## PROPER'S FIRE TECH ASSOCIATES, INC.

Municipal Fire Management Consultants 27 Pheasant Ridge Drive Loudonville, NY 12211 518-458-1436

George H. Proper, Jr., President William E. Proper, PE, Vice President Jean A. Proper, Secretary-Treasurer

### FAIRVIEW FIRE DISTRICT

DUTCHESS COUNTY

### A STUDY OF:

Overall Fire Protection Capabilities
Administration and Management
Fire Station Siting; Present and Future
Resources; Apparatus, Equipment and Manpower
Special Problems

May 1934

George H. Proper, Jr. President

### TABLE OF CONTENTS

Section			Page
Introduction			1
Summary of Findings			2
Fairview Fire District and	Its People		3
Existing Conditions			4
Conclusions and Recommendat	ions		11
Tables			
No. 1: Summary of Apparatu	s & Equipment	Capabilities	6
No. 2: Fire Station Detail	.s		8

### INTRODUCTION

A general survey of fire protection services provided by the fire department of the Fairview Fire District was made at the request of Chief Richard Dormeyer on behalf of the Board of Fire Commissioners.

The initial concern of the Board of Fire Commissioners was to:

- 1. Consider the need for provision of truck company apparatus in view of the need to replace the existing unit (Engine No. 1).
- 2. The overall capabilities of the fire department.
- 3. A review of administrative and operational concerns.
- 4. Development of alternative funding approaches.

Fire district officials have cooperated in the study project by providing access to records and files and through interviews. Although the invitation to participate in the project was extended, interviews with the leaders of the International Association of Fire Fighters, AFL-CIO, Local 2623 were not possible. Conclusions and recommendations, however, are those of Proper's Fire Tech Associates, Inc., and do not necessarily reflect the views of either fire district or department officials.

The ready aid and assistance given by fire service and district personnel is gratefully acknowledged.

### SUMMARY OF FINDINGS

The Fairview Fire District is not now well protected, mainly because of grave manpower deficiencies, apparatus out of service thus requiring replacement, and difficulties within the fire department with internal communications. Equally so, the financial support for the fire district is limited yet a significant number of exempt properties require fire protection service.

The desire of the Board of Fire Commissioners to deal with the problems is constrained by lack of legal authority to follow a specific path. To illustrate:

- 1. To reimburse the fire chief for performing administrative duties; no statutory authority to do so, except a full-time career fire chief could be employed.
- 2. To seek, by fee, compensation for service provided exempt properties; no statutory authority to demand this but voluntary contributions may be accepted.
- 3. To improve communications between the Board of Fire Commissioners and department personnel; see Conclusions and Recommendations.

### FAIRVIEW FIRE DISTRICT AND ITS PEOPLE

The Fairview Fire Company of the Fairview Fire District is charged with protecting the lives and property of  $10,000\pm$  residents, a value which increases to  $25,000\pm$  during normal work days. Fully taxable real property has a full-value of \$351,000,000 $\pm$  for the current fiscal year. The area of the fire district is nine square miles. 1/Significantly, over 50% of the property is tax exempt in New York State and several educational, hospital and health care related occupancies.

The Fairview Fire District, located at the northern border of the City of Poughkeepsie, ranging north along the Hudson River, is generally level on a north/south axis. However, grades from the Hudson River to NYS Route No. 9 and between NYS Routes 9 and 9G are light to moderate, but do not affect response of apparatus.

Mercantile, light and some heavy industrial activity is mainly concentrated along North Road (NYS Route No. 9, north of Poughkeepsie) with lesser numbers along Violet Avenue (NYS Route No. 9G) north of Poughkeepsie to the northern fire district boundary. Plastics, lumbering, bedding, graphic arts and printing and light metal working are among the various occupancy hazards present. Life safety concerns are heightened because of the number of health care related and educational facilities, the most important being the St. Francis Hospital, the New York State Hudson River Psychiatric Center, Marist College and Dutchess Community College.

Residential development is typical for a suburban area proximate to a city. Surprisingly enough, very little apartment house development has taken place, although one complex does exist in the district. A mobile home park is a shared responsibility with a neighboring fire district.

The full range of local government services bearing upon fire protection includes water supply, police protection, enforcement of applicable building and fire prevention codes with some minimal public fire prevention education activity.

The following sections describe the resources presently available, specific responses to questions posed in the survey request and recommendations for future improvements.

 $<sup>\</sup>underline{1}/$  Information by fire district officials.

### EXISTING CONDITIONS

### Fire Service Organization

Fire protection in the Fairview Fire District is provided by the Fairview Fire Company and the career fire fighters of the Fairview Fire District, collectively, the Fairview Fire Department. Only the fire district is protected and no outside service provided except for response under provisions of the Dutchess County Fire Mutual Aid Plan.

The New York State Hudson River Psychiatric Center (HRPC) operated by the New York State Office of Mental Health has a Safety and Security Department who man and operate their own equipment on their campus. The Fairview Fire Department responds when notified by the HRPC personnel.

### Manpower and Administration

The department is staffed with 9 officers and 12 career (5 full-time and 7 part-time) and 40 volunteer fire fighters. The officers are included in the number of volunteer members noted. As reported, the number of volunteer members has been dwindling, precipitously so in recent months.

Response to alarms for daytime alarms stands at 2 career fire fighters and 2 volunteers and for night time alarms at 2 career and 6 volunteers. During the period of the study, an alarm was received in the early evening hours and the manning response was less than stated above.

When considered in the context of an acceptable manning level of four fire fighters per piece of apparatus needed for a first alarm response, the present manning is critically inadequate. Manning is almost always only sufficient to effectively use one piece of apparatus. The nature of the fire district's hazard potential is such that two pumpers and a truck company unit is required on almost all alarms.

While true that prompt responses of mutual aid units or so-called "automatic" first alarm response, for special occupancies will help alleviate the problem, this is not the proper answer. Mutual aid is only intended to help participating fire departments deal with the unusual or catastrophic incident for which no single fire department could ever be expected to be able to handle the incident alone.

The career fire fighters, 5 full-time and 7 part-time, working 10 and 14 hour tours maintain an on-floor strength at all times of two men per shift.

For reasons not fully understood, it appears relations within the department are strained. Those we were able to interview are, obviously, attempting to resolve the problems as they arise but it is evident that cooperation is limited and the path of communications is not two-way.

The response of chief officers is generally satisfactory. Should a chief officer not be available to attend upon an alarm, operations would be directed by the senior career fire fighter present.

Recruiting and probationary requirements, training and education practices and prerequisites for promotion and advancement are mainly satisfactory for volunteer members. All applicants for membership, career and volunteer, must have a physical examination although an annual examination is not required.

### Apparatus and Equipment

At present, the department has a sufficient number of pumpers to meet operational needs but lacks a truck company apparatus which is needed. However, engine pumping capacity of 2750 gallons per minute is less than fire flows needed for the perceived occupancy hazards in the fire districts. Engine pumping capacity in the district should be increased to at least 4,000 gpm capacity, in my judgment.

Truck company apparatus is needed because of the number of multi-story and large area buildings in the fire district. In many cases, Marist College, St. Francis Hospital and the Hudson River Psychiatric Center to name a few, an interior attack will be undertaken for the upper floors but the full range of truck company equipment will be required.

Except for the older apparatus (E-1) out of service at this writing, apparatus is very clean and well set up for efficient operations. Good use is made of preconnected hose lines, powerful stream appliances are ready for immediate service and equipment locations are provided. The older 1947 pumper (E-2) should be retired, although its use for reserve purposes is satisfactory.

Table No. 1 following, summarizes the details regarding type, capacity and function of the apparatus.

Table No. 1

SUMMARY OF APPARATUS & EQUIPMENT CAPABILITIES

	Remarks		Clean; 4-SCBA; Deck	<pre>gun piped; Genera- tor; Foam agent good; Equipment well-organized in standard locations.</pre>	Clean; 4-SCBA; Deck gun with (P) hose	lines; Foam agent good; Equipment well-organized in standard locations.	Clean; fair condition. 3-SCBA	Clean. Usual equipment for unit. Well-organized.	OUT OF SERVICE.		
	Preconnected	1-1/2"	4-200'	(P)	4-200' (P)		400'	<u> </u>	ı	2000'	
ies	,1)	2-1/2"	1000		800		650'	1	1	2450'	
Capacities	Hose (P)	3"+	10001		800.		650	1	ı	2450'	
	Tank	Gals.	500		750		300	ı	200	1550	
	omna.	GPM	1000		1000		750	· · · · · · · · · · · · · · · · · · ·	1000	2750	
MFG	and/or	Chassis	Young/Ford		Young/Ford		Am La France	Wheeled Coach/Ford	Am La France		
	Year		1978	:	1970		1947	1981	1965		
	Apparatus	Identifier	E-4		E-3		E-2	Amb-1	E-1		

Legend

E - PumperAmb - AmbulanceSCBA - Self-contained breathing apparatus

### Facilities

The Fairview Fire Department operates out of a single station located on Violet Avenue (NYS Route No. 9G). Conditions and arrangements in the station are essentially satisfactory, except apparatus room doors in the older section are slightly narrow and internal protection is inadequate.

The fire station placement is satisfactory as respects proximity to the greatest number to be served and protected. However, there are areas beyond the "zone of effective protection", or optimum response time of three minutes.

Note: The "zone of effective protection" is developed on the basis of a three minute response at 35 MPH from a fire station assumed to be manned with apparatus ready to roll.

Table No. 2 summarizes the details concerning the fire station.

## Table No. 2

# FIRE STATION DETAILS

Department	Built	Construction	Services	Internal Protection	Conditions	Remarks
Fairview	1948-50, with 1984 addition	Fire resistive. Two story with partial basement and 1=2 story, no basement. Stairs partially cut off. Apparatus doors narrow in older section. Apron OK. No exposure to building.	All building No provisservices sions for detection or internous protection Insufficion ers. Security Timed door closers provided.	al n. ent h- ox.	Housekeep- ing OK. Some crowded storage conditions but new boy will	Traffic control pro- vided. Quarters for career person- nel crowded.

### Drills and Training

The department's training program consists mainly of twice monthly fire and twice monthly rescue drills under the direction of the captains. No master training and drill schedule is followed, although officers do attempt to cover basic skills and evaluations. The Dutchess County Fire Training Facility is in the fire district and used as are county-owned visual aids.

The career fire fighters, by general order, participate whenever apparatus and equipment is utilized. The picture regarding training for career personnel is clouded because of questions regarding the Minimum Training Standards Act applicability to the part-time staff. Once a determination has been made whether the training standards are applicable, the appropriate certified program will be implemented as required. Even so, career personnel have participated in many programs.

### Fire Alarm Arrangements and Communications

Fire alarm receiving and transmission arrangements are modern and complete with few deficiencies. Telephone alarms are routed through the Dutchess County Fire Control Center with alerting by outside audible alarms at the station, tone activation of radio alert receivers and pagers and by direct telephone "hot line" from control to the station.

Testing procedures are slightly deficient in that daily tests do not involve all elements in the system.

No regular program for distribution of alarm reporting information to new residents is followed.

No difficulty with similar named streets is reported. Moreover, the operation of the Dutchess County Fire Control Center is set up to cover this type of problem.

### Operations and Response to Alarms

Given the manning picture, operations are affected gravely and, at best, only two pumpers can respond immediately. Operations will be limited to situations, promptly reported, that can be handled with one hose line. If rescue is required, fire suppression will basically evolve upon mutual aid units.

The Hudson River Psychiatric Center Safety and Security Department has a direct telephone "hot line" to Dutchess County Fire Control but the Fairview Fire Department is not always notified or summoned to the scene. Reportedly, the HRPC truck company apparatus has been out of service for an extended period.

### First Aid and Rescue Service

The Fairview Fire Department operates an ambulance and responds as required. In addition, ample mutual aid units are available as required.

### Water Supply

About 50% of the fire district is served by the Town of Poughkeepsie water system, not including the system serving the Hudson River Psychiatric Center, with fire flows said to be basically satisfactory. The scope of this survey did not include the conduct of fire flow tests.

Whether or not hydrants are inspected and tested as suggested in questionable. Some hydrants noted during the field survey did not appear to have been checked recently.

Cooperation between the water and fire interest is improved.

### Fire Safety Control Measures

The New York State Uniform Fire Prevention and Building Code 1/ replaces fire and building codes adopted earlier by the Town of Poughkeepsie.

The Town of Poughkeepsie employs a full-time building inspector, however, regretfully, cooperation with the fire department is reportedly not satisfactory. The opportunity for the fire department to review plans and become fully aware of the potential found in new occupancies is limited.

### Police Service

The Town of Poughkeepsie Police Department, Dutchess County Sheriff's Department and New York State Police all serve in some fashion in the fire district. Cooperation with the fire department is reported to be excellent.

Dutchess County, in addition, operates a County Arson Team.

 $<sup>\</sup>frac{1}{2}$ Title 9, Subtitle 5, Chapter 1. 9NYCRR.

### CONCLUSIONS AND RECOMMENDATIONS

This study has responded to the questions posed by the Board of Fire Commissioners by identifying present levels of activity, some deficiencies and areas where there is demonstrated need for planning and preparation. In several cases, minor adjustments in program emphasis, or closer attention to operating details can easily overcome the deficiency.

However, it is recognized that there are major deficiencies requiring early attention if protection is to be assured within the fire district. Therefore, the focus of recommendations will be concentrated on the major concerns. As major problems are resolved, almost automatically, minor issues will fade.

### Manpower and Administration

1. Every effort should be made to immediately increase the number of members responding to alarms, both day and night. The goal should be to develop an average response to alarms equal to four fire fighters per piece of apparatus responding on the initial alarm.

This improvement may be accomplished by several different approaches, namely:

- a. By increasing the number of career fire fighters on duty, realizing the number required to maintain one man on duty.
- b. By increasing the number of volunteer members, also realizing the numbers required on the roster to assure a greater average response to alarms.
- c. By exploring innovative methods of utilizing combinations of career and volunteer personnel. The past history of the Fairview Fire Department gives testimony to the value of a combined service.
- d. If, for whatever reason, manning levels cannot be improved upon at an early interval, it will be necessary to explore the following steps:
  - (1) Contracting for service from a willing nearby established fire department, i.e. Arlington, Poughkeepsie or Roosevelt.
  - (2) Exploring the possibility of consolidating the Fairview Fire District with a neighboring, obviously willing, fire district.

2. The communication process and path between the Board of Fire Commissioners, the chief officers, the officers of the International Association of Fire Fighters and officers of the Fairview Fire Company should be restored and maintained.

A detailed analysis of the agreement between the board and fire fighters, the rules, regulations and procedures of the fire district and the by-laws of the fire company indicate these are basically sound documents with reasonable providing appropriate directions for operations.

### Apparatus and Equipment

- 3. A truck company apparatus should be purchased and placed in service as soon as possible.
- 4. Plans should be made to replace Engine-2 with a larger capacity unit.

NOTE: With new apparatus purchases, available pumping capacity should be raised to at least 4,000 gallons per minute.

### **Facilities**

5. A products of combustion detection and automatic sprinkler system should be installed in the fire station.

### Drills and Training

- 6. The training issue regarding applicability of the Minimum Training Standards to the career personnel should be resolved by pressuring the State of New York for an opinion. Irrespective of this point, training is needed and the time frame is limited at best.
- 7. A master training and drill schedule should be prepared and set up to accommodate all members of the department.
- 8. Those designated, or assigned, training responsibilities should attend the Training Officer Workshops at the Academy of Fire Science.

### Fire Alarm Arrangements and Communications

9. The daily test of alarms should be through the entire process and involve all components.

As suggested earlier, only the most significant recommendations are offered at this time. A study of this report will suggest other areas requiring attention once improvements have been made.