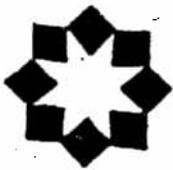

BRIGHTON, NY FIRE DISTRICT

**A STUDY OF FIRE PROTECTION
and
RESCUE SERVICES**

FINAL REPORT

August 1993



Submitted by:

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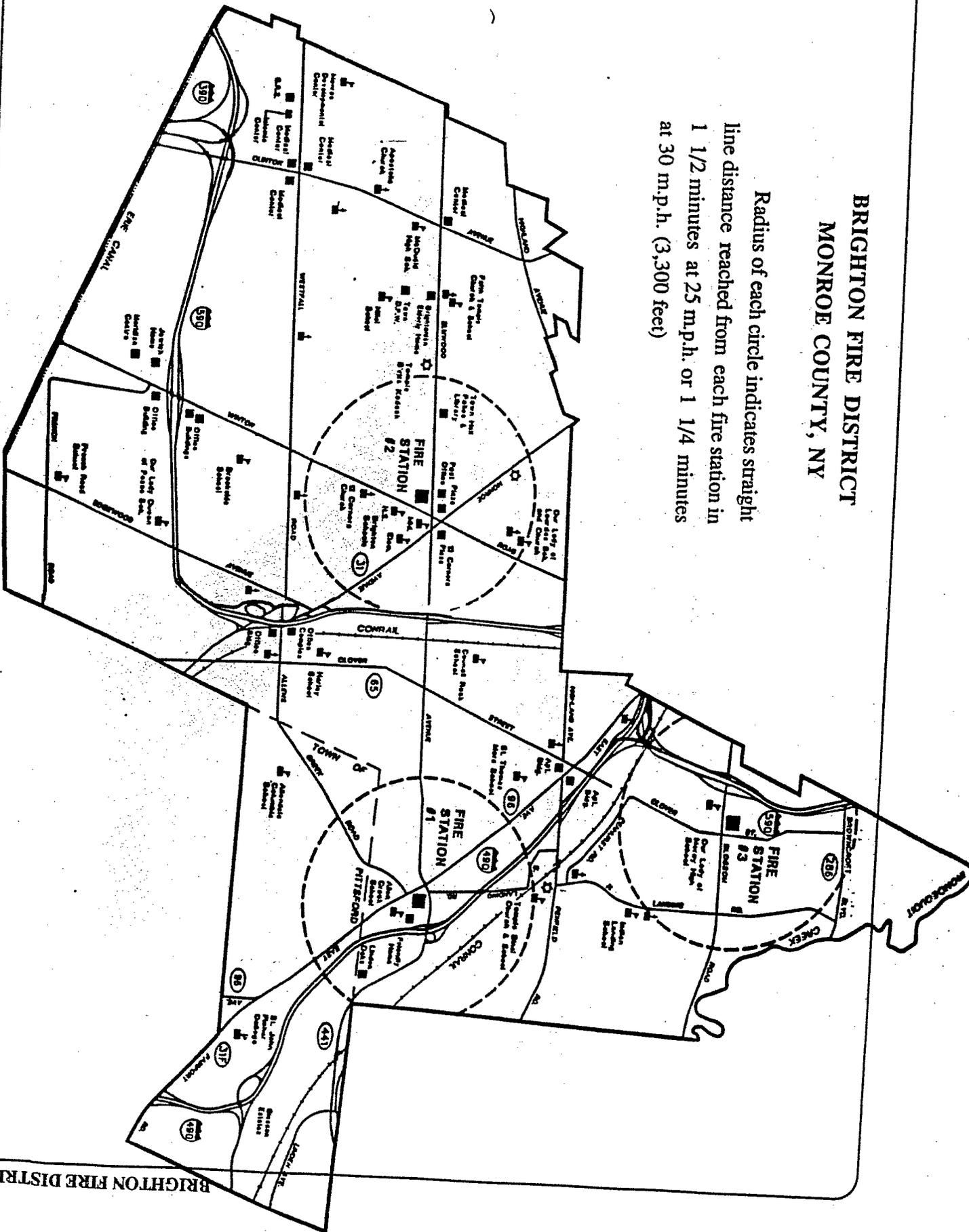
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FINAL REPORT****TABLE OF CONTENTS**

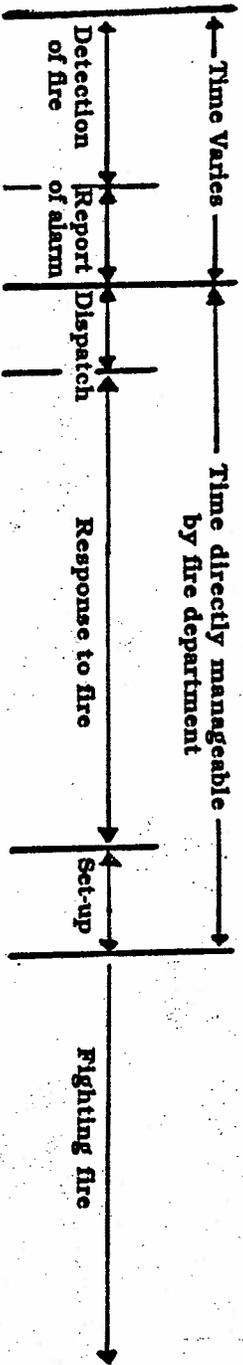
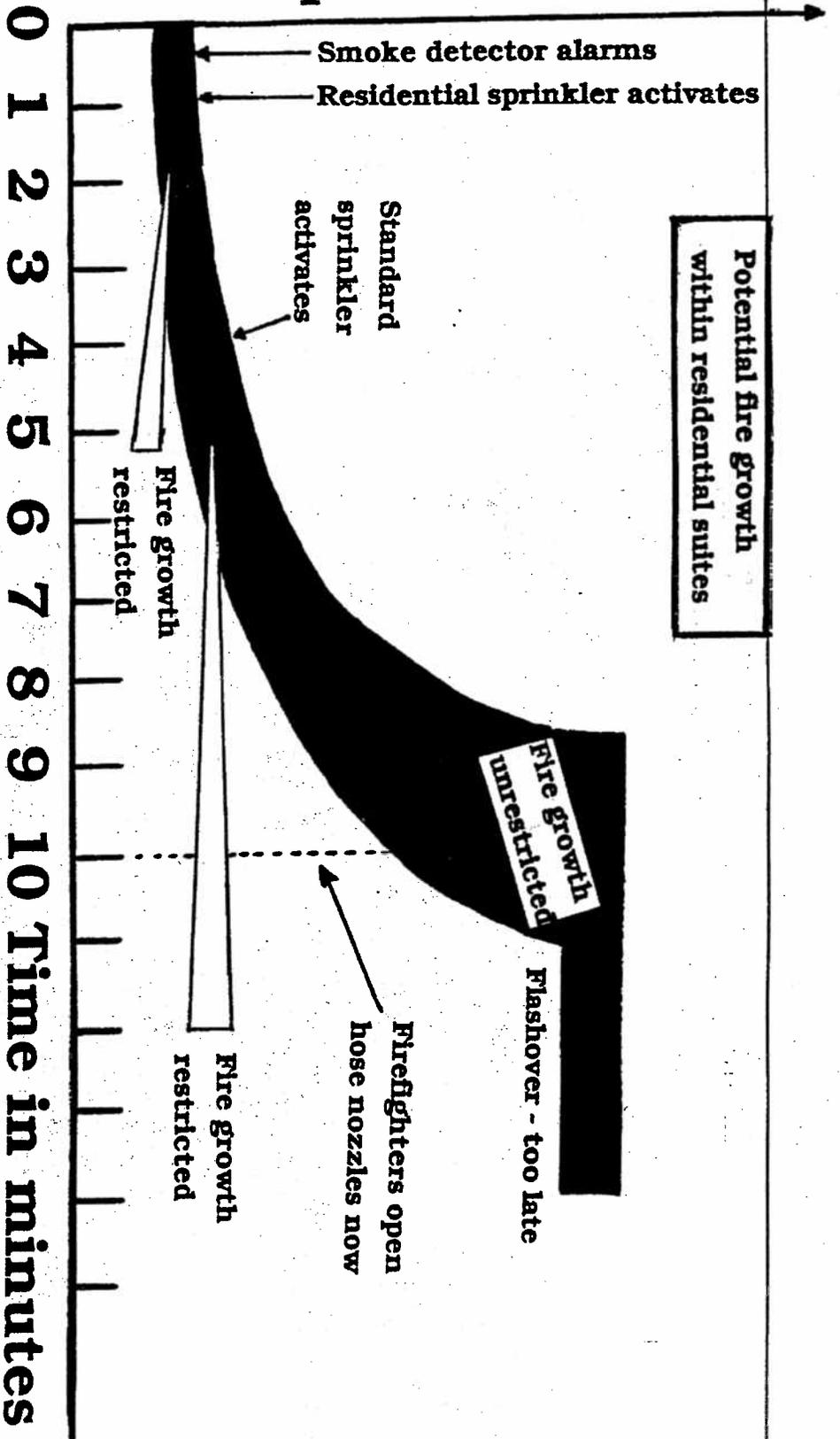
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BRIGHTON FIRE DISTRICT MONROE COUNTY, NY

Radius of each circle indicates straight line distance reached from each fire station in 1 1/2 minutes at 25 m.p.h. or 1 1/4 minutes at 30 m.p.h. (3,300 feet)



Temperature



NOTE: All times based upon national averages.

CHAPTER ONE
PURPOSES OF STUDY
AND INTRODUCTION

INDEX OF RECOMMENDATIONS

Recommendations by Chapter

The following list identifies the recommendations contained in this report. The complete text of all recommendations and the accompanying material should be read to ensure that the nature and context of each recommendation are understood.

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CHAPTER ONE: PURPOSES OF STUDY AND INTRODUCTION

A. Purposes

In May, 1993 the Board of Fire Commissioners of the Brighton Fire District postponed a scheduled public referendum seeking support for a proposed new main fire station in order to provide more information to residents and in order to involve a citizens advisory committee in the decision making process. It was agreed that an outside technical consulting firm would be asked to conduct a study of District needs and make recommendations to the Board. This 1993 study follows a 1988 review and the 1989 work of an internal planning committee constituted by the Board to consider the 1988 findings.

The 1993 study reported in this document has the following purposes:

1. Update the hazard analysis, plus the various changes in response routes and traffic patterns in the district brought about by road construction since 1988.
2. Identify the scope of services delivered by the Brighton Fire Department.
3. Examine types and number of vehicles necessary for service delivery.
4. Identify the number and shift arrangements for paid personnel and the various schedules for volunteer personnel.
5. Identify necessary administrative and support functions.
6. Determine training activities at station locations.
7. Using various acceptable techniques, standards, and recommended practices (including computer mapping, vehicle distance checks and run records) plot desirable response station locations and analyze their acceptability by using a response station location criteria list.

8. Consider space requirements for administration, response, and support services, including the need for modern vehicles and equipment; management functions; communication and dispatch operations; living space for on-duty shift personnel; space for necessary volunteer firefighter operations and functions; the functions of the fire police, exempt firemen, and women's auxiliary; space for ancillary functions including Explorer Post activities and public safety education classes and meetings; plus the presence of mutual aid cover vehicles and crews and the occasional necessity to have volunteer and recalled full-time personnel housed at the station overnight or longer during bad weather and other emergency conditions.

9. Recommend square footage space needs and general structure configuration to conduct necessary functions.

10. Consider the number of stations desirable for adequate service delivery in the Brighton Fire District and the general configuration for those stations, covering the needs of the district beyond the next decade.

11. Review construction site development and related building costs for one or more recent fire station construction projects in upstate New York and compare these with the cost schedule already developed for the proposed Fire station One/District Headquarters project.

12. Present a list of recommendations, including any perceived viable alternatives related to facility needs and locations.

Accordingly, our responses to these tasks are contained in this report, with our recommendations—including certain alternative choices and options—appearing in the appropriate sections.

B. Introduction

1. Review of District Needs

Even prior to the 1988 study, the elected Fire Commissioners of the Brighton District expressed concern over the inadequacies of the main fire station, and consideration was given in 1987

times, from King County, Washington:

**Chance of Recovery
Statistics From King County, Washington**

<u>Chance of Recovery</u>	<u>Response Time Minutes After Breathing Stops</u>
98%	1 minute
92%	2 minutes
72%	3 minutes
50%	4 minutes
25%	5 minutes
11%	6 minutes
8%	7 minutes
5%	8 minutes
2%	9 minutes
0.5%	10 minutes

6. Related Recommendations

Recommendation 1.1

All efforts should be made to retain a sufficiently large number of active volunteer members in order to continue with a "combination" fire department.

Recommendation 1.2

The number of full-time career firefighters and officers currently employed cannot be lowered, and should be increased by the addition of an additional crew member on each shift at Station #3.

Recommendation 1.3

The Brighton Fire Department should arrange to dispatch the nearest pumper crewed by full-time personnel, or by volunteers who already are at the station, to all emergency medical calls within the District. This rapid response would not replace ambulance response, but would—in most instances—provide trained and reasonably equipped personnel at the scene in the shortest possible

time. This gain in service delivery can be accomplished with the personnel and vehicles already on hand and would augment the ambulance personnel. Each of the three pumpers should be equipped with an automatic defibrillator and personnel certified to use them.

Since the existing fire stations [see Appendix] are located separately from the volunteer ambulance station, response from four locations—with three housing full-time personnel—will improve emergency medical service delivery in the Fire District by shortening response time, as well as by providing additional trained and equipped responders..

That the Brighton Fire Department can handle more emergency medical calls is evidenced by the following 1992 statistics, which illustrate more medical runs in fourteen other departments, six of which have more annual total runs than Brighton. (Includes Kodak)

Total Number of EMS/Rescue Responses

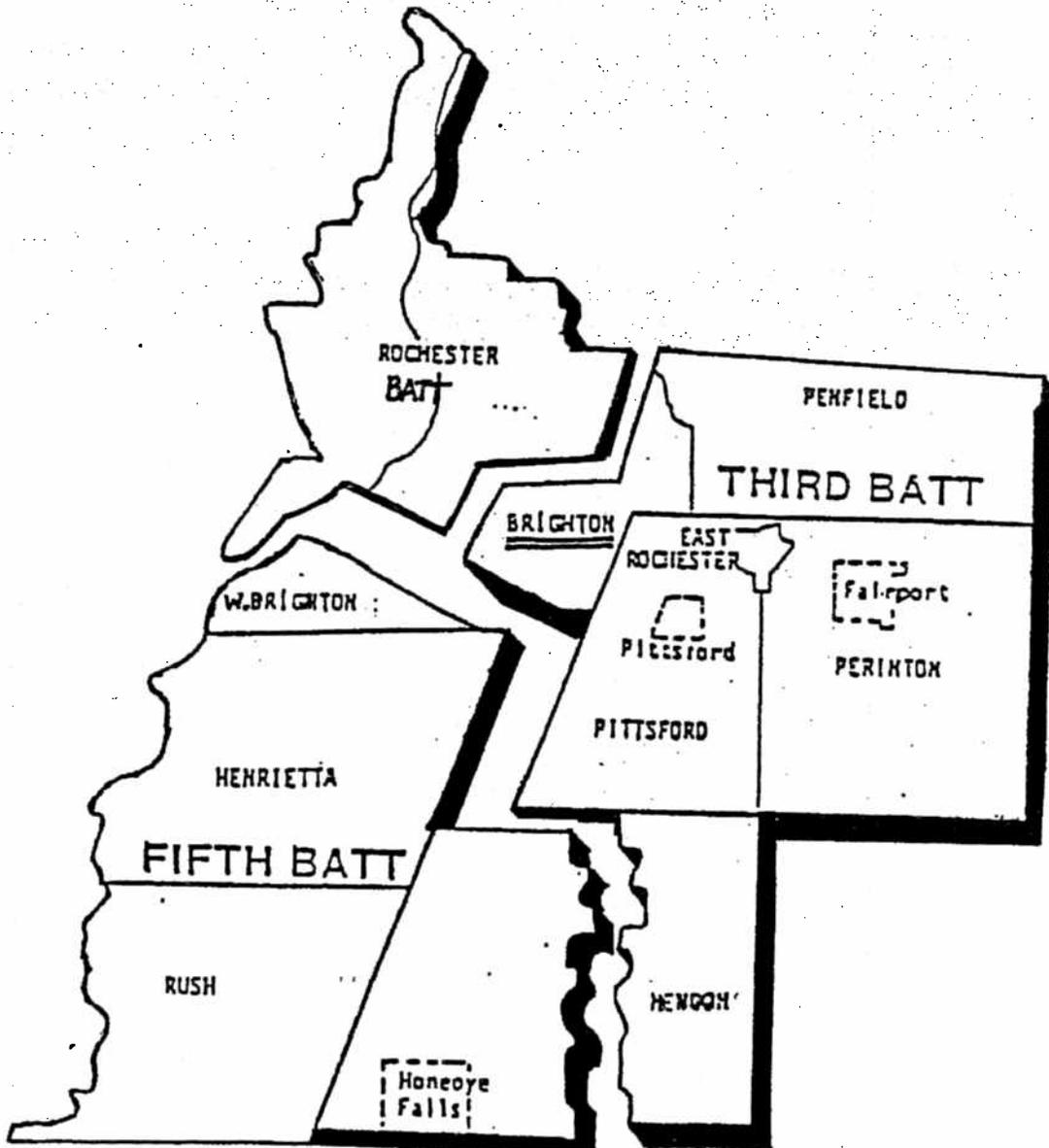
<u>Department</u>	<u># of Calls</u>	<u>Department</u>	<u># of Calls</u>
1. Greece Ridge	2313	14. Rush	189
2. N. Greece	1070	15. Brighton	185
3. Kodak	882	16. Hamlin	174
4. Barnard	804	17. Spencerport	139
5. Gates	599	18. Mendon	103
6. LakeShore	511	19. Brockport	87
7. St. Paul	508	20. Walker	85
8. Webster	449	21. Pittsford	77
9. Ridge Culver	393	22. Morton	74
10. Laurelton	311	23. Fairport	59
11. Chili	300	24. Mumford	57
12. Henrietta	200	25. Churchville	52
13. Union Hill	193	26. Penfield	49

7. Mutual Aid Arrangements

Monroe County has been identified for decades as having one of the very best fire department mutual aid systems in New York State and beyond. The County is divided into “battalions,” which

are the basis for providing timely mutual assistance—both on call, and by automatic dispatch to selected locations.

The Battalion boundary lines have been established by a common-sense approach relating to area proximity and connecting roads. The departments within each Battalion typically operate with each other, although nothing precludes inter-battalion mutual aid. The following schematic illustrates why the Brighton Department often works with the Rochester Department, and with Pittsford, East Rochester, and Penfield in its Third Battalion:



Most fires in the Brighton Fire District occur in the northern areas, and connecting roads to those areas are available.

As a more urbanized area, the Brighton District is a significantly busier department than are the others in the Third Battalion, and thus has some full-time firefighters on duty. Therefore, it can be a strong mutual aid support force in its Battalion. The Henrietta Department, to the southwest, also maintains full-time firefighters on duty and is situated so as to be a strong mutual aid support force to the smaller and much less busier nearby departments, such as Rush and West Brighton, in the Fifth Battalion.

The City of Rochester Department, with sixteen stations, and the Brighton Department provide each other with mutual support in the areas where they adjoin. Because of this smoothly functioning County-wide mutual aid system, additional help for sustained attack and for larger fires is readily available and obviously is cost effective.

Recommendation 1.4

The Brighton Fire Department needs to continue to participate fully in the Third Battalion mutual aid program of Monroe County, and in the County-wide program.

CHAPTER THREE: FACTORS INFLUENCING SERVICE DELIVERY

A. The District

Situated southeast of Rochester, New York, the Brighton Fire District serves much of the Town of Brighton and parts of the Town of Pittsford. The base population of the Fire District is approximately 35,000, taking in much of the residential area of Brighton, and part of Pittsford. Within the District is one of the most notorious highway crossings in the nation, the "Can of Worms", now tamed by extensive redesign. Approximately 150,000 vehicles per day drive through that particular complex. That complex, plus other sections of Highways 490 and 590—and others—provide the Department with significant experience in handling vehicle accidents.

Although the District's boundary is of irregular shape, there are several major response routes for emergency vehicles which tie the various parts of the District together. The terrain is flat. Only 19% of available land remains for build-out. The existing mix is reported to contain 43% of residential, 6.6% commercial, and 1.7% industrial. Build-up of older commercial property primarily is on established streets such as Monroe Avenue. Since new commercial properties generally must be sprinklered, and since fire danger is significantly higher in older buildings, both residential and commercial, the fire danger in the Brighton District tends toward the established sections rather than the newer commercial developments and office parks. Established apartment buildings, for example, along with the older single family homes typically present more negative potential.

B. Hazard Analysis

The study team identified 81 structures or complexes in the District, in addition to single family residences, as part of the hazard analysis. These were numbered and located on a district map. Approximately 20 of the 81 are south of the Westfall Road line, and three of those 20 are within one mile of an existing fire station.

The incidence of structure fires, when plotted on a District map, appears to be centered along Monroe Avenue, East Avenue—generally north of Allens Creek Road—and in the Blossom Road area. Other fire calls show no particular geographic pattern.

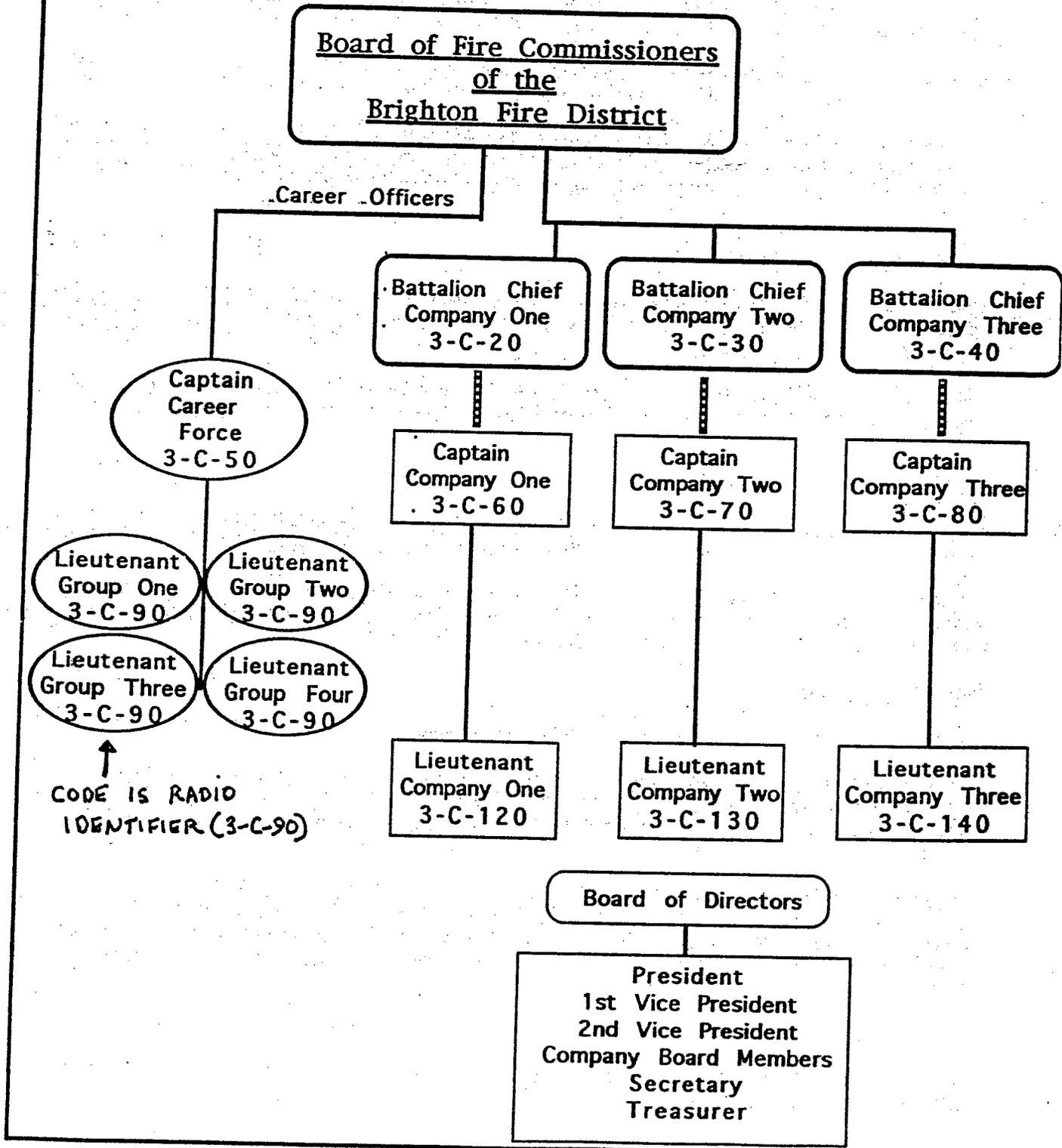
C. Development in East Brighton

Members of the study team reviewed the 1990 Master Plan for the Town of Brighton and reviewed recent developments with the Planner. Our review and discussions indicate the following development and development potential for the Brighton Fire District:

1. Ten acres for multi-family housing, south of Blossom Road and west of 590: Spring 1994 [1/2 mile from Station #3]
2. Single family residential development, south of Penfield Road and east of Temple Sinai: Possible spring, 1994 [1.5 road miles from Station #3 and 1.0 road miles from Station #1]
3. North of Westfall Road, between Winton Road and S. Clinton Avenue, 78 single family residences: no start date [1.4 road miles from Station #2]
4. In the general area south of Westfall Road, between Winton Road and Rochester there is the real possibility of medium density single family construction plus office parks: The starting date for this potential construction is unknown, and apparently greatly dependent on economic conditions. The Planners projection is that a ten-year build-up is questionable, but a twenty-year build-up is very likely. Several structures have been built in this area since 1988, including the Woodgate Nursing Home, the Meridian Center Offices, the Crossbridge Office Complex, General Railway Signal offices, and several apartment buildings.

The road distance from Station #2 to the District boundary at the Barge Canal is 2.1 miles, which is four minutes at a 30 mph average speed, or about three minutes at a 45 mph average speed. Connector roads running between Winton Road and S. Clinton Avenue are planned for the future, as they were in 1987. The ambulance squad building is located .8 miles (4,200 feet) south of Station #2, on Winton Road. Going west from Station #2 to the end of the District is 2.0 miles.

Organization of the Brighton Fire District and Department



See appendix A for the names of the presiding officers of the Brighton Fire District and Department, as well as general information concerning equipment and locations.

3. Chaplaincy Services

Non-sectarian spiritual support is provided by the Department's Chaplains. The Fire Department responds to significant emotional events. In catastrophe and its aftermath, displacement and overwhelming grief all provoke spiritual concerns. Firefighters, despite their training and preparation for all kinds of emergencies, are not immune to the questions of meanings in conditions of outrageous fortune. The Brighton Fire Department can appoint non-firefighter Chaplains though Brighton Fire Department Chaplains are fully trained firefighters as well as experienced counselors. They provide on-going support to Department members and their families, "on-scene" care to victims of critical incidents, and religious services when requested.

Chaplains are available to members and their families on a strictly confidential basis via referral of the chief or members can contact them directly if they feel stress or just feel a need to talk.

Fr. Peter Clifford and Rev. Kenneth Williams serve the BFD as Fire Chaplains. Fr. Clifford is Director of Parish Support Services of the Roman Catholic Diocese of Rochester. The Rev. Williams is pastor of the Baptist Temple, a congregation in Brighton affiliated with the American Baptist Churches, USA.

III. Rules and Regulations

Each member receives a copy of the Department By-Laws and a copy of the District Rules and Regulations upon his acceptance into the Department. These documents contain the written procedures, policies, rules and regulations of the Fire Department and Fire District.

It is important that each member read through these documents in order to keep oneself familiar with policies, responsibilities, etc. of the organizations. If you have any questions ask your Line or Civil officers.

Requirements of Membership:

To maintain an active membership in good standing each member must attend a minimum of 25% of all drills and "box" or general alarms, meetings and a minimum of three 308 drills in a six month period.

The above data represents Department Regulations. The Fire District averages approximately 1000 calls per year. It is important to note that in order to become an effective firefighter, one should make every effort to attend all drills and training sessions.

Recruit Responsibilities:

The following represents the responsibilities of a Recruit (Know Them):

Drills are the single most important source of training and updated information for active firefighters. Each company has at least one monthly drill, as does the department. Drill topics vary from EMS to any and all phases of firefighting, be they basic or complex. Specialized Training Evolutions occur frequently throughout the year. (Example: HazMat, Extrication, etc.)

1. The probation status lasts a period of 6 months. BFD Explorers and experienced firefighters transferring from other Departments can be removed from the probation status after 3 months upon recommendation of the Company Captain and upon acceptance of the Chief. Your active participation and successful completion of the Recruit Training Program plays a major role in obtaining the status of active firefighter. **There will be six recruit drills you must attend.**

2. While a recruit, you are allowed voting rights.

3. While a Recruit, you are not allowed to display a Blue Light. A blue light card will be issued to you only after completion of the probationary period.

4. As a Recruit, you may ride a piece of fire apparatus to an incident or drill, only with the permission of an line officer riding on that apparatus.

5. **Recruits should not respond to mutual aid calls out of the District, unless they have permission from an officer.**

To illustrate, we selected a nearby Fire District—Pittsford—and gathered the following approximate statistics:

	<u>Brighton</u>	<u>Pittsford</u>
Population	34,500	24,500
Taxes on a \$135,000 home:		
School	\$2497	\$2361
Town Tax	\$665	\$402
Town Budget	\$11.2 million*	\$7.4 million
Fire District Tax	\$212	\$74
Number of fire dep't calls (1992)	1155	531
Number of full-time firefighters	29	0

* Town of Brighton funds a full-time police department; Pittsford does not.

5. Arrangements for Service

Communities have the responsibility to provide a sufficient number of trained emergency responders quickly enough to rescue persons, if needed, and to check the spread of fire. The proper type of response usually will hold the fire to what is termed "room and contents." Several controlled experiments and years of actual data collection point toward the following criteria concerning response to an initial alarm of fire in a residence:

- the first responding unit shall arrive at the scene within four minutes of receipt of the alarm in 90% of the instances and/or the initial alarm assignment consisting of at least two pumper companies and one ladder company shall arrive at the scene within eight minutes of the alarm in 90% of the instances;
- the initial alarm assignment assigned to a fire shall be comprised of sufficient personnel and equipment to control a fire in a residence occupancy of up to 5,000 square feet in area, while at the same time effectively removing and rescuing any endangered occupants; and

- the initial alarm response to a medical emergency, shall be sufficient to provide advanced life support for victim stabilization, including cardiac emergency in a manner consistent with the American Heart Association and the American Medical Association recommendations, including the use of automatic external defibrillators.

The response times for fire suppression are also consistent with those recommended by the American Heart Association (AHA) for delivery of pre-hospital emergency medical care. The AHA's emergency medical services maximum response time recommendation has been 4 minutes for initiation of basic life support (BLS) and 8 minutes for initiation of advanced life support (ALS).

Recently the AHA reconfirmed this recommendation by stating:

For cardiac arrest, the highest hospital discharge rate has been achieved in patients in whom CPR was initiated within 4 minutes of arrest and ACLS within 8 minutes. Early bystander rescue breathing or CPR intervention and fast emergency medical services (EMS) response are therefore essential in improving survival rates.

In 1992, the National Conference on Cardiopulmonary Resuscitation and Emergency Cardiac Care, listed among its recommendations that all firefighting units be equipped with and trained to operate automatic external defibrillators and the following recommendation regarding minimum staffing per EMS response:

Early ACLS provided by paramedics at the scene is another critical link in the management of cardiac arrest. EMS systems should have sufficient staffing to provide a minimum of two rescuers trained in ACLS to respond to the emergency. However, because of the difficulties in treating cardiac arrest in the field, additional responders should be present. In systems that have attained survival rates higher than 20% for patients with ventricular fibrillation, the response teams have a minimum of two ACLS providers plus a minimum of two BLS personnel at the scene. Most experts agree that four responders (at least two trained in ACLS and two trained in BLS) are the minimum required to provide ACLS to cardiac arrest victims.

These recommendations are underscored by the standard fire propagation curve illustrated by the graph in the Appendix, and by the statistics concerning recovery chance plotted against

CHAPTER TWO

FINANCIAL ANALYSIS: DISTRICT PRACTICES

AND PROPOSED STATION

CHAPTER TWO: FINANCIAL ANALYSIS: DISTRICT PRACTICES AND PROPOSED STATION

A. Introduction

The Brighton Fire District Board of Commissioners planned to seek voter approval for a \$2.6 million bond issue on May 6, 1993. The purpose of this bond issue was principally to provide funds for a replacement of the Twenty-four Corners fire station. The total cost of the project is estimated to be \$4.66 million of which \$2.06 million is to be funded out of reserves accumulated for that purpose since 1988 with the remainder provide by issuing the bonds. While the majority of the project budget is devoted to the new fire station, itself, the project also includes an expenditure of \$480,000 for equipment, principally for communications. As described earlier in this report, the vote has been delayed pending this Report and further discussion.

B. Summary of Conclusions

1. General Financial Management

In general, the Board of Commissioners' follows prudent fiscal practices in managing the affairs of the Fire District. In addition to funding current operating expenses, it plans for the deterioration and obsolescence of equipment and facilities and accumulates reserves for their eventual replacement. This is a practice which we endorse. Wear and tear of equipment and facilities represents a cost of delivering fire protection services which is appropriately paid for by those who are currently receiving the service. Accumulating reasonable replacement reserves is an effective way to do so. The only reservation we have about the reserve accumulated for the fire station is that the Board may have started building it later than it should have and then tried to catchup more quickly than was politically prudent.

2. Total District Expenditures

The total cost of fire protection seems reasonable in comparison to what the Town of Brighton spends on public safety in general and what comparable communities spend. Critics of the Fire District contend that costs are high in comparison to the Pittsford Fire District. They are. But so are the Town of Brighton's expenditures on Police protection as compared with the Town of Pittsford, which utilizes the County Sheriff's office for protection. Appropriate levels of spending depend on

the nature of the community and the general attitude of its citizens about public safety. Per capita spending for fire protection in the Brighton Fire District is 67 percent of the per capita spending for police protection in the Town of Brighton. By comparison, the same ratio for the City of Rochester is 72 percent and 50 percent for all municipalities in the United States.

3. Construction Costs

The construction costs per usable square foot for the new fire station appear reasonable when appropriate comparisons are made with other such facilities recently constructed in the area and with national construction cost indices. It is important to note that such comparisons should be made carefully, making certain that only those costs used in developing a particular index are used in calculating the cost of the project in question. For example, several items included in the Fire Station project budget are usually excluded from construction indices, including \$480,000 for equipment and the costs of land acquisition and site preparation. When necessary adjustments are made the \$110 cost per usable square foot compares with a range of \$90 to \$121 for comparable projects and construction indices.

4. Public Education and Participation

Despite our belief that the Board of Commissioners had practiced prudent fiscal management and has a reasonable plan for a new fire station, we understand the public's concerns about these issues. Opposition to the bonding authority seems to arise from a perception that the decisions of the Board have been made internally, with little public input. To be sure, the Board has complied with legal requirements for public hearings and voter approvals, but the unusual political status of special districts and the accompanying lack of public knowledge about them requires more information. The governance of such districts usually receives minimal public attention until a large sum of money is involved or a controversial project is proposed. Officials of such districts need to be very pro-active in providing public information about district activities. We point out that provisions for special district voting are set by State law.

C. Financial Management

The main purpose of our review of the Brighton Fire District's finances and fiscal management practices was to determine the reasonableness of the District's expenditures in relation to communities comparably situated and compared to total spending on public safety. To a large extent, expenditures on fire protection tend to vary with the demographic characteristics of a community and the importance of public safety spending to its residents. For example, more densely populated urban areas with significant commercial and industrial activity generally spend proportionately much more on public safety than rural communities do. In 1989 (the last year for which data are available) average municipal per capita spending on public safety was \$167. However, as the table below shows, there was a wide variation depending on population, with smaller communities spending relatively less than larger communities. Given this relation of spending to population level, comparisons for Brighton are particularly difficult to make. The average population of communities in the under 75,000 category was 4,250 which means that Brighton is large in relation to most communities in this category. In 1992 (see table below) Brighton's per capita spending on public safety operations (exclusive of capital expenditures and debt service) was approximately \$161. We believe this is a reasonable level, particularly, since inflation has increased the average spending levels for all communities.

Table 1

1989 Municipal Government Expenditures on Public Safety by Size of Population							
All Towns & Cities	Less than 75,000	75,000 to 99,999	100,000 to 199,999	200,000 to 299,999	300,000 to 499,999	500,000 to 999,999	Over 1,000,000
\$167	\$124	\$174	\$183	\$188	\$207	\$266	\$263

Source: U.S. Bureau of the Census, City Government Finances, series GF. Does not include capital expenditures or debt service related to public safety functions.

The second factor we reviewed was the relationship of spending on fire protection to spending on police protection. This relationship varies greatly throughout the country depending on the region and size of city. In 1989, the percentage for the 75 largest cities in the U.S. varied from 26 percent to 102 percent and averaged 50 percent. Closer examination of the data seemed to indicate that large cities with higher crime rates spend a much lower percentage on fire protection which seems to indicate higher spending on police, rather than less on fire. Within the State of New York the percentage varies from a low, in New York City of 42 percent to a high of 83 percent in Buffalo.

Rochester's spending on fire, as compared with police protection was 72 percent. Based on this, we have concluded that Brighton's spending on fire protection, 67 percent of spending on police protection, is reasonable in relation to overall public safety spending.

Table 2

Brighton Public Safety Expenditures - 1992				
	Police <i>Budget</i>	Fire <i>Actual</i>	Total	Ratio
Total				
Operating Budget	3,318,074.00	2,209,031.00		
Facilities (Debt service, reserves, etc.)	271,286.00	747,479.00		
Total	3,589,360.00	2,956,510.00		
Per Capita				
Operating Budget	96.30	64.97	161.27	67%
Facilities (Debt service, reserves, etc.)	7.87	21.98	29.86	279%
Total	104.18	86.96	191.13	83%

Finally, we compared Brighton's per capita expenditures on fire protection with the results of a study recently done for the City of Watertown, NY, that compared thirteen New York communities with populations ranging from 20,714 to 44,350. In this survey, the average cost per capita was \$99.71 and ranged from \$59.44 to \$119.26. The costs examined in this survey did not include fringe benefits and it is unclear if they included capital expenditures and debt service. Brighton's per capita cost of \$86.96 is below the average for this survey even though it includes both benefits and capital expenditures and reserve accumulations.

Based on all of these factors, we have concluded that the Brighton Fire District's spending level is reasonable for the community's circumstances and general view of public safety spending.

As is clear from the above discussion, making inter-community comparisons of spending levels is both difficult and filled with pitfalls. Comparative summary statistics often are based on cost calculation that include or exclude significant cost categories. It is critical that such differences be taken into account in making such comparisons, if they are to be at all useful. In addition, it is clear that per capita fire protection costs vary significantly and directly with population size. It is, therefore, imperative that size is considered in any analysis of costs. Comparing Brighton with a nearby community with one half the population of Brighton is not likely to provide much meaningful guidance for fiscal policy.

D. Reserves for Capital Improvements

The Brighton Fire District follows a policy of building reserves to pay for anticipated capital improvements. This is a fairly common municipal practice for highway equipment, police cruisers and fire fighting equipment. We strongly endorse this practice. The deterioration of equipment and facilities over time represents a significant cost of service delivery. In the private sector, these costs are reflected as depreciation expenses. Unfortunately, most municipalities in the Northeastern United States do not keep a Fixed Asset Account Group or record the associated depreciation. As a consequence, current consumers of government services often do not pay for the full cost of delivering the service. The practice of calculating future capital expenditure requirements and funding them with reserves results in an effective cash basis surrogate for depreciation (or more accurately, economic rent). With the reserve method, taxpayers are paying for this cost through the reserve contribution included in the tax levy.

In 1988, the Brighton Fire District Commissioners decided to extend the reserve concept to facilities, as well. We believe it is as appropriate for facilities as it is for equipment, and concur with the policy adopted by the Commissioners. (We have recommended this practice to several municipal clients.)

There are, however, three significant problems with the policies implementation:

1. The Commission adopted the policy for facilities somewhat later than it might have and tried to "catch up" more quickly than is politically prudent or equitable for current citizen/taxpayers. Ideally, the replacement costs of a long-lived facility such as the fire station, would be funded over an extended period of time. (Brighton residents have been receiving the benefit of the old fire station for a period of nearly 50 years, without paying anything for it.) For example, had the reserve been built over a period of 20 years, the annual contribution required to accumulate the total cost of the station would have been approximately \$110,000. Instead the fire station reserve contribution has averaged nearly \$360,000 in recent years. This is much greater than the average annual debt service required under the most conservative (short-term) bond maturity schedule. As a consequence, many current taxpayers believe that they are paying more than they should for fire protection services.

2. The Fire District has not invested the reserve funds so as to maximize interest income. As a consequence, some interest income has been lost. While the District currently is planning to invest the reserves in Treasury Bills (which provide much higher yields than bank certificates of deposit and savings accounts) some possible interest has not been realized. We advise that the Board of Commissioners initiate a through review of its investment policies for all reserves to insure that the maximum investment income, consistent with prudent investment policies, is realized.

3. The Fire District is not adding a sufficient contribution to the equipment reserve fund. Based on current policies and projections, the reserve will be depleted by the middle of the next decade and required expenditures will exceed available reserves thereafter. We understand that the Board of Commissioners plans to address this issue as the next annual budget is developed. We must emphasize that it is very important that they do so.

E. New Fire Station Construction Costs

In reviewing the record of the debate about the new fire station, we found significant confusion about what the actual costs of the station will be. This confusion is particularly harmful when comparisons are made with other public facilities built over the past few years in the Rochester area or with published indexes of construction costs. Whenever such comparisons are made, it is critical that the specific costs of the project under examination included in the comparison are the same cost items used to calculate the "standard".

An analysis of the new station costs is presented in Table 3. As the table demonstrates, the proposed new Twenty-four Corners Fire Station has a total cost of \$2.045 million to \$4.663 million depending on the definition of "cost". The critical issue here is not which one is the correct cost (they are all correct) but that the proper one is used depending on the requirements of the analysis being made.

Table 3

Fire Station No. 1 Project Costs			Total	Per Sq. Ft.
Total Project Cost			\$4,663,000	n/a
Equipment Purchases (Communications)	480,000			
Bond issuance costs	72,500			
Contingency on above items	55,240		607,740	
Net Cost of Fire Station			4,055,260	\$144.83
Land Acquisition	500,000			
Architects and Engineering Fees	361,600			
Insurance during construction	25,000			
Contingency on these items	88,660		975,260	3.17
Net Cost of Construction			3,080,000	110.00
Costs not included in construction indices			1,035,000	36.96
Index construction costs			\$2,045,000	\$73.04

Our examination of the costs of the proposed new fire station was based primarily on two analyses of construction costs done by SWBR Architects, P.C. The first of these compared the projected construction costs for the new Brighton facility with similar construction projects in the area.

Table 4

Project	Bid Date	Usable Square Footage (U.S.F.)	Construction Budget	Cost/U.S.F.	
				Actual	Adjusted*
Mendon Fire District	Spring 1988	14,200	1,280,400	\$90.17	\$105.77
Pittsford Fire District	Summer 1985	17,000	1,501,780	\$88.34	\$112.24
Brighton Public Safety Building	Summer 1987	21,000	2,121,000	\$101.00	\$121.10
Brighton Fire District	Fall 1993	28,000	3,080,000	\$110.00	\$110.00

* Adjusted for inflation based on an average rate of inflation for construction costs of 2.9 percent.

The second compared the projects costs with construction indices publish by MEANS.

Table 5

MEANS 1993 Construction Index			
	Low	Medium	High
Base	\$56.40	\$76.35	\$92.05
Rochester area index*	104.5	104.5	104.5
Adjusted for Rochester area variation in costs	\$58.94	\$79.79	\$96.19

* MEANS data are national averages. These averages have been adjusted for local variations in cost, also obtained from MEANS

We checked the SWBR calculations, verified the data and reviewed the assumptions for reasonableness. Based on this review, we believe that their analysis has been done properly and that the resulting comparisons are useful for evaluating the proposed project.

As is evident from Table 4, the construction costs of the Brighton project compare quite favorably with those of three public facilities built during the late 1980s in the Rochester area. The key factors in this comparison are (1) to include the same types of cost for each project and (2) to adjust historical construction costs for the impact of inflation.

Table 5 presents MEANS Construction Index statistics for current construction costs per square foot. Included are base national averages and an adjustment for local variations. As indicated in Table 2, the cost of the items included in the MEANS index for the Brighton project are \$73.04 per square foot which is slightly below average.

Based on these comparisons, the construction costs of the proposed Twenty-Four Corners fire station appear reasonable.

CHAPTER THREE

FACTORS INFLUENCING SERVICE DELIVERY

D. 1988 Statements Concerning Station Location

The 1988 study clearly identified a long list of inadequacies with the existing three stations. These ranged from building code, Life Safety Code, and OSHA violations to totally inadequate facilities for the District, the department, and its paid and volunteer staff.

Projections for building construction and highway interchanges were made to the 1988 study team—all in good faith—which were not borne out. For example, route access interchanges for the northern part of the District were reconfigured and the projected rapid building boom did not develop south of Westfall Road. These earlier suppositions were followed by the Report observations that the existing Station #2 “does not sit on enough land to construct a modern station,” and that Station #3 was underworked (p. 31, 1988 Report). Regarding Station #1, the statement was made (p. 21) that “the location, land contours, and traffic pattern ... are unsatisfactory, as is the rear building,” which serves to house first-line apparatus.

The following quote is taken from the section titled “Station Location” (pps 22-23, 1988 Report):

“The ideal location of any fire station is based on the concept that the quicker a fire truck arrives at the scene, the better. In actuality, however, a number of variables come into play: the location of high risk hazards; street and highway pattern; response speeds; fire incident demand patterns; fire company workloads; weather conditions; number of trained firefighters available for initial attack; response time of additional apparatus; availability of adequate land; and finances available. The National Fire Protection Association recommends that first-due apparatus should be located within two miles of residential areas; within one and a half miles of commercial areas; and within one mile of locations where the required fire flow exceeds 5,000 G.P.M.

Station location standards set by ISO are based upon travel distances and look for a 3/4 mile maximum for an engine company to its greatest hazard, and a one-mile maximum for a ladder company. Communities often are unable to build stations to meet the ISO standard and sometimes to meet the NFPA recommendation. The station location map of the Brighton District illustrates that the existing three stations do provide almost all portions of the district with the NFPA recommendation, calculated at straight line mile age.”

Under the "Recommendations" section of the 1988 Report (p. 34) this sub-section related to stations: [underlining added]

"A number of recommendations are contained in earlier sections of this report. A summary of major recommendations follows, although the Master Plan Outline contains options and alternatives which are available to the Board, based on additional information, changes in the District and in growth patterns over future years, available funding, road construction and reconstruction, and any unforeseen events.

1. Do not refurbish existing stations.
2. Construct a minimum of two new stations at locations which provide adequate coverage and response times."

A report from one member of the 1988 study team to another team member, (Marlatt, p. 4) and which was attached to the 1988 Report states: [underlining added]

"Although the locations of the present stations are reasonably suited to the layout of the town, appropriate coverage could be accomplished by relocating the present facilities.

RECOMMENDATIONS:

1. Recommend that Station #3 be closed.
2. Recommend that Station #1 be relocated to the area of Penfield Road and Landing Road.
3. Recommend that apparatus from Station #3 be consolidated with apparatus from Station #1 at the new location.
4. Recommend the building of a new fire station in the general vicinity of Station #2. If possible, the purchase of land and the building on a site immediately adjacent to Station #2 would be most advantageous.
5. Recommend that both stations include sufficient space for all functions of the department to include, but not limited to, operations, training, maintenance, administration, volunteer activities, storage, etc. (NOTE: Relocation of the existing facilities to the sites mentioned will not adversely affect fire department response times and will provide by consolidation increased manning levels on first-due apparatus; will provide for relocation of the existing ladder company closer to several high-rise occupancies and will permit apparatus access to major arteries that will facilitate timely response.)"

The Master Plan addendum of the 1988 Study (p. 5) stated: [underlining added]

“We believe strongly that the existing stations have outlived their usefulness and need replacing. The existing Station #2 location is too small for rebuilding, and the Station #1 location site seems unsuitable in two ways—contours and traffic patterns.”

A site in the Penfield Road-North Landing area may well be adequate for a modern facility. South Winton Road property, south of Westfall or in that immediate area, would provide adequate land for another station. If utilities are not available, lines could be extended relatively short distances for modest cost. Adequate grade level and safe sight lines are necessary.”

E. 1993 Station Location Recommendations

In evaluating possible locations for fire departments in suburban area and smaller cities, the general criteria topics include:

1. Area to be protected, plus historical and potential call demand;
2. Proximity to other fire stations;
3. Equalized running distances, distance from boundaries;
4. Necessity to obtain sufficient land, conditions and cost;
5. Ability to regulate traffic flow;
6. Topography;
7. Natural and artificial barriers;
8. Traffic conditions and street access;
9. Higher speed route access;
10. Future growth probabilities;
11. Nature of neighborhood;
12. Availability of sufficient land;
13. Off-street parking availability; and
14. Relatively free from fire, flood, and other disasters, both natural and man-made.

Specific site criteria topics include:

1. Size of plot;
2. Access to street from ramp and to main travel routes from that street;
3. Drive through capability;
4. Sight lines in all directions;

5. Grade level;
6. Utilities, training area, pumper testing area;
7. Cost of land and site preparation;
8. One way streets;
9. Local architecture;
10. Soil conditions;
11. Flooding or ground shift; and
12. Ability to stop traffic.

Station #3

Since the major highway and inter-change configuration is now established and constructed (with the resultant necessity for Station #3 to operate more independently, sometimes in association with apparatus from Rochester), with construction planned for the north section of the district as well as the east central area, with increasing pumper runs from Station #3 (151 in 1992) and due for an EMS run increase, and with two apartment buildings now constructed in that area, Station #3 is serving an important need. Its renovation has corrected the problems identified in 1988 and it now is a serviceable station located in what appears to be an increasingly busy area.

Recommendation 3.1

Station #3 should continue to function as a response location and should have two full-time firefighters on duty at all times, to be augmented by the Company volunteers.

Station #2

Station #2 is located in a built-up area with older commercial buildings, with numerous apartments, with large schools and other public buildings, and close to an older and extensive residential area. Further, the section of Winton Road immediately to the south will not be widened to more than two lanes. The four lane section deliberately does not begin until south of the schools. Most of the station's responses are to the north, east, and west. If it were to be relocated south on Winton Road, most of its runs (580 in 1992) would take it along the two lane road, through the school zone. A high frequency of responses is not desirable.

The 1988 objection to the existing site of Station #2 was that it was not large enough for a necessary expansion. Since that time the District was able to purchase the adjacent lot on Winton Road. This enables an expansion and a correcting of the deficiencies noted in the 1988 study.

Recommendation 3.2

A two bay addition to Station #2 should be designed and constructed, facing Winton Road at the corner of Elmwood Avenue, and all the existing first floor space should be converted to provide safe and suitable facilities for full-time crew and the volunteers. The second floor rooms also need redesigning. A construction and rehabilitation cost estimate, including removal of the older home facing Winton Avenue, is approximately \$975,000.

In no way can Station #2 serve as District or Department headquarters, or as the main training site, but it can be made into an adequate and attractive station which can continue to provide fire, rescue, and first responder EMS service to a crucial area of the District.

Recommendation 3.3

The addition to Station #2, and the rehabilitation work on that original building should commence as soon as practical. We recommend that the funding for this work become part of a bonded funding package. We believe that it may be possible to have the size of the bonded amount for this work and what will be necessary for a main station (#1) not exceed the original planned amount to be bonded of \$2.06 million.

Recommendation 3.4

Responding from the first of the two bays recommended for Station #2 should be a standard, single rear axle pumper equipped with a "junior" rear mounted aerial ladder, 65 to 85 feet in length. This "quint" type vehicle would be staffed by the full-time crew, augmented by volunteer response to the scene of the incident. This pumper/ladder also would provide immediate EMS response, as is now provided by literally thousands of fire departments across the nation, as would pumpers from Stations #1 and #2. To illustrate the commonality of this pumper (engine EMS) type of service, the following list provides some 1992 statistics:

Busiest EMS Engines in 1992

DEPARTMENT	EMS ENGINE	RUNS	DEPARTMENT	EMS ENGINE	RUNS	DEPARTMENT	EMS ENGINE	RUNS
Washington, DC	10	6,095	Miami, FL	3	2,230	Laguna Beach, CA	2	1,549
Los Angeles, CA	64	5,501	Richmond, VA	11	2,212	Columbus, OH	19	1,538
Cincinnati, OH	5	4,915	Sacramento Cty, CA	E61	2,157	X Buffalo, NY	2	1,523
Milwaukee, WI	13	4,795	Omaha, NE	21	2,154	Austin, TX	18	1,523
Los Angeles Co, CA	163	4,755	Barstow, CA	361	2,148	Denton, TX	1	1,517
Sacramento, CA	6	4,700	Arlington, TX	2	2,126	Stockton, CA	7	1,511
Phoenix, AZ	18	4,582	Santa Ana, CA	3	2,100	Santa Monica, CA	4	1,500
Denver, CO	8	3,796	Sun City, AZ	132	2,082	Butte Co, CA	42	1,492
Prince George's Co, MD	33	3,791	Tempe, AZ	72	2,072	Alhambra, CA	71	1,477
Philadelphia, PA	50	3,777	Westminster, CA	21	2,033	Schaumburg, IL	4	1,472
Tucson, AZ	8	3,676	X Syracuse, NY	6	2,029	New Haven, CT	15	1,464
Anaheim, CA	1	3,626	Portland, OR	11	2,017	X New Rochelle, NY	21	1,429
Minneapolis, MN	8	3,608	X Rochester, NY	16	2,014	Jackson, MS	10	1,422
West Covina, CA	71	3,480	Orlando, FL	5	2,009	Wallingford, CT	1	1,418
Saint Paul, MN	4	3,353	Shreveport, LA	8	1,992	Chesapeake, VA	1	1,416
Reno, NV	1	3,303	Nashville, TN	3	1,990	Saint Petersburg, FL	13	1,408
Fort Worth, TX	5	3,260	Melbourne, FL	74	1,972	Central FPD, CA	1	1,405
Orange County, CA	46	3,237	Chino Valley, CA	61	1,941	Boise, ID	805	1,377
Toledo, OH	16	3,237	Warren, MI	5	1,894	Clayton Co, GA	1	1,359
Salt Lake City, UT	1	3,202	Wichita, KS	R1	1,854	N Providence, RI	1	1,343
Metro Dade Co, FL	3	3,188	Pittsburgh, PA	8	1,848	High Point, NC	2	1,310
Tampa, FL	11	3,161	X Kingston, NY	1	1,825	American River FPD, CA	1	1,305
Mesa, AZ	1	3,095	Downey, CA	61	1,823	Pomona, CA	82	1,302
Providence, RI	3	3,058	Yuma, AZ	3	1,794	Chesterfield Co, VA	3	1,299
Houston, TX	7	3,052	Somerville, MA	3	1,791	Bellevue, WA	6	1,295
Seattle, WA	25	3,029	Burlington, VT	1	1,787	Elgin, IL	4	1,285
Albuquerque, NM	5	3,021	Tallahassee, FL	1	1,767	Harrisonburg, VA	23	1,259
Indianapolis, IN	22	2,988	Kansas City, MO	35	1,751	Flagstaff, AZ	1	1,237
Orange, CA	1	2,935	Birmingham, AL	16	1,746	Naperville, IL	4	1,217
Aurora, CO	2	2,919	Sunrise, FL	59	1,735	Palm Springs, CA	441	1,215
Compton, CA	42	2,915	Warwick, RI	1	1,726	Loudoun Co, VA	11	1,200
Dallas, TX	43	2,868	Westminster, CO	1	1,723	Petersburg, VA	2	1,179
Dayton, OH	17	2,818	Memphis, TN	7	1,723	Madison, WI	8	1,178
Charlotte, NC	1	2,727	Plano, TX	1	1,708	Tulsa, OK	23	1,157
Chandler, AZ	81	2,624	Grand Prairie, TX	1	1,697	San Buenaventura, CA	1	1,150
Orange Co, FL	30	2,568	East Point, GA	2	1,686	Baltimore, MD	122	1,118
Hayward, CA	3642	2,500	Asheville, NC	S1	1,662	Prescott, AZ	71	1,112
Atlanta, GA	16	2,492	Woonsocket, RI	3	1,646	Chelsea, MA	1	1,067
X Yonkers, NY	306	2,465	Eugene, OR	1	1,629	New Smyrna Beach, FL	1	1,003
Arlington Co, VA	71	2,448	Springfield, IL	S1	1,617			
Cleveland, OH	24	2,400	Henrico Co, VA	10	1,616	CANADA		
Las Vegas, NV	5	2,356	Manchester, NH	11	1,606	Toronto, ONT	3	4,024
Richmond, CA	62	2,280	Montebello, CA	51	1,600	North York, ONT	14	3,295
Fremont, CA	1	2,276	Anne Arundel Co, MD	33	1,563	Ottawa, ONT	3B	2,627
Bridgeport, CT	1	2,247	Springfield, OR	1	1,558	Hamilton, ONT	1	1,495

Reprinted from *Firehouse*, June 1993, p. 64

The second vehicle housed in this station should be a standard pumper, to be crewed by additional volunteers. This likely would be the better of the two pumpers now assigned to Station #2. The pumper/ladder should be purchased as part of the District's regular vehicle replacement plan, but as soon as the station is ready to house it.

Station #1

The objections in 1988 to any attempt to have either a rebuilt or a new station constructed on the Station #1 existing lot centered on the poor design of the roadway corner in front of the station and on the limited size of the lot and its slope to the rear. Now, along with our recommendation that the Brighton Fire District retain three stations, is our recommendation that the #1 Station remain at that location using an expanded space acquired by purchase of the closed former service station lot, but not the adjoining residential lots. The traffic problem created by the narrow space in front of the original station and the odd configuration of "the twenty-four corners" has already been corrected by the completed roadway redesign project and the transfer of land between the new road and the original station to the Fire District. By using part of the adjacent lot for construction and part for parking, and by designing a partly two-level structure, land contour problems can be met. Certain designs also allow for the retention of the training building located to the rear of the existing lot.

The Brighton Fire Department needs a safe, adequate, and modern headquarters fire station which provides facilities for the on-duty crews, the volunteers, District business functions, and their related operations, including meetings and training. This need is strong and it needs to be provided for as quickly as the Board, the citizens advisory committee, and the voters can make their decision and act. This need has been present for at least ten years and has now become immediate because of laws and regulations, national standards for vehicles, activity increases, and a larger and more active department.

Recommendation 3.5

Because the traffic flow problems have been ameliorated, and because the lot size and contour problem now can be solved, we recommend that the existing Station #1 site, enlarged as described above, be used as the location for a main Brighton Fire Department facility. It should be designed to fill space needs for fire and rescue response, department business, volunteer member functions, District business, and training needs. The location has worked well as a central response site since the Department began, and in a three station model it is the best location for that section of the District. We cannot find a better site. In terms of the type of structure, however, we present in Chapter Four some alternatives to the design proposed earlier to residents.

Alternate Location for Station #1

We examined and considered carefully a proposed possible site at the foot of the downhill curve on Route 441, opposite the entrance to an existing office part and immediately adjacent to a proposed "fly over" bridge crossing. The site is located approximately 800 feet from the District's eastern boundary line and would involve fire apparatus driving north on 441 and, typically, through the often congested Route 490-Linden Avenue interchange before entering the Linden Avenue-East Avenue-Elmwood Avenue-Landing Road decision point. If it were constructed here, it would be necessary to take certain residences. Further, as was the case in 1988, road design features could change before construction is completed. We can determine no compelling reason to recommend construction of a new central fire station at this location.

Possible Future Station Location

The District has waited too long to correct station inadequacies for it to delay station location decisions until a build-out is seen in the southwestern section of the District. We note this because a concern was expressed for a station in that area. We cannot recommend a fourth station at this time, (or a relocation of Station #2). Call demand in that area has been light, and fires are less likely to occur in new construction, especially that which is alarmed and sprinklered, as is the case with almost all new commercial and institutional building. Further, there have been no unduly long response times as yet from the existing Station #2. The longest runs, likely to the area of the Developmental Center, would take approximately five minutes at 30 m.p.h. average.

Recommendation 3.6

Rather than recommend a relocation of Station #2, which we believe would be unwise in terms of its busiest service delivery area, we recommend the following: if a combination of unsprinklered structures and an obviously increasing response workload cause concern for the southwest area, either a small satellite response station be constructed on donated land in that area (after the new east-west connector roads are constructed) or a pumper be stationed in the ambulance building. This second concept, we believe, is not especially advantageous because the ambulance station is only .8 miles south of Station #2 and may well lack space. However, it might be an intermediate step and provide a lower cost trial period.

F. Types of Fire Departments Possible in New York State

This section is included in response to a question raised concerning the nature of "fire districts." Under New York State law, only four types of fire departments are possible:

1. City (municipal) fire departments, which function as a branch of city government, just as any other city department.
2. Village fire departments, which essentially are like city fire departments.
3. Fire Districts, which have their own boundary lines and where policy, direction, and budgetary control come from non-paid commissioners who are elected under State laws. Funds come from a tax levy; and
4. Fire Protection Districts, where a not-for-profit corporation with its own board of directors (and usually its own vehicles and station) provide protection to a jurisdiction—such as a town—for an annual fee.

An area which elects not to "have" a fire department of any type may purchase services by annual contract from a nearby, agreeable, fire department.

The Brighton Fire District was established as a "combination" department more than sixty years ago to provide protection, through a tax levy, to portions of two Towns in Monroe County. Laws of New York State strictly govern all aspects of operation, including exactly when and how bond votes may be conducted. Perhaps unfortunately, calls for different voting days and hours are not possible under State law.

CHAPTER FOUR

DISTRICT NEEDS AND

HEADQUARTERS STATION DESIGN

CHAPTER FOUR: DISTRICT NEEDS AND HEADQUARTERS STATION DESIGN

A. Introduction

The purpose of this chapter is to respond to study tasks #2 through #9, as listed in Chapter One under "Purposes," and to present alternative recommendations for a headquarters (#1) fire station in the Brighton District. Recommendation 3.5 already has detailed our reasons for selecting the approximate site of the existing #1 station as our preferred location for Station #1. Also the citizens advisory committee members each have a copy of the publication titled *Fire Station Planning, Design and Construction*, so this chapter will not repeat the detailed information contained in that document. Rather, it presents three alternative types of structures which we believe can meet present and future District and Department needs without providing more than might be needed. It also presents, in listed format, what we judge the needs of the fire and rescue organization to be. For those who have reviewed the 1988 study Report, we point out that the Department has increased both the number of services it delivers and the workload it must maintain. Additionally, the number of rules and regulations—many pertaining to personnel safety—to which it must adhere has grown. The Department very much needs a headquarters station capable of allowing personnel to function safely and properly in their work, and which will be a magnet to the volunteers who serve the community.

B. Scope of Services Provided

The Brighton Fire Department provides its District with sufficient initial attack fire suppression service and is capable of handling a simultaneous alarm or the added demands of a second alarm. Mutual aid fire departments provide additional resources when necessary. The Department has three first line pumpers and one second line pumper. Because of door and space limitations at Stations #1 and #2, only the pumper at the already improved Station #3 is of totally modern design. An aerial ladder and a heavy rescue truck also are housed at Station #1, with the rescue truck kept in a rear building. One vehicle from each station can provide EMS first responder service when called upon to do so by the outside EMS dispatching center.

Because all firefighters must respond seated and with a seat belt, the District had to purchase a personnel carrier type van, since three of the four apparatus do not have the modern enclosed crew

cabs. The 24-hour duty lieutenant responds in a pick-up truck, which serves several purposes, but which cannot be set up as a fully functioning incident command vehicle.

The Brighton Fire Department responds to fires and to calls for emergency medical, heavy rescue in multiple casualty accidents, and hazardous materials incidents. The department also provides public education programs for general fire safety, plant protection training for industrial and other work groups, enforcement of new codes and regulations for buildings, equipment and personnel; communications; residential and code inspection of schools and commercial properties, as well as the recruiting and training of volunteer and career staff. In conjunction with the Monroe County Third Battalion, it provides specialized technical rescue services and advanced hazardous materials incident response.

C. Vehicles Necessary for Service Delivery

The Brighton Fire District needs three modern fire pumpers (one equipped with a shorter aerial ladder), all meeting both NFPA and OSHA requirements. Additionally it needs two second line pumpers (Stations #1 and #2) for additional response by stand-by volunteers and for replacing a first line pumper needing repairs. The second "reserve" pumper is planned for a later date.

The existing full-size aerial ladder is necessary. The heavy rescue truck is needed, and should be fully equipped with modern communications and computer equipment.

The responding duty lieutenant should use a "suburban" type vehicle fully equipped for the required incident command work. The administrative Captain and the volunteer Chief each should have an assigned vehicle, as is done now.

The headquarters station should house two pumpers, the aerial ladder, the heavy rescue truck (which is solely crewed by volunteers), the duty lieutenant's command vehicle, and have room for the van and the Chief's car, plus another small vehicle. So long as mutual aid apparatus can fit in the station, costs are reduced significantly by using outside departments to cover the Brighton Stations during long fire incidents. They currently cannot fit within Stations #1 and #2.

D. Shift Arrangements

The paid, full-time staff are working a 10 hour/14 hour shift arrangement and over a cycle of several weeks average the New York State mandated 40-hour work week. This is an effective and very typical shift arrangement.

Every effort should be made to attract the volunteers to the stations, since their presence guarantees a sizeable and rapid initial response at no additional salary cost. Some money spent in making stations attractive to volunteers produces large economies in salary and fringe benefits. Provisions must include room for volunteers to remain overnight during, for example, weather emergencies, and for volunteers to meet, have events, study, and simply "put in time" at the stations, so as to assure their membership and their frequent physical presence.

E. Necessary Administrative and Support Functions

Because of the requirements of a combination fire department using both full-time and volunteer personnel, facility provisions are necessary for those who live and work in the station on a regular shift basis, plus those who volunteer to come there. In addition, the headquarters station requires facility provisions for the following general functions:

- District business
- Volunteer meetings and events
- Volunteer training
- Public safety education classes
- Communication and dispatch
- Meetings and storage space for auxiliary groups
- Appropriate spaces for vehicles and equipment

We have grouped minimum facility and space needs as follows:

Fire Department

- Five full length apparatus bays:
 1. Pumper #1 plus personnel carrier
 2. Command pick-up plus pumper #2
 3. Aerial ladder

4. Rescue truck

5. District car plus Chief's car/maintenance bay/place for disabled vehicle awaiting repairs

- Communications and dispatch room with "watch-desk" windows to station and street
- Ready room for response crew
- Food preparation area with eating table for response crew
- Dormitory rooms to house 10 people, both paid and volunteers on disaster stand-by; recommend divided rooms
- Toilet, shower, and locker rooms for men and women
- Washer-dryer room
- Standby generator room
- Exhaust gas removal system
- Breathing mask repair and testing room
- Janitor room with storage
- Storage room and workbench area
- Space for protective clothing racks
- Space for hose storage
- Room for breathing mask compressor and recharge system
- At least one drive thru bay
- One floor drain with diverter valve to haz waste water holding tank for pump-out
- Two large classrooms with sound-proof divider; one room possibly with folding wall bed units
- Volunteer members, auxiliary members, retired volunteers, and Explorer Post meeting and event room, with food preparation and storage space facilities
- Training office with storage space, located near classrooms
- Additional toilets near classrooms and meeting rooms
- Quiet study and learning resource room for all personnel
- Office to accommodate four positions: fire prevention officer; haz mat officer; EMS coordinator; volunteer clerk
- Duty Lieutenant's office
- Fire Company civil officers' office
- Physical fitness room, with locker space and shower
- Entire building to be alarmed and sprinklered

Fire District

- Conference/meeting room
- Two offices (Chairperson and secretary)
- File and records storage room
- Machine room
- Bathrooms
- Department Chief's office
- Station #1 Battalion Chief's office
- Administrative Captain's office
- Public access/clerical office
- Purchasing office for Fire Department
- Computer office

These groupings presuppose that the existing rear building of 2,200 square feet will be retained and used. (Chapter five of this Report describes recommended use of that structure.)

F. Earlier Suggested Architectural Design

The 27,800 square foot headquarters station outlined in the earlier architectural proposal arrived at its square footage requirements as follows, reproduced on the following page.

To arrive at the square footage requirements summarized on the following page, a standard process was used which first listed in detail the types of spaces needed with square footage estimate requirements. These detailed requirements were then grouped into the three categories listed in the above chart. This process is termed "Design Program Analysis," and its results were reported to the Board so that a building design layout could be sketched. This step then leads, in architectural work, to preliminary floor plans and preliminary exterior elevation drawings.

**COMPARISON OF EXISTING AND NEW
CONSTRUCTION PROGRAM SPACE**

CATEGORY	EXISTING SPACE (SF)	NEW CONSTRUCTION (SF)
I. DISTRICT HEADQUARTERS		
• Commission Functions	430	1140
• Volunteer Office	200	950
• Career Office	310	1635
• Apparatus & Maintenance	1410	2410
• Training & Support	1955	6125
	4305	12260
II. FIRE COMPANY NO. 1		
• Personnel	2905	3830
• Apparatus & Support	4105	4730
	7010	8560
III. BUILDING SUPPORT		
• Utility & Support	1000	5580
• Outside Wall	1310	1400
	2310	6980
TOTAL: I, II AND III	13625	27800

The following pages reproduce the Design Program Analysis which was prepared for the Board of Commissioners. Note that the total space requirements call for 27,800 gross square feet of space.

DESIGN PROGRAM ANALYSIS

I. BRIGHTON FIRE DISTRICT - DISTRICT HEADQUARTERS

	Current <u>Space</u>	Proposed Program <u>New</u> <u>Existing</u> (Net Sq. Ft.)
A. DISTRICT - COMMISSION OFFICES		
1. Chairman's & Commissioner's (4)	0	205
2. Commission Officers (2)	0	125
3. Commission Meeting Room	430	530
4. Office Equipment & Records	0	135
5. Reception & Coats	0	145
6. Archives (See I.E.6)	0	0
	<hr/>	<hr/>
Sub-Total Commission Offices	430	1,140
B. DISTRICT - VOLUNTEER OFFICES		
1. Department Chief	0	190
2. Battalion Chiefs (3)	0	210
3. Volunteer Civil Officer (3)	70	300
4. Volunteer Purchasing	130	250
	<hr/>	<hr/>
Sub-Total Volunteer Offices	200	950

Brighton Fire District, New Fire Station & District Headquarters, Supplemental Information Report, p. B-1

	<u>Current Space</u>	<u>Proposed Program</u> <u>New</u> <u>Existing</u>	
	(Net Sq. Ft.)		
C. DISTRICT - CAREER OFFICES			
1. Captain	190	210	
2. Duty Lieutenants (5)	0	400	
3. Training Office & Storage	0	210	
4. Meeting Room/Lounge	0	255	
5. Computer & Storage	100	160	
6. Office Equipment	0	100	
7. Waiting & Coats	0	130	
8. Storage	20	170	
Sub-Total Career Offices	310	1,635	

D. DISTRICT - APPARATUS & MAINTENANCE			
1. Maintenance Bay	0	1,185	
2. Tool Crib & Parts	150 (R)	250	
3. Oil Storage	50 (R)	120	
4. Toilet	0	55	
5. Reserve Pumper 305	500 (R)	800	
6. District Vehicle 306	500 (R)		400 (R)
7. Maintenance Storage	25 (R)		100 (R)
8. Grounds Storage	25 (R)		100 (R)
9. Seasonal Storage	100 (R)		100 (R)
10. Compressor	60 (R)	Outside	
Sub-Total Apparatus & Maintenance	1,410 (R)	2,410	700 (R)

(R) = Rear Garage

Brighton Fire District, New Fire Station & District Headquarters, Supplemental Information Report, p. B-2

	Current Space (Net Sq. Ft.)	Proposed Program New Existing
E. DISTRICT TRAINING & SUPPORT		
1. Training Rooms (3)	990	2,625
2. Lobby	0	500
3. Coats	0	160
4. Kitchen & Storage	150	550
5. Fitness Room & Storage	0	1,000
6. Storage (Training, Archives)	0	420
7. Toilets - Training	70	450
8. Toilets - Fitness & Co. No. 1	0	420
9. Training Bay		700 (R)
10. Fire Tower	745 (R)	745 (R)
Sub-Total Training & Support	1,955	6,125 1,445 (R)
Sub-Total BFD-HQ	4,305	12,260 2,145 (R)

II. BRIGHTON FIRE DISTRICT - FIRE COMPANY NO. 1

A. COMPANY NO. 1 - PERSONNEL

1. Dispatcher w/Toilet	230	305
2. Radio Equipment	0	170
3. Public Waiting	0	205
4. Ready Room	490	520
5. Kitchen/Dining	115	230
6. Dorm & Toilets	800	1,055
7. Laundry	0	85
8. Co. No. 1 Office	0	90
9. Co. No. 1 Meeting	1,015	1,000
10. Counter & Storage	175	160
11. Co. No. 1 Meeting Toilets (See I.E.8)	80	0
Sub-Total Personnel	2,905	3,830

Brighton Fire District, New Fire Station & District Headquarters, Supplemental Information Report, p. B-3

	Current Space (Net Sq. Ft.)	Proposed Program New Existing
B. COMPANY NO. 1 - APPARATUS		
1. Tower Ladder 301	1,340	1,185
2. Pumper 304	715	800
3. Rescue Truck 308	700 (R)	600
4. Pick-Up Truck 307	600 (R)	520
5. District Vehicle 3016	500 (R)	480
6. Turnout Gear	0	330
7. Hose Rack	0	65
8. Janitor/Storage	0	170
9. Co. No. 1 Storage	150	180
10. Breathing Apparatus	100 (R)	400
	<hr/>	<hr/>
Sub-Total	4,105	4,730
	<hr/> <hr/>	<hr/> <hr/>
Sub-Total Co. No. 1	7,010	8,560

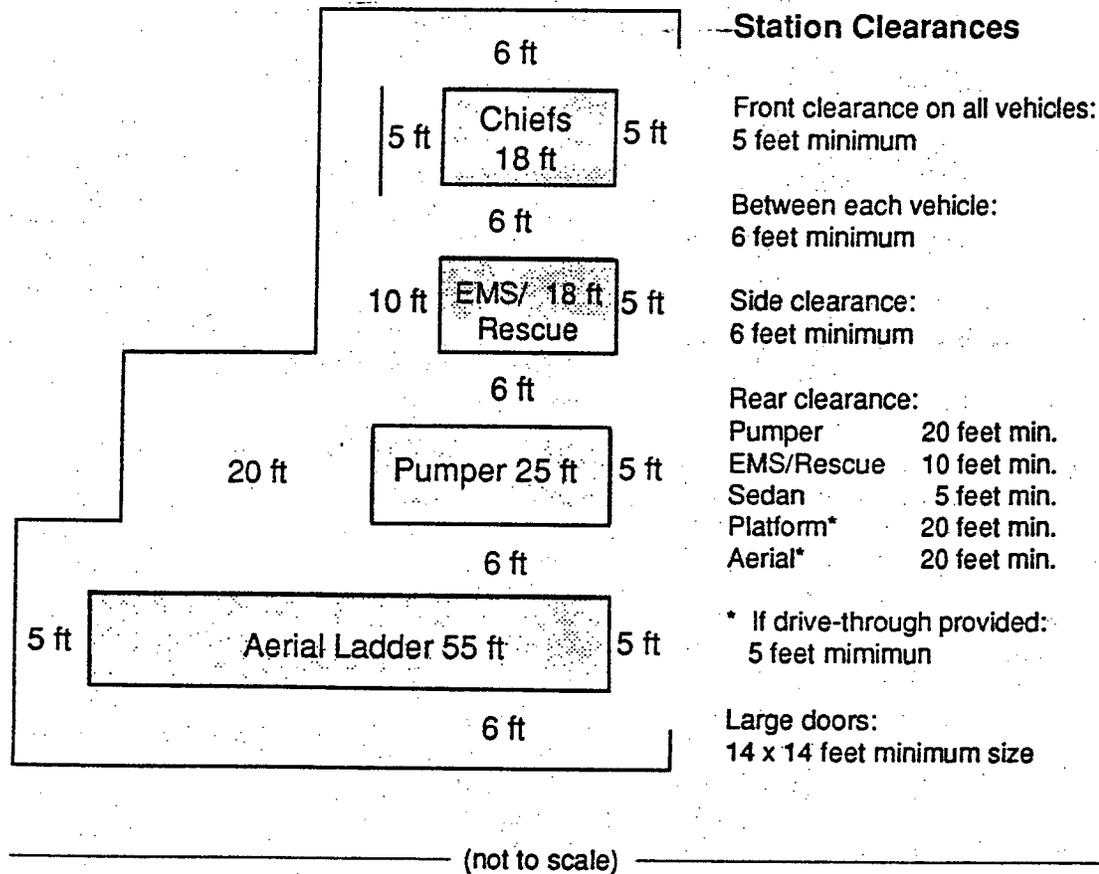
III. BRIGHTON FIRE DISTRICT - BUILDING SUPPORT

A. Corridor Circulation	80	2,250	
B. Stairs	410	1,200	
C. Elevator & Equipment	0	275	
D. Vestibules	180	150	
E. Public Toilets	0	185	
F. Utility & Mechanical Room	300	1,520	
G. Emergency Generator	30	Outside	
H. Outside Wall	1,310	1,400	120 (R)
	<hr/>	<hr/>	
Sub-Total Building Support	2,310	6,980	120 (R)
Sub-Total I + II	1,315	20,820	2,145 (R)
	<hr/> <hr/>	<hr/> <hr/>	
GRAND TOTAL I + II + III	13,625	27,800	2,266 (R)

Brighton Fire District, New Fire Station & District Headquarters, Supplemental Information Report, p. B-4

Because some persons reading this report will not have reviewed the minimum space requirements for some types of rooms found in fire stations which are not headquarters or "central" stations providing department wide administrative, support, auxiliary, communications, computer and volunteer facilities, two charts are reproduced in this report which are taken from *Fire Station Planning, Design and Construction*, written by Robert H. Ely and made available to all members of the citizens advisory committee.

Apparatus Space Requirements



Station Clearances

Front clearance on all vehicles:
5 feet minimum

Between each vehicle:
6 feet minimum

Side clearance:
6 feet minimum

Rear clearance:
Pumper 20 feet min.
EMS/Rescue 10 feet min.
Sedan 5 feet min.
Platform* 20 feet min.
Aerial* 20 feet min.

* If drive-through provided:
5 feet minimum

Large doors:
14 x 14 feet minimum size

Shop Area

Side clearance:
10 feet

Front and rear clearance:
10 feet each

Height clearance:
Tallest vehicle plus 7 feet

Fire Station Planning, Design and Construction by Robert H. Ely, p. 10

Figure 3. Minimum Space Requirements

Rooms	MINIMUM SQUARE FEET
Office (Class I)	192 square feet per person
Office (Class II)	120 square feet per person
Office (Class III)	90 square feet per person
Office (Class IV)	72 square feet per person
Office (Class V)	54 square feet per person
Multipurpose space	750 square feet for 50 people
Multipurpose space	1,120 square feet for 75 people
Conference room or space	120 - 150 square feet (total)
Office, general with waiting room (one employee)	180 square feet (total)
Kitchen	40 square feet per person on shift
Eating	same as above
Dispatch - counter (watch area)	24 square feet (total)
Dispatch - office	120 square feet (total)
Men's bathroom	36 square feet per person
Women's bathroom	36 square feet per person
Apparatus room	see Figure 1
Lounge	30 square feet per person
Storage room - office	18 square feet (total)
Storage room - bureau	80 square feet (total)
Training storage room	80 square feet (total)
Storage room - on-duty personnel	300 square feet (total)
Shop	200 square feet (total)
Garage	see Figure 1
Hose tower	120 square feet per floor
Hose and drill tower	216 square feet per floor
Dormitory	75 square feet per assigned sleeping space
Locker room	10 square feet per person
Toilets/showers	220 sq. ft. each for a 2-company station (male & female)
Study	150 square feet (total)
Station officer (sleep & work station with three lockers)	200 square feet (total)
Station officer separate sleeping area	130 square feet (total)
Station officer with a Class IV work station	72 square feet additional

Fire Station Planning, Design and Construction by Robert H. Ely, p. 12

We have compared the room dimensions in the preliminary Brighton program design with those minimum space requirements listed in the reference tables reproduced above and do not find significant discrepancies. However, we do suggest certain changes in our Alternative C, described later in this chapter.

G. Modified Design

Under Section E of this chapter we have listed the space and facility requirements we recommend as necessary for the headquarters station. A variety of room size adjustments are possible, of course, and it is possible to combine some meeting room space with classroom space in order to create a multi-purpose room. In doing this, however, the ability to leave training materials in place for the next day's use is limited, and people must be available to carry tables, chairs, etc. for each function and to put these away each day or evening. Schedules need to be made and kept so that two groups do not expect to use the room at the same time. Decisions must be made concerning the value of these space-work "trade-offs."

We calculate that the gross square footage might conceivably be reduced by approximately 2,480 square feet less than the 27,800 in the original program design. This eliminates the separate maintenance bay, the lobby, and one classroom/multi-purpose room. A reduction of that space would reduce costs by approximately \$272,000. (In calculating these types of savings, we generally amortize the amount over the life span of the building in order to test the relative savings.)

By reconfiguring the space layout, including the incorporation of a 25' by 120' rear walk-out type basement, we believe that this 25,300 square foot structure would need two full floors above ground level, with a first floor ceiling height of fourteen feet. Exterior dimensions of approximately 140' by 80' would yield the required square footage. Roof level at the front would be approximately 28 to 30 feet above ground level, and about 10 feet higher than that at the walk-out area.

We judge that a structure of those dimensions could be built on a plot consisting of the original site plus the former service station, still allowing the rear building to remain. The distance from the front of the building to East Avenue, however, might be fairly short. Proper placement might allow the original station to remain, but likely unused. This could present a legal problem to the District because of value unreclaimed.

The "construction only" cost for 25,300 square feet, at approximately \$110 per square foot, is projected at approximately \$2.78 million. Added to this would need to be the land acquisition cost, demolition costs for the original station, site preparation, professional fees, etc. This contrasts with \$3,058,000 (at \$110/square foot) for the original design, which required two residential lots as well as the former service station lot, and which also required removal of the original station.

H. Combined Building Approach

We have judged that the headquarters facility for the Brighton Fire Department, including District offices, needs between 27,800 and 25,300 gross square feet of space. The original fire station contains approximately 7,000 square feet of space. That space, we judge, can be rehabilitated at an approximate construction cost of \$80 per square foot. If that space were converted to offices and a meeting room, and a one-story addition to the original building of approximately 90 x 165 feet, plus a 25 x 165 foot walk-out rear basement, (yielding 18,975) were constructed, the total square footage would be 25,975.

At \$110 per square foot, the addition amounts to approximately \$2,087,000. Work on the original station, calculated at \$560,000 brings this projected construction cost total to under \$2.7 million. Additional costs would include acquisition of the former service station site only, site preparation, professional fees, etc. The original station would remain, with the existing one-story bay on one side and the addition on the other.

The distance from the front corner of the building to the street line is fairly short. The overall length of the addition might be reduced slightly if a section next to the existing two-story structure were designed also as a functional two-story structure. However, the front of the addition must contain five wide overhead doors and the supporting structure in-between them, plus the communications-alarm office with the projecting viewing window and other ground floor requirements. Therefore, the total length of the addition could not, we estimate, be less than 130 feet and likely not less than 140 feet.

Note that the addition probably would need to be situated at an angle to the existing structure.

We note that at least a front section of the end apparatus bay wall should be designed for removal, to facilitate any needed future bay extension.

While square footage requirements provide one means of referencing and comparing, floor plan designs must take space proximity needs into consideration, as well as the often unique requirements of safe and functional fire stations.

It appears to the study team that the citizens advisory committee, the Board of Commissioners, and—hopefully in the near future—the voters of the Brighton fire District will need to make key choices. Our best professional judgment is that the District will receive the best level of protection by having three fire stations, each located at its current site. A functional headquarters station is needed at the current site of Station #1, and an enlarged Station #2 is necessary. If this is accepted, then the key choice is concerned with two issues:

1. Should the existing Station #1 be sold—assuming a suitable buyer can be found—and an entirely new fire station be constructed east of that building, or should it be taken down and the land used as part of the new station site; or
2. Should the original station be rehabilitated, with a larger addition attached to it?

Issue number one, which refers to the possible sale of the building (and it cannot be given away free of charge, since it has value to the District) could lead to a long, costly, troublesome, and unfortunate delay, should a buyer not come forth immediately. The 1988 study very much doubted that a buyer could be found, or even someone willing to accept it as a gift, and the 1993 judgment is the same.

Ideally, the cost of whatever is to be done at the headquarters site, plus the recommended work at Station #2, plus the acquisition of the needed communications equipment, could be priced at a total amount at, or only slightly higher than, the original amount to be bonded.

Depending upon which station alternative is selected:

- The original station could be retained and used for its original purpose
- The Department would have a functional and safe headquarters station
- The former service station site would be cleaned of pollutants and used for public service
- The two residential properties could remain with their owners, and
- The western portion of the Fire District could be serviced by a safe and functional station large enough to accommodate a modern, multi-purpose pumper-ladder.

Recommendation 4.1

The following alternatives are recommended as viable selections:

A. Rehabilitate the original Station #1 and construct a suitable addition (90 x 165 feet), providing a total headquarters station space of approximately 25,975 square feet. Purchase only the former service station site. (Estimated construction cost at \$110/square foot, \$2.7 million including 560,000 rehab cost)

Sub-recommendation A: Also adopt Recommendation 3.2, so that the western section of the District will receive a direct benefit from the expenditure (Estimated cost \$975,000)

B. Fulfill the requirements as originally presented for public consideration, resulting in an entirely new headquarters station of 27,800 square feet (125 x 170 feet), constructed on site plus three additional plots. Remove the original station. (Estimated construction cost at \$110/square foot, \$3,058,000)

C. Construct an entirely new but somewhat smaller (80 x 140 feet) headquarters station, two full stories in height, providing approximately 25,300 square feet of space. Acquire only the former service station property. Remove or don't remove the original station. (Estimated construction cost at \$110/square foot is \$2,783,000)

For any construction project, total project costs will include, at the least: land acquisition, cost and site preparation costs; professional fees; demolition/removal cost; construction cost; cost of bond sale; on-going debt service costs; landscaping; interior equipment and furnishings; and permit fees.

CHAPTER FIVE

**TRAINING AND TRAINING FACILITIES;
RECRUIT ORIENTATION TO THE DEPARTMENT**

CHAPTER FIVE: TRAINING AND TRAINING FACILITIES; RECRUIT ORIENTATION TO THE DEPARTMENT

A. Training and Training Facilities

The Brighton Fire Department has the responsibility to train both its full-time and its volunteer personnel, and also to provide training for members of the Explorer Post—most of whom later become active volunteer firefighters. (More than 40% of the Brighton volunteers were members of the Explorer Post.)

Fire department personnel need several types of training beyond that which is mandated by New York State and Federal laws. The mandated training for recruits, following the New York State curriculum and the Brighton Fire Department Recruit Training Manual, consists of both classroom lectures and hands-on lessons, plus outside drills and drills using the maze/rescue room and training tower. The nature of the firefighting business is such that even after the initial first year's training is completed, classroom work, outdoor drills, and exercises in the rescue-tower facility must continue. This type of "in-service" training also must contain legally mandated annual updates on safety operations, hazardous materials response, use of self-contained breathing apparatus in smoke conditions, incident command system procedures, building inspection, blood borne pathogene-prevention education, and emergency medical procedures.

Atop this curriculum are the special courses in officership and advanced technical operations, some of which involve self-study or small group use of video and slide materials.

As evident, there is a matrix of instruction where the type of course, the type and level of student, and the place and material of instruction must be worked out. Local instructors need preparation space and reference materials, and training and instructional records must be computerized.

On occasion, classroom training and equipment orientation takes place at outlying stations. Often the firefighter students need to gather in one place—indoor classroom or outside drill yard and tower.

In addition to the classroom instructional space needed in a headquarters station, fire departments need an outdoor area for pumper operations and testing plus hose layouts, a tower for ladder work, rappeling, rope work, and related evolutions, a breathing apparatus—"cold smoke" (no fire) room, and a rescue-maze room. Also, some sheltered area is needed where participants and the instructor can be out of the weather to prepare for an evolution and later to critique it.

The structure which is at the rear of Brighton Station #1—and now used for some of the above purposes—but also to house the first-line heavy rescue truck, other vehicles, the air bottle recharging compressor and system, the tool crib, etc. provides an ideal and no cost training facility and tower.

Recommendation 5.1

The smaller building at the rear of Station #1 should remain and be used as an outdoor-training tower-pumper test area. The 10,000 gallon water tank and flow return system for pumper testing should be kept intact. The various sections of the building should have the following uses assigned:

- A. Pumper testing facility and 10,000 gallon underground drafting tank with water return pipe (permanent);
- B. Hand and power tool practice area (permanent set-up);
- C. Training Tower (permanent);
- D. "Cold Smoke" room and breathing apparatus practical test area (permanent set-up);
- E. Rescue and maze instruction room (permanent set-up);
- F. Outdoor evolution and drill orientation area: shelter for outdoor classes; entry to maze and rescue room (permanent);
- G. General large item storage and receiving area; and
- H. Storage for grounds maintenance equipment and any small vehicle.

B. Recruit Orientation to the Department

In the belief that citizens should have as full an understanding as possible of the structure of their Fire and Rescue Department, especially as it pertains to volunteers, the following pages are included with this report. They constitute the first six pages of the Brighton Fire Department Recruit Training Manual.

I. Fire District Familiarization

Definition of Brighton Fire District:

The Brighton Fire District is an area of approximately 20 square miles, about 80% of which is in the Town of Brighton and 20% in the Town of Pittsford. The District, which was established in 1925, is managed by a Board of Fire Commissioners (5 individuals). One commissioner is elected every December by residents of the Fire District for a term of five years. The Fire District also has appointed positions of Secretary, Treasurer and Attorney or Counsel.

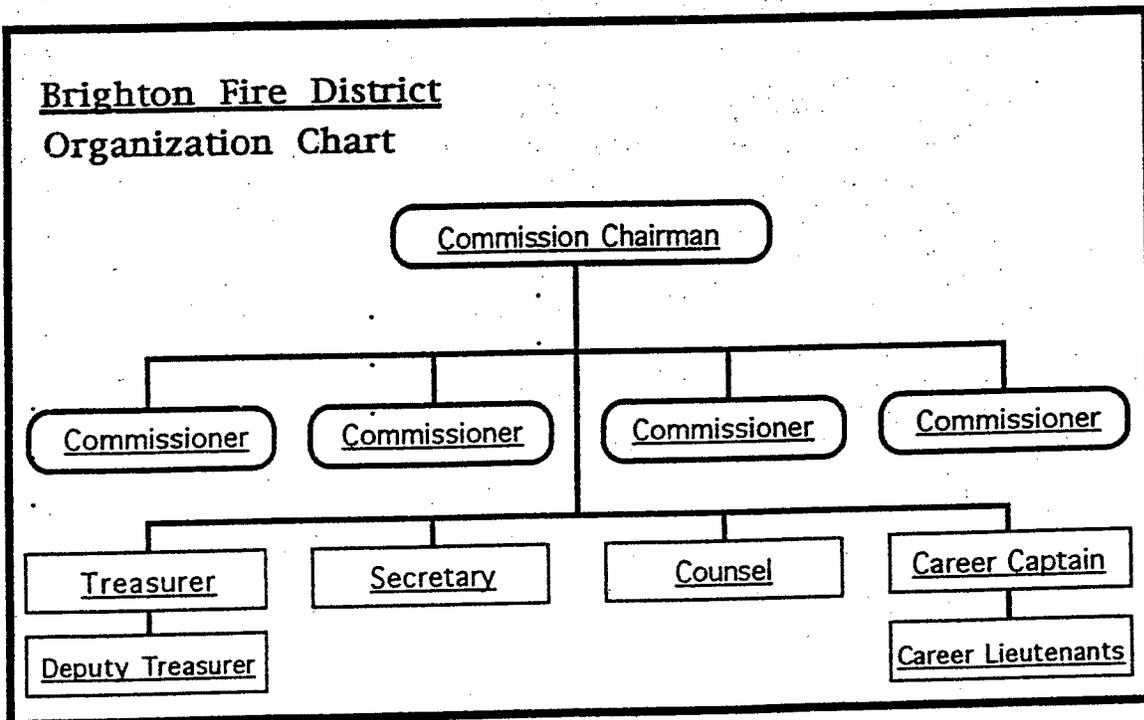
The Board of Fire Commissioners has a legal and moral obligation to provide fire protection for the residents and their property and each commissioner has particular areas of responsibility in overall operation. The fire protection efforts are accomplished in Brighton through a combined effort of a career staff and volunteer fire fighters. The Fire District prepares an annual budget for residents to approve through public vote that covers the cost of the career staff, fire fighting apparatus, equipment, insurance and the operation/maintenance of our three fire stations. These costs are then included in the overall Town/County tax bill.

The Fire District is responsible for the career staff. They are managed by a Captain and four group lieutenants. All career positions are subject to Monroe County Civil Service regulations. The career staff operates from each station directly under the supervision of the group lieutenant for that particular shift. There are two shifts per day. The first shift runs from 7:30 am. to 5:30 pm and the second shift runs from 5:30 pm until 7:30 am. Station #1 is the headquarters, and the main dispatch center which is staffed at all times is located there.

The career personnel normally drive and operate the fire apparatus, with the exception of Rescue Truck 308, which is driven and operated by the volunteers. In times of need, volunteer drivers can place other apparatus in service

The Fire Chief is a volunteer position, elected by the volunteers, and the individual holding the position is in charge of fire suppression for the District. All officers and personnel, both career and volunteer, are held accountable to the Chief. The Chief and Battalion Chiefs must be approved by the Board of Fire Commissioners

The following page contains an organization chart for the Commission of the Brighton Fire District.



II. Fire Department Familiarization:

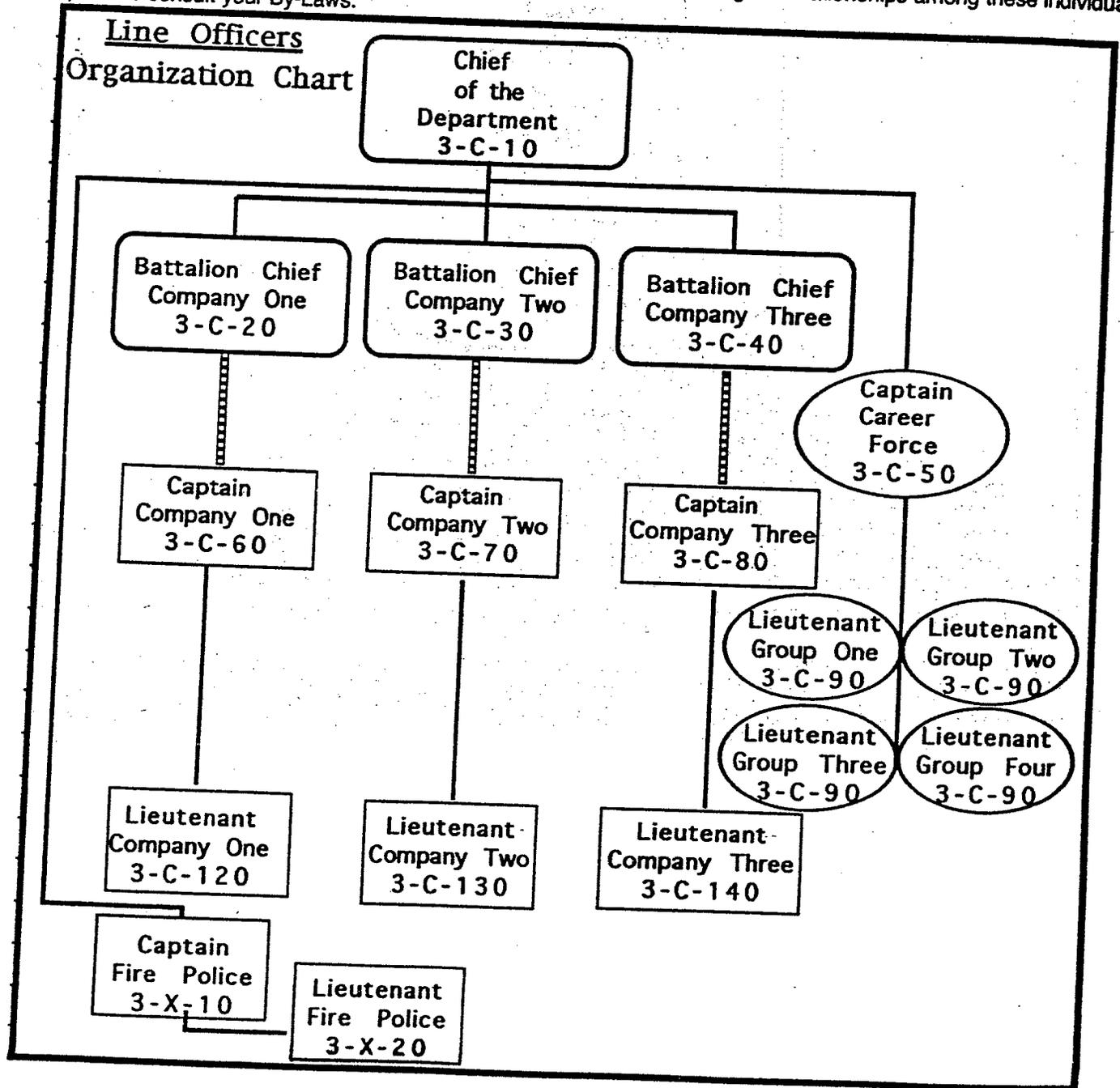
A. Coordination of Brighton F. D. within Monroe County

Monroe County is broken into 5 battalions. They are divided by geographic location. Brighton is in the third battalion. The nine fire departments in the third battalion are Brighton, Bushnell's Basin, East Rochester, Egypt, Fairport, Fishers, Mendon, Penfield and Pittsford.

B. Line Officers

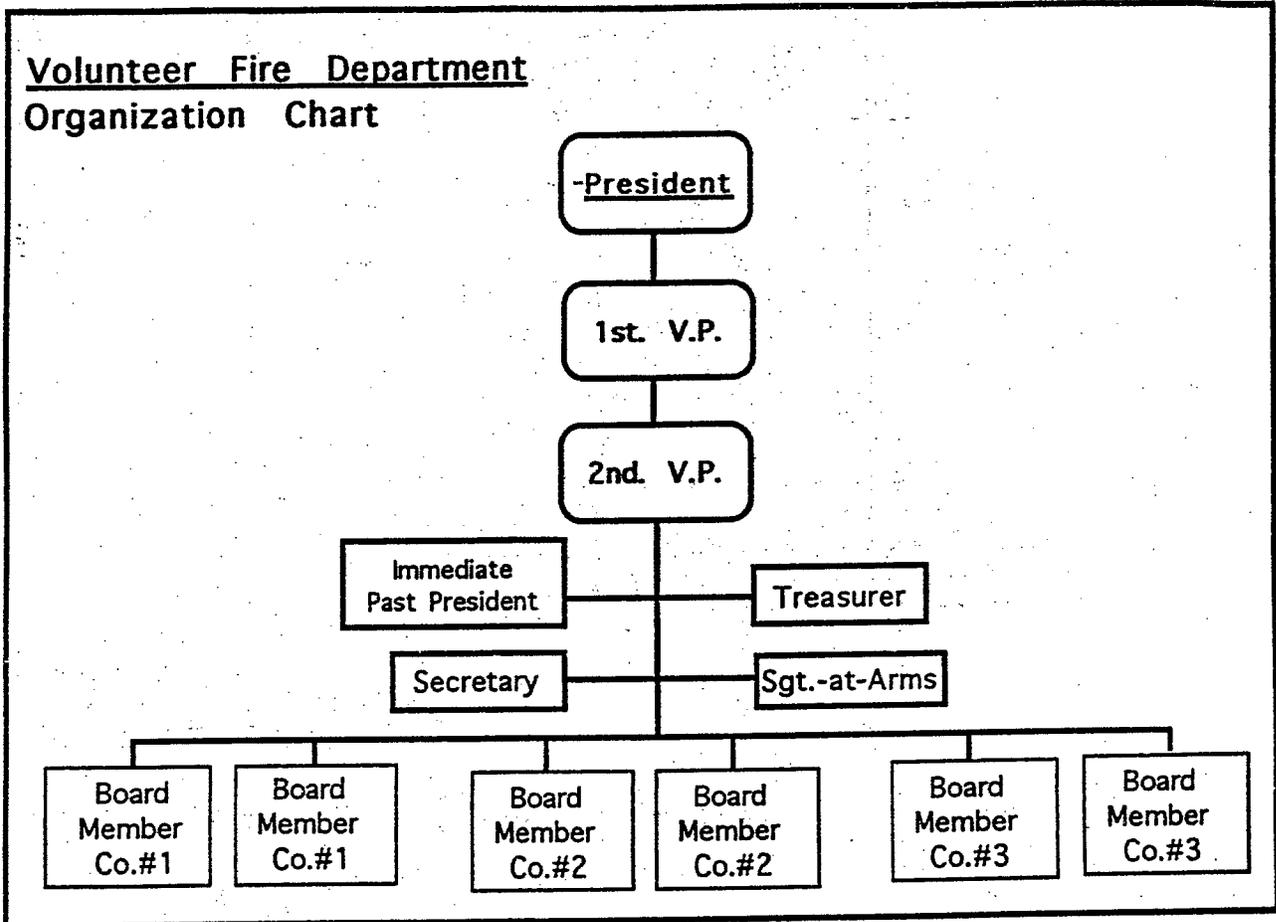
The other governing group is the Line Officers. The Line Officers are elected members who handle all aspects of line firefighting duties and training. The Fire Chief heads this group. The three Battalion Chiefs act in the absence of the Fire Chief. The Battalion Chiefs also have a variety of other duties such as training, safety and parades. Each company has a Captain and a Lieutenant to manage company operations.

An organizational chart is contained below to assist you in understanding the relationships among these individuals. For specifics consult your By-Laws.



C. Brighton Fire Department

The Brighton Fire Department incorporates two bodies of officers that are responsible for all operations of the Fire Department. A group of civil officers (volunteer firefighters), headed by the president and known as the Board of Directors, handle the business affairs of the department. Other civil officers include the 1st Vice-President, 2nd Vice-president, Secretary, Treasurer, and Sergeant-at-Arms. All of the above mentioned Civil Officers have particular duties that they are responsible for. The commission and Board of Directors consult each other to ensure a smoothly running operation. For particular duties consult your By-Laws.



In summary, it can be said there are three separate groups of officials who handle the Department and District Operations. It must be stressed to everyone that these groups all work TOGETHER to protect and ensure a smoothly running department and district. The attached composite organization chart assists in emphasizing this point.

APPENDIX

6. All members are expected to abide by all New York State laws, especially those pertaining to the legal consumption of alcoholic beverages and the operation of motor vehicles.

7. Staying with another experienced Firefighter is a long time unwritten policy. It provides learning experience and assurance that you, the Recruit, will not "freelance" or drift about the fireground; thus causing you harm or difficulty in getting out of a situation that you should not have been in to begin with.

8. By law, infectious disease, bloodborne pathogenes, education and a Hepatitis B vaccination series must be offered to all members. After this education one can receive or refuse the vaccinations. In the event of refusal, one must sign a statement acknowledging receipt of the education and refusal of the shots.

Know your limitations . . . Don't be ashamed to tell a Line Officer, or a Firefighter that you are a Recruit and cannot carry out a particular assignment. Knowing your limitations and thinking BEFORE you act, will be beneficial to both you and the Department. Above all, if you are in doubt, ASK SOMEONE. They will be happy to answer your questions.

to enlarging Station #1 by adding a second story to the small aerial truck bay. Realizing that a more comprehensive analysis was needed, the Board commissioned a review in 1988 of fire protection needs within the District, conducted by the NASS Group. (Recently, one or two sections of that study report have been quoted and interpreted, with varying degrees of accuracy, to lend weight to points-of-view being expressed over the Board's tentative plan to construct, now, an entirely new Station #1 at approximately the same location as the old station.) Members of the Board met, also, with the members of the Town of Brighton's Master Planning Sub-committee on Fire Services and Library Services early in 1990 for a general discussion of property needs.

The plan to construct a new main fire station, as advanced by the Board early in 1993, raised several issues. In the main, these questions appear to center on the relatively closed process used by the Board in arriving at its decision, and in their accumulating a reserve fund, rather than with the need for a new adequate and safe main fire station. As the pro and con arguments expanded, some expressed concern over the removal of the original station, now well over sixty years old, and called for its continued use, in some role, or for its removal to another location. (An engineering check indicates that moving the building intact would cost more than \$400,000 and would necessitate cutting down large numbers of trees on most routes.) Concern has been expressed, also, over the possible need to acquire two residential properties in addition to an adjacent former service station site, in order to accommodate a particular building design.

The now closed and apparently bankrupt service station site has been studied for the presence of pollutants. There is some petroleum product residue, and our judgment is that it would be best for the community to have the site cleaned up, no matter what use is made of the property. Acquisition of the lot by the Fire District would prompt a clean-up. Speculation that the station would reopen appears overly optimistic, in part because of the cost to correct tank conditions, etc.. At any rate, continued polluting by a service station would not be allowed by the environmental authorities.

The existing three fire stations have been at their current locations since the beginning of the Fire Department, more than sixty years ago. An alternate location on Route 411, at the entrance to an office park and at the site of a planned New York State highway-bridge project, has been suggested by a resident as a new location for Station #1, and was reviewed as part of this study.

Since some confusion appears to exist over the location recommendations made in the 1988 study, and since three staff members of the 1988 study group are now employed by the MMA Consulting firm, we are able to clarify those questions in this report.

This report has been prepared, at the request of the Board of Fire Commissioners, to provide objective technical information and recommendations focusing on both the short-term and long-term. The report will be made available to members of the citizens advisory committee for their consideration, as well as the Board. Also, this Report is to be reviewed at a public meeting. Under New York State law, the Board of Commissioners has the responsibility for and obligation to make decisions concerning the Fire District. This report and the recommendations of the citizens advisory committee provide input for the Board's decision making process concerning what steps should be taken to assure adequate protection to the District now and over the next decade.

2. Study Methodology

This study was conducted by the MMA Consulting Group, Inc., with headquarters office in Boston. The firm maintains branch offices in five states and provides general and specialized public safety consulting, management, training, and executive recruiting services to state and local governments.

The study team consisted of five staff members who worked on-site (two fire protection specialists, a financial analyst, a C.P.A., and a construction engineer), plus a Boston based computer specialist and an MMA senior partner who provided project oversight and who attended a Brighton public meeting for first-hand observation.

Study staff reviewed scores of documents and toured the entire District several times, conducting a hazard analysis, doing mileage checks, inspecting current and possible sites, and inspecting the three stations, vehicles, and equipment. The dispatching procedure was observed. Both fire and EMS runs were observed.

Staff members met with the Board of Commissioners and with the citizens advisory committee, reviewed video tapes of earlier public meetings, and attended a public meeting held in late July.

The staff conducted interviews with the Brighton Town Planner, with a NYSDOT engineer, with the planning architect, with the environmental protection consultant, with numerous members of the Fire Department—both paid and volunteer—and with a number of residents. Site visits were conducted at several nearby mutual aid fire departments, and two fire stations constructed within the past year were inspected for purposes of this study. (The consultant group annually inspects many

stations as it conducts its work. Thus far, in 1993, for example, MMA staff members have inspected sixty-five fire stations as part of their job assignments, in addition to Brighton's three. Twenty-two of these were in "combination" volunteer and paid departments similar to the Brighton Department.)

3. Organizational Structure and Costs

There are two important points which need exposition early in this report. The first concerns the advantages which accrue to the community because of the organizational structure of the Fire Department, which combines both on-duty paid responders with volunteers. The second suggests the possibility that emergency medical response to life threatening situations, such as heart attacks, trauma, electrical shock, water immersion, etc. within the Brighton Fire District can occur more quickly if an on-duty crew responds from a fire station, as well as the nearest available ambulance, thus taking advantage of the full-time emergency responders already on duty.

Clearly, the most economically advantageous organizational structure for fire protection is already in place. Full-time, on-duty personnel respond within a matter of seconds, and they are augmented by non-paid volunteers who respond as quickly as possible both night and day. This is a "combination" fire department. If a completely full-time fire suppression staff were desired in the Brighton District, it would be necessary to employ a minimum of 70 firefighters and junior officers, four shift commanders, a training officer, a Fire Chief, and an office worker. This number would provide only minimal staffing of the three pumpers, one aerial truck, and one squad truck in order to provide 24-hour coverage. It does not account for dispatching. (Each pumper and the aerial truck would have three crew members, and the squad two. This is less than we would recommend, and less than the recommended national standard of four each.) New York State law mandates a forty-hour work week for full-time firefighters, and Brighton's average salary and fringe benefit cost of about 50,000 per person is very typical, as is the necessity to employ five persons in order to have one working on shift all day, every day.

We estimate that the annual personnel costs alone for a non-volunteer department would be approximately 4.5 million dollars. Shifting to only full-time personnel would necessitate also, changing the existing stations to allow for the additional full-time personnel. The Brighton Fire District, under its current organizational structure—which uses approximately 100 volunteers, 29 paid firefighters and officers, and five "civilian" dispatchers—has an annual total budget of \$2.7 million dollars. This amount covers all costs, including personnel.

4. Annual Budgets and Department Workload

Because the "call demand" for fire and rescue services varies considerably among communities, the following chart is included to facilitate a comparison with local departments. The statistics are taken from the Monroe County Fire Bureau's 1992 Activity Report.

Total Number of Municipal Fire Department Responses

excluding Rochester

<u>Department</u>	<u># of Calls</u>
1. Greece Ridge	3333
2. N. Greece	1752
3. Gates	1583
4. Henrietta	1436
5. Barnard	1219
6. Brighton	1155
7. St. Paul	814
8. Ridge Culver	804
9. Webster	743
10. LakeShore	734
11. Chili	724
12. Brockport	541
13. Pittsford	531
14. Fairport	523
15. Penfield	504

The 23 fire departments which make up the remainder of this Monroe County list range in calls from 464 to 27.

The fire departments in Monroe County which have the heaviest call demand all have paid full-time crews. These are on duty to provide quick response and carry a good portion of the workload, the time for which volunteers cannot be expected to have. With an anticipated workload in 1993 of well over 1200 calls, Brighton certainly needs full-time responders. For this primary reason, comparisons between those departments which must have stations with full-time firefighters always on duty, and those which do not are most difficult to make. Since fire protection and rescue work are very labor intensive, budgets and tax rate comparisons, especially, become quite difficult since paid personnel skew the budget.