |
| 11-Noon                                   | 7      | 13     | 7       | 13        | 14       | 17     | 5        | 76    |      |      |  |
| Noon-1                                    | 9      | 17     | 7       | 6         | 7        | 8      | 4        | 58    |      |      |  |
| 1-2                                       | 10     | 10     | 4       | 5         | 14       | 4      | 6        | 53    |      |      |  |
| 2-3                                       | 5      | 10     | 9       | 10        | 8        | 9      | 4        | 55    |      |      |  |
| 3-4                                       | 5      | 6      | 9       | 5         | 10       | 4      | 6        | 45    |      |      |  |
| 4-5                                       | 5      | 8      | 8       | 9         | 13       | 13     | 4        | 60    |      |      |  |
| 5-6                                       | 3      | 8      | 8       | 8         | 10       | 9      | 6        | 52    |      |      |  |
| 6A-6P Total                               | 76     | 98     | 94      | 94        | 120      | 102    | 61       | 645   |      |      |  |
| 6P-6A                                     |        |        |         |           |          |        |          |       |      |      |  |
| 6-7                                       | 4      | 8      | 6       | 7         | 11       | 7      | 5        | 48    |      |      |  |
| 7-8                                       | 8      | 11     | 10      | 7         | 8        | 6      | 8        | 58    |      |      |  |
| 8-9                                       | 14     | 5      | 4       | 6         | 7        | 3      | 8        | 47    |      |      |  |
| 9-10                                      | 5      | 8      | 1       | 5         | 6        | 7      | 6        | 38    |      |      |  |
| 10-11                                     | 6      | 21     | 3       | 4         | 8        | 3      | 3        | 48    |      |      |  |
| 11-Midnight                               | 8      | 9      | 3       | 6         | 0        | 4      | 5        | 35    |      |      |  |
| Mid-1                                     | 7      | 4      | 6       | 3         | 3        | 0      | 3        | 26    |      |      |  |
| 1-2                                       | 3      | 3      | 3       | 2         | 2        | 0      | 3        | 16    |      |      |  |
| 2-3                                       | 4      | 3      | 3       | 9         | 2        | 2      | 3        | 26    |      |      |  |
| 3-4                                       | 4      | 2      | 0       | 3         | 2        | 2      | 2        | 15    |      |      |  |
| 4-5                                       | 2      | 0      | 4       | 1         | 3        | 1      | 6        | 17    |      |      |  |
| 5-6                                       | 3      | 3      | 7       | 1         | 5        | 5      | 3        | 27    |      |      |  |
| 6P-6A Total                               | 68     | 77     | 50      | 54        | 57       | 40     | 55       | 401   |      |      |  |
| TOTAL CALLS                               | 144    | 175    | 144     | 148       | 177      | 142    | 116      | 1046  |      |      |  |
|   | 13.8%  | 16.7%  | 13.8%   | 14.1%     | 16.9%    | 13.6%  | 11.1%    |       |      |      |  |

In 2006 the vast majority of all calls (61.7%) were received between the hours of 6 a.m. and 6 p.m. On weekdays (Monday through Friday), the percentage of calls received during these hours was even greater (64.8%). On weekends (Saturday and Sunday), the percentage of calls received during these hours decreased to 53.5%.

Table 1 also shows the history of department staffing from 1997 to 2006. Noted is the decrease of POCs from 38 in 1997 to 30.

In respect to the response of POCs, of those who live in the Village only 5 are available during the day. Two others who live outside the Village but close to the corporate limits are also available during the day. According to the Chief, the number who are available during the day changes constantly. For example, 14 POCs recently responded to a fire call on a weekday whereas the day before only three showed up.

### III. FIRE DEPARTMENT STAFFING MODELS

As noted above, the Clarendon Hills Fire Department is a combination department consisting of a combination of full-time, part-time, and paid on-call members. The paid on-call members of the department are correctly classified as paid on-call members as opposed to volunteers. This distinction is made solely for the purpose of clarification, so that when comparing the terminology of Clarendon Hills to other organizations, there is a distinction between paid on-call and volunteer. Volunteers are individuals who do not receive any monetary reimbursement for services. Paid on-call members receive compensation on an hourly basis and/or call basis and, depending on the amount of compensation, are considered paid employees of the particular jurisdiction.

Generally, there are three basic types of staffing models followed by fire agencies in the United States. They are as follows: primarily career (full-time) personnel, combination of career and part-time (paid on-call) staff, and a combination of POCs and volunteers or all volunteers. The all-volunteer or POC agency normally has no full-time personnel, although there may be a full-time Chief or one or two full-time personnel. This is the mode followed by the vast majority of small communities. A survey conducted by the National Fire Protection Association (NFPA) compared the different types of agencies serving various population groups. This comparison is shown in Table 2. As shown in Table 2, over 94 percent of the fire agencies serving communities of Clarendon Hills' size are found in the last mentioned category.

Other variations in the fire service revolve around the jurisdiction or agency providing the service regardless of the staffing model followed. These include municipalities, counties, special districts (in Illinois these are the fire districts), private companies (PSSI was used by Clarendon Hills for daytime response from 1990 until 2005), and contractual arrangements, e.g., one municipality contracts with another for service, such as the one followed by Clarendon Hills and Westmont for paramedic services from 1987 until 1999.

| TABLE 2  |        |            |         |           |
|--|--------|------------|---------|-----------|
| TYPES OF FIRE DEPARTMENTS SERVING DIFFERENT POPULATION SIZES |        |            |         |           |
| Population   | Career | Career/POC | POC/VOL | Volunteer |
| 1,000,000 +  | 87.5%  | 12.5%      | 0.0%    | 0.0%      |
| 500,000-999,999  | 72.3%  | 22.2%      | 5.5%    | 0.0%      |
| 250,000-499,999  | 79.5%  | 17.6%      | 2.9%    | 0.0%      |
| 100,000-249,999  | 77.6%  | 14.1%      | 5.9%    | 2.4%      |
| 50,000-99,999  | 68.5%  | 19.8%      | 9.6%    | 2.1%      |
| 25,000-49,999  | 46.8%  | 23.6%      | 21.2%   | 8.4%      |
| 10,000-24,999  | 18.5%  | 17.2%      | 40.2%   | 24.1%     |
| 5,000-9,999  | 2.5%   | 2.8%       | 33.1%   | 61.6%     |
| 2,500-4,999  | 0.7%   | 1.1%       | 15.4%   | 82.8%     |
| Under 2,500  | 0.8%   | 0.5%       | 2.7%    | 96.0%     |
| Nationwide   | 6.6%   | 4.1%       | 13.6%   | 75.7%     |

#### IV. STAFFING AND RESPONSE STANDARDS

The debate over the appropriate staffing of a community's fire and related emergency forces has continued for many years. Over the past several years many studies have been undertaken to quantify appropriate staffing levels particularly for fire suppression. Recently, several standards affecting fire suppression staffing have been promulgated. The National Fire Protection Association (NFPA) has enacted NFPA 1500 Fire Department Occupational Safety and Health standard which addresses the minimum number of firefighters necessary to initiate an offensive interior attack on a structural fire. It states, "at least four members shall be assembled before initiating interior firefighting operations at a working structural fire." While NFPA standards are not law, they do serve as a nationally recognized benchmark for fire service performance and fire protection, and are routinely used in arguing legal issues. We will have more to say about the latest NFPA standards later in this discussion.

The Occupational Safety and Health Act of 1970, was designed to protect workers and to ensure a safe working environment. In turn, the U.S. Department of Labor issued rules for safe and healthful working conditions, tools, equipment, and processes. On May 1, 1995, Federal OSHA further clarified its rules by establishing a direct link between firefighter safety and fireground staffing, and interpretation and enforcement of these regulations.

In addition to OSHA standards, the Environmental Protection Agency (EPA) has promulgated a standard that adopts the OSHA Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120) to protect employees. This standard is known as the "HAZWOPER" standard. The EPA and OSHA have agreed that all interpretations regarding compliance with HAZWOPER will be made by OSHA. Thus, all firefighters making a response to emergency operations where there is a potential release of hazardous substances are covered by this standard. This standard requires a buddy system and standby personnel for emergency response operations involving hazardous environments and conditions, including interior structural firefighting. The regulation requires a minimum of four personnel, two as a fire attack team in the buddy system and two standby backup personnel available if the attack team needs to be rescued. This level of staffing is required to conduct operations in hazardous atmospheres where self contained breathing apparatus is used by firefighters. This standard is now termed the "2 in, 2 out" standard which is well known in the fire service. **It is a solid requirement, not an option.** However, for the most part the 2 in, 2 out standard applies only to interior fire attack where the structure itself is on fire and/or where self contained breathing apparatus is used. Small fires in a structure such as a trash can on fire, which do not produce hazardous atmospheres and can be extinguished with fire extinguishers, should not be placed in the same category. Moreover, vehicle fires, dumpster fires, and other exterior fires can be handled by one firefighter, or a two person team, and are not subject to the 2 in, 2 out requirement. It is believed that most fires encountered by the

Clarendon Hills Fire Department fall into this category.

The latest in the long line of so-called staffing standards are two separate NFPA standards voted on and passed at the 2001 NFPA conference. The two standards are NFPA 1710 and 1720. Standard 1710 applies to so-called predominantly "career" fire agencies and is not applicable here. Standard 1720 applies to predominantly paid on-call or volunteer fire agencies. As they apply to reports of a structure fire, the important provisions of 1720 are as follows:

1. The initial fire attack must be initiated within two minutes of the time of assembly 90% of the time.
2. Four firefighters must be on the scene before interior operations can occur.
3. If there is an immediate threat of life or serious injury, action can be initiated with less than four persons.
4. Because of geographical considerations, response time standards are not stated.

Although not applicable to Clarendon Hills because it is not a career fire department, the important provisions of 1710 as they apply to reports of a structure fire are as follows:

1. The first engine has to arrive on the scene within 5 minutes 90% of the time. The 5 minutes includes 1 minute for station egress and 4 minutes for travel time.
2. A minimum of four firefighters must be on the scene before interior operations can occur.
3. There must be a full response (e.g., 3 engines, aerial, and chief officer) within 8 minutes.

Conceptually, as long as there are sufficient numbers of firefighters on the scene when interior operations commence, there is no requirement for all firefighters to arrive on the same piece of equipment. However, for simplicity, maximum efficiency, and safety reasons, it is most advantageous to staff the first due or first arriving unit with three firefighters. This is the engine company staffing in most cities. In such a configuration, one firefighter is the pump operator, and the other two function as the fire attack team. Anything less is not only unwise but dangerous.

It is important to emphasize that NFPA standards are not mandatory. However, once an incident occurs, the fire agency will be judged on its performance compared to the NFPA standard. Therefore, NFPA standards are similar to a double-edged sword. The agency does not have to meet them, but if a serious incident occurs it will be judged against the standards. It should also be noted that NFPA only requires a community to acknowledge the standard and to develop some type of plan on how

it intends to meet the standard. For example, it does not mean that a community should immediately hire additional personnel.

Regardless of any of the standards, there must be sufficient staffing on the emergency scene immediately upon arrival of the first fire unit. If not, firefighters must delay attack or action until others arrive, or more likely, will take inappropriate actions, which can easily result in serious injury or death. Firefighters are aggressive individuals dedicated to fire protection, and will subject themselves to extremely unsafe, high-risk situations to preserve life, regardless of the staffing level.

## V. STAFFING AND COMPENSATION COMPARISON WITH OTHER AREA DEPARTMENTS

Table 3 contains information on the staffing and compensation of other area departments which were either deemed comparable to Clarendon Hills mostly on the basis of population served but also the type of operation, i.e., mainly paid on-call or part-time staffing, or in the case of Hinsdale and Westmont, proximity. With respect to staffing, in almost all aspects, i.e., population, call volume, operating budget, and on-duty staffing, Clarendon Hills ranks lowest in this group. Generally, on-duty staffing of departments most comparable to Clarendon Hills is three to four people. Clarendon Hills has two people.

The experience of three departments that we would consider reasonably comparable to Clarendon Hills are Flossmoor, Richton Park, and Western Springs. Although Flossmoor is in the south suburbs, it is a high class bedroom community similar Clarendon Hills. Flossmoor has a full-time chief, full-time deputy chief, and a full-time training administrator. The deputy chief and the training administrator are expected to be available to answer calls when on duty. Other full-time staff are six contract firefighter paramedics, two per 24-hour shift. Of the 45 part-time and POC personnel, 20 are part-time and 25 are POCs. The part-time personnel work 12-hour shifts (two per shift except Monday through Friday when there is only one on duty) and are compensated on an hourly rate basis. The highest rate is for a paramedic. The department attempts to have the two part-time on duty personnel licensed as paramedics. The POCs receive an annual reimbursement based on their activity. Although Flossmoor has used contract personnel for some time and, for the most part it has been an effective way of staffing, the main problem has been the turnover in personnel.

Richton Park has a full-time chief and a full-time inspector. The inspector is available to answer calls during his regular hours. On duty staff consists of four people assigned to 12-hour shifts. These staff are both part-time (full-time on other departments) and POCs (approximately 50). While on duty, the POCs receive the same hourly rate as the part-time personnel. The department has a minimum of two paramedics assigned to each shift. Although the department would like to have five persons on duty at all times, it can count on the POCs to fill this need at the present time. This department has very little problem with the daytime response of the POCs.

Western Springs has a full-time chief and a full-time inspector. Similar to Flossmoor, other full-time staff are six contract firefighter paramedics, two per 24-hour shift. There are three people on duty at all times - the two contract firefighter paramedics and one POC. All three will respond with the engine on fire calls. The other POCs will take the ambulance. The department relies heavily on the POCs. There are over 40 POCs who are very active. There are no plans to increase on-duty staffing of three people. However, the chief would like to hire an executive officer.

| TABLE 3   |                  |                  |                   |                |                         |                      |                            |               |  |         |
|---|------------------|------------------|-------------------|----------------|-------------------------|----------------------|----------------------------|---------------|--|---------|
| STAFFING AND SALARY COMPARISON WITH OTHER AREA FIRE DEPARTMENTS         |                  |                  |                   |                |                         |                      |                            |               |  |         |
| VILLAGE OF CLARENDON HILLS, ILLINOIS                                    |                  |                  |                   |                |                         |                      |                            |               |  |         |
| STAFFING COMPARISON   |                  |                  |                   |                |                         |                      |                            |               |  |         |
| Population  | 2006 Call Volume | Operating Budget | Budget Per Capita | Administration | Inspection/<br>Training | Firefighting/<br>EMS | PART-TIME AND<br>POC STAFF | TOTAL ON DUTY |  |         |
| Clarendon Hills   | 7,610            | \$633,420        | \$109.52          | 1              | 1                       | 0                    | 49                         | 2             |  |         |
| Flossmoor   | 10,400           | \$1,230,000      | \$118.27          | 1              | 2                       | 6                    | 45                         | 3 or 4        |  |         |
| Hinsdale  | 17,940           | \$3,263,105      | \$181.89          | 3              | 2                       | 24                   | 0                          | 8             |  |         |
| LaGrange Park   | 13,000           | \$1,147,334      | \$88.26           | 1              | 0                       | 6                    | 48                         | 4             |  |         |
| Northfield  | 5,600            | \$1,468,150      | \$262.17          | 3              | 0                       | 0                    | 60                         | 6             |  |         |
| Richton Park  | 13,867           | \$973,000        | \$70.17           | 1              | 1                       | 0                    | 50                         | 4             |  |         |
| Riverside   | 8,990            | \$1,500,000      | \$166.85          | 0              | 0                       | 6                    | 50                         | 4             |  |         |
| Western Springs   | 12,000           | \$1,634,410      | \$136.20          | 2              | 1                       | 6                    | 43                         | 3             |  |         |
| Westmont  | 25,000           | \$4,720,000      | \$188.80          | 6              | 1                       | 0                    | 76                         | 13            |  |         |
| AVERAGE   | 12,712           | \$1,863,269      | \$146.58          | 2              | 0.9                     | 5.3                  | 46.8                       | 5.5           |  |         |
| PER HOUR SHIFT DUTY COMPENSATION FOR A PART-TIME FIREFIGHTER, PARAMEDIC |                  |                  |                   |                |                         |                      |                            |               |  |         |
|   | Entry            | Middle           | Top               |                |                         | Entry                | Middle                     | Top           |  |         |
| Clarendon Hills   | \$13.50          | \$13.50          | \$13.50           |                |                         | \$12.25              | \$12.25                    | \$12.25       |  | \$12.25 |
| Flossmoor   | \$10.92          | \$12.73          | \$14.53           |                |                         | \$10.92              | \$11.80                    | \$12.73       |  | \$12.73 |
| Hinsdale  | none             | none             | none              |                |                         | none                 | none                       | none          |  | none    |
| LaGrange Park   | \$12.67          | \$15.24          | \$17.81           |                |                         | \$12.67              | \$15.24                    | \$17.81       |  | \$17.81 |
| Northfield  | \$15.30          | \$17.90          | \$20.50           |                |                         | \$13.25              | \$15.85                    | \$18.40       |  | \$18.40 |
| Richton Park  | \$13.98          | \$13.98          | \$13.98           |                |                         | \$13.98              | \$13.98                    | \$13.98       |  | \$13.98 |
| Riverside   | \$13.31          | \$13.31          | \$14.31           |                |                         | \$12.31              | \$12.31                    | \$13.31       |  | \$13.31 |
| Western Springs   | \$10.94          | \$13.42          | \$15.90           |                |                         | \$9.94               | \$10.97                    | \$12.01       |  | \$12.01 |
| Westmont  | \$15.73          | \$18.19          | \$21.38           |                |                         | \$11.87              | \$16.40                    | \$19.59       |  | \$19.59 |
| AVERAGE   | \$13.29          | \$14.78          | \$16.49           |                |                         | \$12.15              | \$13.60                    | \$15.01       |  | \$15.01 |

Table 3 also shows the hourly compensation of part-time firefighter paramedics and part-time firefighter EMTs assigned to duty shifts in Clarendon Hills and the other departments mentioned above. Both Clarendon Hills and Richton Park have one rate regardless of length of service while the rates of other departments vary. In virtually all cases, the hourly rate of Clarendon Hills is lowest at the maximum.

Based on the above findings, it is recommended that the hourly rate for part-time firefighter paramedics and part-time firefighter EMTs in Clarendon Hills be increased.

## VI. ALTERNATIVE STAFFING ARRANGEMENTS

Before discussing some alternatives for staffing the Department's fire suppression and EMS programs, it is important to stress that the alternative chosen be one that solves existing problems at the least cost. The major problems that must be solved are the less than desirable number of POCs available to respond to daytime emergencies, and secondly the length of time it takes the POCs to respond to nighttime emergencies. Despite problems with reliance on POCs, there are examples of fairly large communities that continue to operate quite successfully with this type of service. Many of them operate the same way that Clarendon Hills operates with a small corps of part-time on-duty personnel supplemented by the POCs. Also, some do not provide paramedic and ambulance service rather relying on private companies for this service.

In evaluating the cost of the alternatives, it is important to indicate three points:

- \* Budgeted operating expenditures of the Department for fiscal year 2007-2008 are \$833,420 or \$109.52 per capita assuming a current population of Clarendon Hills of 7,610 according to the U.S. 2000 census. The cost to each homeowner is \$464. Currently, fire department operating costs not being covered by the Fire Protection and Fire Prevention levies are supported by about \$95,000 in ambulance fees and \$73,023 in General Fund revenues.
- \* The average taxable value of a home in Clarendon Hills is \$800,000.
- \* The Fire Protection levy and Fire Pension levy are based on the Village's most recent 2006 tax levy.

The following alternatives will be discussed. They are summarized in Table 4. More detail is provided in the Appendix.

### **Full-Time Personnel Around the Clock (Alternative 1)**

This is the model followed by Hinsdale. It is the most traditional found in the fire service assuming 56-hour duty week (24-hour shifts). Current salary plus benefits for each full-time in Hinsdale is approximately \$100,000. In order for Clarendon Hills to operate with a minimum of four full-time personnel around the clock (this is the staffing followed by most of the departments with paid on-call personnel), six people must be assigned to each shift or a total of 18. Additional costs include Chief and Fire Inspector salaries and benefits and other operating costs. An estimated savings of approximately 35% of the current paid on-call costs may be realized resulting from the use of full-time personnel. A full-time department with the above staffing would have an estimated annual

| TABLE 4  |             |                 |                           |  |  |
|--|-------------|-----------------|---------------------------|--|--|
| Summary of Cost of Fire Staffing Alternatives  |             |                 |                           |  |  |
| Village of Clarendon Hills, Illinois   |             |                 |                           |  |  |
|  | Total Cost  | Cost Per Capita | Property Tax Levy Amount* | Property Tax Rate (Per \$100 Assessed Value) | Owner Cost With A Taxable Value Of \$800,000 |
| Current Status   | \$833,420   | \$109.52        | \$833,420                 | 0.1741                                       | \$464  |
| Alternative 1 - Hinsdale/Full-time Example   | \$2,278,505 | \$299.41        | \$2,278,505               | 0.4760                                       | \$1,269                                      |
| Alternative 2 - 2 Current Part-time and 2 Contracted Part-time   | \$1,147,505 | \$150.79        | \$1,147,505               | 0.2397                                       | \$639  |
| Alternative 3 - Contract With Westmont   | \$1,438,290 | \$189.00        | \$1,438,290               | 0.3005                                       | \$801  |
| Alternative 4 - Join Tri State Fire District   | \$2,535,212 | \$333.14        | \$2,535,212               | 0.5296                                       | \$1,412                                      |
| Alternative 5a - Additional 3 Part-time Firefighter/Paramedics   | \$1,116,420 | \$146.70        | \$1,116,420               | 0.2332                                       | \$622  |
| Alternative 5b - Additional 2 Part-time Firefighter/Paramedics   | \$1,019,420 | \$133.96        | \$1,019,420               | 0.2130                                       | \$568  |
| Alternative 5c - Additional 2 PT Firefighter/Paramedics Nights and Weekends; 1 additional Days Monday - Friday | \$994,920   | \$130.74        | \$994,920                 | 0.2078                                       | \$554  |

\* Amount of projected property tax levy assumes the entire cost is funded by a tax levy.

operating budget of \$2.28 million (\$299.41 per capita) or \$1,269 to a homeowner with an average taxable home value of \$800,000.

This alternative has several advantages. Among them are the following:

- \* Greater stability, including less turnover
- \* Higher training standards
- \* Better teamwork with members consistently working together
- \* Better continuity on projects
- \* The image of a career department

Some of the disadvantages are as follows:

- \* Conflict between the members and the POCs
- \* Diminished involvement of the POCs (if they continue to exist at all)
- \* The potential for union influence
- \* The obvious higher cost. This is a clear disadvantage
- \* Is this alternative really necessary given the low workload of the Department?

#### **Contract with a Private Provider and Use part-time Personnel (Alternative 2)**

Under this alternative, the Village would contract with a private provider for two contract personnel to supplement the two part-time personnel currently on duty. This alternative would result in having four personnel on duty at all times.

Several area departments that rely heavily on POCs are using contract personnel to provide on-duty staff either in part or totally. Several companies provide this service. In fact, Clarendon Hills used this approach from 1990 until 2005. In 1990, the Village contracted with Public Safety Services of Illinois for two contract EMTs to work from 8 a.m. to 5 p.m., Monday through Friday. In 1999, the contract was amended to have one EMT-B on duty from 6 a.m. to 6 p.m. Monday through Friday.

Also, at that time the Village hired 10 part-time firefighter paramedics and began providing its own Advanced Life Support (paramedic) service. With these personnel plus available POCs and the contract EMTs, for the first time the Fire Department was able to have two people on duty 24 hours per day. This is the current on-duty staffing.

In 2005, this arrangement was changed slightly by terminating the contract for the one EMT-B and hiring a full-time Fire Prevention Officer. In addition to fire prevention duties, this position also serves as an emergency backup for daytime POCs.

Chief Leahy contacted one prominent area firm which provides contract personnel to fire departments and obtained a verbal quotation to provide firefighter paramedics on a contractual basis. The current rate for one contract firefighter paramedic on duty 24 hours per day, 365 days per year is \$213,500 or \$427,000 for two persons. This compares to the rate of \$121,000 for one person or \$242,000 for two persons currently being paid by Clarendon Hills. This is the rate stated in the 2007-2008 budget. In short, the contract arrangement is much more expensive than using part-time firefighter paramedics. Also, since the part-time firefighter paramedics work on other full-time fire departments, they are much more experienced than those provided by contractors.

The estimated annual budget of \$1.15 million includes the cost of the current two part-time personnel, the cost of the two contract personnel, the salary and benefit costs of the Chief and the Fire Inspector, and other operating costs. An estimated savings in the cost of paid on-call personnel of 35% may be realized from the use of contract personnel. The estimated annual budget of \$1.15 million results in a cost per capita of \$150.79 or \$639 to a homeowner with an average taxable home value of \$800,000.

### **Contract with Another Municipality for Service (Alternative 3)**

A variation of this alternative was chosen in 1987 when Clarendon Hills contracted with Westmont to provide paramedic service through an intergovernmental agreement. Two Westmont paramedics responded to EMS calls in both Westmont and Clarendon Hills using a paramedic response squad. For Clarendon Hills transports, the Clarendon Hills ambulance was used with one of the Westmont paramedics on board. This arrangement was canceled in 1999 when it became too expensive and unreliable resulting in Clarendon Hills hiring its own paramedics. At the time the Westmont arrangement was terminated, the shared paramedics were not available for about 25% of the calls in Clarendon Hills.

Another variation would be for Clarendon Hills to give up its fire department and contract with a nearby municipality, e.g., Westmont or Hinsdale, for service. Given the previous experience with the Westmont intergovernmental agreement and the fact that Hinsdale has a career department, this alternative does not look promising from a cost standpoint. We have already discussed the cost of

the Hinsdale operation in conjunction with the discussion of a full-time career department. In the case of Westmont, this alternative makes some sense because the two departments operate similarly (small cadre of full-time with a larger group of part-time personnel). Westmont's population is 25,000. The fire operating budget is approximately \$4.72 million or \$189 per capita. Assuming that Westmont would charge Clarendon Hills on a per capita basis, the charge to Clarendon Hills would be approximately \$1.44 million (7,610 in Clarendon Hills multiplied by \$189). Westmont would be obligated to staff the Clarendon Hills station in a manner similar to how it staffs its own.

#### **Dissolve the Fire Department and Join the Tri State Fire District (Alternative 4)**

The information collected by the village staff indicates that Tri State has a tax rate of \$.5296 per \$100 assessed valuation for only fire protection/EMS while Clarendon Hills has a tax rate of \$.5265 for all municipal services of which \$.1341 is for fire protection. On the surface it appears that joining the district would be cost prohibitive for Clarendon Hills residents. Only the small portion of the Clarendon Hills rate for fire protection/EMS would be eliminated while the entire Tri State rate would be levied. The adjusted proposed tax levy for fire protection for 2006 is \$641,941. This is the amount that would be eliminated. In return, the Tri State rate of \$.5296 per \$100 assessed valuation applied to the Clarendon Hills assessed valuation would amount to approximately \$2.535 million in taxes (\$333.14 per capita or \$1,412 to a homeowner with an average taxable home value of \$800,000) that would be paid by Clarendon Hills residents to the Tri State Fire District. This figure minus the current fire levy of \$641,941 would result in approximately \$1.9 million that Clarendon Hills residents would pay for fire protection if Clarendon Hills dissolved its fire department and joined the Tri State District.

#### **Additional Part-time Personnel (Alternative 5)**

This is the preferred alternative. The current system of part-time personnel supplemented by paid on-call personnel has worked very well and should be continued. At the same time the number on duty should be increased. The question is, how many should be on duty? A couple of points should be considered in making this determination: (1) the standard on-duty staffing of full-time departments that have one engine and one ambulance in front-line service and do not rely on POCs is five: three on the engine and two on the ambulance; and (2) the most common on-duty staffing of departments that rely on part-time personnel and POCs is four.

Some believe that there should be five personnel on duty which is the standard staffing in full-time departments that operate one engine and one ambulance and which do not rely on paid on-call personnel for initial response. It is based on the unreliability of the response of the POCs. It is also based on the apparent need to participate more fully in automatic aid arrangements with its neighboring departments. Currently, Clarendon Hills does have advanced mutual aid agreements with Hinsdale and Westmont. Either one of these departments will call Clarendon Hills when a report

of a structure fire is received in their community, or when smoke is showing. Clarendon Hills will do the same with these two departments. Some people may call this automatic aid as contrasted with mutual aid.

It is important to point out what is meant by the terms mutual aid and automatic aid. Under a mutual aid agreement, each department which is part of the agreement will respond to an incident in another community when requested by the host community. Fire departments in northern Illinois have perfected this concept and have established what is known as the Mutual Aid Box Alarm System (MABAS). Response under MABAS is based on the concept that it is better to take a few resources from a number of departments than to exhaust all the resources from one department.

A true automatic aid system involves automatic response of the fire department of one community to another community by being dispatched simultaneously to certain types of calls or locations. The advantages of an automatic aid program are several. First and foremost, citizens receive a higher level of service since, in the programs that are set up correctly, the closest unit(s) to an incident respond regardless of from what jurisdiction it comes. There is no delay in receiving assistance, as may occur with mutual aid. Not only does an automatic aid arrangement result in better response times, it negates the need to fund additional fire resources.

Our review of other departments similar to Clarendon Hills that have either three or four personnel on duty indicates that all are involved in automatic aid arrangements with their neighboring departments. For example, Richton Park has had an automatic aid arrangement with University Park and the Frankfort Fire Protection District for years as has Flossmoor with Homewood, Hazel Crest, and Country Club Hills.

The following describes three alternative fire department staffing patterns using additional part-time personnel. They are based on our review of the staffing patterns in other similar fire departments that use part-time staff supplemented by POCs, the current availability of Clarendon Hills POCs, and the overall call volume of the Clarendon Hills Fire Department.

#### **An Additional Three Persons On Duty (Alternative 5a)**

The first would be to increase the number on duty from two to five persons around the clock. Of these five, three would be assigned to the truck or engine and two to the ambulance. This is the staffing recommended by the Chief. The main advantage of this alternative would be that a full initial response would be assured without having to rely on the POCs. The POCs would provide additional staffing at the scene or be available for a second call. Other than being the most costly of the alternatives, a possible disadvantage would be that the POCs would be relegated to a secondary or backup role unless some of them were recruited to fill the part-time positions. Also, the question can be

raised as to whether this staffing is really necessary given the modest workload of the department.

Based on the salary cost of having one firefighter on duty around the clock of \$121,000, the additional cost of this alternative would be \$363,000 compared to the current \$242,000 for two positions around the clock. All other current budgeted staff and operating costs are estimated to remain the same with the exception of a projected reduction in the cost of the paid on-call staff of 50% or \$80,000. This part-time staffing alternative, with an estimated annual cost of \$1.12 million, would cost \$146.70 per capita or \$622 to a homeowner with an average taxable home value of \$800,000.

#### **An Additional Two Persons On Duty (Alternative 5b)**

This alternative would involve having four people on duty around the clock. This is the predominant on-duty staffing pattern in other departments that use part-time or contract firefighters extensively along with POCs. On a fire call, three persons would respond with the truck or engine while one position would stay behind. If a medical emergency occurs, this person would respond with the ambulance after one person qualified as an EMT-Basic arrives.

The estimated annual cost of this alternative would be \$242,000 for the two additional employees. All other current budgeted staff and operating costs are estimated to remain the same, with the exception of a projected reduction of the cost of paid on-call response of approximately 35% or \$56,000. This part-time staffing alternative, with an estimated annual cost of \$1.02 million, would cost \$133.96 per capita or \$568 to a homeowner with an average taxable home value of \$800,000.

#### **Variable Staffing (Alternative 5c)**

The third alternative would be to have variable staffing with four people on duty during the nighttime hours and on weekends and three people on duty during the daytime Monday through Friday. This alternative assumes the availability of the Fire Inspector for at least 50% of his time plus an adequate response of the available POCs. This alternative would require two additional part-time employees on duty during the nighttime hours and on weekends and one additional part-time employee on duty during the daytime Monday through Friday. The annual additional cost of this alternative would be \$181,500. All other current budgeted staff and operating costs are estimated to remain the same, with the exception of a projected cost reduction of approximately 12.5% or \$20,000 due to the reduced need for POC response. This staffing alternative, with an estimated annual cost of \$995,000, would cost \$130.74 per capita or \$554 to a homeowner with an average taxable home value of \$800,000.

Although many improvements have been made in the fire service, the basic theory of staffing

is still much the same as it was years ago: to keep the same number of personnel on duty in the same place every day throughout the year. This concept does not recognize that the needs of the fire service vary during different times of the day and different days of the week. This is no more apparent than in Clarendon Hills where, as has been indicated, there are fewer POCs available during the daytime than during nights and on weekends. Moreover, over 60 percent of the calls in Clarendon Hills are received during the daytime hours (6 a.m. - 6 p.m.). In fact, the department began to address this problem in 2005 when it hired the Fire Prevention Officer. This 40-hour position also serves as an emergency backup for the daytime POCs. On the other hand, although the department has more POCs available during the nighttime hours, there are problems with their response times during this period.

#### **An Additional One Person On Duty (Alternative 5d)**

The fourth alternative would be to have three people on duty around the clock and to rely upon the POCs for additional staff. This alternative would enable the department to respond immediately with three people on the truck or engine to fire calls. The POCs would respond with the ambulance if the engine or truck had responded. This is the response pattern followed by the Western Springs Fire Department. It should be stated that the Western Springs Fire Department has an excellent and dependable group of POCs. In the case of Clarendon Hills, because of the department's problems with the response of POCs, this alternative has been dismissed as not viable and thus has not been costed out. Nevertheless, it would be the least costly of the possible alternatives.

#### **Future Staffing**

As to the future, the department should watch closely its call volume as well as its experience with the response of the POCs. Because of the costs associated with adding additional part-time positions, this is an option that should only be taken with extreme caution. The impact on the culture or personality of the Clarendon Hills Fire Department is much more difficult to estimate. In the final analysis, it is concluded that if Clarendon Hills values its highly capable and well-trained force of POCs, all measures should be taken to utilize and support them before hiring additional part-time personnel. One of these measures is discussed below.

## VII. INSTITUTION OF DUTY SHIFTS

As is well known, the number of citizens willing to become volunteers or paid on-call members nationwide is decreasing. This is not a trend limited to the fire/EMS service, but rather a challenge facing many organizations that depend on volunteerism. It is particularly noticeable in the fire/EMS service because of the tremendous amount of additional time required of individuals to obtain certifications that are necessary to keep up with advancements in the modern fire/EMS service. Many individuals are simply not willing to devote this time. This fact requires that fire/EMS administrators do everything in their power not only to recruit and retain members, but also to manage the organization in such a way as to minimize or at least offset the massive amounts of time required in the modern fire/EMS service, time that is becoming increasingly less available to POCs.

One step progressive fire/EMS administrators have taken in this regard is to institute duty shifts. Currently, POCs in Clarendon Hills are for the most part free to respond to any call when they are available. This has been a very traditional approach in the fire service and is at the very core of the volunteer philosophy. Most members perceive themselves as volunteers and are not active merely for monetary gain. Any change in this approach to response may be resisted. In any event, the duty shift approach to response should be considered.

In instituting duty shifts, the current POC membership (30 members) would be divided into three duty shifts to cover the hours from 6 p.m. to 6 a.m. and on weekends to respond to EMS and routine calls, e.g., trouble alarms, service calls, etc. Each crew would be assigned to a duty shift every third night. Each duty crew would need to have personnel with the proper certifications such as fire apparatus engineer and EMT.

The advantage of duty shifts are numerous. Some of them are as follows:

1. Members will have more family and/or personal time. Many POCs today put great emphasis on family or personal time. Recruitment of new members might improve if the individual feels that less of their optional time is committed to the fire/EMS service.
2. The attrition rate should drop. As call volume increases, many POCs find it increasingly difficult to maintain their job, family, and personal responsibilities and still devote the time needed to the fire/EMS service. Moreover, because POCs are required to obtain greater levels of certification than in the past, the time for training is increasing and greater effort and commitment is required.
3. Duty shifts are more cost efficient and easier to administer. Individuals who are assigned

to duty shifts are responsible for responding to all calls during that time or finding substitutes with equal or greater qualifications who will cover their shift. For example, there is no need to have 20 members respond to a car fire in the middle of the night. These types of calls can be mitigated successfully by a duty crew of fewer individuals.

On the other hand, duty shifts are not without disadvantages. Among them are the following:

1. The primary disadvantage to implementing duty shifts is the initial reluctance of the members to accept being told that they cannot respond at will, at least to calls during the nighttime hours. This issue strikes at the very heart of the reason for their participation.

2. Obtaining substitutes could become a problem. This would be the responsibility of the individual member. Department administration cannot be expected to find substitutes in all cases for members who have conflicts. There are exceptions. These would include, for example, a member's unexpected recall to their primary job, family emergencies, sickness/injuries, and personal situations that preclude response.

It should be noted that all available members would respond to daytime incidents, fires reported in structures, multiple events regardless of the time of day, and all general alarms (all call). However, only those members on the assigned duty crew would respond and be compensated for single unit or EMS responses in the evening hours or on weekends. In addition, the duty shift officer should always have the authority to issue a general alarm if the number of members either at the emergency scene or on standby at the fire station is inadequate. This decision should be based on the safety of the members as well as citizens. However, general alarms should be the exception with properly operated duty shifts.

## VIII. BUILT-IN FIRE PROTECTION AND FIRE DEPARTMENT STAFFING

In its Request for this study, the Village asked that the impact of built-in protection on fire department staffing be reviewed.

Generally, property hazard levels should be used to determine the number and type of fire companies required and the staffing levels for each. One method of measuring property hazard levels is to determine the amount of water required to control and extinguish a fire in a building or group of buildings. Required fire flow will vary according to a building's ground floor area, height, construction, occupancy, internal fire protection systems (automatic sprinklers), and exposure conditions. **The Guide for the Determination of Required Fire Flow**, published by the Insurance Services Office (ISO), can help to determine fire flow requirements for specific hazards. It is also helpful in assessing fire flow requirements according to a community's hazard variables. The guide states that by using these computations, fire flow requirements "may be reduced by up to 50 percent for complete automatic sprinkler protection. Where buildings are either fire resistive or non-combustible construction, the reduction may be up to 75 percent." Thus, established fire flow values can be cut drastically by requiring the installation of automatic sprinkler protection.

A simple example should help to explain the impact of automatic sprinkler protection. Using water application rates, staffing requirements are determined on the basis of how much staff is required to deliver a certain amount of water. A common rule of thumb is that one person is required for each 100 gpm. For a common residential room and contents fire involving 1,200 cubic feet, the demand rate would be 400 gpm and would require approximately four persons to apply the water rate. If the room were equipped with automatic sprinklers, the required fire flow, and thus the staffing requirement, is cut in half. Regardless of the method used to compute required fire flow, there is general agreement that the public protection equipment requirement increases with the fire flow requirement. Conversely, as the property hazard is reduced, so is the required fire flow and thus, the level of fire department response.

A community policy to control and reduce property hazard levels by requiring automatic sprinklers can have a significant impact on holding the line with fire department staffing requirements. In addition to improved life safety and property protection, automatic sprinklers may reduce property insurance premiums and the demand on the the community's fire suppression delivery system.

Clarendon Hills is one of several area communities that have wisely adopted a residential sprinkler ordinance. Although automatic sprinklers do have an impact on fire suppression staffing, this is not their primary purpose. Their primary purpose is to save lives and property. There have

been dramatic examples of them accomplishing this purpose. Moreover, when it is considered that fires in structures are only a fraction of the calls received by fire departments, there must be sufficient staff available to handle the myriad of other duties including fires not in structures, EMS calls, and the like.

**APPENDIX**

**Cost Details of Fire Study Staffing Alternatives**

**Village of Clarendon Hills, Illinois**

# VILLAGE OF CLARENDON HILLS

DATE: November 7, 2007

TO: Village President and Board of Trustees

CC: Rob Bahan, Village Manager

FROM: Brian Leahy, Fire Chief  
Peg Hartnett, Finance Director

SUBJECT: Fire Study Staffing Alternatives

The attached spreadsheet provides a summary and comparison of the various staffing options, resulting from the draft PAR Group Fire Service Study. Each alternative provides a cost comparison on a total annual expenditure basis, per capita basis, property tax rate basis, and the cost to a homeowner with an average taxable home value of \$800,000. The following assumptions were used in the evaluation of these alternatives:

- Budgeted expenditures are based on the Fire Department's fiscal year 2007-08 budget of \$833,420; of which \$672,415 is allocated to personnel services and \$161,005 to additional operating expenses.
- Budgeted expenditures are based on operating costs only. Capital outlay expenses are not included in this analysis.
- A Clarendon Hills population of 7,610; based on the U.S. Department of Commerce, Bureau of Census, 2000 census.
- The Fire Protection levy and Fire Pension levy are based on the Village's most recent 2006 tax levy. Statutory requirements restrict the use of the Fire Pension levy to funding for Fire Department personnel pensions only.

## Current Status

The Clarendon Hills Fire Department currently consists of two full-time members, the Fire Chief and the Fire Prevention Officer, 13 part-time firefighter/paramedics who serve Clarendon Hills on their days off from other fire departments, and 30 Paid on Call (POC) members. Two part-time members are on duty at all times; one part-time paramedic and one POC or two part-time paramedics. Staffing problems can be attributed to a diminishing number of POCs available for response, and an increase in the number of calls over the past ten years.

Fiscal year 2007-08 budgeted operating costs for the Fire Department are \$833,420, \$109.52 per capita, or a cost of \$464 to a homeowner with an average taxable home value of \$800,000.

Currently, Fire Department operating costs, that are not being covered by Fire Protection and Fire Pension levies, are supported by an average \$95,000 in ambulance fees and \$73,023 in General Fund revenues.

### **Alternative #1 – Hinsdale/Full-time Example**

The Village of Hinsdale Fire Department operates in a traditional manner with full-time personnel around the clock. Current salary plus benefits for each full-time firefighter/paramedic equals \$100,000. In order for Clarendon Hills to operate with a minimum of four full-time firefighter/paramedics on duty 24 hours per day, 365 days per year, and accommodate employees' days off, six people must be assigned to each shift. Additional costs include Chief and Fire Inspector salaries and benefits and other operating costs. An estimated savings of approximately 35% of the current Paid on Call costs may be realized, resulting from the use of full-time personnel. This full-time alternative, with an estimated annual operating budget of \$2.28 million, would cost \$299.41 per capita or \$1,269 to a homeowner with an average taxable home value of \$800,000.

### **Alternative #2 – 2 Current Part-time and 2 Contracted Part-time**

This alternative is based on a proposal from a private contractor to provide for on-duty staffing of part-time personnel. The current annual contractor rate for each firefighter/paramedic on duty 24 hours per day, 365 days per year is \$213,500, or \$427,000 for two persons. Current part-time staffing would be maintained and continuing costs would include their salaries, Chief and Fire Inspector salaries and benefits, and other operating costs. An estimated savings of approximately 35% of the current Paid on Call costs may be realized, resulting from the use of contractor personnel. This alternative, with an estimated annual operating budget of \$1.15 million, would cost \$150.79 per capita or \$639 to a homeowner with an average taxable home value of \$800,000. It should be noted that private contractors typically experience higher turnover rates for personnel, who are usually less experienced.

### **Alternative #3 – Westmont Example**

The Village has an option to dissolve its Fire Department and contract with a nearby municipality for service, e.g. Westmont or Hinsdale. In 1987, Clarendon Hills contracted with Westmont to provide paramedic services to the Village through an intergovernmental agreement, which was subsequently cancelled in 1999 when Westmont demanded much more than the proportionate share for these services. Additional difficulties resulted from paramedics not being available for calls in Clarendon Hills, causing deterioration in this life saving service. In 1999, the Clarendon Hills Fire Department began operating its own paramedic service, as it was economically feasible to perform the service in-house.

Currently, Westmont's annual operating budget for Fire Protection is approximately \$4.72 million or \$189 per capita. Making an assumption that Westmont would charge Clarendon Hills on a per capita basis and using the same per capita rate of \$189 as their residents, the Village's annual cost for fire protection would be approximately \$1.44 million, or \$801 to a homeowner with an average taxable home value of \$800,000.

#### **Alternative #4 – Tri State Example**

This alternative provides for the Village to dissolve its Fire Department and allow the Tri State Fire District to provide services. This action would increase the taxable and service area of Tri State. Currently, Tri State has a property tax rate of \$.5296 per \$100 in assessed valuation. At this current rate of \$.5296, the total annual cost to Village residents would be \$2.54 million, \$333.14 per capita, or \$1,412 to a homeowner with an average taxable home value of \$800,000.

#### **Alternative #5a – Additional Three Part-time Firefighter/Paramedics, 24/7, 365 Days/Year**

Another part-time alternative is to provide an additional three firefighter/paramedics on duty around the clock, enabling the availability of personnel 24/7, 365 days/year for the ambulance and one piece of fire apparatus, e.g. engine or truck. This would allow for the immediate attack of a structure fire upon arrival. In addition, this alternative would afford the Fire Department an opportunity to relieve some of the call load for its POC personnel.

The Village's current annual cost of providing one firefighter/paramedic, 24/7, 365 days/year is \$121,000 each; \$363,000 for three additional employees. All other current budgeted staff and operating costs are estimated to remain the same, with the exception of a projected Paid on Call response cost reduction of approximately 50% or \$80,000. This part-time staffing alternative, with an estimated annual cost of \$1.12 million, would cost \$146.70 per capita or \$622 to a homeowner with an average taxable home value of \$800,000.

#### **Alternative #5b – Additional Two Part-time Firefighter/Paramedics, 24/7, 365 Days/Year**

One part-time alternative to the fire staffing problem is to provide an additional two firefighter/paramedics on duty around the clock. The Village's current annual cost of providing one firefighter/paramedic, 24/7, 365 days/year is \$121,000; \$242,000 for two additional employees. All other current budgeted staff and operating costs are estimated to remain the same, with the exception of a projected Paid on Call response cost reduction of approximately 35% or \$56,000. This alternative, with an estimated annual cost of \$1.02 million, would cost \$133.96 per capita or \$568 to a homeowner with an average taxable home value of \$800,000.

#### **Alternative #5c – Additional Two Part-time Firefighter/Paramedics on Nights and Weekends; One Additional Firefighter/Paramedic on Days, Monday – Friday**

This final part-time alternative provides for an additional two firefighter/paramedics on duty during the night time hours and on weekends; one additional firefighter/paramedic on duty during the daytime Monday through Friday, for an annual cost of \$181,500. All other current budgeted staff and operating costs are estimated to remain the same, with the exception of a projected Paid on Call response cost reduction of approximately 12.5% or 20,000. This part-time staffing alternative, with an estimated annual cost of \$995 thousand, would cost \$130.74 per capita or \$554 to a homeowner with an average taxable home value of \$800,000.

VILLAGE OF CLARENDON HILLS  
 Fire Study Staffing Alternatives  
 Summary

11/16/2007

|  | Total Cost | Cost per Capita | Property Tax Levy Amount <sup>^</sup> | Property Tax Rate (per \$100 Assessed Value) | Homeowner Cost with a Taxable Home Value of \$800,000 |
|--|------------|-----------------|---------------------------------------|--|---|
| Current Status   | \$ 833,420 | \$ 109.52       | \$ 833,420                            | 0.1741                                       | \$ 464  |
| Alternative # 1 - Hinsdale/Full-time Example   | 2,278,505  | 299.41          | 2,278,505                             | 0.4760                                       | 1,269   |
| Alternative #2 - 2 Current Part-time and 2 Contracted Part-time  | 1,147,505  | 150.79          | 1,147,505                             | 0.2397                                       | 639   |
| Alternative #3 - Westmont Example  | 1,438,290  | 189.00          | 1,438,290                             | 0.3005                                       | 801   |
| Alternative #4 - Tri State Example   | 2,535,212  | 333.14          | 2,535,212                             | 0.5296                                       | 1,412   |
| Alternative #5a - Additional Three Part-time Firefighter/Paramedics 24/7 365 Days/Year                     | 1,116,420  | 146.70          | 1,116,420                             | 0.2332                                       | 622   |
| Alternative #5b - Additional Two Part-time Firefighter/Paramedics 24/7 365 Days/Year                       | 1,019,420  | 133.96          | 1,019,420                             | 0.2130                                       | 568   |
| Alternative #5c - Additional Two PT Firefighter/Paramedics on Nights and Weekends; One Additional Days M-F | \$ 994,920 | \$ 130.74       | \$ 994,920                            | 0.2078                                       | \$ 554  |

<sup>^</sup> Amount of projected property tax levy assumes the entire cost is funded by a tax levy.

VILLAGE OF CLARENDON HILLS

Fire Study Staffing Alternatives

11/16/2007

Fiscal Year 2007-08 Budgeted Expenditures by Classification

|  |                   |        |            |
|--|-------------------|--------|------------|
| Personnel Services                                     | \$ 672,415        | Rate   | Amount     |
| Contractual Services (includes Dispatch and Operating) | 76,630            | 0.1341 | \$ 641,941 |
| Supplies   | 46,775            | 0.0049 | 23,456     |
| Capital Outlay   | -                 | 0.3875 | 1,854,975  |
| Vehicle Maintenance                                    | 37,600            | 0.5265 | 2,520,372  |
| <b>Total</b>   | <b>\$ 833,420</b> |        |            |

Assumptions:

Clarendon Hills population based on 2000 census  
 Village 2006 levy year assessed valuation  
 An average taxable home valuation of \$800,000 = An assessed valuation of \$478,703,146  
 \* Statutory requirements restrict the use of Fire Pension levy to Pension contributions.  
 \*\* Additional budgeted operating costs are based on the 2007-08 budget = \$266,640  
 (Total budget of \$833,420 - \$672,415 in Personnel costs)  
 ^ Amount of projected property tax levy assumes the entire cost is funded by a tax levy.  
 Expenses are for operating costs only. Capital outlay expenses are not included.

Current Status

Two members on duty around the clock - one part-time paramedic and one Paid on Call (POC)/EMT or two part-time paramedics.

2007-08 Fire Dept. Budget - \$833,420; of which \$672,415 is Personnel Costs and \$161,005 of additional operating costs.

Currently, the Fire Protection budget is funded by a Fire Protection levy of \$641,941;

Fire Pension levy\* of \$23,456; Ambulance fees of \$95,000; and General Fund revenues of \$73,023.

Alternative #1 - Hinsdale/Full-time Example

A minimum of four full-time firefighter/paramedics on duty 24 hours per day, 365 days per year. Six people assigned per shift, in order to accommodate benefit time and overtime, for a total of 18 people. \$100,000 for a full-time firefighter/paramedic; based on Hinsdale's current salary of \$70,000 and \$30,000 in benefits.

Chief and Fire Inspector salaries and benefits

65% of Paid on Call costs

Additional budgeted operating costs\*\*

|       |              |           |              |            |          |            |           |        |
|-------|--------------|-----------|--------------|------------|----------|------------|-----------|--------|
| Total | \$ 2,278,505 | \$ 299.41 | \$ 2,278,505 | \$ 427,000 | \$ 56.11 | \$ 427,000 | \$ 0.0892 | \$ 238 |
|-------|--------------|-----------|--------------|------------|----------|------------|-----------|--------|

Alternative #2 - 2 Current Part-time and 2 Contracted Part-time

Contract with a private provider and use part-time personnel to provide on-duty staff. A minimum of four firefighter/paramedics on duty 24 hours per day, 365 days per year. Maintain two current part-time staff and add two contracted staff at the contractor rate of \$213,500 each. (\$213,500 x 2).

Chief and Fire Inspector salaries and benefits

Current 2 part-time Staff (\$121,000 each x 2)

65% of Paid on Call costs

Additional budgeted operating costs\*\*

|       |              |           |              |            |          |            |           |        |
|-------|--------------|-----------|--------------|------------|----------|------------|-----------|--------|
| Total | \$ 1,147,505 | \$ 150.79 | \$ 1,147,505 | \$ 213,500 | \$ 28.06 | \$ 213,500 | \$ 0.0446 | \$ 119 |
|-------|--------------|-----------|--------------|------------|----------|------------|-----------|--------|

|  | Total Cost   | Cost per Capita | Property Tax Levy Amount ^ | Property Tax Rate (per \$100 Assessed Value) | Homeowner Cost with a Taxable Home Value of \$800,000 |
|--|--------------|-----------------|----------------------------|--|---|
| <b>Current Status</b>  | \$ 833,420   | \$ 109.52       | \$ 833,420                 | 0.1741                                       | \$ 464  |
| <b>Alternative #1 - Hinsdale/Full-time Example</b>                     | \$ 2,278,505 | \$ 299.41       | \$ 2,278,505               | 0.4760                                       | \$ 1,269  |
| <b>Alternative #2 - 2 Current Part-time and 2 Contracted Part-time</b> | \$ 1,147,505 | \$ 150.79       | \$ 1,147,505               | 0.2397                                       | \$ 639  |

|   | Total Cost          | Cost per Capita  | Property Tax Levy Amount | Property Tax Rate | Homeowner Cost with a Taxable Home Value of \$800,000 |
|---|---------------------|------------------|--------------------------|-------------------|---|
| <b>Alternative #3 - Westmont Example</b>  |                     |                  |                          |                   |   |
| Dissolve Clarendon Hills Fire Department and contract with another municipality for service. Currently, Westmont's fire operating budget is \$189 per capita. Assumes Westmont charges Clarendon Hills on a per capita basis, at the same rate as their residents. (Population 7610 x \$189)  |                     |                  |                          |                   |   |
|   | \$ 1,438,290        | \$ 189.00        | \$ 1,438,290             | 0.3005            | \$ 801  |
| <b>Alternative #4 - Tri State Example</b>   |                     |                  |                          |                   |   |
| Dissolve Clarendon Hills Fire Department and join the Tri State Fire District. Current Tri State tax rate is \$.5296 per \$100 of assessed valuation.   |                     |                  |                          |                   |   |
|   | \$ 2,535,212        | \$ 333.14        | \$ 2,535,212             | 0.5296            | \$ 1,412  |
| <b>Alternative #5a - Additional Three Part-time Firefighter/Paramedics 247 365 Days/Year</b>  |                     |                  |                          |                   |   |
| Additional three firefighter/paramedics on duty around the clock (\$121,000 x 3)  |                     |                  |                          |                   |   |
|   | \$ 363,000          | \$ 47.70         | \$ 363,000               | 0.0758            | \$ 202  |
| Maintain current staffing of Chief, Fire Inspector, POC's, one part-time paramedic and one Paid on Call (POC)/EMT or two part-time paramedics. 2007-08 Budget for current Fire Personnel - \$672,415  |                     |                  |                          |                   |   |
|   | 672,415             | 88.36            | 672,415                  | 0.1405            | 375   |
| Additional budgeted operating costs**   |                     |                  |                          |                   |   |
|   | 161,005             | 21.16            | 161,005                  | 0.0336            | 90  |
| Paid on Call response reduction of 50%  |                     |                  |                          |                   |   |
|   | (80,000)            | (10.51)          | (80,000)                 | (0.0167)          | (45)  |
| <b>Total</b>  | <b>\$ 1,116,420</b> | <b>\$ 146.70</b> | <b>\$ 1,116,420</b>      | <b>0.2332</b>     | <b>\$ 622</b>   |
| <b>Alternative #5b - Additional Two Part-time Firefighter/Paramedics 247 365 Days/Year</b>  |                     |                  |                          |                   |   |
| Additional two firefighter/paramedics on duty around the clock (\$121,000 x 2)  |                     |                  |                          |                   |   |
|   | \$ 242,000          | \$ 31.80         | \$ 242,000               | 0.0506            | \$ 135  |
| Maintain current staffing of Chief, Fire Inspector, POC's, one part-time paramedic and one Paid on Call (POC)/EMT or two part-time paramedics. 2007-08 Budget for current Fire Personnel - \$672,415  |                     |                  |                          |                   |   |
|   | 672,415             | 88.36            | 672,415                  | 0.1405            | 375   |
| Additional budgeted operating costs**   |                     |                  |                          |                   |   |
|   | 161,005             | 21.16            | 161,005                  | 0.0336            | 90  |
| Paid on Call response reduction of 35%  |                     |                  |                          |                   |   |
|   | (56,000)            | (7.36)           | (56,000)                 | (0.0117)          | (31)  |
| <b>Total</b>  | <b>\$ 1,019,420</b> | <b>\$ 133.96</b> | <b>\$ 1,019,420</b>      | <b>0.2130</b>     | <b>\$ 568</b>   |
| <b>Alternative #5c - Additional Two PT Firefighter/Paramedics on Nights and Weekends; One Additional Days M-F</b>   |                     |                  |                          |                   |   |
| Additional two firefighter/paramedics on duty during the night time hours and on weekends; one on duty during the daytime Monday through Friday. Maintain current staffing of Chief, Fire Inspector, POC's, one part-time paramedic and one Paid on Call (POC)/EMT or two part-time paramedics. 2007-08 Budget for current Fire Personnel - \$672,415 |                     |                  |                          |                   |   |
|   | \$ 181,500          | \$ 23.85         | \$ 181,500               | 0.0379            | \$ 101  |
| Additional budgeted operating costs**   |                     |                  |                          |                   |   |
|   | 672,415             | 88.36            | 672,415                  | 0.1405            | 375   |
| Paid on Call response reduction of 12.5%  |                     |                  |                          |                   |   |
|   | (20,000)            | (2.63)           | (20,000)                 | (0.0042)          | (11)  |
| <b>Total</b>  | <b>\$ 994,920</b>   | <b>\$ 130.74</b> | <b>\$ 994,920</b>        | <b>0.2078</b>     | <b>\$ 554</b>   |