TOWN OF WATERFORD

FIRE SERVICES

HISTORICAL STUDIES

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04/27/2018

The compiled documents were provided by the Town Clerk David Campo, and the Director of Fire Services Bruce Miller per a request from the Public Protection & Safety Standing Committee of the RTM.

*Contents:

1. Task Force 95 Study
2. Fire Service Study from 2001
3. Board of Fire Commissioners Long Range Study
4. MOU between TOW and Oswegatchie
5. Agreements as filed on the Land Records between TOW and the individuals fire houses
6. Contract between TOW and the Waterford Professional Firefighters
7. Contract between TOW and the Waterford Public Safety Dispatchers
8. Agreement between the TOW and the Waterford Ambulance Association
9. Miscellaneous ordinances including tax abatement info provided by the Tax Collector
10. *Board of Fire Commissioners, Long Range Plan (Added by Fire Director Chris Haley, 06/10/25)
11. *Oswegatchie Fire Station Feasibility Study, 11/20/2014 (Added by Fire Director Chris Haley, 06/10/2025)

If you require additional information, have items to add, or items appear to be missing, please contact the Town Clerk.

David Campo
Waterford Town Clerk
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- Item's 11 & 12 were added in 06/10/2025

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Task Force 95 Study

TASK FORCE 95

SYSTEM ANALYSIS

PREPARED FOR THE

WATERFORD FIRE COMMISSION

BY THE

LONG RANGE PLANNING COMMITTEE

FEBRUARY 17, 1994

Up-dated on September 4, 1995

TASK FORCE 95
System Analysis

Prepared for the Town Of Waterford Fire Commission by the Task Force 95 Sub Committee.

Committee Members

Fire Commission	Roger D. Sylvestre
Jordan Fire Department	Bruce Miller
Quaker Hill Fire Company	Richard T. Kirchhoff
Goshen Fire Department	Donald Chapman, Sr.
Oswegatchie Fire Company	Brian Baker
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TASK FORCE 95
System Analysis

System Overview

Town of Waterford Ordinance's 2.36.60 and 2.36.80 specify that the Fire Commission is responsible to insure the availability of the fire protection and emergency medical services in addition to providing long range planning and development to meet future needs. It does this through contracted emergency services with five volunteer fire companies and six career firefighters. Administrative requirements, fire prevention and town wide communications is handled through career personnel exclusively.

Statutory authority is specified Town Ordinance 2.36.050 as delineated in State Statute 7-309. Four Occupational Safety and Health Association regulations govern the operations of the Departments. They are Hazardous Material Responses-1910.120, Breathing Apparatus-1910.134, Confined Space Operations-1910.146 and 1910.156-the Fire Brigade Standard.

Waterford's Volunteer Firefighters answered roughly four thousand emergency calls in 1993. Each call is worth about an hour of the member's time. Averaged personnel response to fire and medical calls is roughly 10 people per call. This equates to forty thousand man-hours, not including required training and maintenance programs. This is the equivalent of 20 full time people; effectively saving the quadrupling of the Fire Commissions paid firefighter staff and payroll.

Public Expectations

The community has been generally supportive of the service provided. Evidence of this is by the continued support of the volunteer ambulance services fund drive. The community continues to support this service through donations that are capable of providing operational funding for five ambulances and a reserve unit.

The community expects that the fire service will provide a rapid response with a diversity to mitigate any emergency and that it will be cost conscious while providing reliable service. The expectations of the personnel are for professional conduct with empathy and to do the job that they are being paid for. Some people feel that because someone belongs to a volunteer fire company, that it's their job to respond to emergencies; "that is what they are being paid for". They seem to lack an understanding that a volunteer is free labor when available.

Indiscretions on the part of individuals periodically cast a negative light on all the good that is provided. The image remains strong due to several significant emergencies that were handled professionally and w3ith a significant risk. A survey two years ago by the economic development commission listed the volunteer fire service as being well regarded however.

TASK FORCE 95

System Analysis

Strengths

94-01 A major benefit to the fire service is its water supply. This has been cited in reports by the Insurance Service's Organization. There are over one thousand fire hydrants in the community and water pressure throughout the system is generally considered above adequate.

94-02 An apparatus replacement schedule was completed on April 13, 1992. The results recommended the replacement of pumpers at fifteen-year increments and aerial ladders at twenty years. Special and utility vehicles would be replaced as needed. The Town Of Waterford has adopted this plan as an economical and viable alternative to costly repairs and refurbishing of apparatus.

94-03 The present emergency response force is a mix of paid and volunteer personnel. There are six paid drivers assigned to the fire stations, five working the day shift and one on the evening shift. These employees supplement the volunteers and are supported during daytime responses by career personnel in the fire prevention bureau when requested.

94-04 Many of the volunteer firefighters are considered knowledgeable about the hazards of the profession. Many of these people receive state training meeting NFPA 1001 standards. Several have degrees and other certifications. There is a good contingent of emergency medical technicians.

94-05 The Town's 911-communication system has been well maintained over the years. The service is maintained by career personnel who monitor alarms, dispatch personnel and monitor regional communication center equipment for ambulances transporting victims to Lawrence and Memorial Hospital. They also dispatch the local paramedic program and have recently made the transition to dispatching the police department.

94-06 This good communication system has been instrumental in several life saving situations. The use of the nationally recognized emergency medical dispatch protocols have aided on duty personnel in providing on scene medical instructions to civilians in need. Updated equipment for communicating with the deaf and hearing impaired has recently been added to the center. A computer assisted dispatch program is also provided along with modern state of the art alarm receiving equipment.

TASK FORCE 95

System Analysis

Strengths (Continued)

94-07 The community is fortunate to have a respected Public Fire Education program. This has recently been expanded to include safety issues and is offered throughout the school year in the school system. The program can take credit for many lives saved and serious injuries prevented.

94-08 The Fire Department's participation in Public Fire Education is noteworthy with several impressive activities conducted during fire prevention week as well as other initiatives sporadically performed during the year. These activities are performed exclusively by the volunteers.

94-09 The recently funded dive team adds a new dimension to rescue services. There have been several drownings and related incidents in this community, which has several waterways.

94-10 The Fire Prevention Bureau has a proven record of having an effective code enforcement program. Starting with plan review and continuing into on the job fire inspections, continuing inspections and permitting of some 587 inspectable properties, fire hazards are reduced and safety increased through an emphasis on alarm detection and protection equipment.

94-11 Some highlights of the communities building construction include the fact that major buildings are sprinklered and fire detection systems are provided in many buildings with alarm reporting at the 911 center. Sprinkler connections are made to the municipal water system.

94-12 Good rapport with the Planning and Zoning department has resulted in an excellent zoning enforcement and regulations program. This has reduced the accumulations of combustible materials and has yielded improvements in fire protection by limiting fire areas. The lack of this type of program was a key element to the great Chelsea Massachusetts conflagration of 1973. Teamwork with the Building Department has ensured timely addressing of all types of fire hazards.

94-13 Buildings housing the services continue to be well maintained. Four of the six buildings are protected by a code compliant sprinkler system. One is currently being sprinklered and the sixth is scheduled to be sprinklered in 1995. Buildings are currently maintained to code and plans are being made to make them handicapped accessible. These areas serve as community shelters during evacuations.

TASK FORCE 95

System Analysis

Strengths (Continued)

94-14 The Fire Commission has a fair set of established policies. When reviewed with those of the individual departments and Waterford Fire Officers Association, a good start has been made at contriving operational procedures. The existence of these policies positions the service far ahead in updating existing procedures to current standards.

94-15 Because of the three nuclear power stations, the community has a well-recognized town wide emergency plan. This program encompasses all facets of emergency mitigation and integrates all available community resources into a functional organization. A recent mass evacuation of a local convalescent home buttresses the effectiveness of the program.

94-16 The 1986 Insurance Services Organization report listed Waterford as having a good insurance rating. The review looked at dispatching, training, equipment, apparatus maintenance and testing, and water supply. The coordination of volunteer resources coupled with community planning raised the rating to a class 3.8, a very good rating for a volunteer service. Some recommendations were made.

94-17 The Fire Commission is fortunate to have an excellent administrative support system. The support team is fully computerized and centrally manages all business and financial aspects of the communities fire services. The center also serves as a central typing consortium for all sub committees. All capital improvement projects and apparatus replacement programs are coordinated through this office as are budgets and payroll.

94-18 Waterford's fire services are an integral part of the areas Mutual Aid Network. This system is unique in that it allows for sharing of resources to the benefit of all. This reduces duplication and maximizes resources. It also allows for specialization and coverage when units are not available to respond.

94-19 The recent ordinance requiring the installation of a Fire Department rapid entry system has made gaining access to commercial and municipal buildings easy. This has resulted in a reduction of in-service operating times for responding companies. This has also increased turn around time for the volunteers.

94-20 The proposed traffic light pre-emption program will undoubtedly decrease response times to emergency calls in addition to increasing the life safety of the responding firefighters.

TASK FORCE 95

System Analysis

Strengths (Continued)

94-21 The service has a good supply of four wheel drive vehicles that are capable of responding to many off road emergencies.

94-22 The purchasing of apparatus with extra large personnel compartments provides excellent areas for personnel and victim rehabilitation.

94-23 Distribution of fixed and mobile compressed air compressors is very good and offers diversity in the event of emergencies requiring large supplies of air.

94-24 There appears to be a very good apparatus maintenance program. Evidence is available to indicate yearly pumper and ladder tests along with regular preventative and deficiency maintenance repairs.

94-25 Multiple company responses serve to build rapport between units. They provide a hard-hitting "Blitz" type of attack to structural emergencies. It is important to accomplish a two-sided attack, keep a company in staging and protect exposures.

94-26 The initial response generally meets the required fire flows for the area. This also provides reassurances that a fire apparatus is responding to an emergency should a company be unable to respond for whatever reason.

94-27 During severe weather emergencies, the Town's emergency plan calls for the combining of task forces comprised of Police, Public Works, Fire, and Medical personnel into the districts. Each section is responsible for mitigating emergencies in these geographical population centers of the town. The task force concept has worked very well during hurricanes.

94-28 The college reimbursement program is an excellent program for the development of fire service leaders.

94-29 The providing of individualized protective clothing to structurally certified firefighter/Emergency Medical Technicians is an excellent idea.

94-30 The community has an ordinance regulating fire lan4es. It is enforced by the Police Department and is established by the Fire Prevention Bureau.

94-31 The Nuclear Power stations Fire Brigade trains with the Fire Department.

94-32 Waterford has one of the premier audiovisual training libraries in the state.

TASK FORCE 95

System Analysis

Strengths (Continued)

94-33 The program of firefighter physicals is proper and appears consistent with Law.

94-34 The integration of Advanced Life Support Paramedics into the emergency medical equation is part of a current trend in medical care.

94-35 The ordinance that protects personnel from legal liabilities (2.116.100) is exemplary legislation in that it is designed to protect the firefighter/EMTs. This far outpaces many communities.

94-36 The Community possesses an excellent Emergency Operations Center.

TASK FORCE 95

System Analysis

Weaknesses

94-37 A fundamental deficiency in any organization is a lack of goals and objectives. The Fire Commission is no exception; it also lacks a mission statement. These documents are important in that they set priorities for improvements and focus the attention of the work force on common goals.

94-38 Our community, like so many others relies on a volunteer force for so many projects. It is hampered by family pressures and work schedules that conflict with and place burdens on the family structure. Many of our personnel who would like to participate find it difficult to be a fully functional part of the emergency response team because of mandatory training requirements. Emergency Medical Technician programs and Firefighter certification programs last well over one hundred hours. Coupled with Officer training and Driver training, our personnel could easily spend over five hundred hours attending school to be fully qualified and meeting existing requirements.

94-39 The lack of a major north south artery readily hampers protection to the northern section of the town. This factor increases the response time of additional companies when responding to major events.

94-40 There is an inadequate perception about the service. Much of the reasoning is a lack of understanding of the requirements placed on "volunteers". Many people do not understand how regulated the service is. When compared with successful "volunteer" programs such as Waterford Week, being a volunteer firefighter could almost be considered a job.

94-41 While Waterford has a good water supply system, it has no water supply in the northwest part of Town. Areas north of Interstate 95 and Oil Mill Road and Butlertown Road through Vauxhall Street, Fire Street and Old Colchester Road lack fire hydrants.

94-42 Another problem with the water supply is low water pressure in the Bloomingdale Road area. Part of the reason for this was the addition of water supplies to the Town of Montville. A capital improvement project has been requested that would increase water pressure in the area.

TASK FORCE 95

System Analysis

Weaknesses (Continued)

94-43 The Fire Service has limited capabilities to transport water to these affected areas. All of the pumpers carry between five hundred and seven hundred and fifty gallons of water. Fire flow requirements for some of these areas are higher than that. Additionally there is a limited amount of water available to the Interstate Highways and there is no back up water supply for fire fighting should catastrophic failure of the underground water main system occur.

94-44 The old system of cisterns has been allowed to decay. These could provide reliable alternatives to water in the event the hydrant system were to fail.

94-45 The hydrant survey map and computer referencing needs to be updated.

94-46 Some safety policies are in existence for the companies. Generally they conform to NFPA standard 1500, few if any pertain to infectious disease control and the protection of employees from biological and hazardous chemicals.

94-47 We have a very capable manpower pool. However, the increased burdens being placed on the workers in the areas of training is stagnating the system. Retraining and recertifying emergency medical personnel is a problem. Additionally, there is a problem with repetitious false alarms in protected areas resulting in wait and see responses.

94-48 Interagency training between responders does not occur. The community has not had a Mass Casualty training session in over a decade. Additionally, due in large part to volunteer work schedules, interagency drills have not been performed. Tabletop exercises between the paid administrators have been executed as required by FEMA. However, these have been of no benefit to the volunteer system.

94-49 Trust between the Fire Companies and the Fire Commission must be improved. Sometimes reactions to new policies are viewed as anything short of skeptical.

94-50 Internal Communication could be improved. It is important that the service reach out to all available members in order to keep them informed and make them feel that their contributions are important and valued.

TASK FORCE 95
System Analysis

Weaknesses (Continued)

94-51 At the present time, there is an agreement with the Submarine Base Fire Department to respond to Hazardous Material emergencies. Under this agreement, the department responds a team of specialists that must be supplemented by the requester. The Sub Base Department has been and continues to be susceptible to budget cuts and service terminations as the Federal Budget continues to downsize. There is no provision to supplement the needs of the Base when it arrives in the form of additional supplies and decontamination.

94-52 At the present time, there is a limited amount of confined space rescue equipment available. With the advent of dozens of sewage pump stations, caverns and continued construction of sewer systems, this hazard continues to grow.

94-53 Rescue truck responses exceed what the system was designed for. This extensive use could lead to earlier than expected replacement.

94-54 The community has been experiencing an increase in the amount of water main breaks. This has resulted in fire protection being reduced in areas for extended periods of time. In one situation, there were two main breaks in Waterford while the New London crew was busy repairing a break in New London. Due to the timing of the occurrences, the Waterford breaks were delayed in being repaired.

94-55 The Fire Commission lacks a formula to determine when a paid firefighter is needed.

94-56 There is no derived benefit for the installation of residential protection or detection systems.

94-57 Emergency radio frequencies need to be included with the recently incorporated Incident Command System. This was a problem during the Bayview Convalescent Home evacuation.

94-58 An ordinance requiring maintenance of detection and suppression equipment could reduce many of the presently experienced false alarms.

94-59 The Emergency Dispatch Center is lacking a Director to manage the strategic objectives of the center.

TASK FORCE 95

System Analysis

Opportunities

94-60 With the advent of a new local Fire Training school at a local industry, training programs could be enhanced. Integrated training could be conducted utilizing live fire evolutions in conjunction with the plants fire brigade.

94-61 The Submarine Base's Regional Hazardous Material response team is providing a significant resource to the community. A formalized agreement should be made as to resource availability and shared needs.

94-62 With the recent availability of government access television, this could provide an opportunity to increase public fire education and also firefighter training. It would be possible to provide firefighter training in much the same manner as many larger fire departments due to their stations. Except instead of stations we would be broadcasting to firefighters homes.

94-63 Each station has an easy to use Macintosh computer in additions to a terminal providing access to the mainframe computer. All required ISO records could be placed in th3ese units and revised as necessary. Commercially available software programs are available to standardize all of the Companies records.

94-64 Inter department competitions can further enhance the spirit of teamwork between the companies. Such things like a fireman's ball, firefighter Olympics, a fallen firefighters day and an apparatus rodeo could further enhance the groups working relationships.

94-65 There are many volunteer firefighters working for the Town Of Waterford in several capacities. A formal agreement should be made by the Fire Commission with the various Department s to allow these people to respond to all working structural fires. An agreement presently exists by memo between the First Selectman and the Public Works Director. This should be formalized and expanded to include the Recreation and Parks Department and the Water Pollution Control Authority.

TASK FORCE 95
System Analysis

Threats

Threats to our community come in many varied and diverse situations. For the purpose of this report, they have been grouped together in five general areas.

Fire and Mass Casualty Emergencies

We have four (4) convalescent homes that provide housing for about 400 people. The occupants range from the elderly with limited disabilities to those with serious conditions requiring life support systems.

There is one (1) mentally handicapped housing facility, Seaside, which provides housing and support facilities on the one hundred acre, eight building facility. This area poses some serious fire potential, as it does not come under the jurisdiction of the local fire prevention bureau. Building construction features of this large and expansive facility also would prove challenging to the fire service should a serious fire develop.

There are several group homes in the community, which provide housing for those that are less severely mentally handicapped.

There is one (1) mentally handicapped recreation facility. Camp Harkness provides a recreational facility for summer activities. It consists of small out buildings and a larger home that are inspected by state officials.

The Waterford Country School is a special needs campus that provides a diverse education system for teenagers with special needs.

There are two (2) rail lines used for transportation of hazardous materials and people. The rail lines ship any possible commodity needed, while Amtrak's rail lines move literally thousands of people daily. Plans call for a major revamping of the system to include electrification of the rail.

We have two (2) major interstate highways that are used to transport millions of tons of hazardous materials and commerce on a daily basis. Additionally, they serve as major thoroughfares for people traveling from Boston to New York and the Indian casino. This results in serious motor vehicle accidents along with car and truck fires.

The five (5) major state highways pose the same problems as the interstates and are much closer to the built upon and commercialized areas, thereby creating the possibility for even greater calamities should a hazardous material incident develop.

We are in the international flyover route to New York airports. As such, planes developing in flight emergencies pose a hazard.

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System Analysis

Threats (continued)

The eight (8) set Movie Theater poses a life safety hazard in the event of a fire.

There are two (2) outdoor entertainment centers (Waterford Speedbowl and Summer Music at Harkness). These two centers pose little fire hazard, however they create massive traffic problems when in operation thereby hindering apparatus responses to emergencies.

Significant fire hazards

There are three (3) major condominium complexes and one (1) small unit with three hundred and eighty six (386) occupied units. These are fairly well protected by smoke detectors, building construction and separation where required by code. However, should a fire occur and be undetected for a protracted period of time, a significant fire could be expected to develop. This would create a substantial fire and rescue hazard.

With one (1) elderly housing complex and another planned, a substantial increase in services can be expected. Experience has shown that Twin Havens adds annually about three dozen emergency calls. While fire experience has been minimal; and additional drain on resources can be expected.

The Regional shopping mall has added over one hundred emergency calls a year to our system. These are generally false detector activations, however, there have been several fires and gas leaks, one of which lasted several hours and forced a complete mall evacuation.

There are several smaller shopping centers scattered throughout the community. Most of which are fully sprinklered, many with detection systems. Fire experience here has been minimal. There have been some fires and many false alarms. Additionally, there have been several accidental alarms caused by improper maintenance and freeze ups of systems. This has created salvage and overhaul responses for the firefighters.

We have seven (7) schools in the community. Many false alarms occur sporadically throughout the year, as do occasional misdemeanor fires at the High School. These alarms add to the already busy response schedule of the volunteer firefighters.

Bomb threats have been received for many of the highly populated areas. An alleged pipe bomb was found at the Junior High School.

There are several churches and places of worship throughout the town. These are generally well constructed and maintained and are capable of housing hundreds of worshipers.

TASK FORCE 95

System Analysis

Threats (continued)

There are four (4) motels in the town. They average about two dozen rooms. One of the few fatal fires that have occurred in our community happened in one of these. Fire loss remains generally low with a minimal amount of responses.

The two (2) lumberyards should also be considered as significant fire hazards.

Fire Hazards with Hazardous Materials

We have several institutions that deal with hazardous materials.

There are three (3) fuel oil distribution centers located in town, all of which have above ground storage tanks.

There are a limited amount of industrial facilities in the community providing goods and services.

Underground fuel storage tanks and piping remain a problem for firefighters. The Willetts Avenue and Route 85 gas mains are a source of calls. There are many underground storage tanks, although they are generally double wall reinforced.

There are a few auto body shops, which store paints and thinners. When used in their atomized forms, many hazardous vapors that are easily ignited can be formed causing explosive mixtures.

There is a bulk propane storage facility, which is responsible for a few emergency calls each year.

The one (1) bottled gas storage facility has had a significant fire a few years ago requiring the commitment of several dozen fire and medical units and companies of personnel.

The three (3) nuclear power stations and a nuclear waste storage facility pose special hazards to the service. There are several emergency medical calls yearly at the facility. Additionally, the location has many industrial and storage occupancies with some hazardous materials stored on site. A new high-rise building is presently being completed.

Propane and natural gas are being used in many of the shopping centers for heating and cooling. Many of the mercantile occupancies are taking advantage of this system.

TASK FORCE 95
System Analysis

Threats (continued)

Other Hazards

These are basically the types that occur on or with the waterways.

There are limited provisions for marine fires. This was graphically depicted by a fire in 1991 at Waddy's dock where a small boat fire threatened several adjoining boats.

There have been a limited amount of boating related accidents, none of which have resulted in deaths.

The recently created dive team should be integrated with the two fire/rescue boats to deal with a much broader array of emergencies.

There are no provisions to deal with waterway spills of hazardous materials.

Basement flooding and the flooding of low-lying areas remains a constant threat. Each spring, hundreds of man-hours are spent pumping basements and sheltering residents on an as needed basis.

Miscellaneous

Responses to carbon monoxide detectors are a new response, which is gaining notoriety.

Waterford has six thousand five hundred ninety two (6,592) residential structures, many of which are not protected by portable or fixed detection systems, contributing to the fire loading. Typical construction is wood frame with few if any residential sprinklers or alarm systems. There are also eighty eight (88) mobile homes.

Many commercial and municipal buildings have flat roofs. We have had some experiences with flooded roofs causing structural defects. The present Stop and Shop building, when previously occupied for instance, had a major roof failure. While in 1993, the Bayview Convalescent Home's roof was in danger of collapsing when heavy rains plugged storm drains with construction debris causing evacuation of ninety-four residents.

Pole fires have been markedly reduced over the years by the utilities tree trimming programs. This has also limited responses to downed wires and wire arcing calls.

Brush fires remain an ever-present concern. With over sixty percent of Waterford being undeveloped, this hazard will continue for many years to come. During prolonged dry seasons, major brush fires have developed that have endangered housing projects.

TASK FORCE 95

System Analysis

Threats (continued)

Several historical landmarks remain. These include the K & L feed barns on Fog Plain Road, the Morgan Farm on Douglas Lane, and the Barrett Farm on Parkway South. These are long standing monuments to Waterford's history and are in addition to those buildings at the Historical Society Park in the Civic Triangle.

There have been a few instances where we have assisted the police at hostage stand offs and protests. We have also been involved in additional responses to assist at crime scene investigations and serious motor vehicle accidents.

The ever-expanding sewer and road drainage systems could pose problems from several perspectives. From serving as a conduit to transport hazardous gases and liquids to flowing fires, this system poses a significant threat. A past occurrence on Fog Plain Road involving a fuel oil delivery truck is evidence of the potential.

Natural disasters are a periodic problem. Severe weather emergencies, heavy snow falls, flooding and an earthquake have been experienced. We have also had tornados and hurricanes.

Domestic and International terrorism could be a problem along with clandestine drug laboratories.

Infectious diseases are becoming a more wide spread problem as are what to do with biological wastes. Federal requirements for TB masks will be a burden to volunteers. (rev. 12/8/94)

Threats of litigation against our personnel are a problem.

The charter fishing boats could post a mass casualty incident with limited access due to the water.

The transformation of a convalescent home from ambulatory care to an aids home care center will be a source of distress for many. (rev. 12/8/94)

The diminishing availability of volunteer firefighters (an impact on realized fire service demand) caused by the aging of the community will increase the need for additional career firefighters in the coming years, unless some incentive is created to overcome the external pressures placed on volunteer firefighters (specifically regulation, economic and family). (rev. 12/31/94)

Lake Konomoc serves three communities and a spill of hazardous materials could interrupt the quality of life. (rev. 6/26/95)

TASK FORCE 95

LONG RANGE PLAN

PREPARED FOR THE

WATERFORD FIRE COMMISSION

BY THE

LONG RANGE PLANNING COMMITTEE

orward

In 1986, a report from the Insurance Services Office was completed and submitted to First Selectman Bettencourt. The report provided several recommendations designed to further enhance the communities fire protection. At that time, the Waterford Fire Service received a 3.8 scale rating.

The Long Range Planning Committee has incorporated this report into their final plan of action. The intent of this report is to identify areas in need of improvements and foresee expected growth in the community. Additionally, we have focused on a series of goals to improve the quality of the service while enhancing the spirit of volunteerism. Thereby increasing the manpower pool at a minimal cost.

We must remember that the responsibilities of being a volunteer has changed very significantly in the last ten years. This has become one of the most heavily regulated professions in the country. During our lifetime, we have seen mandatory training requirements increase substantially while personnel wanting to help have decreased. A new threat emerging is the ability of fire departments to be sued; this will have a negative impact on the service.

It is the Committee's belief that in order for Waterford to be spared the costs of an adequate career fire fighting force, programs that enhance and reward the self esteem of the volunteer fire fighters must be instituted. If this is not done, the system will continue to suffer a serious depletion of personnel due to the economic and societal pressures of our current lifestyle. In order for the Commission to maintain its charter of enhancing the volunteer system, a performance reward program is essential. We anticipate a 50 to 1 return on the communities investment in direct personnel versus salary and benefits over the program's life.

The Committee believes that with implementation of this report, a major improvement in the professionalism and management of our system will be witnessed over the next five years; including an upgrading to ISO class 2 by 1999 and class 1 by 2004.

Committee Members

Fire Commission	Chairman Roger D. Sylvestre
Jordan Fire Department	Fire Chief Eric Munsell
Quaker Hill Fire Company	Fire Chief Richard T. Kirchhoff
Goshen Fire Department	Deputy Fire Chief Donald Chapman, Sr.
Oswegatchie Fire Company	Fire Chief Brian Baker
Cohanzie Fire Company	President James Bartelli

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TASK FORCE 95 LONG RANGE PLAN

System Overview

Town Of Waterford Ordinance's 2.36.60 and 2.36.80 specify that the Fire Commission is responsible to insure the availability of fire protection and emergency medical services in addition to providing long range planning and development to meet future needs. It does this through contracted emergency services with five volunteer fire companies and six career firefighters. Administrative requirements, fire prevention and town wide communication is handled exclusively by thirteen career personnel.

Statutory authority is specified Town Ordinance 2.36.050 as delineated in State Statute 7-301. Code of Federal Regulations 1910.120 governs hazardous material responses, 1910.134 Breathing Apparatus use, 1910.146 regulates Confined Space Rescue Operations and 1910.156 Fire Brigade Regulations.

Waterford's Volunteer firefighters responded to approximately four thousand emergency calls in 1993. Each call consumes roughly one hour of a member's time. There are thirty seven fire management areas in the community, each of which requires varying levels of protection. Growth in these areas must be managed in much the same manner as zoning is with an emphasis towards minimizing the impact on our volunteer firefighters. In most instances, this requires the use of machinery and systems to offset personnel needs.

Our system is unique from many others in that it is a full service emergency organization. We not only provide fire protection and prevention, we also deliver emergency medical services, civil preparedness, fire and police communications and pay for fire hydrant rental. Projected expenses identified in this report will be off set by absorbing the responsibility for fire hydrant maintenance and inspections. This one project alone represents a savings of approximately ten percent in the Fire Commissions budget for 1994. When combined with a retainment and retirement program, our communities fire protection system will be greatly enriched.

Public Expectations

The community has been generally supportive of the service provided. Evidence of this is by the continued support of the volunteer ambulance services fund drive. The community continues to support this service through donations that are capable of providing operational funding for five ambulances and a reserve unit.

The community expects that the fire service will provide a rapid response with a diversity to mitigate any emergency and that it will be cost conscience while providing reliable service. The expectations of the personnel are for professional conduct with empathy and to do a good job. A survey two years ago by the economic development commission listed the volunteer fire service as being highly regarded.

In compiling this study, we considered similar systems in Norwich, Groton, New London and Windsor. Other instruments used included the Town Of Waterford Population and Housing report of 1990; the 1993 Transportation Study Report compiled by the Southeastern Connecticut Regional Planning Agency; and a report by the Commission of Fire Prevention and Control dealing with recruitment and retention of Volunteer Firefighters. This report also contained data from a similar study conducted by the State of New York.

Our community leads suburban municipalities in population density per square mile. The prime worker age group is the 25 to 44 age bracket which represents thirty percent of the population with a median age of 39.9 years, again the highest of any community in the region. Waterford's percentage of population under 15 is the lowest for any area Town and over the last ten years, persons between the ages of 15 and 24 have decreased by thirty-four percent. In short, our desired personnel pool has eroded away and we must concentrate on retaining what we have and seeking out additional members in ways that reward individuals for community support.

)4-01 The 1986 Insurance Services Organization (ISO) report listed Waterford as having a good insurance rating. The review looked at dispatching, training, equipment, apparatus maintenance and testing, and water supply. The coordination of resources coupled with community planning raised the rating to a class 3.8, a very good rating for a volunteer service. The following recommendations were provided:

94-01.1 The routine "Fire Department" telephone number should be listed.

94-01.2 NFPA 1221 alarm dispatch circuits should be provided to the stations.

94-01.3 Equipment upgrade and standardization should be met.

94-01.4 Personnel increases recommended.

94-01.5 The training program should be improved.

94-01.6 Pre-fire planning should be performed.

94-01.7 All hydrants should be inspected twice a year.

94-02 A major benefit to the fire service is its water supply. This has been cited in reports by the Insurance Service's Organization. There are over one thousand fire hydrants in the community and water pressure throughout the system is generally considered above adequate.

94-02.1 The Fire Prevention Bureau should be tasked with the responsibility for inspecting and maintaining fire hydrants. — Completed New London to do per WPCA agreement 6/95

94-03 While Waterford has a good water supply system, it has no water supply in northwest part of town. Areas north of Interstate 95 and Oil Mill Road and Butlertown Road through Vauxhall Street, Fire Street and Old Colchester Road lack fire hydrants.

94-04 Another problem with the water supply is low water pressure in the Bloomingdale Road area. Part of the reason for this was the addition of water supplies to the Town of Montville.

94-04.1 A capital improvement project has been requested that would increase water pressure in the area. — Proceeding 1/95

94-05 The Fire Service has limited capabilities to transport water to these affected areas. All of the pumpers carry between five hundred and seven hundred and fifty gallons of water. Fire flow requirements for some of these areas is higher than that. Additionally, there is a limited amount of water available to the interstate highways and there is no back up water supply for fire fighting should catastrophic failure of the underground water main system occur.

94-05.1 Apparatus upgrading to five inch hose should be undertaken.

94-05.2 An engine tanker should be located at the Cohanzie Fire Company. This should be the replacement for 1995 vehicle. — Ordered 6/95

94-06 The old system of cisterns has been allowed to decay. These could provide reliable alternatives to water in the event the hydrant system were to fail They could also improve water supply for the non hydranted areas identified in 94-03.

94-06.1 Areas capable of serving as cisterns should be identified. Working 6/95

94-06.2 These locations should be entered into the dispatch computer.

94-06.3 A maintenance program for these areas should be undertaken.

94-07 The hydrant survey map and computer referencing at dispatch needs to be updated.

94-08 The community has been experiencing an increase in the amount of water main breaks and damage to fire hydrants. This has resulted in fire protection being reduced in areas for extended periods of time.

94-08.1 Agreement should be made to allow Waterford to repair it's own fire hydrants. Not necessary part of agreement with NL per WPCA 6/95

TASK FORCE 95 LONG RANGE PLAN

Track No. Apparatus Issues Status

4-09 An apparatus replacement schedule was completed on April 13, 1992. The results recommended the replacement of pumpers at fifteen year increments and aerial ladders at twenty years. Special and utility vehicles would be replaced as needed. The Town of Waterford has adopted this plan as an economical and viable alternative to costly repairs and refurbishing of apparatus.

94-09.1 Fire Prevention Bureau vehicles should be included in this program.

94-09.2 Provisions should be made to allow for procurement of Large Diameter hose with new vehicles purchased during this plan.

)4-10 The service has a good supply of four wheel drive vehicles that are capable of responding to many off road emergencies.

)4-11 The purchasing of apparatus with extra large personnel compartments provide ece3llent areas for personnel and victim rehabilitation.

94-11.1 The Fire Commissions existing policy on apparatus purchases (87-1) should be amended to include fully enclosed and air conditioned cabs. Complete 3/95

94-11.2 Proposals for apparatus purchases should be approved without divulging fund availability.

TASK FORCE 95

LONG RANGE PLAN

Track No.

Apparatus Issues

Status

94-12 There appears to be a very good apparatus maintenance program. Evidence is available to indicate yearly pumper and ladder tests along with regular preventative and deficiency maintenance repairs.

94-12.1 All companies should be required to show evidence of pump tests, ladder tests and hose tests in addition to the apparatus maintenance report. — In Process 1/95

94-12.2 A standardized reporting format should be established.

94-12.3 A uniform apparatus and pump maintenance program should be developed. — In Process 1/95

94-12.4 Annual safety inspections should be performed by the Department of Motor Vehicles. — Completed 11/94

TASK FORCE 95 LONG RANGE PLAN

Track No. | Personnel Issues | Status

94-13 Our community, like so many others, relies on a volunteer force for so many projects. It is hampered by family pressures and work schedules that conflict with and place burdens on the family structure. Many of our personnel who would like to participate find it difficult to be a fully functional part of the emergency response team because of mandatory training requirements.

94-13.1 A volunteer retainment program should be created that provides for those personnel that meet the requirements of Fire Commission policy 91-3. In process 1/95

94-13.2 Additional benefits should be afforded for certified company officers. In process 1/95

94-13.3 Recruitment Officers should be established at each station.

94-13.4 Create a standardized recruitment and background check program.

94-14 Emergency Medical Technician programs and fire fighter certification programs last well over one hundred hours. Coupled with retraining, officer training and driver training, our personnel could easily spend over five hundred hours attending school to be fully qualified and meeting existing requirements.

94-14.1 A volunteer retirement program should be created. The program should offer a retirement program for an established length of service. The program should be based on current training requirements of policy 91-3. In process 1/95

TASK FORCE 95 LONG RANGE PLAN

Track No. Personnel Issues Status

94-15 The college reimbursement program is an excellent program for the development of fire service leaders.

94-15.1 The program should be restricted to those personnel that meet the requirements of Fire Commission Policy 91-3 and be limited to an Associates Degree in fire service related field (ie: Business and Fire Service Management).

94-16 The providing of individualized protective clothing and pagers to structurally certified firefighter/Emergency Medical Technicians is an excellent idea and should be continued.

94-16.1 Protective clothing should be inspected annually, washed and repaired as necessary. In process 6/94

94-17 The ordinance that protects personnel from legal liabilities (2.116.100) is exemplary legislation in that it is designed to protect the firefighter/EMTs. This far out paces many communities in light of the fact that Fire Officers and Departments are now capable of being sued.

94-17.1 A quality control form should be given to all system recipients of our services. It should be postage prepaid.

94-18 We have a very capable manpower pool. However, the increased burdens being placed on the workers in the areas of training is stagnating the system. Repetitious false alarms in protected areas are a drain on system resources.

94-18.1 A false alarm ordinance should be created.

4-19 The present emergency response force is a mix of paid and volunteer personnel. There are six paid drivers assigned to the fire stations, five working the day shift and one on the evening shift. These employees supplement toe volunteers and are supported during day time responses by career personnel in the fire prevention bureau when requested. The Fire Commission lacks a formula to determine when a paid fire fighter is needed.

94-19.1 The career firefighter work schedule could be reduced if the retainment program produces the desired results.

94-19.2 On duty training should be provided to the career employees with fire suppression/emergency medical responsibilities. Proceeding 6/95

4-20 Many of the volunteer firefighters are considered knowledgeable about the hazards of the profession. Many of these people receive state training meeting NFPA 1001 standards. Several have degrees and other certifications. There is a good contingent of emergency medical technicians.

94-20.1 A mentor type training program should be instituted utilizing certified instructors to teach in house certification programs.

94-20.2 An awards day during Waterford week should be instituted. Started 8/95

TASK FORCE 95

LONG RANGE PLAN

Track No.

Personnel Issues

Status

4-21	Inter department competitions can further enhance the spirit of teamwork between the companies.		
	94-21.1	A fireman's ball.	Failed 2/95
	94-21.2	A firefighter combat program.	Succeeded 6/95
	94-21.3	A fallen firefighter's day.	Scheduled 10/95
	94-21.4	An apparatus rodeo.	
	94-21.5	A firefighter's family day/picnic.	Scheduled 9/95
	94-21.6	A Fire Department Marching Unit. (New 9/95)	
	94-21.7	A firefighter's muster. (New 9/95)	
94-22	The program of firefighter physicals is proper and appears consistent with law.		
	94-22.1	A written policy should be drafted to outline the extent of this program.	Developing 5/95
94-23	There is an inadequate perception about the service. Much of the reasoning is a lack of understanding of the requirements placed on "volunteers". Many people do not understand how regulated the service is. When compared with successful "volunteer" programs such as Waterford Week, being a volunteer firefighter could almost be considered a job.		
	94-23.1	Public service articles should be created citing specific acts and works of the volunteers.	Ongoing 4/95

94-24 The Towns 911 communication system has been well maintained over the years. The service is maintained by career personnel who monitor alarms, dispatch personnel and monitor regional communication center equipment for ambulances transporting victims to Lawrence and Memorial Hospital. They also dispatch the local paramedic program and have recently made the transition to dispatching the police department. The Center also is responsible to activate the emergency preparedness siren warning system.

94-24.1 A trainee dispatcher wage should be created. Completed 11/94

94-24.2 A users group consisting of all center utilizers should be formed to periodically review the centers mission.

94-24.3 Regionalization of the center's fire dispatch should be considered.

94-24.4 Institute a private alarm monitoring service similar to private companies.

94-25 This good communication system has been instrumental in several life saving situations. The use of the nationally recognized emergency medical dispatch protocols have aided on duty personnel in providing on scene medical instructions to civilians in need. Updated equipment for communicating with the deaf and hearing impaired has recently been added to the center. A computer assisted dispatch program is also provided along with modern state of the art alarm receiving equipment.

94-25.1 A replacement schedule for equipment in excess of five thousand dollars should be established.

94-25.2 Automation of fire and police business calls should be considered.

94-25.3 Improve hard line communications with the fire stations.

94-25.4 Assess to the Town's Geographical Information System (GIS) should be available through the Dispatch Center.

94-25.5 Mobile Display Terminals should be provided on apparatus.

94-26 Emergency radio frequencies need to be included with the recently incorporated Incident Command System. This was a problem during the Bayview Convalescent Home evacuation.

94-26.1 "Command Radios" should be purchased and stored on the service vehicle. Individual channels on separate frequencies should be established for all command staff positions.

94-27 The Emergency Dispatch Center is lacking a Director to manage the strategic objectives of the center.

94-28 The community posses an excellent Emergency Operations Center.

94-28.1 Responsibility for center maintenance and testing as well as equipment modernization should be assigned to the Communications Center Supervisor to reduce duplication and increase standardization and flexibility.

Track No. Fire Prevention Issues Status

94-29 The Fire Prevention Bureau has a proven record of having an effective code enforcement program. Starting with plan review and continuing into on the job fire inspections, continuing inspections and permitting of some 587 inspectable properties, fire hazards are reduced and safety increased through an emphasis on alarm detection and protection equipment.

94-29.1 The career firefighters should become certified fire inspectors to perform in district pre-fire planning and building inspections.

94-29.2 Field inspections should be computerized.

94-30 Some highlights of the communities building construction include the fact that major buildings are sprinklered and fire detection systems are provided in many buildings with alarm reporting at the 911 center. Sprinkler connections are made to the municipal water system.

94-30.1 Re-engineering of fixed sprinkler systems should be required if back flow preventers are installed on existing sprinkler systems.

94-30.2 Automatic Sprinklers and or Fire Detection Systems should be encouraged in all new construction with tax incentives provided.

94-31 Good rapport with the Planning and Zoning department has resulted in an excellent zoning enforcement and regulations program. This has reduced the accumulations of combustible materials and has yielded improvements in fire protection by limiting fire areas. The lack of this type of program was a key element to the great Chelsea Massachusetts conflagration of 1973. Teamwork with the Building department has ensured timely addressing of all types of fire hazards.

94-31.1 Closer coordination should be encouraged.

TASK FORCE 95 LONG RANGE PLAN

Track No. Fire Prevention Issues Status

94-32 The community is fortunate to have a respected Public Fire Education program. The program can take credit for many lives saved and serious injuries prevented.

94-32.1 This has recently been expanded to include safety issues and is offered throughout the school year in the school system. Changes to this years program need to be evaluated. Working well 6/95

94-32.2 A yearly fire safety mailer should be sent to all households. It should detail information related to fire safety based on the type of incidences of fire over the previous year.

94-32.3 A yearly fire safety mailer should be sent to all businesses. It should detail information related to fire safety based on the type of incidences over the previous year.

94-33 The community has an ordinance regulating fire lanes. It is enforced by the Police Department and are established by the Fire Prevention Bureau.

94-33.1 Semi annual meetings between the Fire and Police Commission should be scheduled to discuss matters of joint interest including this ordinance, fire hydrants ordinance and dispatch center operations. Working 9/95

94-34 The Fire Department's participation in Public Fire Education is noteworthy with several impressive activities conducted during fire prevention week as well as other initiatives sporadically performed during the year. These activities are performed exclusively by the volunteers.

94-34.1 The 911 center should be included in Public Educations. Ongoing 6/95

TASK FORCE 95 LONG RANGE PLAN

Track No. Fire Prevention Issues Status

94-35 There is no derived benefit for the installation of protection or detection systems when systems are not required.

94-35.1 Tax incentives should be considered as an enticement for the installation of these devices.

94-35.2 Consideration to requiring dry standpipes and alarm systems for docking facilities in excess of 25 slips should be made.

4-36 An ordinance requiring maintenance of detection and suppression equipment could reduce many of the presently experienced false alarms.

4-37 The current highway system hampers response to some areas of the community. As community planning takes place, the following should be considered.

94-37.1 The lack of a major north south artery hampers response to the northern section of the town.

94-37.2 A more direct route to the Ridgewood park area should be encouraged as development continues.

94-37.3 An alternate access route to Millstone station should be encouraged.

TASK FORCE 95

LONG RANGE PLAN

Track No.

Response Issues

Status

94-38 The recently funded dive team adds a new dimension to rescue services. There have been several drownings and related incidents in this community which has several waterways.

94-38.1 This program should be expanded to include the two marine units.

added 6/95

94-38.2 Provisions to keep pollutants from waterways should be made. Working 6/95

94-39 Distribution of fixed and mobile air compressors is very good and offers diversity in the event of emergencies requiring large supplies of air.

94-39.1 Conversion to high pressure long duration air packs should be implemented. Working 1/95

94-40 Waterford's fire services are an integral part of the area's Mutual Aid Network. This system is unique it that it allows for sharing of resources to the benefit of all. This reduces duplication and maximizes resources. It also allows for specialization and coverage when units are not available to respond.

94-40.1 A regional Hazardous Material Response team should be created.

94-41 The integration of Advanced Life support paramedics into the emergency medical equation is part of a current trend in medical care.

94-41.1 A review of the need for automatic defibulators should be made. Working 6/95

94-41.2 A Mass Casualty trailer should be located at the Oswegatchie station and be equipped with disaster supplies and back boards.

TASK FORCE 95 LONG RANGE PLAN

Track No. Response Issues Status

94-42 Distribution of companies is sufficient to support the task force concept. The strategic positioning of companies allow for maximum draw on populated areas while reducing response time to under ten minutes.

94-42.1 Single company response to automatic alarms could be implemented unless confirmation of an emergency exists should the retainment program be successful.

)4-43 The initial response generally meets the required fire flows for the area. It allows for self sufficiency during disasters and reduces overtaxing of resources.

94-43.1 Atmospheric testing equipment should be available to all responding companies. Complete 6/95

94-43.2 Foam capacities should be evaluated against the identified threat.

)4-44 During severe weather emergencies, the Town's emergency plan calls for the combining of task forces comprised of Police, Public Works, Fire and Medical personnel into the fire districts. Each district is responsible for mitigating emergencies in these geographical population centers of the town, along with the sheltering of residents. The task force concept has worked very well during hurricanes.

94-44.1 A sleeping capacity survey should be made of each station.

94-44.2 A supply of cots and sleeping materials should be located at each station.

4-45 At the present time, there is an agreement with the Submarine Base Fire Department to respond to Hazardous Material emergencies. Under this agreement, the department responds a team of specialists that must be supplemented by the requester. The Sub Base Department has been and continues to be susceptible to budget cuts and service terminations as the Federal Budget continues to down size. There is no provision to supplement the needs of the Base when it arrives in the form of additional supplies and decontamination.

94-45.1 A mobile reserve supply of Haz-Mat provisions should be available based on a needs assessment survey.

94-45.2 Jordan's brush truck should be converted to a spill response truck.

4-46 At the present time there is a limited amount of confined space rescue equipment available. With the advent of dozens of sewage pump stations, caverns and continued construction of sewer systems, this hazard continues to grow.

94-46.1 Confined space entry teams should be established should be located at each company. Working 6/95

94-46.2 A set of confined space breathing equipment should be located at each company.

4-47 Rescue truck responses exceed what the system was designed for. This extensive use could lead to earlier than expected replacement.

94-47.1 The mission of the rescue truck should be reconsidered. Each company should have a rescue tool, truck responses would then be as requested.

)4-48 Buildings housing the services continue to be well maintained. Four of the six buildings are protected by a code compliant sprinkler system. One is currently being sprinklered. These areas serve as community shelters during evacuations and as staging areas during severe weather.

94-48.1	Plans must be implemented to make all buildings handicapped accessible.	Working 1/95 Quaker Hill 6/95
94-48.2	The Jordan station has a problem with the front of its station showing signs of weakness.	
94-48.3	The Cohanzie station is not protected by a sprinkler system.	Complete 6/95
94-48.4	Annual safety inspections should be performed by CIRMA Insurance.	Working 6/95
94-48.5	A community meeting area should be provided at Cohanzie.	Scheduled 6/96
94-48.6	The Jordan station should relocated to the Civic Triangle.	Scheduled 6/98

)4-49 A substation should be considered in the area of Interstate 395 and Route 85 should off shoot development be created with the Route 11 extension project. This would be a single engine station.

94-50 The Fire Commission has a fair set of established policies. When reviewed with those of the individual departments and Waterford Fire Officers Association, a good start has been made at contriving operational procedures. The existence of these policies positions the service far ahead in updating existing procedures to current standards.

94-50.1 A uniform driver training program should be established.

94-50.2 Existing Fire Commission policies and job descriptions should be reviewed for adequacy and upgraded as needed. Ongoing 1/95

94-50.3 All policies should be organized and grouped along functional issues; (financial, personnel, purchases) and numbered accordingly. Working 6/95

94-50.4 Waterford Fire Officers Association policies should be included by sub section to ensure a uniform program throughout all areas of the service.

94-50.5 Some safety policies are in existence for the companies. Generally they conform to NFPA standard 1500. Working 6/95

94-50.6 Policies regarding infectious disease control and the protection of employees from biological and hazardous chemicals should be created.

94-50.7 Commission Policy 91-3 should be revised to reflect hazardous material training as well as infectious disease training and fire fighter II.

4-51	The Fire Commission is fortunate to have an excellent administrative support system. The support team is fully computerized and centrally manages all business and financial aspects of the communities fire services. The center also serves as a central typing consortium for all sub committee's. All capital improvement projects and apparatus replacement programs are coordinated through this office as are budgets and payroll.	
	94-51.1 The Office should be reorganized into three functional areas reporting to a Manager, (Administration, Communication, Prevention).	Complete 12/94
	94-51.2 A full time Manager's position responsible for all aspects of the Commission should be created. This position could be created from within existing personnel.	Working 1/95
	94-51.3 An annual review and updating of this plan is necessary.	
	94-51.4 Federal grant monies should be identified and pursued when available.	
94-52	A fundamental deficiency in any organization is a lack of goals and objectives. The Fire Commission is no exception, it also lacks a mission statement. These documents are important in that they set priorities for improvements and focus the attention of the work force on common goals.	
	94-52.1 A mission statement should be defined.	Complete 12/94
	94-52.2 A set of goals and objectives should be created. It is suggested that this report be used to move the service to ISO Class 2 within 5 years and Class 1 within 10 years.	Complete 3/95
	94-52.3 Create a Code of Conduct (Added 7/94)	

94-53 Trust between the Fire Companies and the Fire Commission must be improved. Sometimes reactions to new policies are viewed as anything short of skeptical.

94-53.1 Monthly workshop sessions between the Commission and all Department Heads should take place. Ongoing 9/94

94-53.2 This report could be used to focus the efforts of both groups. Working 9/94

94-54 Internal Communication could be improved. It is important that the service reach out to all available members in order to keep them informed and make them feel that their contributions are important and valued.

94-54.1 A quarterly news letter to all members should be issued.

94-55 The Submarine Base's Regional Hazardous Material response team is providing a significant resource to the community.

94-55.1 A formalized agreement should be made as to resource availability and shared needs.

94-56 Each station has an easy to use Macintosh computer in addition to a terminal providing access to the main frame computer. All required ISO records could be placed in these units and revised as necessary. Commercially available software programs are available to standardize all of the Companies records.

94-56.1 A standardized reporting format should be adopted.

94-56.2 Trackability bar codes should be added to the identification cards to be used in recording member participation.

TASK FORCE 95 LONG RANGE PLAN

Track No. Management Issues Status

94-57 There are many volunteer fire fighters working for the Town of Waterford in several capacities.

94-57.1 An agreement presently exists by memo between the First Selectman and the Public Works Director. A formal procedure should be made by the Fire Commission to allow these people to respond to all working structural fires. Working 6/95

94-57.2 An agreement should be made between the Recreation and Parks Department and the Water Pollution Control Authority to allow their personnel to respond. Working 6/95

'4-58 State legislation should be sought to allow for property tax relief.

94-59 Because of the three nuclear power station, the community has a well recognized town wide emergency plan. This program encompasses all facets of emergency mitigation and integrates all available community resources into a functional organization. A recent mass evacuation of a local convalescent home buttresses the effectiveness of the program.

94-59.1 All Fire Officers and Commissioners should receive annual training in the Towns Emergency Plan.

94-60 With the advent of a new local Fire Training school at Millstone, the fire training programs could be enhanced.

94-60.1 Integrated training could be conducted utilizing live fire evolutions in conjunction with the plants fire brigade. Working 6/95

94-61 With the recent availability of government access television, this could provide an opportunity to increase public fire education and also fire fighter training. It would be possible to provide fire fighter training in much the same manner as many larger fire departments due to their stations. Except instead of stations, we would be broadcasting to fire fighters homes.

94-61.1 The training requirements outlined in Fire Commission Policy 91-3 should be considered minimum requirements. Company training should be refined around equipment usage and familiarity. A formal training program of State certified programs should form the basis for "basic training".

94-62 Waterford has one of the premier audio visual training libraries in the State.

94-62.1 This program should be expanded to include computer training.

4-63 Interagency training between responders does not occur. The community has not had a Mass casualty training session in over a decade. Additionally, due in large part to volunteer work schedules, interagency drills have not been performed.

94-63.1 This program should be expanded to include computer training.

94-63.2 Table top training sessions for Officers should be provided to enhance their command abilities.

4-64 The recent ordinance requiring the installation of a Fire Department rapid entry system has made gaining access to commercial and municipal buildings easy. This has resulted in a reduction of in-service operating times for responding companies. This has also increased turn around time for the volunteers.

94-64.1 This system should receive more publicity and the commercial establishments encouraged to participate.

4-65 The proposed traffic light preemption program will undoubtedly decrease response times to emergency calls in addition to increasing the life safety of the responding fire fighters.

94-65.1 The remaining areas in need of this system should be prioritized and a schedule established. Completing 9/95

TASK FORCE 95 LONG RANGE PLAN

Fire Management Areas Those areas with a value in excess of one million dollars or housing in excess of 100 units.

Goshen:	Harkness Park Area, Seaside Area, Pleasure Beach Area, Ridgewood Park Area, Millstone Nuclear Power Station, Jordan Cove, Hendels Park
Jordan:	Waterford Shopping Center, Waterfall Shopping Center, Stop & Shop Shopping Center, Jordan Village Area, Morningside Park, Mago Point, Millstone Training Center, Fog Plain Residential Area, Manitock Springs and Myrock Center, Governors Landing
Oswegatchie:	Oswegatchie Residential Area, Avenue Residential Area, Cross Rd. Center, Sonalyst Business Area, Post Rd. Business Area, Cross Rd. Industrial Area to Foster Rd., Cross Rd. Residential Area.
Pohanzie:	Crystal Mall, Rt. 85 & 95 Business Area, Waterford Village, Cross Rd. Industrial Area to Foster Rd., Rt. 85 & 395 Industrial Area
Quaker Hill:	Quaker Hill Shopping Mall, Village Area, Lumber Yard

ASK FORCE 95

LONG RANGE PLAN

ack No. | Fire Prevention Issues | Status

-29 The Fire Prevention Bureau has a proven record of having an effective code enforcement program. Starting with plan review and continuing into on the job fire inspection, continuing inspection and permitting of some 652 inspectable properties, fire hazards are reduced and safety increased through an emphasis on alarm detection and protection equipment.

94-29.1 The career firefighters should become certified code inspectors to perform in district pre-fire planning and building inspections. This would help the Fire Prevention Bureau staff keep up with new construction projects.

94-29.2 Field inspections should be computerized.

4-30 Some highlights of the communities building construction include the fact that major buildings are sprinklered and fire detection systems are provided in many buildings with alarm reporting at the 911 center. Sprinkler connections are made to the municipal water system.

94-30.1 Re-engineering of fixed sprinkler systems should be required if back flow preventors are installed on existing sprinkler systems. Law

94-30.2 Automatic Sprinklers and or Fire Detection Systems should be encouraged in all new construction with tax incentives provided.

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94-32.2 A yearly fire safety mailer should be sent to all households. It should detail information related to fire safety based on the type of incidences of fire over the previous year.

Track No. | Fire Prevention Issues | Status

94-32.3 A yearly fire safety mailer should be sent to all businesses. It should detail information related to fire safety based on the type of incidences over the previous year.

-33 The community has an ordinance regulating fire lanes. It is enforced by the Police Department and are established by the Fire Prevention Bureau.

94-33.1 Semi annual meetings between the Fire and Police Commission should be scheduled to discuss matters of joint interest including this ordinance, fire hydrants ordinance and dispatch center operations.

-34 The Fire Department's participation in Public Fire Education is noteworthy with several impressive activities conducted during fire prevention week as well as other initiatives sporadically performed during the year. These activities are performed exclusively by the volunteers.

94-34.1 The 911 center should be included in Public Educations.

2

Fire Service Study from 2001

TOWN OF WATERFORD

FINAL REPORT

ON

FIRE SERVICE STUDY

WATERFORD FIRE COMMISSION

JUNE 2001

EXECUTIVE SUMMARY

This report was prepared by Firescope, Inc. for the Waterford Fire Commission as a result of a fire service study that was conducted by members of the Waterford Fire Service and citizens of Waterford.

The purpose of the study was to review:

- The existing level of fire protection and ambulance services in the Town
- The existing and future ambulance needs.
- The existing geographic distribution of fire and ambulance services and water supply.
- The staffing needs for the Fire and Ambulance Services.

Several committees consisting of Fire Commission members, fire department members, and citizens were formed to examine each of the areas that are listed above. Each committee reviewed information, conducted an analysis and developed a set of recommendations that will be used to assist in providing a direction for the Waterford Fire Commission, and the Waterford Fire Service.

After the study of each area was completed, Firescope, Inc. compiled all of the information into a draft report that was reviewed by the Fire Commission and committee members. Changes were made, where necessary, to improve accuracy, and the draft report was revised to become the final report which follows.

The Report contains background information on the organization of the Waterford Board of Fire Commissioners, and the organization of the Waterford Fire Service, budget, fire department activity, both fire and emergency medical service. Separate sections detail the background, analysis, and recommendations of the Ambulance Service Committee, Fire Apparatus Committee, Distribution of Fire and Ambulance Services Committee, and

Staffing Committee. The sections of the report on the Fire Marshals Office and the Emergency Communications Center were completed by Firescope, Inc. at the request of the Fire Commission.

The report contains a number of specific recommendations in the areas of Ambulance Service, Fire Apparatus, Distribution of Fire and Ambulance Services, Staffing and The Emergency Communications Center that will assist the Fire Commission in providing for the overall direction to the fire service in the Town of Waterford.

During the final months of the study the Fire Commission initiated a reorganization following the retirement of the Fire Marshal. The Fire Commission established the position of Fire Services Administrator reporting to the Fire Commission. The Fire Services Administrator is responsible for the supervision of the Communications Center, Support Services, Fire Prevention, and for providing assistance to the Fire Departments. The last section of the report describes the reorganization.

The Waterford Fire Commission views this report as a starting point and a working document that will be used and updated on a periodic basis in order to provide better fire and rescue services to the Town of Waterford.

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TOWN OF WATERFORD

REPORT ON FIRE SERVICE STUDY

INTRODUCTION

The following report is the result of a fire service study that was initiated by the Town of Waterford Board of Fire Commissioners. The study began in 1999 and completed in the early part of 2001.

Background

The Waterford Board of Fire Commissioners issued a request for proposal for the purpose of conducting a study of the Waterford Fire Service. The specific areas were identified as the areas needing review and recommendations

- Staffing
- Health & Safety
- Fire Station Locations
- Apparatus
- Communications
- Emergency Medical Services
- Fire Prevention Bureau

Town of Waterford

Incorporated in 1801, Waterford is a southeastern Connecticut shoreline community of 19,132 people. It occupies 36.7 square miles in New London County.

The primary components of Town government in Waterford are the 3-member *Board of Selectmen*, 22-member *Representative Town Meeting* (RTM), and the 7-member *Board of Finance*. The Board of Selectmen is the executive branch of town government, while the RTM serves as the legislature. The Board of Finance oversees and directs the town budget process.

WATERFORD BOARD OF FIRE COMMISSIONERS

The Town of Waterford Charter creates the Board of Fire Commissioners in the Town.

The Code of Ordinances (Chapter 2.36) stipulates that the Fire Commission is to be a five member board (representative from each of the five fire districts) appointed by the Representative Town Meeting with the authority to establish its own rules of procedure, frequency of meeting, election of officers, and internal operation. It also stipulates it shall have all authority vested in it by State Statute.

The officers of the Fire Commission shall be a Chairman and Vice Chairman. The officers are elected for a term of one year.

The Fire Commission meets on the fourth Wednesday of each month.

The Fire Commission, as a board, sets policies and as such do not, as individuals, get involved in the day to day chain of command of the various agencies that report to them.

The Board of Fire Commissioners oversees the funding and coordination of the fire and rescue service, and sets policies. The Board does not have direct control over the individual fire districts for day to day activities, but work with them to provide funding for operations and apparatus, and coordinating fire and rescue services throughout the Town. The Board also has oversight over the Fire Marshals Office and the Town Communications Center. Separate sections of this report describe the operation of the Fire Marshals Office and the Communications Center.

The Board develops and issues written policies that provide guidance on a wide range of issues related to the fire service in the Town. Policies are divided into Administrative Policies and Policy Statements.

The following pages contain two of the Administrative Policies that provide overall direction for the Town Fire Service.

REFERENCE: Policy # Administrative - 2

SUBJECT: Fire Service Goals and Objectives

PURPOSE: The purpose of this policy is to establish Fire Service Goals and Objectives to guide the development of the Communities Fire Services.

DISCUSSION: The Fire Commission realizes the importance of a well-organized and mission guided work force. These goals and objectives are intended to motivate and focus on attainable projects while serving as a focal point to request funding through the normal budgetary process to provide a complete fire safety program for the community.

PROCEDURE: The following are the Fire Commission Goals and Objectives:

GOAL: 1. Increase the reliance on Volunteer Fire Fighters

OBJECTIVES
- A. Increase recruitment by 5% per year.
- B. Effectively utilize the amount of paid part time hours.
- C. Continue to Certify Fire Officers and Firefighters to National Levels
- D. Standardize training programs.

GOAL: 2. Provide a Volunteer Fire Fighter Retainment Program

OBJECTIVES:
- A. To reward volunteer personnel for their contributions.
- B. To ease the burden of societal pressures.
- C. To assist in attracting and retaining high caliber personnel.
- D. To provide a manner in which to control personnel actions.

GOAL: 3. To reduce the level of false alarms by 30% over a 5 year period.

OBJECTIVES:
- A. To alert home and business owners of the expense of time and money.
- B. To allow the volunteers to make better use of the personal and professional time.
- C. To ensure availability of emergency services when needed.
- D. To increase fire fighter turnout.

GOAL: 4. To make the Waterford Fire Service and ISO Class 1 Service

OBJECTIVES:
A. To focus the effort of all personnel on being the best they can be.
B. To take advantage of the excellent infrastructure that has been provided.
C. To reward the community for their support.
D. To reduce the cost for fire insurance.

GOAL: 5. To reduce deaths and injuries as a result of fire

OBJECTIVES:
A. By educating residents and occupants on fire safety.
B. By providing a safe working environment for all employees.
C. By ensuring proper levels of protective equipment.
D. By increasing response of skilled personnel.

Dated: March 9, 1995

REFERENCE: Policy Statement # Administrative - 3

SUBJECT: Mission Statement

PURPOSE: To provide a Written Mission Statement

DISCUSSION: The PRIMARY Mission of the Waterford Fire Service to provide a range of programs designed to protect the lives and property of the residents of the Town of Waterford from the adverse effects of fires, sudden medical emergencies or exposure to dangerous conditions created by either man or nature.

WATERFORD FIRE SERVICE

The Waterford Fire Service consists of five fire districts each with a fire department, the Fire Marshals Office and the Emergency Communications Center.

Fire Districts - Departments

The Town of Waterford is divided into five districts, which are served by a fire department, which is a private non-stock corporation. Each of the five corporations has a signed agreement with the Town that stipulates that it will provide fire services in return for an appropriation from the Town. A copy of the agreement can be found in the appendix of this report. The five fire departments/fire districts are:

▪ Waterford Fire Engine Company	Company 1	#1
▪ Quaker Hill Fire Company	Company 2	#2
▪ Goshen Fire Department	Company 3	#3
▪ Oswegatchie Fire Company	Company 4	#4
▪ Cohanzie Fire Company	Company 5	#5

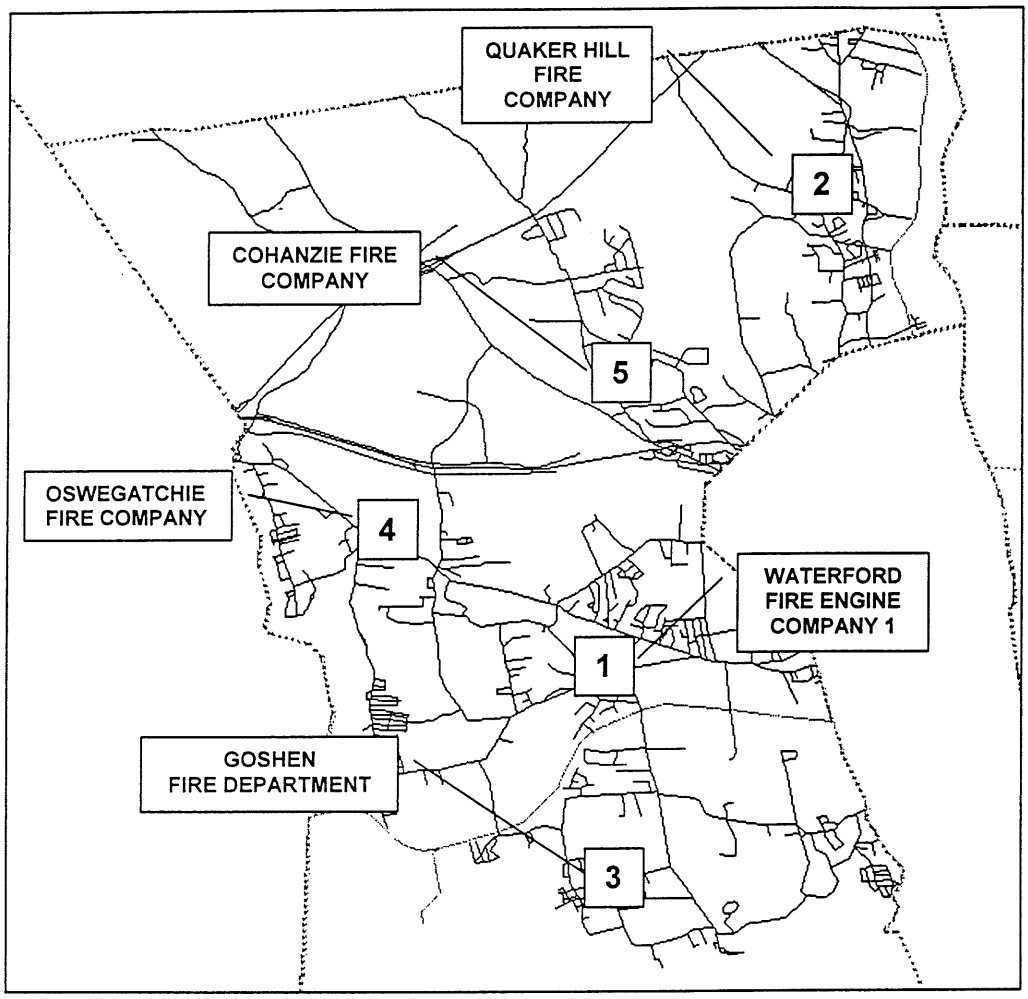
Each fire department has one fire station so that there are a total of five fire stations in the Town. The Town map on the following page shows the location of each Company.

Each fire district has an elected board of directors. The elected fire chief is responsible for the management and operation of the fire department including the supervision of the volunteer and career employees assigned to the department, training, maintenance of apparatus and facilities, budget preparation and liaison with the Board of Fire Commissioners.

Funding for the operation of the five fire departments is provided by the Town through a budget process via the Board of Fire Commissioners and the Representative Town Meeting. Budgets are submitted and justified to the Board of Fire Commissioners who review and present a fire service budget package to the Town Board of Finance. The

budget when approved by the Board of Finance is then presented to Representative Town Meeting for approval.

The following map shows the location for each of the five fire departments in the Town.



Town of Waterford - Fire Station Locations

FIRE SERVICE BUDGET

The Waterford Fire Service budget process begins with each Fire Department submitting a proposed budget to the Fire Commission. The Commission reviews the budget of each department by meeting with representatives of the department and then prepares a budget document for the Waterford Fire Service that includes the five Fire Departments, the Fire Marshals Office, and the Communications Center which is then transmitted to the Board of Finance for review.

Each fire department is required to prepare a proposed budget that shows the amount requested in each of the following areas that are called operating expenses.

A. Electricity
B. Heat
C. Telephone
D. Insurance
E. Fire Fighting Supplies
F. Apparatus Maintenance
G. Gasoline & Fuel
H. Building Maintenance
I. Radios
J. Administration
K. Fire Training
L. Fire Police
M. Public Safety Awareness
N. Specialized Apparatus

The figures on the following page show the amounts approved by the Fire Commission for each Fire Department for FY 2000/2001.

Waterford Fire Engine Company No. 1	$125,000
Quaker Hill Fire Company	$110,500
Goshen Fire Company	$88,620
Oswegatchie Company	$121,316
Cohanzie Fire Company	$123,311
Total	$568,747

Fire Commission	$2,387,250

The Fire Commission budget includes the funds required for the operation of the Fire Marshals Office, the Emergency Communications Center, all career and part time personnel and related expense. It should be noted that the Emergency Communications Center also provides communications services for the Waterford Police Department, and communications services for area emergency medical services.

Capital nonrecurring	$250,000

The capital nonrecurring expense is in the amount of $50,000 per fire department per year. This fund which accumulates is targeted for the purchase of fire apparatus.

Total Budget Request	$3,205,986

Note: The full budget document as presented to the Waterford Board of Finance contains in excess of 100 pages and provides details including past and anticipated expenses, plus justification for all of the items funded by the Town.

FIRE DEPARTMENT ACTIVITY

The following two pages contain tables which show the fire calls for the years 1999 and 2000, and the medical calls for the years 1996 through 2000.

Note: Each of the tables shows the # Log Calls as a number being less than the total for the table. The reason for this is that the Emergency Communications Center assigns only one number for each emergency call. Each Company assigns a number for each call that it responds to. This is the reason that the totals for the Companies are higher than the # Log Calls.

Fire Response-All Calls 1999

1999	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
# Log Calls	102	56	129	78	87	77	107	92	116	76	68	79	1,067
Co. # 1	57	30	58	39	47	38	62	54	56	43	38	41	563
Co. # 2	20	14	39	19	21	25	25	22	33	21	16	17	272
Co. # 3	28	10	34	19	23	9	34	18	27	21	17	18	258
Co. # 4	47	27	55	30	30	36	53	37	53	43	33	43	487
Co. # 5	45	33	54	41	43	45	47	42	62	37	33	39	521
TOTAL	**197**	**114**	**240**	**148**	**164**	**153**	**221**	**173**	**231**	**165**	**137**	**158**	**2,101**

Fire Response-All Calls 2000

2000	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
# Log Calls	96	65	62	77	78	99	65	91	86	81	75	127	1,002
Co. # 1	46	29	30	37	43	54	32	47	45	47	38	57	505
Co. # 2	24	22	18	13	28	23	16	29	18	20	21	38	270
Co. # 3	25	9	13	17	12	27	10	16	18	15	12	18	192
Co. # 4	44	29	31	33	38	45	31	53	47	35	31	60	477
Co. # 5	49	34	30	43	36	50	39	45	49	31	46	68	520
TOTAL	**188**	**123**	**122**	**143**	**157**	**199**	**128**	**190**	**177**	**148**	**148**	**241**	**1,964**

Emergency Medical Calls By District*

	1996	1997	1998	1999	2000
Company 1	624	692	672	754	806
Company 2	207	137	160	152	165
Company 3	219	202	222	208	207
Company 4	135	168	169	166	189
Company 5	342	418	406	369	343
Total	**1,527**	**1,617**	**1,629**	**1,649**	**1,710**

Fire Calls By District*

	1996	1997	1998	1999	2000
Company 1	314	314	314	331	228
Company 2	119	78	122	105	110
Company 3	169	138	145	133	112
Company 4	128	123	140	171	151
Company 5	297	278	346	313	328
Total	**1,027**	**931**	**1,067**	**1,053**	**984**

*Note: By district is not necessarily accurate. Depending on the availability, there may be a different company responding to an in-district call if that district is unavailable.

However, the numbers do give an indication of the level of activity within each district for the years 1996 through 2000. And, the totals show that the number of incidents has remained steady during the period shown. There are no sharp increases or decreases.

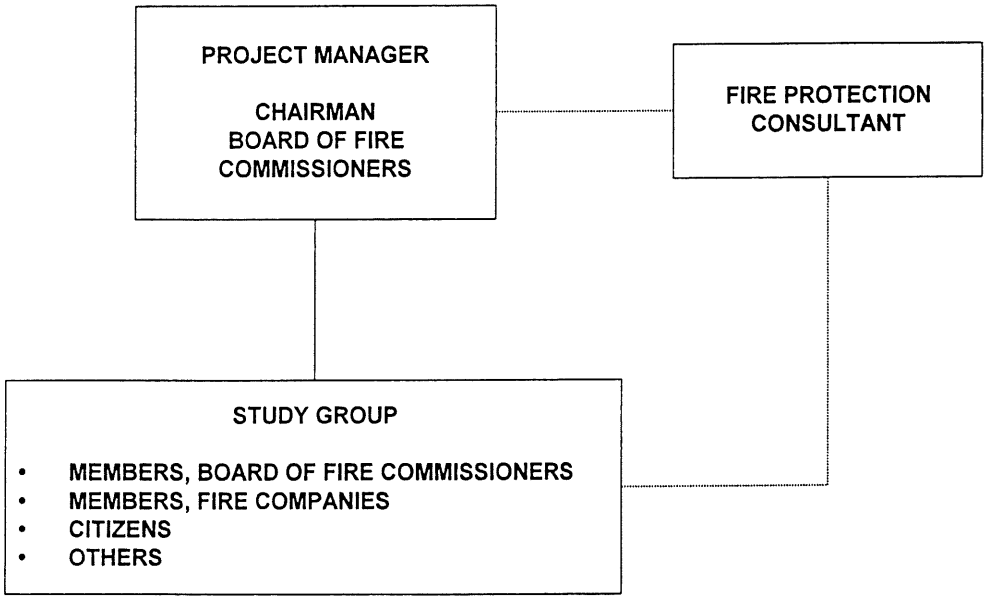
CONSULTING METHOD

The approach to this study was different from the standard consultant approach because the consultant served as a facilitator for the local study group rather than conducting the complete study.

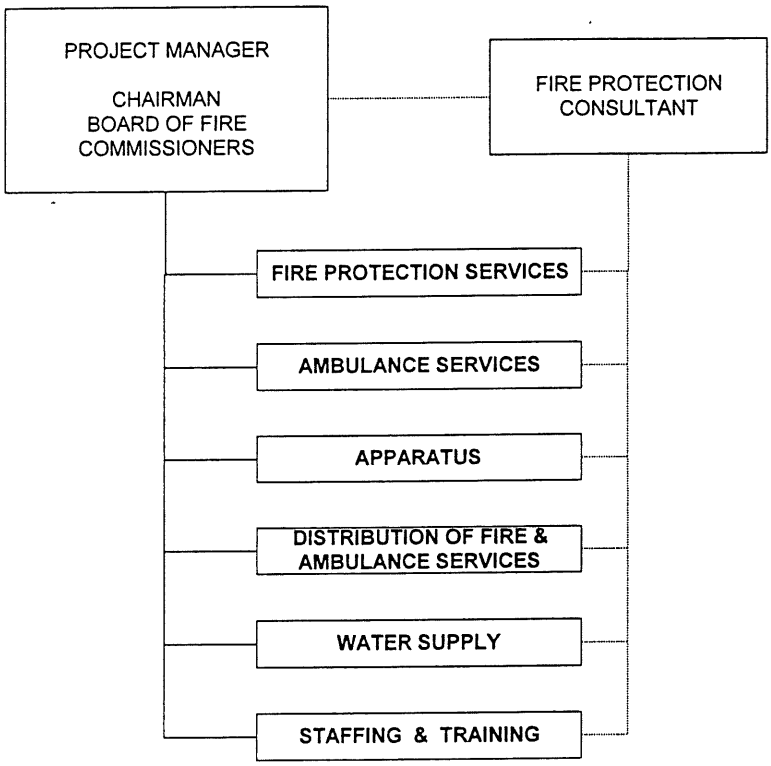
Organization

The Chairman of the Board of Fire Commissioners served as the Project Manager, with the local study group consisting of members of the Fire Commission, members of the fire companies, individuals representing the public, and/or others. The local study group was divided into several sub-groups to examine the specific areas listed in the request for proposal.

The following diagram on the following page shows the relationship between the Project Manager, Members of the Study Group and the Consultant.



The Study Group was divided into Sub Study Groups for the purpose of examining each of the major study areas that were identified in the request for proposal. The following diagram shows the organization with the Sub Study Groups



Function - Responsibilities

The following is a list of suggested functions and responsibilities for each of the participants in

Project Manager

- Manage the project
- Appoint Sub Group Chairpersons and members
- Call meetings
- Chair meetings of Study Group
- Maintain project schedule
- Meet with Study Group and Sub Groups as required
- Communicate with Study Group, Sub Groups and the Consultant

Fire Commission Members

- Provide oversight to the project
- Assist the project manager
- Serve a Study Group Members

Study Group Members

- Gather information related to assigned study area
- Analyze information related to assigned study area
- Formulate recommendations related to assigned study area.
- Assign priorities to recommendations

Study Sub Group Chairpersons

- Chair Sub Group
- Call meetings of the Sub Group
- Make sure information is collected and recorded
- Schedule interviews
- Communicate with the Project Manager
- Maintain project schedule
- Meet with Consultant when required

Fire Protection Consultant

- Facilitate the study
- Assist Study Group and Sub Groups
- Provide technical information to Study Groups
- Conduct computerized fire station location study at the direction of the Fire Station Location Study Group
- Conduct a study of the Fire Marshal's Office
- Conduct a study of the Emergency Communications Center
- Assemble information gathered by the Study Group and Sub Groups
- Write draft report using information provided by the Study Group
- Write final report using information provided by the Study Group
- Meet with Project Manager and Study Groups

AMBULANCE SERVICE COMMITTEE REPORT

This is the report of the Ambulance Services Committee, which is not limited to ambulances, but includes the delivery of emergency medical service to the Town of Waterford.

The original charge to the Ambulance Services Committee was to:

a. Examine the quantity and quality of the emergency medical service system.
b. Examine response times.
c. Examine the levels of emergency medical service
d. Prepare material for a final report that contains the findings and recommendations related to the delivery of emergency medical service.

Current System

Currently ambulances are housed in each of the five fire stations in the Town and deliver basic life support on a 24/7 basis to all areas of the town.

The staffing responsibilities are provided by a combination of career fire fighter/emts and volunteers during the day, Monday through Friday. Part time fire fighter/emts and volunteers provide staffing on nights and weekends.

The two Fire Inspectors, both fire fighter and emt qualified, are required to respond to fire and emergency medical calls, when needed, during normal working hours.

Emergency Medical System Activity

The following data shows the level of activity for Basic Life Support emergency medical service in the Town. Five of the fire departments have one on line ambulance each. The Cohanzie Fire Company houses the reserve ambulance.

Ambulance Response* - All Calls 1999

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
# Log Calls	136	138	128	150	149	149	181	134	142	143	147	143	1,740
W100	67	58	51	65	60	65	72	59	67	66	72	56	758
W200	14	18	12	11	11	11	17	16	10	13	13	18	164
W300	21	22	22	17	26	23	29	13	16	14	16	18	237
W400	13	16	18	19	22	20	19	25	17	20	13	13	215
W500	31	30	31	41	35	33	48	31	39	36	39	40	434
TOTAL	**146**	**144**	**134**	**153**	**154**	**152**	**185**	**144**	**149**	**149**	**153**	**145**	**1,808**

Note: W100 = Company 1, etc. The difference between Log Calls figures and the other figures was explained earlier.

Patients Transported

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
AMB CALLS	112	120	118	133	127	134	151	118	126	124	132	121	1,516
FIRE CALLS	15	27	30	19	27	17	47	24	40	18	18	25	307
TOTAL	**127**	**147**	**148**	**152**	**154**	**151**	**198**	**142**	**166**	**142**	**150**	**146**	**1,823**

Ambulance Response* - All Calls 2000

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
# Log Calls	157	119	135	143	152	144	187	146	147	149	156	161	1,796
W100	64	53	67	56	69	68	72	65	71	75	72	70	802
W200	15	8	10	23	17	14	23	14	15	13	13	16	181
W300	25	16	16	14	19	15	34	25	21	18	20	20	243
W400	7	14	16	25	17	20	33	21	20	17	23	28	241
W500	47	34	28	36	36	29	38	27	28	28	32	37	400
TOTAL	**158**	**125**	**137**	**154**	**158**	**146**	**200**	**152**	**155**	**151**	**160**	**171**	**1,867**

Patients Transported

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
AMB CALLS	138	111	117	131	129	124	158	133	137	134	128	146	1,586
FIRE CALLS	26	17	12	21	16	13	13	16	23	16	22	38	233
TOTAL	**164**	**128**	**129**	**152**	**145**	**137**	**171**	**149**	**160**	**150**	**150**	**184**	**1,819**

* More than 1 ambulance may have responded to a single call due to the lack of a full crew or multiple patients and transports.

Waterford Ambulance Service, Inc.

In August of 1999 the Waterford Ambulance Service, Inc. signed an agreement between the Waterford Ambulance Service, Inc. and the Board of Fire Commissioners of the Town of Waterford. A copy of the agreement is included in the appendix of this report.

The agreement allowed the Waterford Ambulance Service Inc., a non profit corporation, to provide a billing mechanism for ambulance services in order to "provide a source of revenue not previously available to the Waterford Ambulance Service, Inc.

The Town through the Board of Fire Commissioners still retains the responsibility for insuring the availability of fire protection and emergency medical services for all sectors of the Town.

The primary reason for this change allowed the Waterford Ambulance Service, Inc. to start billing for the ambulance service in order to generate revenue for support of the emergency medical system, thus offsetting some of the funds that have previously been provided by the Town.

The Waterford Ambulance Service, Inc. has contracted with a billing service to collect for emergency medical services that are delivered. The collection rate at this time is estimated to be 70 - 75 percent.

During the first full year of operation the audited financial statement shows that the Waterford Ambulance Service, Inc. had total assets of $317,249. Out of this total the sum of $53,925 is restricted and cannot be spent. The balance is $263,324 of unrestricted net assets with $250,000 designated for capital purchases. They have already purchased one new ambulance using their own funds. Town Funds were not expended for this capital purchase. The Ambulance Service has also given the Town $39,228.00 to supplement the Town funds for the Vehicle Exhaust System for the five fire stations. In addition to that, the Ambulance Service is currently paying $20.00 per call to the volunteers who make up

the ambulance crews, (a maximum of $40.00 per call). This is being done in an effort to avoid having to hire additional career personnel.

Vehicles

Currently the Town has five on line ambulances and one reserve. Companies 1 through 5 each have one ambulance, and company 5 houses the spare ambulance.

W-100 Jordan

W-200 Quaker Hill

W-300 Goshen

W-400 Oswegatchie

W-500 Cohanzie

W-600

Spare at Cohanzie

The following table shows the listing of ambulances, purchase price, mileage, engine hours, etc.

Call Sign	Type	Year	Manfacturer	Mileage 4/2001	Engine Hours	Purchase Price
W-100	Ambulance	1998	Ford/Excellence	18,670	917	$125,499
W-200	Ambulance	1995	Ford/Horton	16,429		$81,035
W-300	Ambulance	1991	Ford/MedTec	29,504	2,711	$83,957
W-400	Ambulance	2001	Ford/Blue Star	1,638		$118,000
W-500	Ambulance	1993	Ford/MedTec	39,872	3,155	$71,331
W-600	Ambulance	1989	Ford/BlueStar	57,509	668	$79,732

Staffing

Currently there are 82 State of Connecticut Emergency Medical Technicians in the Town. All of these Emergency Medical Technicians may qualify for a tax abatement program in the Town. All Emergency Medical Technicians can function in all districts of the Town.

As of January 1, 2001, qualified Emergency Medical Technicians are eligible for a $20.00 stipend per call. This payment is made by the Ambulance Service with the agreement of the Board of Fire Commission. A report is submitted to the Board and the information is put into the fire reporting system. The Waterford Ambulance Service, Inc. as of January 1, 2001 has started a reimbursement plan of $20.00 per EMT, per call, for two EMT's that transport a patient to a hospital. Even though this plan has been in place a short time the response by volunteer EMT's has improved. The Waterford Ambulance Service, Inc. transported over 1850 patients to local hospitals during the year 2000.

In addition all of the career fire and rescue personnel in the Town including those assigned to the Fire Marshals Office are qualified as Emergency Medical Technicians.

The report of the Staffing Committee shows the staffing provided by career and part time personnel.

All career personnel work daytime hours Monday through Friday only. The "part time" and volunteers cover all other hours. The "part time" personnel are those that meet the Town's requirements for being "qualified" and are compensated at an hourly rate for a specified tour of duty.

There still seems to be an ambulance staffing problem between the hours of 0600 and 0800, and 1700 1900 when may volunteers are on their way to and from work.

Recommendations

1. All ambulances should be standardized by type with compartments in the same location and equipment in the same location so that any Emergency Medical Technician in the Town system can operate from any of the six ambulances.

2. Maintain an ambulance in each of the five fire stations.

3. Staff at least one ambulance in the Town twenty four hours per day, seven days per week.

4. The replacement of ambulances is based on use, mileage, and overall condition, and should have a replacement schedule similar to the fire apparatus replacement program.

5. Historically the Town has owned all of the ambulances in the Town. The Waterford Ambulance Service will be purchasing replacement ambulances with the revenue received from the billing for services. The Town still provides career rescue personnel and will continue to do so. Therefore the Town has a vested interest and all new ambulances should be owned jointly by the Waterford Ambulance Service, Inc. and the Town of Waterford.

FIRE APPARATUS COMMITTEE REPORT

Fire apparatus such as pumpers, aerials, tower ladders, heavy rescue vehicles, etc are multi function vehicles that deliver fire and rescue personnel to the incident scene, carry tools, equipment, hose and water, and then continue to function in some manner during the incident.

The maintenance of a modern, reliable, well maintained fleet of emergency vehicles is fundamental to operation of all fire departments and the delivery of fire and rescue services. It is therefore important that both a well founded maintenance and replacement program be implemented.

The Town of Waterford has five Fire Departments operating out of five fire stations that are located throughout the Town.

The current fleet of fire apparatus is shown in the table below. This table shows the entire fleet including boats.

Waterford Fire Apparatus & Vehicles

Call Sign	Type	Year	Manfacturer	Pump Size gpm	Tank Size gallons	Mileage 4/2001	Engine Hours	Purchase Price	Replacement Year
Waterford Fire Engine Company #1									
W-11	Pumper	1993	R.D. Murray	1500	750	23,858	2,356	$275,220	2008
W-12	Pumper	1984	Seagrave	1500	500	42,179	2,175	$169,000	2000
W-13	Attack Pumper	1990	E-One	300	260	20,068		$55,0000	
W-15	Aerial/Pumper	1996	Pierce	1500	300	12,559	1,610	$499,354	2016
W-16	Utility-Pickup	1991	Ford			70,186		$25,000	
Quaker Hill Fire Company #2									
W-21	Pumper	1987	Pierce	1500	750	19,197	1,972	$177,000	2002
W-23	Brush	1982	Chevrolet	150	200	7,715		$35,000	
W-25	Aerial/Pumper	1993	Pierce/Snorkel	1500	500	14,264		$372,000	2008
W-26	Utility/Suburban	1989	Chevrolet			47,768		$19,700	
W-92	Rescue Boat	1972	17 ft Maco				180		
Goshen Fire Department #3									
W-31	Pumper	1991	Salisbury	1500	500	22,171	1,936	$250,150	2005
W-32	Pumper	1998	R.D. Murray	1500	500	3,746	487	$307,935	2014
W-33	Mini-pumper	1989	GMC	750	300	17,502	1,531	$146,282	2004
W-36	Utility/Suburban	1990	Chevy			32,229		$26,946	
W-93	Rescue Boat	1985	18 ft Boston Whaler				42		
Oswegatchie Fire Department #4									
W-41	Pumper	1998	R.D. Murray	1500	850	3,968	294	$279,030	2014
W-42	Pumper	1989	Salisbury	1500	750	27,170	2,490	$234,512	2004
W-43	Brush Truck	1991	Chevrolet	100	125	8,611		$19,700	
W-94	Service Truck	1988	Salisbury			14,152	2,324	$275,220	2008
W-46	Utility/Suburban	1990	Chevrolet			34,202	1,293	$24,228	
Cohanzie Fire Company #5									
W-51	Pumper	1986	Pierce	1500	750	32,064	3,772	$180,000	2001
W-52	Pumper	1996	Pierce	1500	1000	15,800	1,512	$280,055	2011
W-53	Brush Truck	1986	Chevrolet	120	250	15,604		$50,000	
W-55	Tower Ladder	1983	Pierce/LTI	1500		22,613		$400,000	2003
W-56	Utility/Pickup	1998	Ford			18,271		$26,703	
W-57	Heavy Rescue	1987	Super-Vac			23,261	3,045	$220,000	2009
Fire Marshal's Office Fleet									
						5/2001			
Car 55		1989	Dodge Charger			63,075	Purchased new		
Car 85		1994	Chevrolet Sedan			83,483	Former police car		
Car 105		1996	Ford Sedan			112,467	Former police car		
Car 115		1996	Ford Sedan			86,182	Former police car		
Car 65		1992	Chevrolet Sedan			81,736	Purchased new		

Summary of Apparatus

The following is list of the number of apparatus by type.

9 Pumpers

W-11 Jordan

W-12 Jordan

W-21 Quaker Hill

W-31 Goshen

W-32 Goshen

W-41 Oswegatchie

W-42 Oswegatchie

W-51 Cohanzie

W-52 Cohanzie

1 Combination Aerial Pumper (Squirt)

W-25

Quaker Hill

1 Aerial Ladder with pump

W-15

Jordan

1 Elevating Platform with pump

W-55

Cohanzie

2 Mini Pumpers

W-13 Jordan

W-33 Goshen

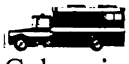
3 Brush Trucks

W-23 Quaker Hill

W-43 Oswegatchie

W-53 Cohanzie

1 Heavy Rescue

W-57 

Cohanzie

1 Service/Command
W-94

Oswegatchie

Each of the five fire departments has a minimum of two pieces of fire apparatus that are capable of pumping 1,500 gallons per minute. Quaker Hill Fire Company has one pumper and one combination aerial/pumper. Cohanzie Fire Company has two pumpers and a tower ladder that is capable of pumping 1,500 gallons per minute. Jordan has two pumpers and a 100' aerial pumper capable of pumping 1,500 gallons per minute

Fire Apparatus Replacement Schedule

The Waterford Fire Commission has developed a replacement schedule for fire apparatus in the Town of Waterford. Replacement is based on the number of years of service by type of apparatus. The following table shows the current replacement schedule by type of apparatus.

TYPE OF APPARATUS	YEARS BEFORE REPLACEMENT
PUMPERS	15 YEARS
AERIALS	20 YEARS
SERVICE UNIT	20 YEARS
HEAVY RESCUE	20 YEARS

This replacement schedule has been accepted by the Fire Commission and has been in use for a number of years.

Generally speaking most replacement programs that use age or years as a criteria are based on the Insurance Services Office Grading Schedule which at some point recommended the replacement of apparatus based on age.

Some of the alternatives to the replacement of fire apparatus based on age are discussed below.

If a 15 or 20 year replacement cycle is used there may be cases where the availability of repair parts may become an issue. This may be more acute in custom apparatus that uses parts from a number of manufacturers. It may be difficult to find major components in the chassis and drive train if they become broken and need to be replaced. In this case the apparatus has outlived the repair parts supply chain.

Most likely pumps will not be a problem since as a rule most pumps do not wear out from over use. However if pumps need to be repaired it is likely that repair parts are available.

Another aspect that should be considered other than age are the advances in technology over a 15 to 20 year span. Changes in technology will have been developed 10 years into the age of the apparatus and it may be beneficial to replace the apparatus and take advantage of the new technology. Of course the decision to replace the apparatus based on new technology will have to be made on a cost/benefit basis or a technology/benefit basis.

An additional issue that should be examined is the evolution of the standards by which apparatus is constructed. This issue is somewhat related to the technology issue because new standards incorporate current technology. Much of the new technology is driven either by its availability or in the interest of safety of fire and rescue personnel. And example of this was the development of NFPA 1500, Standard for Fire Department

Safety Programs which emphasized fire fighter safety and required that all personnel must ride in an enclosed space and have a seat belt. An example might be an older piece of aerial apparatus that was built to one standard and designed for a specific tip load. Subsequent standards have changed the requirement for an increased tip load for aerial devices.

Still another consideration should be the state of the apparatus when examined or tested annually. When tested by a testing company and found to have serious defects the decision will have to be made on the cost/benefit of making the repairs or to replace the apparatus.

An important consideration should be a review of maintenance records over the life of the apparatus. If maintenance records over the life of the apparatus indicate a history of expensive repairs, and it appears that these expenses will continue then consideration should be given to replacing the apparatus. Again this is a cost/benefit decision.

Another important consideration is that the apparatus at some point in its useful life may not be functional. It may have been purchased at a time when it was thought to be essential to the department, but over time conditions or the risk has changed to that a different type of apparatus would be more functional.

An example of this might the tower ladder, which was purchased for a specific purpose, but during years since purchase it has not been used as anticipated or it is too large to easily be maneuvered on the jurisdictions streets and roads. Perhaps a lighter more maneuverable piece of apparatus would be more useful and productive. The would fall into the category of function/benefit.

Another way to determine useful life of apparatus is to examine the actual use. In some jurisdictions the actual use of the apparatus will dictate when replacement is needed. A large number of road miles or engine hours in a short period of time may dictate replacement within 5, 8 or 10 years.

No one method may determine when apparatus is to be replaced, but a combination of those discussed above, plus others. The final determination will be made based on how well the individual items are documented so that an informed decision can be made on whether to keep the apparatus or replace it. All information on each piece of apparatus must be kept up to date and monitored so that a decision can be made when the unit starts to fail, incur excessive cost, fail to meet safety standards, or is non functional in the system. Initiation of the replacement process must be as soon as possible because of the lead time required for the manufacture of apparatus.

Fire Apparatus Maintenance

The maintenance of all fire apparatus is the responsibility of the individual fire department. Each department receives funding from the Town for normal maintenance consisting of oil changes and lubrication and minor repairs. Included in the maintenance is the testing of apparatus. Each major piece of apparatus such as the pumpers and those vehicles equipped with aerial devices must be tested each year both for performance and safety. The funds for testing are provided to each department by the Town.

Major repairs of an emergency nature are funded by the Town subject to the approval of the Fire Commission.

Discussion

There are several items that need to be discussed about fire apparatus. This discussion should address some of the questions that are asked about the apparatus in the Town. In fact, these same questions are asked in many towns with a similar configuration of fire departments.

Number of Apparatus

Does the Town of Waterford have too much fire apparatus? Or why does the Town of Waterford have too much fire apparatus? Or could the Town function with less fire apparatus?

The fire departments in the Town of Waterford are charged with the responsibility of delivering fire and rescue services. In order to deliver these services the fire departments in the Town have established response criteria for fire apparatus based on experience, risk, and recognized good practice. Most fire departments will respond to a structure fire with a minimum of two pumpers and an aerial device. Many communities distinguish between a structure fire in a single family dwelling and a multi family or commercial structure. The following shows the standard minimum response in the Town of Waterford for typical emergency incidents:

- Single Family Dwelling
  - 3 Pumpers
  - 1 Ladder
  - 1 Ambulance
- Multi-Family Dwelling - Apartment Buildings
  - 4 Pumpers
  - 1 Ladder
  - 1 Ambulance

- Commercial Structure - Shopping Mall, Supermarket, Etc.
    - 4 Pumpers
    - 1 Ladder
    - 1 Ambulance
- Automobile Accident with injuries
    - 1 Engine
    - 1 Ambulance - or as many as incident dictates
    - 1 Heavy Rescue - depending upon number and type of vehicles

The answer to the question about the number of apparatus in the Town is that the number and type are just about right for the size of the Town and the location of the fire stations. Additional information about the number and type of fire apparatus can be found in the recommendations at the end of this section.

Standardized Pumpers

A common question that is often asked is "Should the Fire Commission establish a standard specification for pumpers in order to control costs?"

This is a good question and should be answered since is seems to be a recurring question., and can best be answered with a pro and con format since there are no right or wrong answers.

Pro

1. The standard specification will assure that all pumpers will be the same in the Town.
2. The standard specification may be a way to limit the cost of pumpers.

Con

1. Each fire department has specific needs and should be able to design a pumper that meets their needs.
2. What is standard today may not be standard five or ten years from now.

Tower Ladder

Another question that has been asked is "should the tower ladder be replaced with a similar piece of equipment or should it be replaced with another type of apparatus such as an aerial ladder?" Does the replacement need to have a pump, hose, and water tank? The answer to this question is addressed in the recommendations.

Recommendations

1. Re-evaluate all the specialized equipment that requires additional training, maintenance and insurance. Example: Haz Mat, water rescue, etc.

2. Waterford should have a standard fire department maintenance program and have one person in charge of all fire apparatus maintenance in town with funding in the Fire Commission budget.

3. Change the present replacement schedule to the following:

    a. At age 15 years and every year thereafter, the Fire Commission will review all Class A pumpers. This review would consider among other things, the repair record, general overall condition, pump test results and availability of repair parts. Replace if necessary.

    b. At age 20 years and every year thereafter, the Fire Commission will review all aerial apparatus (add ladder test results to the above).

    c. At age 20 years and every year thereafter, the Fire Commission will review all specialized equipment such as the heavy rescue, the service unit and the tanker if purchased. This review would include the repair record and general overall condition as well as the condition of any other built-in equipment such as pumps, (both water and hydraulic).

    d. Replace utility vehicles as needed based on condition and costs.

    e. Replace brush units based on call volume, geographic location and district terrain.

f. Replace Fire Marshal Office vehicles with new vehicles instead of former police cruisers. If the former police vehicles are not suitable for emergency response by the police department they should not be used by Fire Marshal Office personnel. All personnel in the Fire Marshal's Office are tasked to respond to emergencies. The replacement schedule should be similar to the police department replacement schedule.

g. Revisit incident response criteria to limit wear and tear on apparatus.

The 15 and 20 year replacement schedule follows nationally accepted practice by the fire service. Note that the recommended replacement schedule states that "At age 15/20 years and every year thereafter, automatically review....." It does not state "replace" but "review" In some cases apparatus may be continued in service beyond the 15/20 year review cycle if it is in sound, and safe condition. On the opposite side it should be understood that the Fire Commission may review of any of the fire apparatus at an earlier age if an unusual condition exists such as an accident or an excessive repair history, and replacement may be recommended before the 15/20 year time.

The following recommendations are made with regard to the elimination or replacement of major apparatus.

1. Do not replace W-12, 1984 Seagrave pumper scheduled for replacement in 2000.
2. Retain the current W-31, 1991 Salisbury pumper as reserve unit. Scheduled for replacement in 2005.
3. Replace W-55, 1983 Pierce Tower/Ladder with a quint (pump, aerial device, hose bed, water tank, ground ladders). Scheduled for replacement in 2003.
4. Replace W-51, 1986 Pierce pumper with a quint. Scheduled for replacement in 2001.

The following page contains a proposed fire apparatus replacement schedule for the years 2001 through 2036.

Proposed fire apparatus replacement schedule 2001-2036

Replacement Year	Call Sign	Type	Year	Manufacturer	Replace With
2001	W-55	Tower Ladder	1983	Pierce/LTI	85' Quint
2002	W-21	Pumper	1987	Pierce	Pumper
2004	W-42	Pumper	1989	Salisbury	2,500 gal Tanker
2004	W-33	Mini-pumper	1989	GMC	3/4 or 1 ton 4x4
2005	W-31	Pumper	1991	Salisbury	Eliminate?
2007	W-25	Aerial/Pumper	1993	Pierce/Snorkel	
2008	W-94	Service Truck	1988	Salisbury	
2008	W-11	Pumper	1993	R.D. Murray	
2009	W-57	Heavy Rescue	1987	Super-Vac	
2011	W-52	Pumper	1996	Pierce	
2013	W-32	Pumper	1998	R.D. Murray	
2014	W-41	Pumper	1998	R.D. Murray	
2016	W-15	Aerial/Pumper	1996	Pierce	100' Quint
2017	W-31	Pumper			Eliminate?
2020	W-32	Pumper			
2021	W-55				
2022	W-25				
2023	W-11				
2024	W-42	Tanker			
2026	W-52	Pumper			
2028	W-94				
2028	W-32				
2029	W-41				
2029	W-47				
2036	W-15				
			1989	Dodge	
			1994	Chevrolet Sedan	
			1996	Ford Sedan	
			1996	Ford Sedan	
			1992	Chevrolet Sedan	

The following pumpers should be eliminated as they come due for replacement.

W-12 1984 Seagrave Pumper

W-51 1986 Pierce Pumper

Option: Replace W-33, 1989 GMC Mini-Pumper, with a similar unit when necessary, and eliminate W-31, 1991 Salisbury Pumper, when due for replacement in 2005. If this option is selected no capital funding would be necessary in 2005 and 2020.

W-13 1990 E-One Attack Pumper to be replaced with a 3/4 or 1 ton 4X4 with Scat unit.

The net result including the option of not replacing W-31 would be:

If W-31, 1991 Salisbury Pumper, is not replaced the Town will have the following fleet of apparatus.

Number	Type
5	Pumpers
2	Aerials/Quints
3	Brush Units
1	Telesquirt/Pumper
1	Heavy Rescue
1	Service Command
1	Tanker
5	Utility Vehicles
1	Reserve Pumper

DISTRIBUTION OF FIRE AND AMBULANCE SERVICES COMMITTEE REPORT

This is the report of the distribution of Fire and Ambulance Services Committee, which is charged with the following responsibilities:

- Determine if the current locations of fire station are the best locations for the delivery of fire and rescue services.
- Determine if additional fire stations are required.
- Examine the coverage provided by using various response/travel times.
- Examine the allocation of resources to determine their optimum location for the delivery of fire and emergency medical service.

Introduction

As part of the original consulting agreement Firescope, Inc. agreed to conduct a computer analysis to the street and roadway network of the Town of Waterford for the purpose of determining if the locations of the present fire stations were providing the best coverage for the Town.

Study Method

Firescope, Inc. uses a geo-based computer program that calculates and displays the street network of the area under study. The computer output displays the actual street network of the area under study with the various aspects of the study shown in color. The computer program is an integrated program that accurately models an emergency vehicle response over a street/highway network using actual speeds and distances. The actual speeds are based on fire department input and historical response data.

Unlike grid and concentric circle analysis, the computer program simulates the real road network of the area being analyzed. A high degree of accuracy is insured by using actual travel distances, vehicle speeds, factoring time delays for roadway conditions (congestion, turning radius, weather, hills, etc.) accounting for one way or unusable roadways and implementing user defined risk factors.

The results are shown in a series of color maps of the street/roadway network that are easy to comprehend which show the response areas for each station and the overlap between stations.

The street network that is used as a basis for the study is taken from maps and data that are produced by the U.S. Census Bureau. These are actual scaled maps that have data attached to them. Each street segment is assigned a travel speed. The speeds modeled by the map will be compared with actual travel times to determine the accuracy of the network that is used for the study.

Firescope, Inc. obtained a base map for the Town of Waterford and then calibrated it to reflect actual travel times.

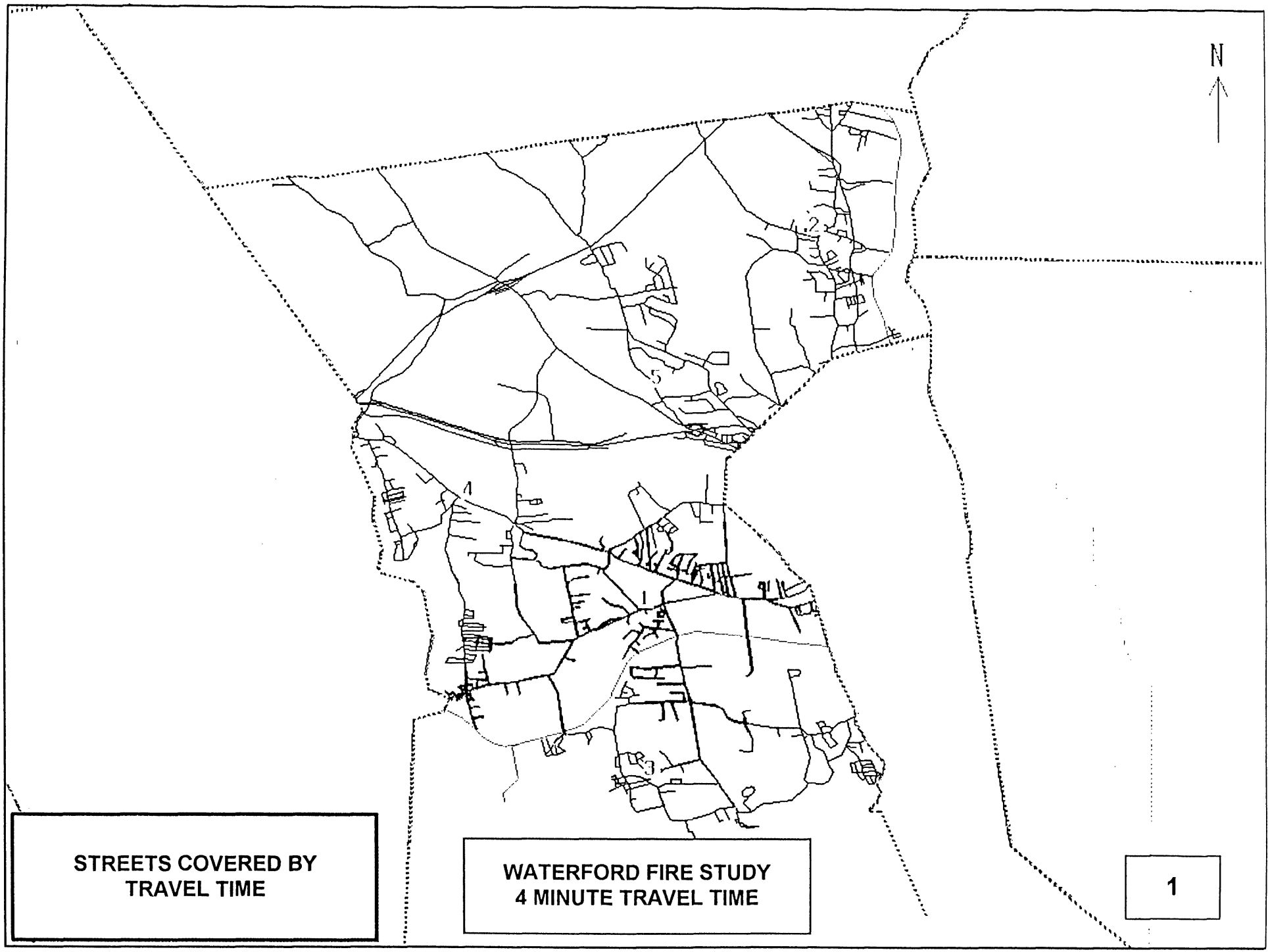
Following the calibration a series of color maps were produced to show the coverage provided by each of the five fire stations for a specific travel time increment.

Firescope, Inc. produced a series of 30 maps for review by the Committee. The following is a list of the maps that were reviewed. Copies of the maps are included with the report. Please note that the maps show travel time only. Travel time is defined as: The time from wheel start to wheel stop.

Map Index

The Map Index shown below refers to the series of 16 maps that follow this page. Maps 1 through 15 show the coverage from each fire station in 4,6 and 8 minute increments of "travel time." Travel time is the amount of time that it takes from wheel start to wheel stop. The density map shows the density of the buildings in the Town of Waterford.

Map Number	Fire Station	Travel Time
1	1	4 minutes
2	1	6 minutes
3	1	8 minutes
4	2	4 minutes
5	2	6 minutes
6	2	8 minutes
7	3	4 minutes
8	3	6 minutes
9	3	8 minutes
10	4	4 minutes
11	4	6 minutes
12	4	8 minutes
13	5	4 minutes
14	5	6 minutes
15	5	8 minutes
16	Density Map	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WATERFORD FIRE STUDY
4 MINUTE TRAVEL TIME
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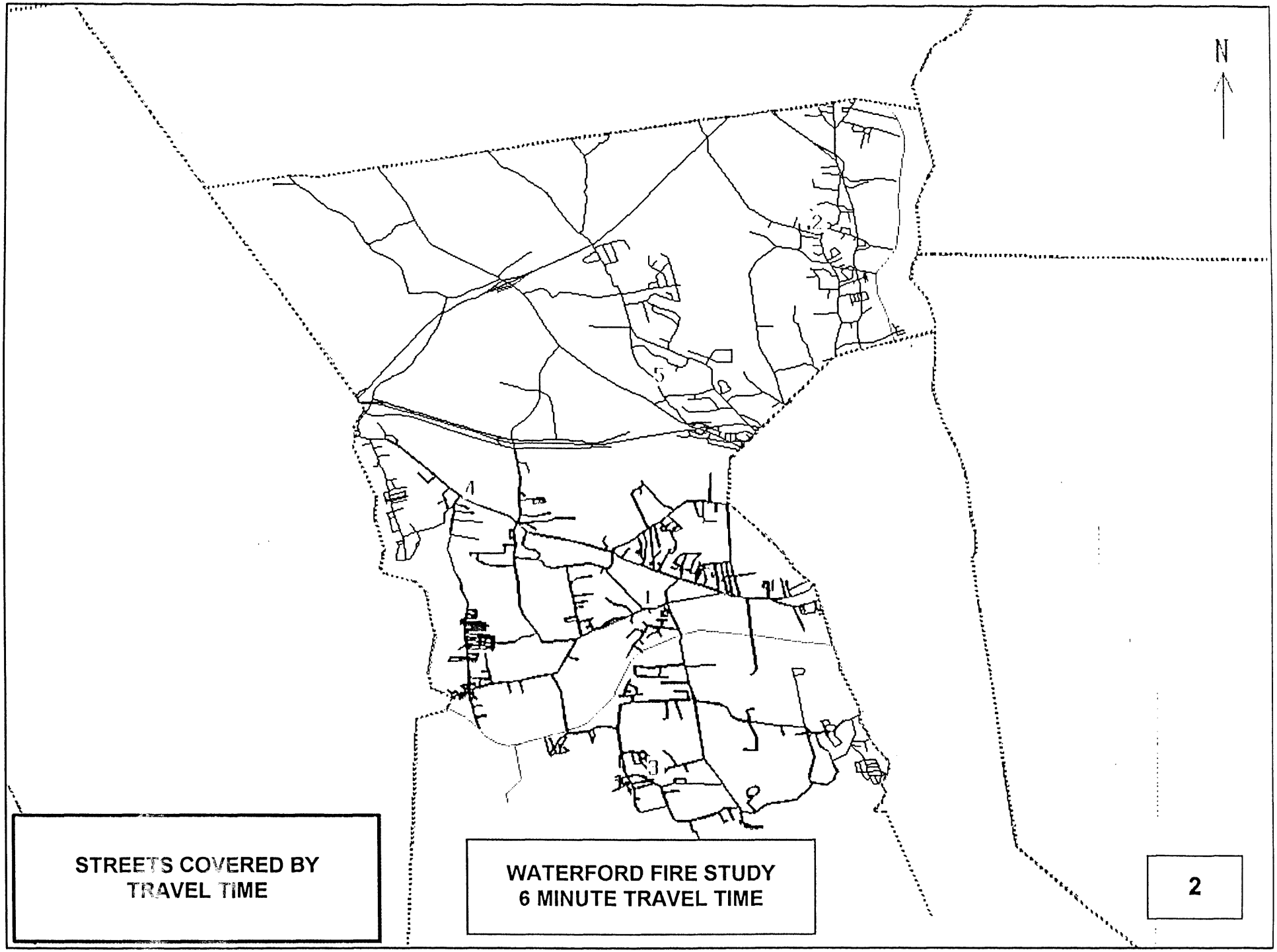
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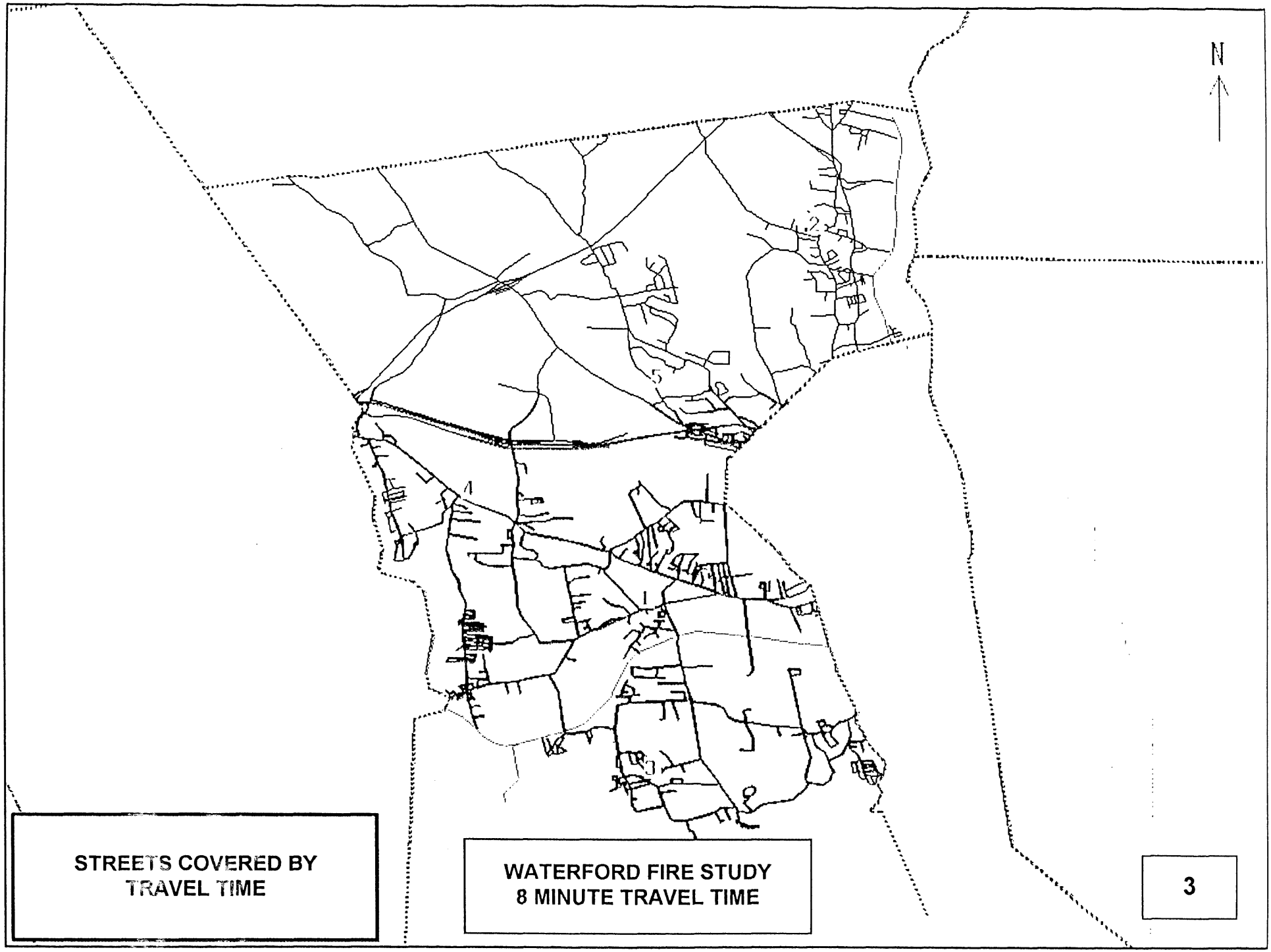
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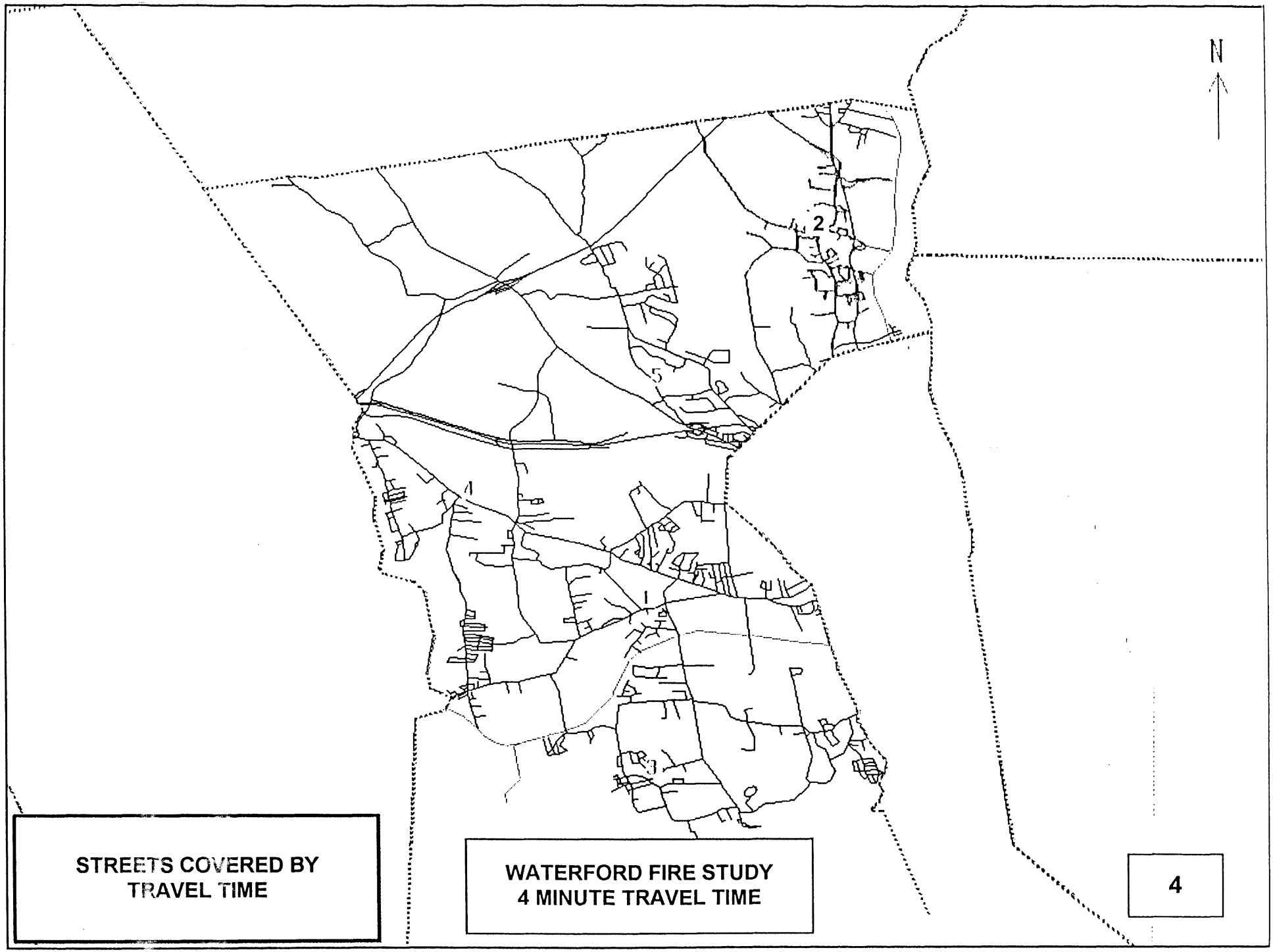
8 MINUTE TRAVEL TIME
3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4 MINUTE TRAVEL TIME
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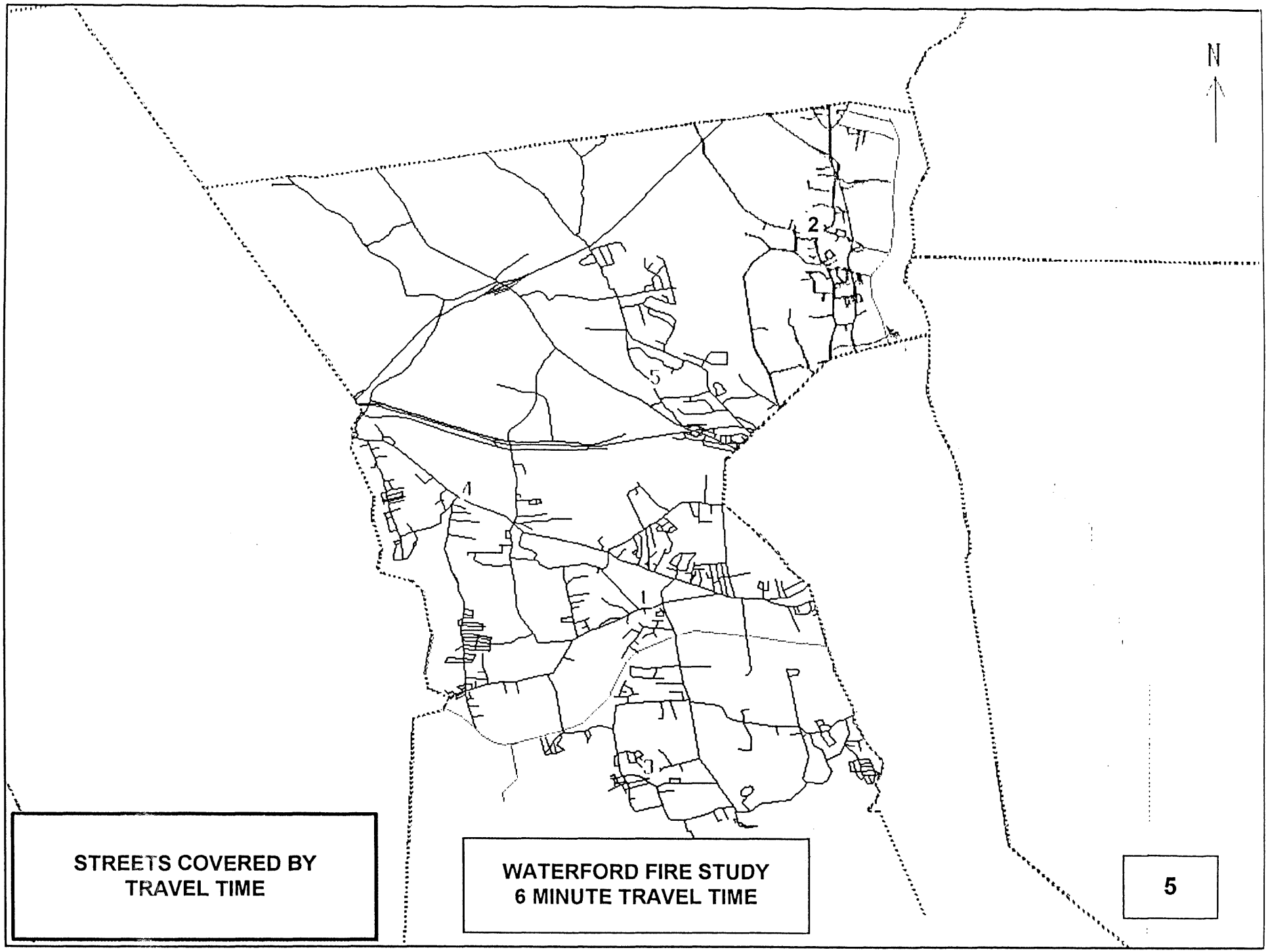
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6 MINUTE TRAVEL TIME
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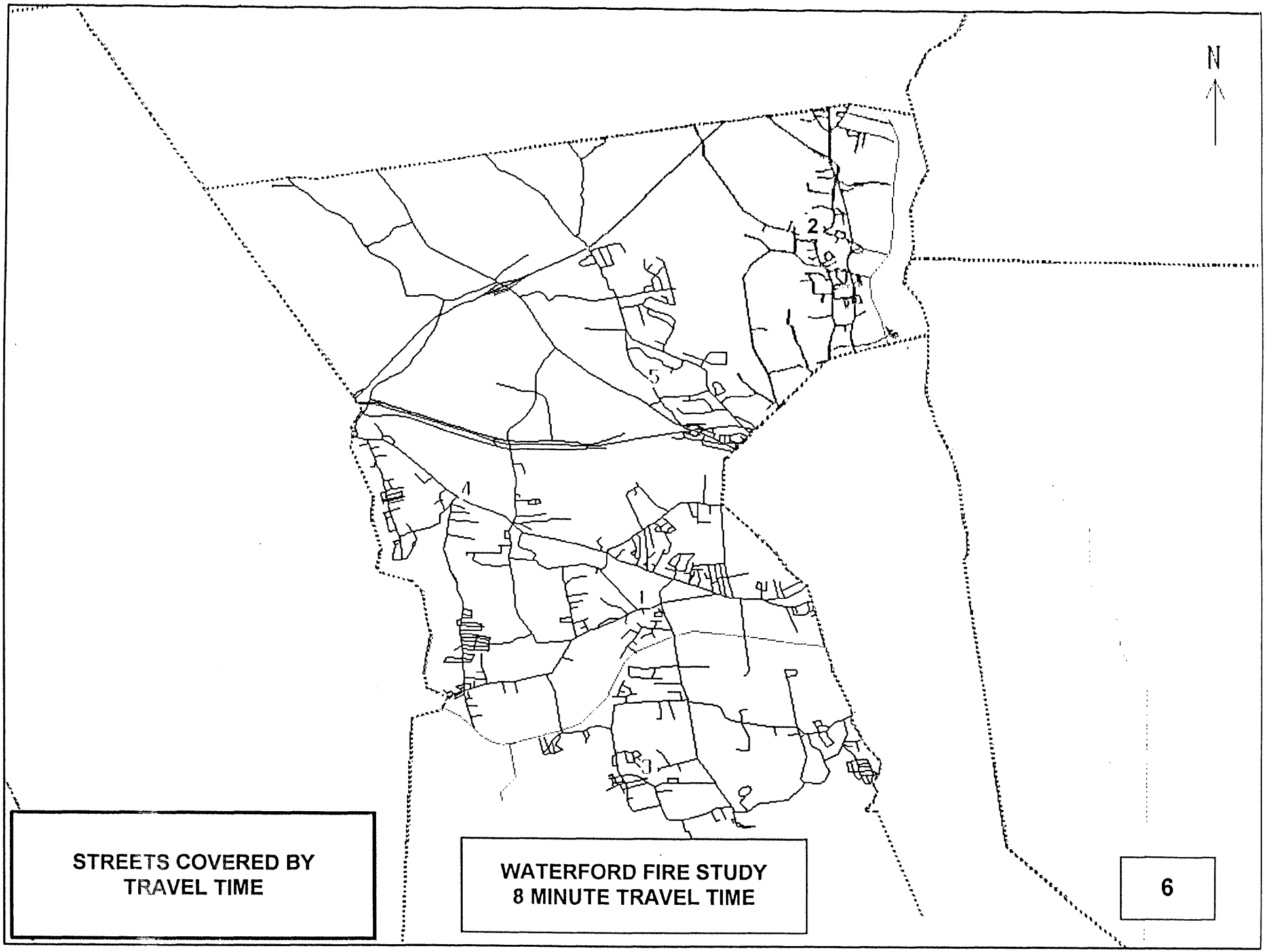
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WATERFORD FIRE STUDY
8 MINUTE TRAVEL TIME
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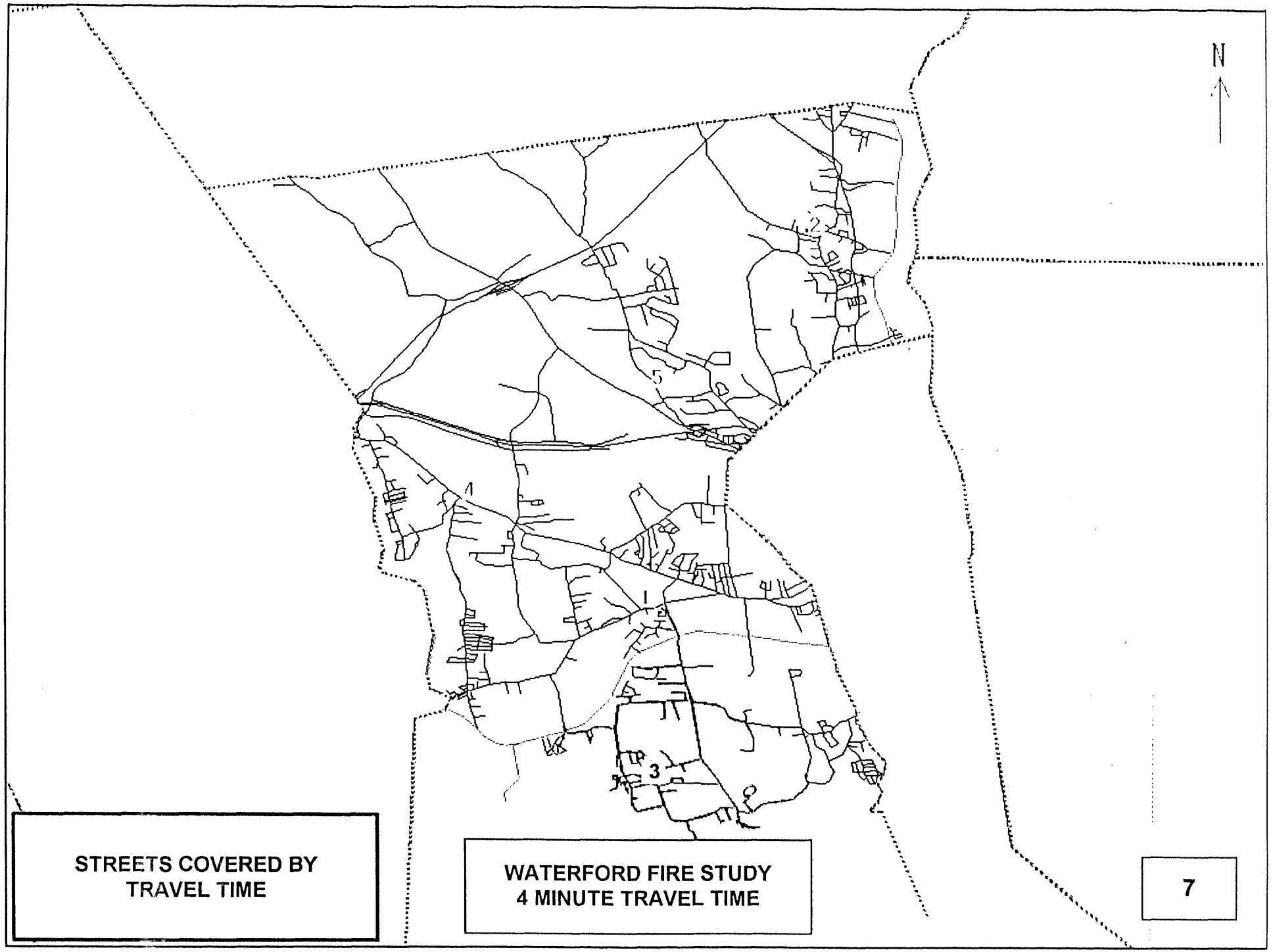
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4 MINUTE TRAVEL TIME
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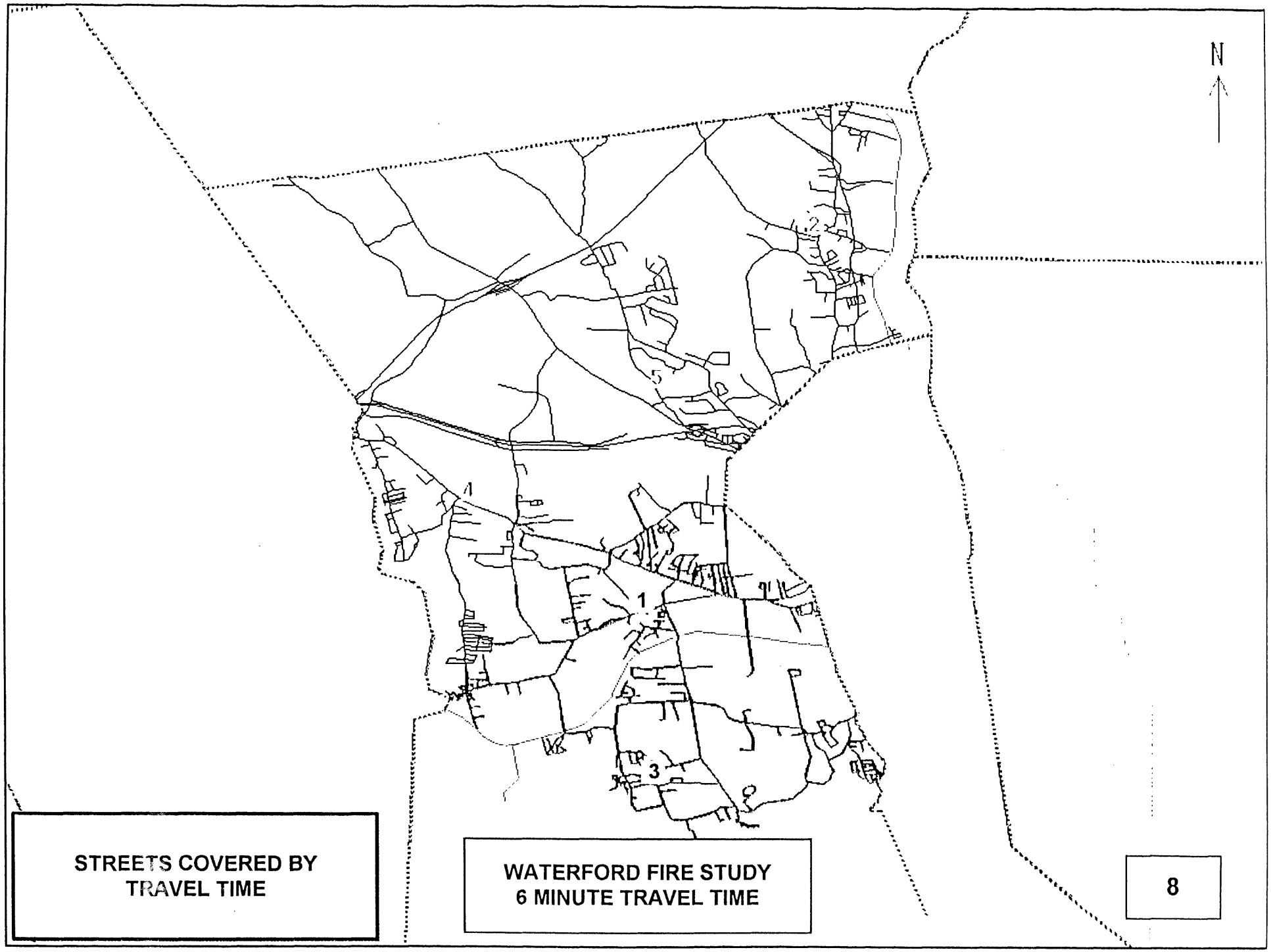
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WATERFORD FIRE STUDY
6 MINUTE TRAVEL TIME
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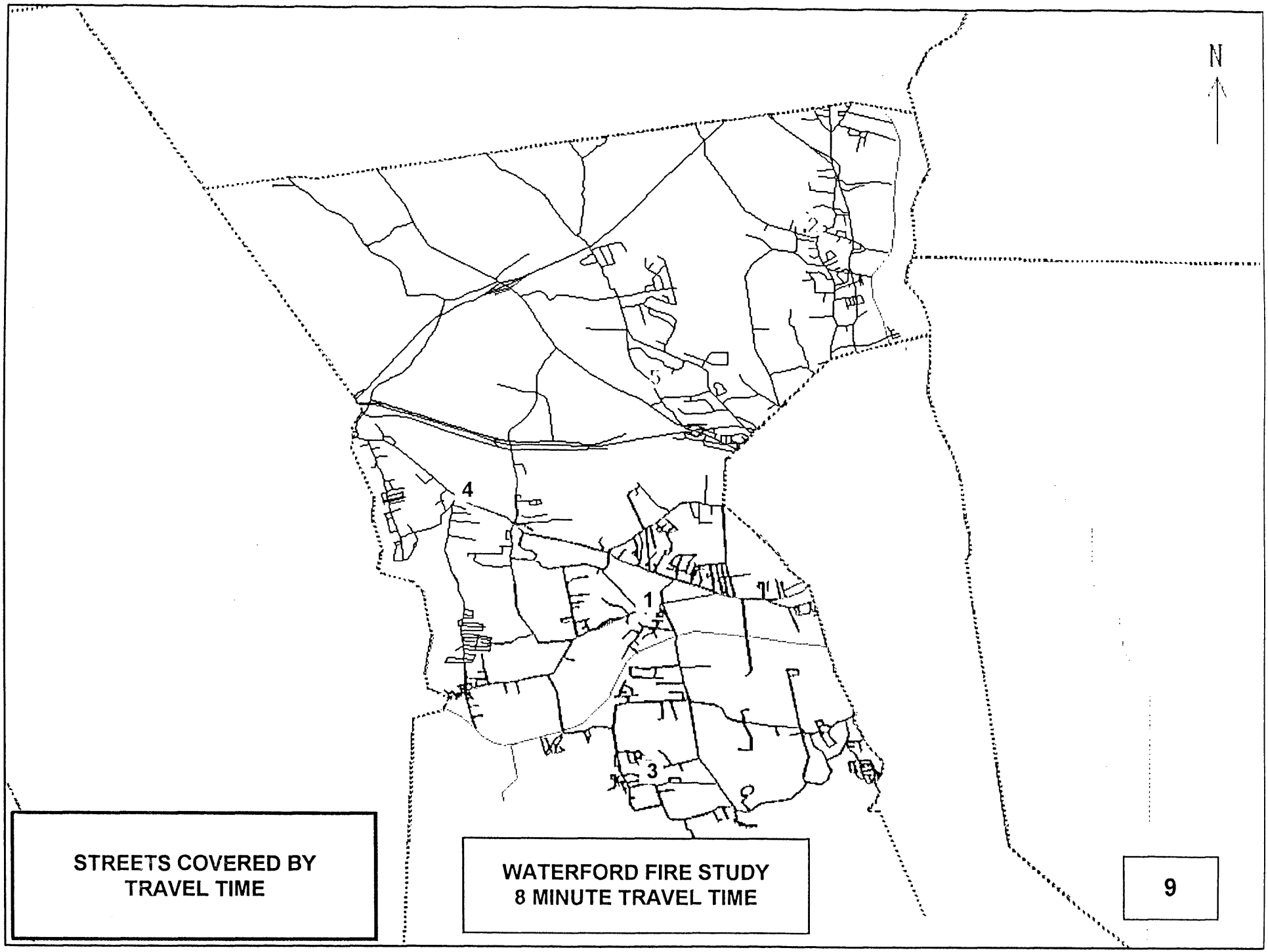
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WATERFORD FIRE STUDY
8 MINUTE TRAVEL TIME
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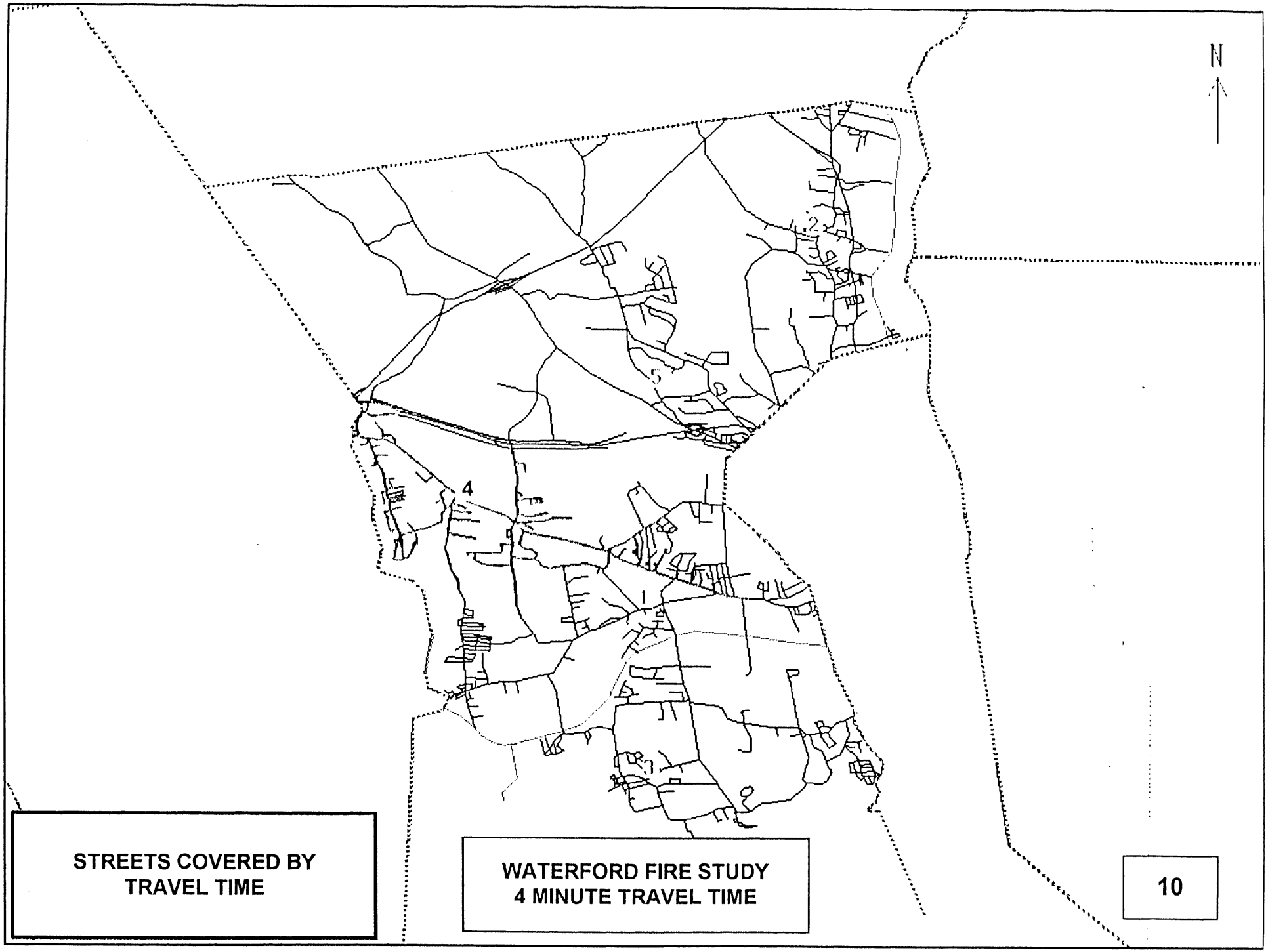

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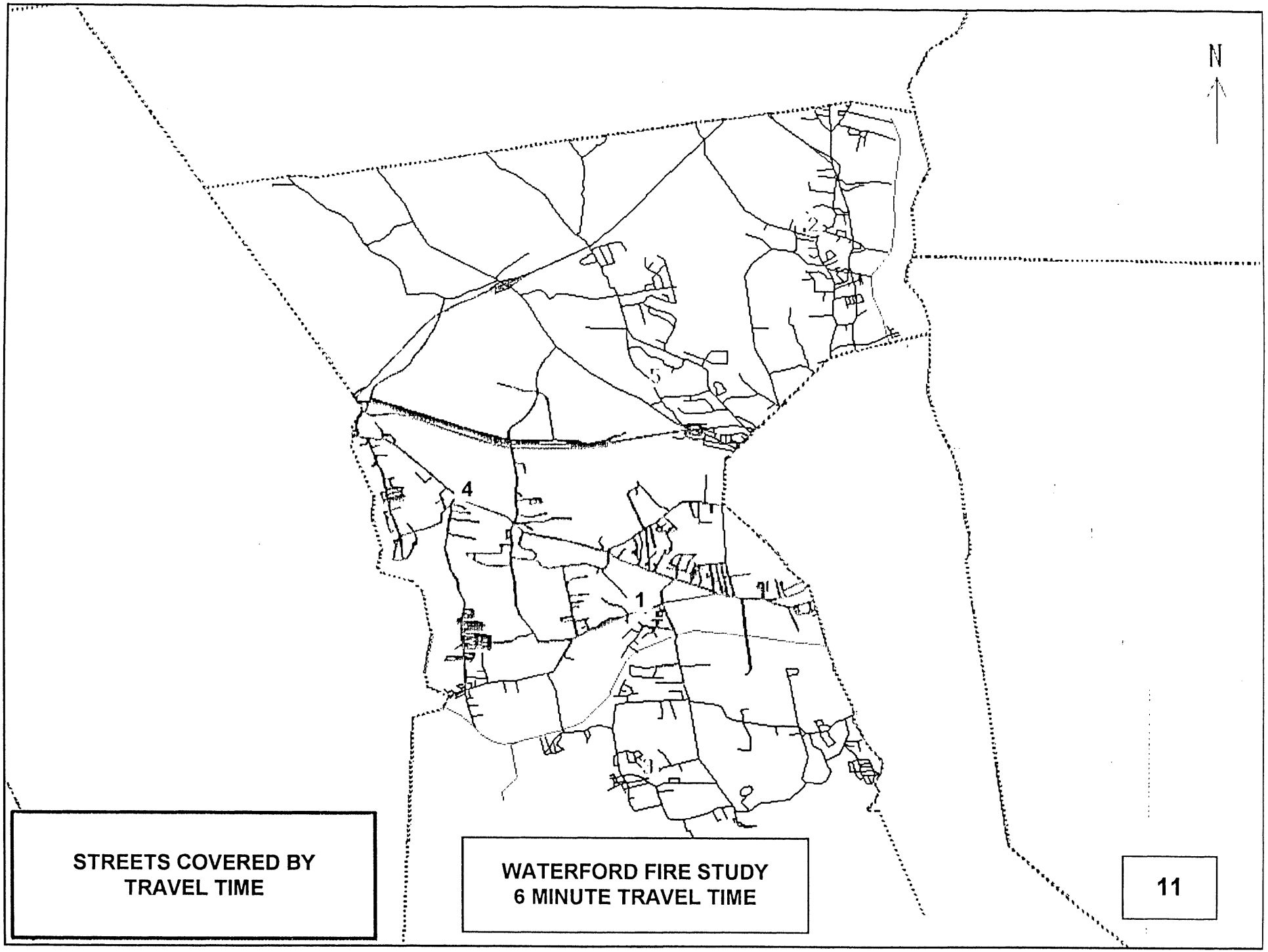
TRAVEL TIME

WATERFORD FIRE STUDY
4 MINUTE TRAVEL TIME

10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6 MINUTE TRAVEL TIME
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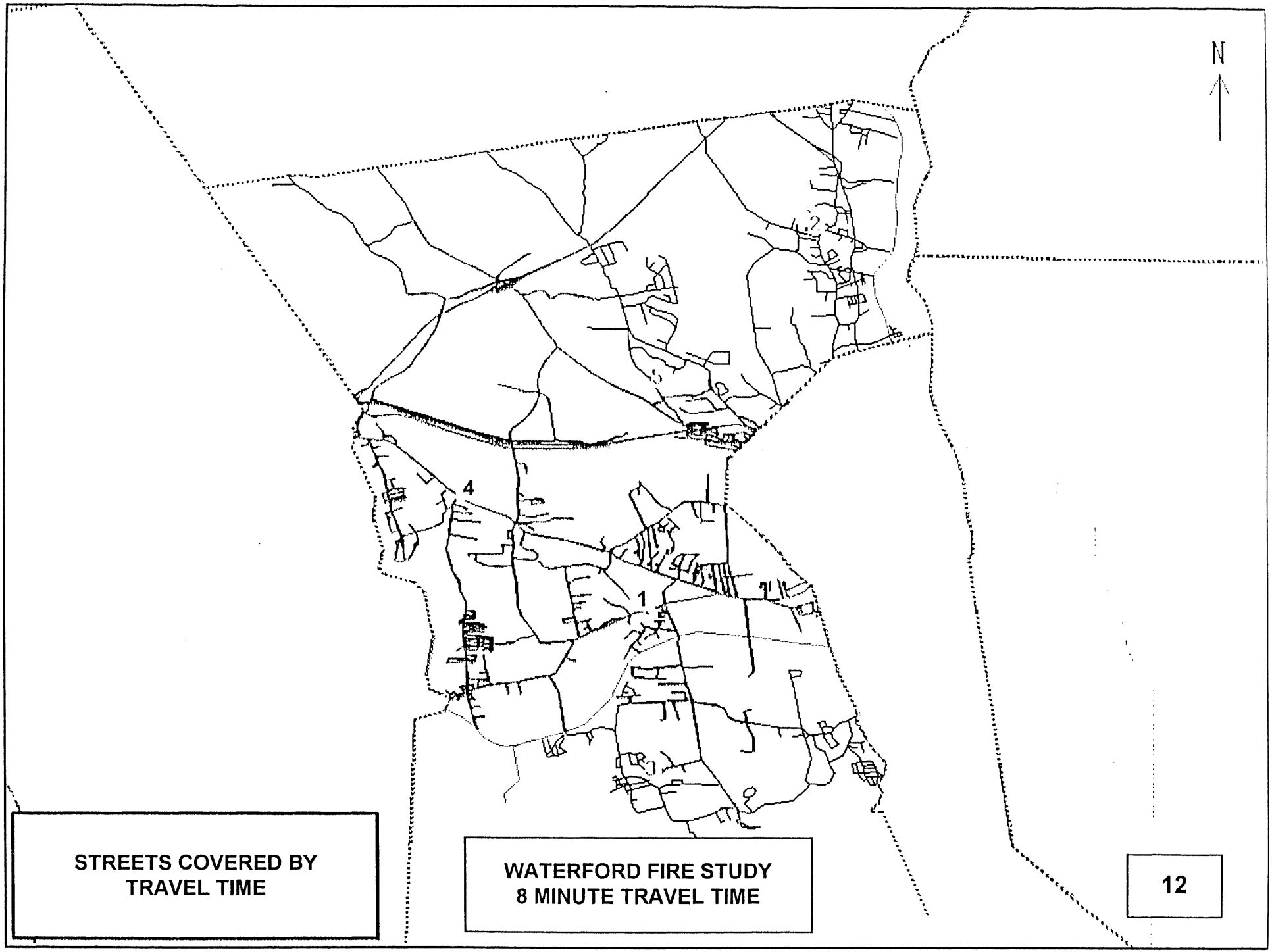
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8 MINUTE TRAVEL TIME
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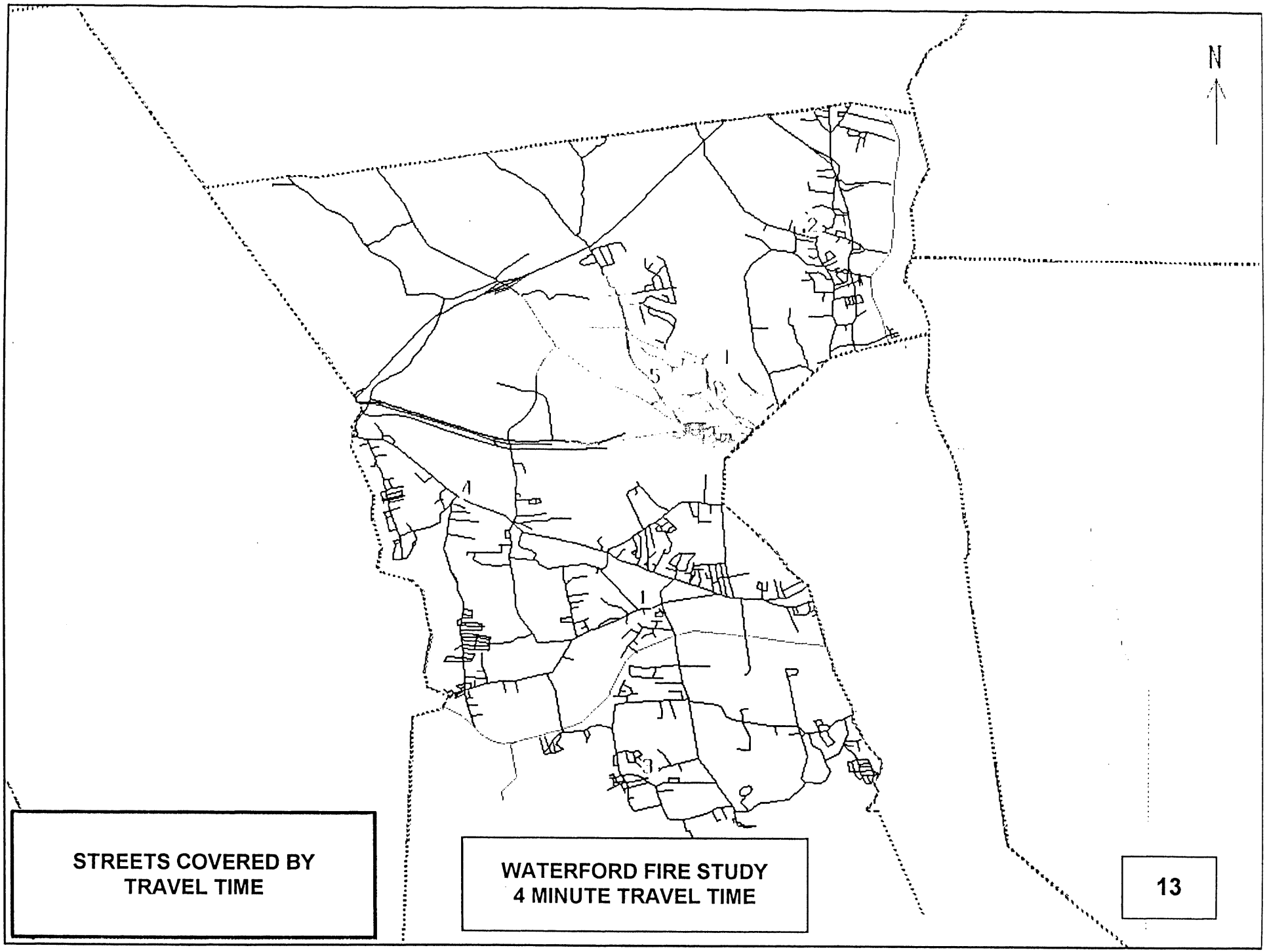
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4 MINUTE TRAVEL TIME
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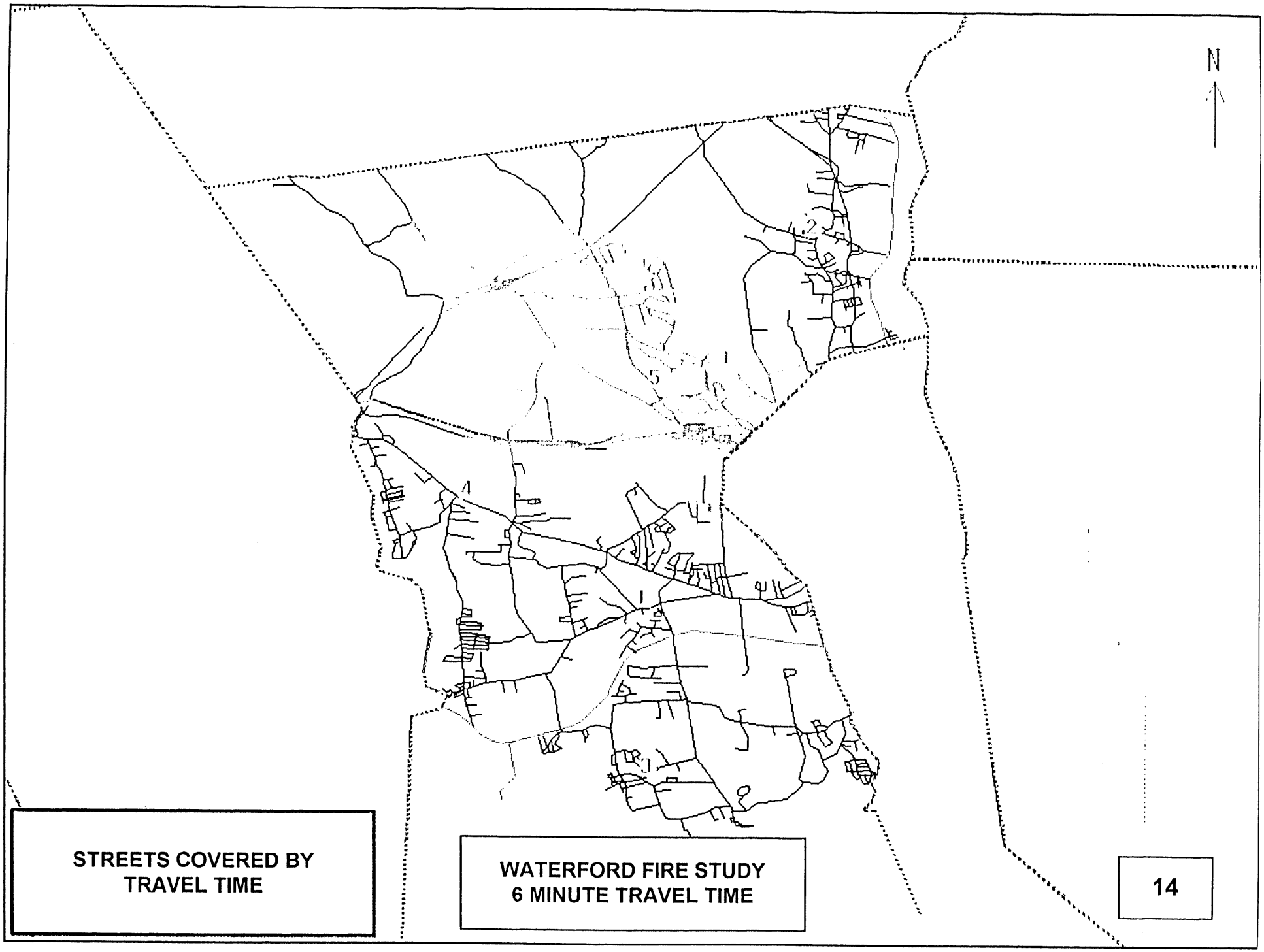
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TRAVEL TIME
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6 MINUTE TRAVEL TIME
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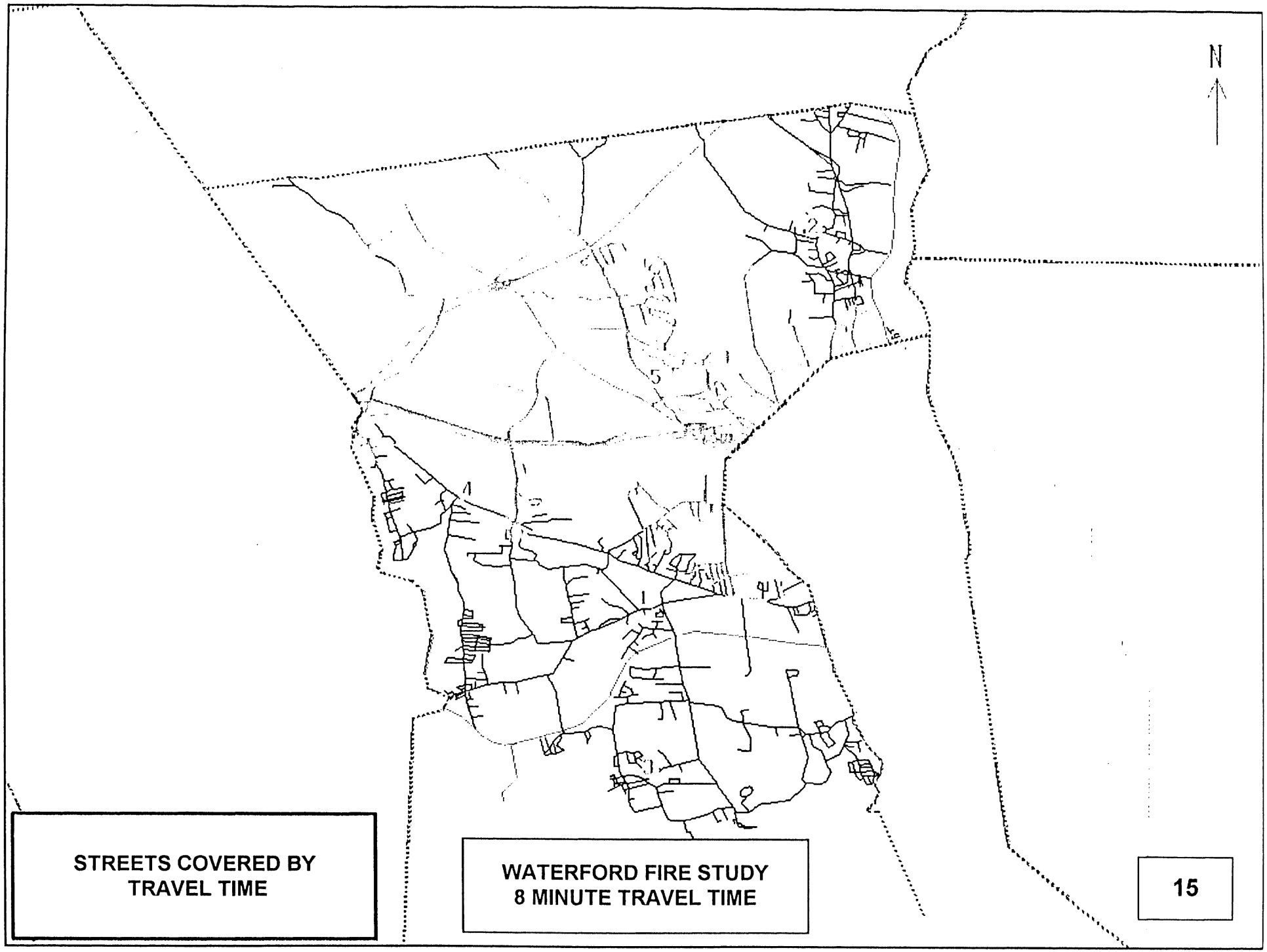
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STREETS COVERED BY
TRAVEL TIME
WATERFORD FIRE STUDY
8 MINUTE TRAVEL TIME
15

Findings

A review of the maps show that the fire stations are placed so that they can deliver service to all parts of the Town in a minimum amount of time.

Recommendations

1. Recommend the present fire stations be used with the current system which uses staff primarily composed volunteers supplemented by some career and part time personnel for the delivery of fire and emergency medical services.

This recommendation is made for the following reasons:

a. The delivery of fire and emergency medical services is accomplished by volunteer personnel that are supplemented by career and part time career personnel. The bulk of the staffing at night and on weekends is provided by volunteer personnel who live in proximity to each of the five fire stations in the town. It is likely that the volunteers joined a specific fire department because of their proximity to a specific fire station.

b. The closing, consolidation, or relocation of fire stations could possible lead to a decrease in volunteer participation. Traditionally volunteer fire fighters elect to join a fire department that is near where they live or work. The reason for this is that the members can easily respond from home or place of work in a minimum amount of time. The volunteer fire department in a specific location develops a community with an identity and culture that is difficult to duplicate by consolidation of fire companies. The closing or consolidation of any of the current fire stations will most likely result in decreased volunteer participation, and require additional career staff.

c. The closing and consolidation of fire stations will most likely require that more optimized locations be found so that the delivery of fire and emergency medical services from reduced number of locations will be uniform. The optimization of fire station locations will most likely result in the construction of new fire stations which would result in land acquisition and construction costs which would be additional costs to the town.

d. The Town of Waterford should continue to maintain the system of five fire stations as long as there is active volunteer participation. At some point if the volunteer participation begins to decrease, and the volunteers can no longer deliver the required emergency services, the Town of Waterford will be required to deal with two important issues. The first will be to hire a number of additional career personnel to provide minimum staffing for the delivery of fire and emergency medical services on a 24/7 basis. The second issue will be to consider the consolidation of fire stations since it would be expensive to staff all five fire stations on a 24/7 basis.

2. Recommend that the Town maintain the current system that uses staff primarily composed of volunteers for as long as possible. This system of using volunteers supplemented by some career and part time personnel works well for the Town of Waterford, and is the most economical system at this time.

3. Encourage all qualified personnel to volunteer in all districts of the Town, not just in the district that they live in or the fire station they belong to. If they are qualified Waterford volunteers they should be able to work town wide and receive credit towards the tax abatement program.

STAFFING COMMITTEE REPORT

Introduction

The purpose of this section of the report is to examine the staffing within Waterford. Fire and Rescue Service for the purpose of determining if there is sufficient staffing to deliver fire and rescue services to the Town.

The first step is to examine the existing staffing levels, analyze what is presently being done to determine if there are deficiencies, if there are changes or improvements that can be made to improve the delivery of fire and rescue services, or improve the efficiency of the system.

Overview

Currently, the career fire fighters and the fire inspectors provide the majority of staff that respond to fire and ambulance calls during the daytime hours Monday through Friday. The volunteer response to incidents is less than adequate during daytime hours due fact that many of them commute out of Waterford during the normal work hours, Monday through Friday.

Although there are no local, state and national standards for minimum staffing levels there are two standards that specify the minimum number of people required for fire fighting. The first is the Federal Occupational Safety and Health Administration (OSHA) 2-In/2-Out rule (29 CFR 1910.134). Briefly the OSHA standard requires the following for Interior Structural Firefighting:

- Minimum 2 person entry team with self-contained breathing apparatus (SCBA), work as a team maintaining voice or visual contact.
- Minimum 2 person stand-by team with fully equipped and trained fire fighters must remain outside the structure, monitoring the interior team and prepared to rescue them.

The minimum staffing requirement for initial interior fire fighting operations are five people - two people inside, two people outside plus an incident commander.

The OSHA 2-In/2-Out rule is also consistent with the National Fire Protection Association standard 1500, Standard for Fire Department Occupational Safety and Health Program. NFPA 1500 although neither state or federal law unless adopted is a general standard that is used throughout the United States.

In addition, each ambulance response requires a minimum of two certified Emergency Medical Technicians. Many medical incidents require more than the minimum of two people. For example a heart attack incident will require a minimum of three people if CPR is required.

Another aspect that requires personnel is the occurrence of multiple, simultaneous emergencies. Motor vehicle accidents on the interstate highway and local streets and roads often require at least one pumper, one rescue and multiple ambulances.

The present complement of career personnel is at minimum level. The need for additional career personnel must be evaluated on an ongoing basis.

Current Staffing

Volunteer Personnel

Currently the Town of Waterford has five volunteer fire departments. Collectively there are approximately 82 volunteer personnel. These numbers represent individuals that are trained either as a fire fighter or as an emergency medical technician (EMT) or both.

The following table shows the number of Fire Fighters and Emergency Medical Technicians (EMT) for each of the five departments. These figures reflect the number of "Qualified" members. "Qualified" refers to those members that have met certification and other requirements set by the Fire Service.

Company 1 Jordan

Fire Fighters	11
EMT	11
Total	11 Fire Fighter/EMT

Company 2 Quaker Hill

Fire Fighters	9
EMT	9
Total	9 Fire Fighter/EMT

Company 3 Goshen

Fire Fighters	12
EMT	9
Total	9 Fire Fighter/EMT-03 Fire Fighters

Company 4 Oswegatchie

Fire Fighters	14
EMT	14
Total	14 Fire Fighter/EMT

Company 5 Cohanzie

Fire Fighters	11
EMT	12
Total	11 Fire Fighter/EMT-01 EMT

Career Personnel

In addition there are seven career personnel positions as well as two members of the Fire Marshal's staff who are available to respond to emergency calls. These career personnel are Town employees whose salaries are paid by the Town through the Fire Commission budget, but are supervised by the fire chief of the company to which they are assigned.

The following table shows the number of career positions, where they are located and their hours of work.

Company 1 Jordan

Two career fire fighters Monday - Friday 50 hours per week

- One fire fighter works from 0600 to 1600
- One fire fighter works from 0700 to 1700

Company 2 Quaker Hill

One career fire fighter Monday - Friday - 50 hours per week

- Works from 0700 to 1700

Company 3 Goshen

One career fire fighter Monday – Friday – 50 hours per week

- Works from 0700 to 1700

Company 4 Oswegatchie

One career fire fighter Monday – Friday – 50 hours per week

- Works from 0700 to 1700

Company 5 Cohanzie

Two career fire fighters Monday – Friday – 50 hours per week

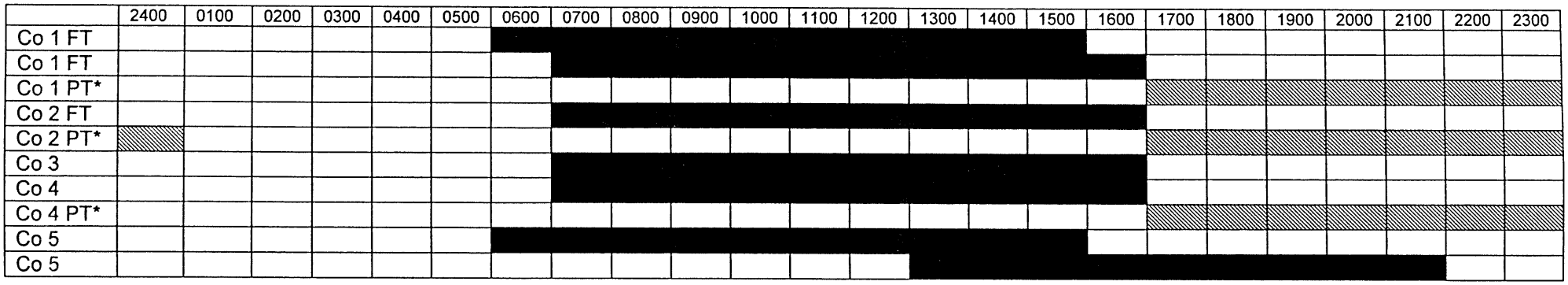
- One fire fighter works from 0600 to 1600
- One fire fighter works from 1300 to 2300

The work schedule for the career fire fighters is determined by the company with the approval of the Fire Commission.

A table Titled Coverage Provided by Career and Part Time Personnel which accompanies this section shows graphically the hours of the day Monday through Friday when there are career fire fighters on duty and where.

Coverage Provided by Career and Part Time Personnel

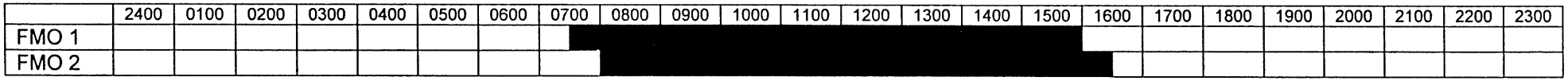
Monday - Friday



*Friday Only

Coverage Provided by Fire Inspectors

Monday - Friday



Part Time Personnel

Part time fire fighters/emt are volunteers that meet qualification requirements and are hired at an hourly rate to work a specific schedule. Normally the volunteer that is hired as a part time person will work in a company at which they volunteer. However, some of the part time personnel may work where they are required.

The following shows the schedule for part time personnel for each company by day of the week and number of part time personnel.

Company 1 Jordan

- One fire fighter/emt works from 1700 to 2400 Monday - Friday
- One fire fighter/emt works from 0700 to 1500 Saturday
- One fire fighter/emt works from 1500 to 2400 Saturday
- One fire fighter/emt works from 0700 to 1500 Sunday
- One fire fighter/emt works from 1500 to 2300 Sunday

Company 2 Quaker Hill

- One fire fighter/emt works from 1700 to 0100 Friday
- One fire fighter/emt works from 0800 to 1600 Saturday
- One fire fighter/emt works from 1600 to 2400 Saturday

Company 3 Goshen

- One fire fighter/emt works from 0800 to 1600 Saturday
- One fire fighter/emt works from 1600 to 2400 Saturday

Company 4 Oswegatchie

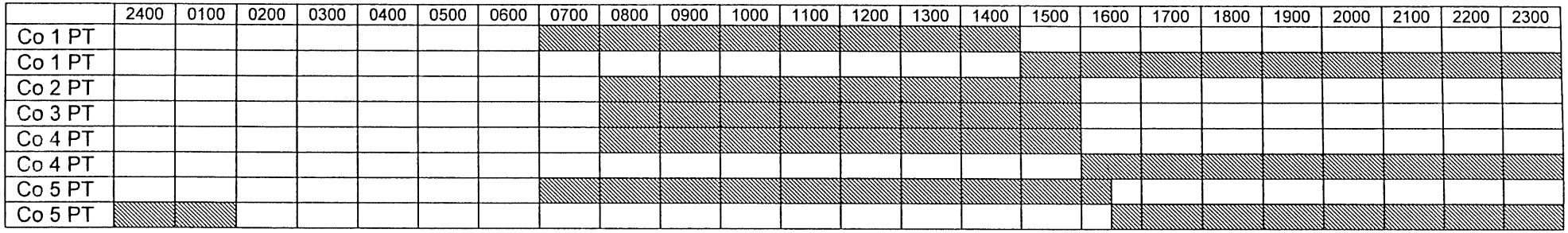
- One fire fighter/emt works from 1700 to 2400 Monday - Friday
- One fire fighter/emt works from 0800 to 1600 Saturday
- One fire fighter/emt works from 1600 to 2400 Saturday
- One fire fighter/emt works from 0800 to 1600 Sunday
- One fire fighter/emt works from 1600 to 2400 Sunday

Company 5 Cohanzie

- One fire fighter/emt works from 0700 to 1630 Saturday
- One fire fighter/emt works from 1630 to 0200 Saturday
- One fire fighter/emt works from 0700 to 1600 Sunday
- One fire fighter/emt works from 1600 to 2400 Sunday

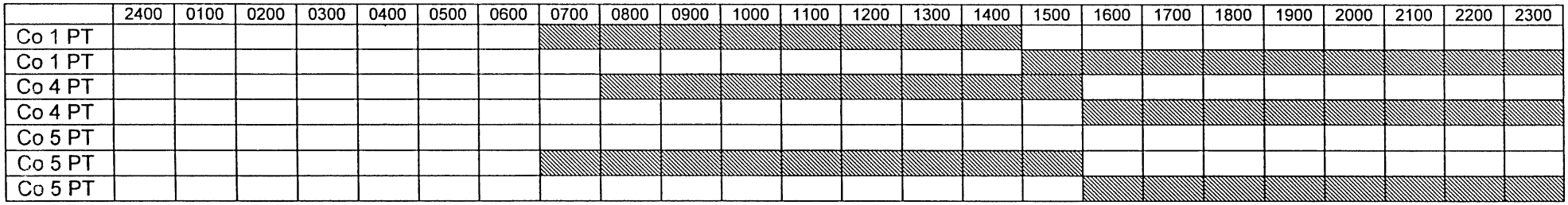
Coverage Provided by Part Time Personnel

Saturday



Coverage Provided by Part Time Personnel

Sunday



Staffing Analysis

An analysis of the Tables on the previous pages show that:

- Monday – Friday between the hours of 0700 to 1600 there are 6 career fire fighter/emts on duty in the Town, and the 2 fire inspectors are on duty between 0800 and 1500.
- Friday of each week between the hours of 1700 and 2400 there are 3 part time fire fighter/emts on duty, and 1 career fire fighter/emt on duty.
- Saturday between the hours of 0800 and 1600 there are 5 part time fire fighter/emt on duty.
- Saturday between the hours of 1630 and 2400 there are 3 fire fighter/emts on duty.
- Sunday between the hours of 0800 and 1600 there are 3 fire fighter/emts on duty.
- Sunday between the hours of 1600 and 2400 there are 3 fire fighter/emt on duty.

The tables on the previous pages provide a visual indication of the amount of personnel on duty in the Town for each day of the week. The result is that during the hours of 0700 to 2400 there is normally enough personnel to staff at least one ambulance. And, during the daytime hours there are enough personnel to staff at least one ambulance and one pumper.

Ambulance Staffing

One of the issues that during the early part of this study was that the Emergency Communications Center was experiencing a need to alert a second ambulance because the first ambulance alerted had failed to respond within the three minute time period due to lack of personnel.

The following table was assembled from data supplied by the Waterford Communications Center. The data shows three periods during the year 2000 when a second ambulance unit had to be called in order to get a response due to lack of staff for the first ambulance. This is based on the requirement that the second rescue unit would not be alerted until three minutes of time had elapsed after the first unit had been alerted.

Time and Day of Week When Second Ambulance Had To Be Alerted To Initiate A Response

Year 2000

Month	Day of Week	Time
January	Saturday	0509
January	Monday	2127
January	Friday	1227
January	Saturday	1444
January	Wednesday	1049
January	Monday	0605
January	Tuesday	1820
January	Thursday	0422
January	Thursday	1653
January	Thursday	1655
January	Saturday	1041
January	Saturday	1133
March	Saturday	1009
March	Saturday	1850
March	Monday	0930
March	Wednesday	0758
March	Wednesday	0947

Month	Day of Week	Time
May	Monday	1744
May	Tuesday	0749
May	Thursday	1036
May	Friday	1041
May	Sunday	1057
May	Sunday	1531
May	Sunday	1700
May	Friday	1007
May	Monday	1707
May	Tuesday	1055
May	Thursday	2321
May	Saturday	1534
May	Saturday	1610
May	Sunday	0754
May	Monday	0709
May	Wednesday	1453
May	Thursday	0900
May	Thursday	1657
May	Thursday	1924
May	Friday	2006
May	Saturday	0400
May	Saturday	0944
May	Saturday	1031
May	Sunday	1108

An analysis of this data shows the following:

- For the period of January all of the calls with the exception of one occurred between the hours of 0500 and 1830 including Saturdays.
- For the period of March all of the calls occurred between the hours of 0700 and 1900 including Saturdays.
- For the period of May all of the calls occurred between the hours of 0700 and 2000 except one. This period includes both Saturdays and Sundays.

Comments

- This data appears in most cases to support the fact that there is a greater chance that personnel will not be able to respond during normal work/commute hours Monday through Friday.
- The exception is that 10 out of 24 calls for May occurred on either on a Saturday or Sunday.
- Perhaps a whole years worth of date needs to be analyzed to determine if these three months are representative of the whole year.
- Regardless of the data analysis it is difficult to justify a three minute plus delay in putting a rescue unit on the road for a medical emergency.

Recommendations

Ambulance

1. Monitor Volunteer participation and evaluate through the end of calendar year 2001. This recommendation is made following the implementation of the Tax Abatement program and the $20.00 reimbursement program. If these two programs do not yield the Volunteer participation required investigate Alternate Plan #1

   Alternate Plan #1 Consider additional financial incentives to attract Volunteers for the times when there are insufficient personnel to respond and provide services. The Waterford Ambulance Service, Inc. should be included in this discussion.

   Alternative Plan #2 The Waterford Fire Commission in conjunctions with the Waterford Ambulance Association should evaluate the forming of an autonomous EMS Squad to be composed of Part Time employees to respond to strictly ambulance calls.

   Alternative Plan #3 Staff one ambulance 24/7. Staffing would consist of either 2 fire fighters or 1 fire fighter and 1 EMT. One fire fighter per station for an R-1 response during the day. The intent is to give the Volunteers of that station the opportunity to respond before the career crew responds.

2. Maintain the current staff that is in place and fill the vacant positions.

3. Supplement daytime response to structure fire and signal 23 auto accidents by having both fire inspectors and all members of the Town Emergency Response Force (T.E.R.F.) respond. Note: Draft of new Fire Commission Policy Statement #96-2, Town Emergency Response Force (T.E.R.F.) Program is included in the appendix of this report.

4. Centrally Located Ambulance

   Pro-

   Consider staffing one centrally located ambulance with a minimum of two qualified people 24 hours per day. Staffing could include combinations of career and part time personnel. The reason for this recommendation is to assure the citizens of the Town that there will be in most cases on ambulance that is ready to respond immediately to a medical emergency without delay. The justification for this recommendation can be expanded further.

   Con-

   The central ambulance may not be in the best interest of the residents of the Town. One staffed ambulance from a central location will have an extended response time to all parts of the Town. The question is: Who responds? The closer ambulance staffed by volunteers or the centrally located ambulance? Who makes the call?

   Volunteers should be able to staff all ambulances in the Town between the hours of 1900 and 0600.

Dispatch Center

1. Evaluate the communications system requirements for the Waterford Police Department so that they handle their own routine calls, and take their own messages. This would decrease the workload on the dispatchers.
2. Recruit and train part time personnel to fill in during periods when the Center is short staffed.
3. Examine means to expedite the hiring and training of new staff.

Fire Marshal's Office

1. Maintain the current staffing based on current information.
2. Consultant conduct an in depth evaluation and comparable comparison of the Inspectors, Deputy Fire Marshal, and Fire Marshals positions.
3. Add the following duties to the Fire Marshal/Administrator's position/office:
   a. Coordinate training for all career, part time and volunteers in the five fire departments
   b. Coordinate apparatus maintenance for all five fire departments.
   c. Have all career and part time personnel report to...
   d. Coordinate purchasing for the fire service.
   e. Assist in developing, managing, and administration of the five fire department budgets in addition to the fire marshals office budget.
   f. Assist the fire chiefs in developing the Capital Expenditure Budget.
   g. Work with the fire departments and the Fire Commission to develop long range plans for fire and rescue services.
   h. In cooperation with the fire chiefs monitor the qualifications of all employees and volunteers to make sure that they are current.
   i. Represent the Fire Service at all Town meetings that involve the Fire Service.
   j. Interface with elected Town officials on all budget matters and requests for appropriations.

FIRE MARSHALS OFFICE REPORT

Firescope, Inc. was asked to examine the Waterford Fire Marshals Office as part of the Waterford Fire Service Study. The Fire Marshals Office is an integral part of the Waterford Fire Service and provides a range of services that are not provided by the five volunteer fire departments in the Town.

Note: Although the supervision of the Waterford Communications Center is under the supervision of the Fire Marshal and is shown on the Fire Marshals Office Organization Chart it will be analyzed separately.

The Fire Marshals Office is responsible for a number of activities. Some of these activities are mandated by the state while others have been assigned because it is the most logical place to place responsibility for these since the office is staffed five days per week by the Fire Marshals staff and there has to be a central point in the Town where citizens can go to get information on fire protection.

Local Fire Marshal Duties - Mandated By The State Statute

The following material is taken from a memorandum from the Office of State Fire Marshal dated January 2001 to Local Fire Marshal Appointing Authority.
Note: A copy of this memorandum will be included in the appendix of this report.

"Local fire marshals are responsible for the enforcement of many of the sections found in Chapter 541 of the Connecticut General Statutes, as well as number of codes which are promulgated under the provision of these statutes.

It is required that each local fire marshal inspect each calendar year, in the interest of public safety, all buildings and facilities of public service and all occupancies regulated by the Fire Safety Code within his/her jurisdictions.

The Fire Safety Code covers all occupancies except one and two family dwelling and premises used for manufacturing."

The memorandum lists 74 occupancy types that require inspection. Some of the most common types of occupancies listed are apartments, churches, day care centers, department stores, general offices nursing homes, power plants, residential-custodial care nurseries, homes for the aged, restaurants, schools, shopping centers, supermarkets and warehouses.

The memorandum also specifies additional duties imposed by statute. The following is a listing of the additional duties:

1. Investigate the cause, origin and circumstance of all fires within their jurisdiction, and transmit a report to the State Fire Marshal within ten days.
2. Issue permits for the use, transportation and storage of explosives.
3. Notify the Labor Commissioner of fire hazards founding manufacturing establishments.
4. Enforce Space Heater Statute.
5. Inspect all flammable and combustible liquids storage tank installations for compliance with regulations
    - Inspect all vehicles that transport flammable and combustible liquids.
    - Issue certificate of approval to each vehicle.
    - Inspect all gasoline service stations.
6. Inspect once each year all dry-cleaning and dry dyeing establishments.
7. Inspect and enforce regulations concerning storage, use and transportation of liquefied petroleum gas and liquefied natural gas.
    - Inspect, at least once each year, all vehicles transporting liquefied petroleum gas or liquefied natural gas.
    - Issue certificate of approval to each vehicle.
8. Annually inspect all storage plants and equipment and vehicles at bulk storage plants for the storage and transportation of hazardous chemicals.
    - Issue certificate of approval to each vehicle.

9. Administer and enforce manufacturing employer hazardous materials notification law.
10. Conduct site inspection of all fireworks and special effects displays for compliance with applicable State legislation.
11. Inspect all outdoor amusements attesting to the event being reasonably safe from the effects of panic, fire or smoke.
12. Conduct review of plans and specification for various occupancies being proposed within the town for compliance with Connecticut Fire Safety Code.
13. Attend schools and seminars to keep abreast of the codes, regulations and new technology.
14. Required to be certified by the State Fire Marshal as of October 1973.
15. Required to obtain ninety (90) hours of continuing education over three (3) years to maintain certification.
16. Provide safety tips and give advice to the general public.
17. Sign applications for burning permits.

Local Fire Marshal Duties - Assigned By The Town

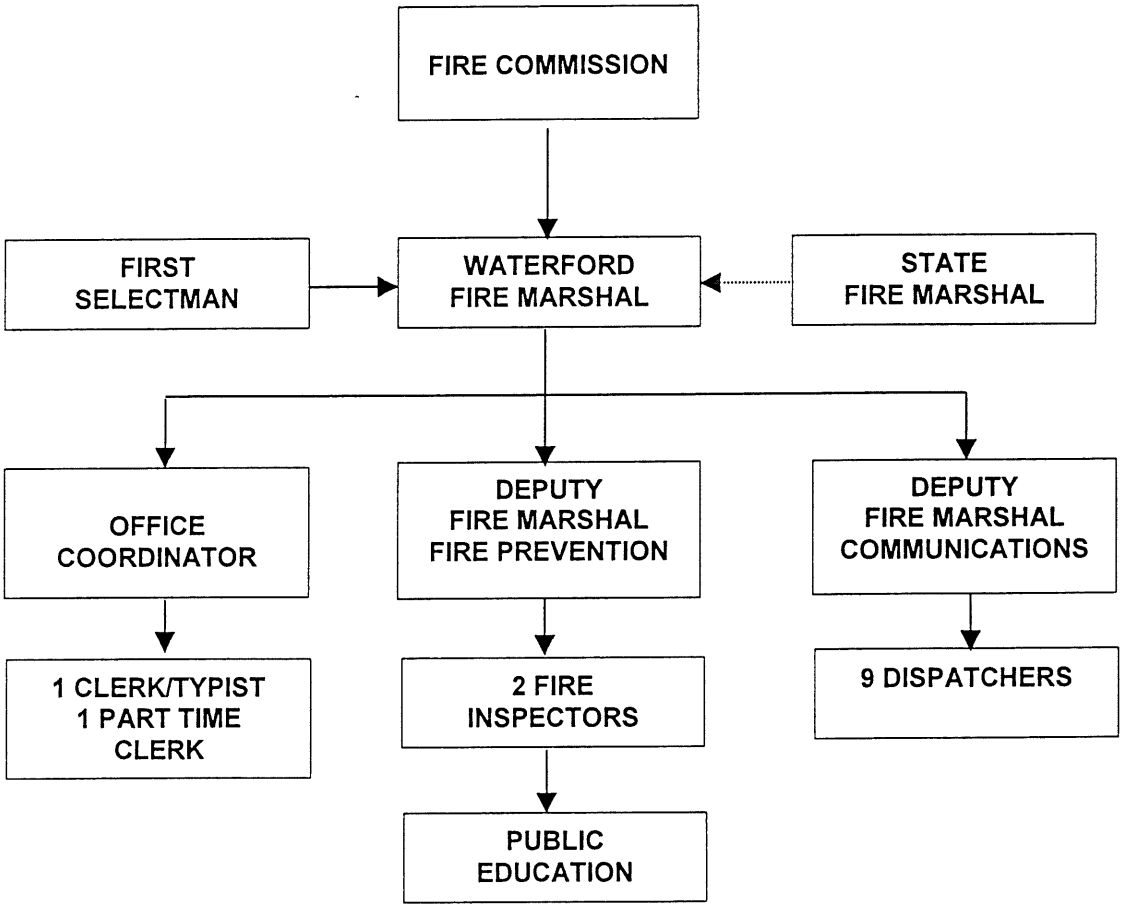
In addition to the duties assigned by the State Fire Marshal, the Waterford Fire Marshal has other duties assigned by the Town. These are:

1. Supervise the Fire Marshals Staff
   - Fire Prevention
   - Code Enforcement (State mandated)
   - Fire Investigation (State mandated)
   - Public Fire Education
2. Supervise the Communications Center
   - Overall responsibility for the operation 24/7 of the communications center which provides all public safety communications for the Town of Waterford and some adjacent jurisdictions.

3. Administrator to the Waterford Fire Commission
    - Provides assistance and support to the Waterford Fire Commission.
4. Liaison the Water Company
    - The Fire Marshal is the Town's liaison with the private water company that serves the Town.
5. Responsible for preparation and administration of Waterford Fire Service Budget
    - Provides support for the preparation and administration for the fire service budget.
6. Administration of career personnel - payroll and records.
7. Procession of paperwork for volunteer personnel - pay and records.
8. Processing of National Fire Information Reporting System (NFIRS) data.
    - All NFIRS reports are collected and processed by the Fire Marshals Office.

Waterford Fire Marshals Office - Organization

The following table shows the organization and reporting relationships of the Waterford Fire Marshals Office during the period when this study was conducted. In May 2001 the Waterford Fire Commission authorized a reorganization of the Fire Marshals Office. A chart showing the adopted reorganization is included in the last section of this report under "Reorganization."



Staffing

Current positions: (Prior to May 2001)

1. Fire Marshal

   The Bureau of Fire Prevention is responsible for fulfilling the Federal, State and local mandated fire safety laws and related codes. The Fire Marshal is responsible for the planning, coordination and administration of the Bureau's operations and personnel. In addition, the Fire Marshal will assume the duties of the Administrative and Technical Services division of the Fire Department responsible for the Fire Commission, fire prevention, budget preparation, planning, personnel matters and many other function assigned by Ordinance/Statute or Administration. The Fire Marshal is responsible to plan, coordinate, administrate and supervise the operation of this Division and its personnel

2. Deputy Fire Marshal

   The Deputy Fire Marshal is responsible to the Fire Marshal for performing required inspections, plan reviews, investigations and public safety programs in accordance with established procedures and direction.

3. Communications Center Supervisor

   The Communications Supervisor is responsible to the Fire Marshal for supervising all aspects of the Communications Center.

4. Fire Inspector - 2

   The inspectors are responsible to the Fire Marshal, Deputy Fire Marshal for conducting required inspections, plan reviews, and other related fire prevention activities. In addition, each Fire Inspector must be certified as a Fire Fighter I and as an Emergency Medical Technician. The purpose of these certifications is that each Fire Inspector is required to respond to fires and emergency medical incidents while on duty to assist the other fire personnel in the Town.

5. Office Coordinator

   Reports to the Fire Marshal and is responsible for the management of all office functions including, but not limited to supplies, records, budgets, and scheduling to insure a smooth-running, and well coordinated office.

6. Clerk Typist III

   Reports to the Office Coordinator for clerical and related work.

7. Clerk Typist I

   Reports to the Office Coordinator for clerical and related work. This is a part time position - 12 hours per week.

8. Fire Prevention Instructor

   Reports to the Fire Marshal and is responsible to create, organize, plan and conduct various organized fire safety lesson within the Waterford School System as well as prepare and present various community fire safety programs.

Fire Marshal Office Activity

Table 1 - Fire Prevention, Code Enforcement & Related Activities

	1997	1998	1999	2000
Fire Safety Code Violation Cited	592	496	616	547
Fire Investigations	103	93	88	68
Blasting Permits Issues	19	20	5	18
Fire Prevention Programs/Lectures	425	428	539	379
Conference or Seminars Attended	19	10	6	6
Plans Reviewed	272	203	221	233
Number of Pages submitted for review	1465	1607	1871	1656
Training Hours	248 hours	128 hours	292 hours	317 hours
Miscellaneous Duties Performed	1,108	960	1,124	1,084
Inspections Conducted				
Public Buildings	280	475	345	270
Follow-up	96	105	141	90
Building Construction	554	516	556	494
Flammable Liquid/Gas (Inc. Vehicles)	29	60	70	40
Miscellaneous Inspections*	127	157	91	61
Total Inspections	**1,086**	**1,313**	**1,203**	**955**

Table 2 - Fire & EMS Calls

Fire Inspectors

	1999	2000
Fire	122	124
EMS	49	67

Comments

An analysis of Table 1 shown above indicates that the level of activity within the Fire Marshals Office is about the same for all three years. There is some change between years for specific activities.

The important observation to be made is the level of activity and services that are provided by the Fire Marshals Office in the areas of fire prevention, code enforcement, fire investigation, and public fire education. It would be difficult to quantify the dollar amount of property that is saved year to year through fire prevention and code enforcement activities. A subsequent table that follows shows the value of property in the Town of Waterford for the past four years versus the dollar amount of loss for each year. The loss for 1997 is less than one percent of the total value, 1998 and 1999 two percent.

What is not shown on this table are the other activities performed by the Fire Marshals Office staff that are not reported in any statistical summary. Some of these activities are:

- Support of the Fire Commission
- Other

Table 2 shows additional activity that is performed by the Deputy Fire Marshal and the two Fire Inspectors and that is responding to fire and rescue calls in the Town when on duty. When responding to emergencies they perform the functions of either fire fighter or emergency medical technician. This is a plus for the Town during normal daytime working hours when a full complement of volunteers are not available.

Table 3 - Value, Insured Loss, Uninsured Loss & Total Loss by Year

	TOTAL	VEHICLES	STRUCTURES
1997			
VALUE	$38,603,890	$202,660	$38,401,230
INSURED LOSS	$190,886	$62,636	$128,250
UNINSURED LOSS	$83,522	$39,045	$44,477
TOTAL LOSS	$274,408		
1998			
VALUE	$35,938,711	$179,275	$35,759,436
INSURED LOSS	$728,735	$19,726	$709,009
UNINSURED LOSS	$39,652	$24,817	$14,835
TOTAL LOSS	$768,387		
1999			
VALUE	$44,668,850	$47,950	$44,620,900
INSURED LOSS	$784,534	$8,950	$775,584
UNINSURED LOSS	$88,271	$26,050	$62,221
TOTAL LOSS	$872,805		
2000			
VALUE	$10,426,958	$88,500	$10,338,458
INSURED LOSS	$72,253	$11,837	$60,416
UNINSURED LOSS	$89,606	$26,457	$63,149
TOTAL LOSS	$161,859		

Findings

Based on a review of the data, an interview with the Fire Marshal, observations, and contact with staff during this study the Waterford Fire Marshals Office appears to be well organized, equipped and staffed to provide state of the art fire prevention and code enforcement services.

Discussion

During the 1980's this consultant worked for the National Fire Protection Association in the Public Fire Protection Division. One of the projects that I managed was a project funded by the U.S. Fire Administration specifically to develop a set of Fire Inspection Management Guidelines. The project had a user committee composed of several members of the Fire Marshals Association of North America to oversee the development of the Guidelines. The members on the committee represented state, county, and local fire marshals. The Guidelines were completed and then published by the National Fire Protection Association. The set consists of 11 pamphlets that address specific issues related to the management of a fire inspection program. The 4th pamphlet in the series is titled Time/Resource Evaluation. What we attempted to do with this Guideline was to prepare information that could be used to determine the number of staff required based on number of occupancies requiring inspection and the amount of time required for each inspection. No specific time values were given in the Guideline since those times will vary from one jurisdiction to another. However, the Guidelines did provide some guidance for estimating time. There are a number of time segments that need to be taken into account for each inspection. These are:

- Preparation for the inspection
- Travel to the inspection site
- Time to conduct the actual inspection
- Exit interview to explain what was found and how to correct it
- Consultation and research
- Report writing or preparation
- Reinspection or follow-up

One of the variable time periods is the time to conduct the actual inspection. This is dependent upon the size of the structure or occupancy, and the complexity of the occupancy.

Using the figures from Table 1 of this report showing about 1,200 inspections per year, and using a figure of approximately 3 hours per inspection this equals 3,600 hours. This would be for fire inspection activity only, and would not take into account many of the other time consuming activities performed by the fire inspectors such as public education, answering fire and ems calls, fire investigations, and miscellaneous services.

Using the total time required to perform inspection versus the time inspectors are available can provide an indication of what can be accomplished or what will not be accomplished.

For example: Each inspector works 40 hours per week x 50 weeks per year = 2,000 hours provided he/she is not sick or assigned to other duties. Subtract from the 2,000 hours the time required for mandatory training, and other activities such as filling in for other career fire fighters, or performing other mandatory duties. Subtract those hours from the 2,000 and this will provide the number of hours available to conduct the mandatory inspections. If the 3,600 hours is a reasonable target this means that each inspector will have to spend at least 1,800 hours on inspection activities. 2,000 hours minus 1,800 hours = 200 hours for all other activity.

If the figures shown above are even somewhat accurate this means that very few of the 1,200 inspections will be completed if the inspectors are assigned to a fire station.

The Fire Marshal makes many good points in his letter of December 8, 2000 with regard to maintaining the current staffing levels in the Fire Marshals Office.

Recommendations

1. Recommend that the current staffing levels in the Fire Marshals Office be maintained with the two fire inspectors.

WATER SUPPLY REPORT

The Town is partially serviced by a water supply system developed and installed jointly by the Town and the City of New London. The City of New London is responsible for the maintenance and repair of the system including fire hydrants, with the exception of privately owned fire hydrants, which are required to be serviced by the owners. There are presently 1,200 fire hydrants in the system, Ninety-three (93) are privately owned. There are three (3) hydrants that are not usable due to low pressure. U.S. Filter currently has a contract with the City to provide the required maintenance and repair of the system and fire hydrants.

The Goshen and Jordan Fire Districts are fully covered by the water system. The system in these two districts has no discernable problems with pressure, volume, and distribution. Static pressure in these districts range from 70 to 95 pound per square inch (psi).

The Oswegatchie Fire District has no water supply system north of and including Gurley Road and Parkway South to but not including Cross Road. There is no coverage on the undeveloped section of Parkway North; also there is no coverage on the majority of Oil Mill Road and no coverage on I-395. The system in the covered areas has adequate pressure, volume and distribution with static pressures around 90 pounds per square inch (psi) in most areas, with the exception of some higher elevations and Cross Road with pressures not lower than 50 pound per square inch (psi).

The Cohanzie Fire District has good coverage south of I-395 with the exception of Douglas Lane, Silva Lane, Harvey Avenue, Gilead Road and I-95. Coverage on Route 85 stops just south of the Lakes Pond Road. There is no coverage on I-395, Butlertown Road, Way Hill Road, Lakes Pond Road, Hunts Brook Road and Unger Road. The water system on Vauxhall Street Extension ends at I-395.

The high-pressure 12-inch main that services Route 85 from I-395 to Crystal Mall and Industrial Drive has a static pressure of approximately 125 pounds per square inch (psi).

The pressure and volume in the rest of the district varies but appears adequate for the fire loading.

The Quaker Hill Fire District has more problems with its water supply system than the other districts. The main feed line is a 16-inch pipe supplied by the New London end of the system. A main break in the right location would cut all water service to Quaker Hill and parts of Montville.

Low pressure and inadequate volume are also a problem in certain areas. The static pressure at 88 Old Colchester Road is 27 pounds per square inch (psi). The static pressure at Bloomingdale Road and Gallows Lane can be as low as 18 psi depending on the water level of the on grade storage tank.

There is no coverage on most of Bloomingdale road, none on Applewood Drive, Miller Pond Road, I-395, I-395 connector, Red Cedar Avenue, Bartlett Place, Hempstead Drive, Cinderella Lane and Mamacoke Road. The coverage on Old Colchester road ends at #121. There are also areas of Route 32 that have no water.

The lack of water in the Bloomingdale Road area was the subject of a letter sent to WPCA in 1985 by Chief Kirchhoff (enclosed). The deficiencies for the rest of Quaker Hill were addressed in a letter sent to WPCA in December 1992 by Melvin Carson, Chairman of the Board of Fire Commissioners (enclosed). To date there have been some studies and design work done but no construction. Every effort should be made to increase the pressure and volume in this area and to provide a second source so that one broken pipe does not shut the water off for the whole district. This second source should be the two million gallon storage tank in Quaker Hill, a second main into Quaker Hill, by connecting the Vauxhall Street Extension main to Bloomingdale Road and extending the Bloomingdale Road main into the existing main on Bloomingdale Road and Old Mill road or any other feasible solution.

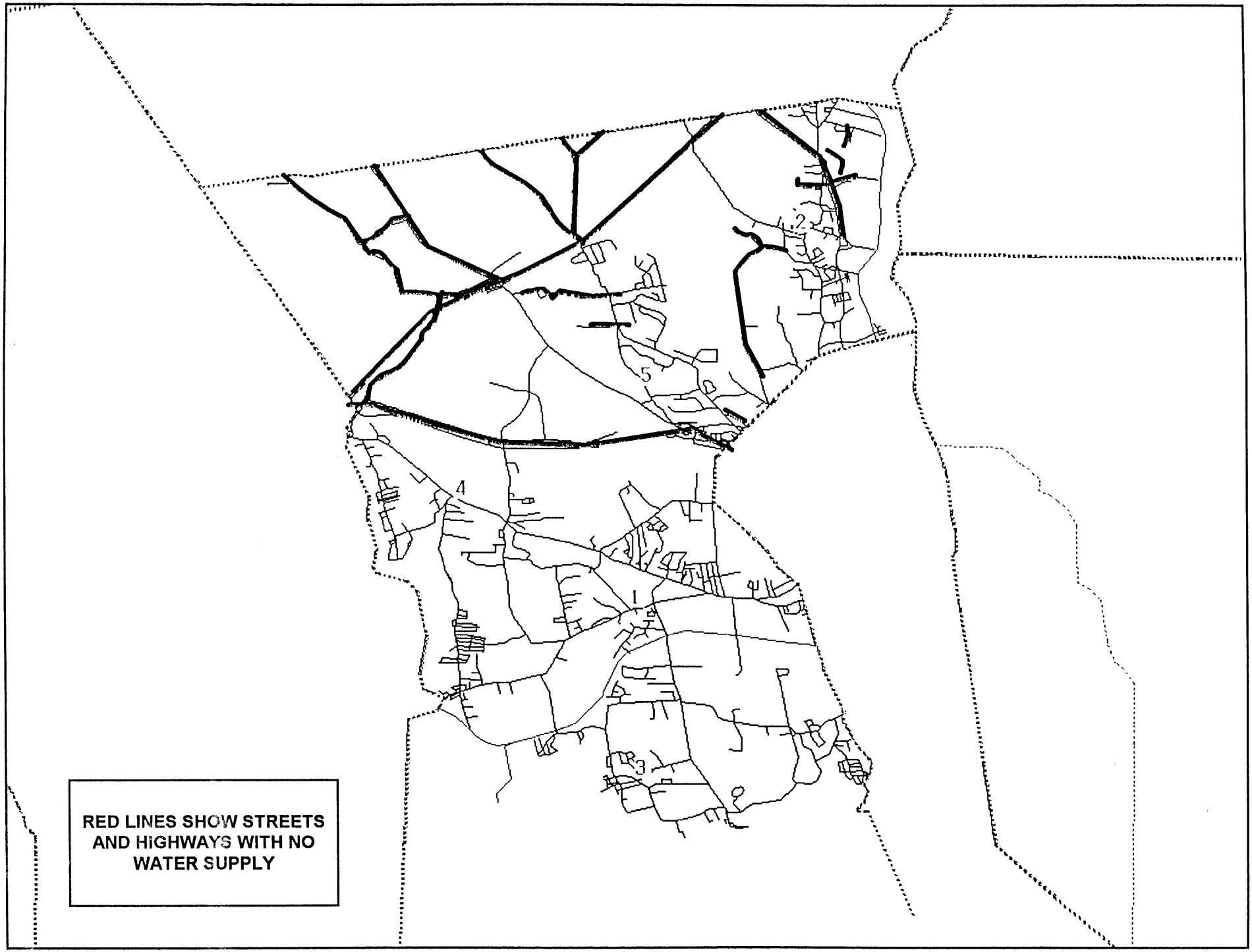
There are approximately 20 miles of Town roads and state highways that have no water service. There are approximately 17 miles of Interstate Highways without water and an additional 2.2 miles on the I-395 Connector. See Attachment 1 for a breakdown of these roads.

The following page contains a map of the Town of Waterford showing the street and roadway network. The streets and roads that do not have a water supply system (fire hydrants) are indicated on the map.

Located on 20 miles of roads without water service, there are approximately 554 structures, the smallest structure counted was at least as large as a single car garage. As residential expansion continues more homes will be build in these areas that have no water for fire protection purposes.

Recommendation

1. Recommend purchase a water tanker with a capacity of at least 2,000 gallons of water to respond to those areas that are not served by a hydrant system.


2
5
4
1
3
RED LINES SHOW STREETS AND HIGHWAYS WITH NO WATER SUPPLY

EMERGENCY COMMUNICATIONS CENTER REPORT

Introduction

The Waterford Emergency Communications Center differs from most fire service communications centers because it is charged with the responsibility of receiving, processing, disseminating, and dispatching fire, emergency medical, and police for the Town of Waterford. The major functions of the Communications Center are:

- Dispatch Fire, Police, and Emergency Medical for the Town of Waterford.
- Coordinated regional medical control for Lawrence & Memorial Hospital.
- Dispatch Lawrence & Memorial based paramedic service south of the Thames River.
- Answering point for Police Department routine telephone calls.

Staffing

The Communications Center is currently staffed by ten people. The Center is supervised by a Communications Supervisor who reports to the Fire Marshal. There are eight Public Safety Dispatcher I, and one Public Safety Dispatcher II positions.

- The Center is staffed 24/7 with two Dispatchers working the day shift, and two dispatchers working the evening shift. Each shift is 12 hours.

- The Public Safety Dispatcher II works a flexible schedule in an attempt to accommodate the leave of the Public Safety Dispatcher I personnel.

- The Communications Supervisor fills in for Dispatchers as necessary. The Supervisor performs a dual role of supervising the system and filling in as a dispatcher. The problem with this is that the Supervisor may work a 12-hour evening shift and then with minimal rest, if any, return to the necessary weekday operations of the Center.

Call Activity

The Communications Center receives approximately 12,000 to 15,000 incoming telephone calls per month. Not all of these calls are for emergencies, but they require time to answer and process. The communications center strives to answer and process all calls within a 60-second time frame. Telephone calls can vary from several seconds to fifteen minutes in length, depending upon the situation. If the average is 13,000 calls per month the yearly total is 156,000 telephone calls per year. This number equates to:

- 427 telephone calls per day
- 17 telephone calls per hour

Note that these are all types of telephone calls and do not include the other types of transactions handled by the dispatchers.

The following table shows the number of transactions processed by the dispatchers for the calendar year 2000. They are illustrated by day of the week and the hour of the day. Transactions are things that the dispatcher must do such as answer a radio transmission from a fire or police vehicle. This table does not show the telephone calls that are described above.

Some of the points shown in the table are:

- The two busiest days of the week are Friday and Saturday
- The low period of transactions is between the hours of 0300 and 0600.
- Transactions start to increase at 0700 and peak at 1000 (10:00 AM) and taper off slightly until 2300 (11:00 PM).

Waterford Communications Center

Transaction Report - Year 2000 - Day of Week - Hour of Day

Hour	Sun	Mon	Tues	Wed	Thu	Fri	Sat	Total
0	194	106	116	130	119	156	191	1,012
1	215	101	105	98	151	150	225	1,045
2	155	85	69	93	88	85	158	733
3	82	68	60	64	57	70	84	485
4	65	59	61	63	54	52	61	415
5	74	71	37	63	52	69	55	421
6	62	103	105	101	100	107	70	648
7	101	152	149	156	143	144	93	938
8	132	205	212	217	194	234	155	1,349
9	188	274	237	226	239	215	206	1,585
10	180	266	249	235	223	261	269	1,683
11	190	238	220	221	206	226	217	1,518
12	191	224	215	212	195	242	229	1,508
13	205	253	251	256	214	229	240	1,648
14	166	229	200	236	239	246	222	1,538
15	204	217	237	245	216	235	244	1,598
16	198	224	230	218	228	233	229	1,560
17	208	235	226	225	232	234	214	1,574
18	220	192	203	208	193	236	201	1,453
19	204	169	173	223	169	219	222	1,379
20	189	223	202	169	200	214	225	1,422
21	177	199	187	214	210	235	228	1,450
22	130	147	165	195	182	198	219	1,236
23	127	150	136	146	156	175	223	1,113
Total	3,857	4,190	4,045	4,214	4,060	4,465	4,480	29,311

The following are some of the additional activities that have the potential to be added to the current Communications Center services. Most of these will result in better service to the citizens of Waterford and may increase the efficiency of the Communications Center. However, to add the equipment and procedures will take time. The major portion of the time will be for training Communications Center personnel in how to effectively use the new equipment, procedures, etc.

- Implement the installation and operation of mobile digital terminals for the Police Department. Fire and Ambulance may be possible in the future.

- Start processing wireless emergency calls from cellular telephones. These calls are now answered and processed by the State. Future cellular telephones will, when 911 is dialed, be routed to the nearest Public Service Answering Point (PSAP).

- Geographical Based Information System/Mapping which will include automatic vehicle location (AVL) and auto crash notification (ACN).

- State mandated Emergency Medical Service (EMS) requirements and reporting.

- The next generation of console equipment operates on newer technology platforms and will require much higher levels of training.

- The current consolidated dispatching system which handles fire, police and ems requires a wide range of training to efficiently handle calls for service.

Discussion

Waterford Communications Center Dispatchers currently handle a wide range of services from call talking for all types of emergencies and inquiries. The dispatchers have to multi task by handling multiple calls in progress at the same time. They must be trained and proficient in three major areas. Fire, Emergency Medical and Police activities. The following are some of the areas that are handled by the Dispatchers:

- Fire
    - Incident Command
    - Hazardous Materials
    - Fire Responses
    - Lifestar Helicopter Protocols
    - Millstone/Nuclear Incidents
    - Fire Terminology
    - Other
- Emergency Medical
    - Emergency Medical Dispatching
        1. Caller Interrogation
        2. Symptom Recognition
        3. Pre-Arrival Instructions to customers
    - Medical Conditions & Vocabulary
    - Other
- Police
    - Domestic violence procedures
    - NCIC (National Crime Information Center) inquiries
    - Providing information related to traffic stops
    - Crime Classifications
    - Taking Descriptions
    - Suicidal Callers
    - Hostage Negotiations
    - Motor Vehicle Pursuit Policy
    - Bank Alarm/Holdup Procedures

The point of this is to show that Waterford Communications Center Dispatchers require more training than Dispatchers that work in a two-tier system where the Dispatchers specialize in one particular function. In Waterford the Dispatchers handle all three functions described above, in addition to routine and emergency call taking.

Telephone call handling requires various techniques to allow the dispatcher to extract the necessary information from a caller without creating delays in the dispatching process. Dispatchers exercise different forms and styles of personality projection to overcome the emotional state of the caller.

The commonality for the Fire, Emergency Medical Services and Police is the software that is used in the Communications Center. The Waterford Communications Center uses the VisionAir CAD (Computer Aided Dispatch) software. All calls are tracked and recorded through the CAD system. Proficiency on the part of the dispatchers in obtaining and recording accurate data in a live-time environment is essential to the overall communications process. The dispatcher is the first person on the scene of any emergency incident via the telephone, and all data that is captured can be subpoenaed in legal proceedings.

Dispatcher Training

The following are the basic training requirements for a Waterford Communications Center Dispatcher.

- State of Connecticut Telecommunicator Certification (54 hours)
- SNET ISDN E9-1-1 training (4 hours)
- APCO Basic Telecommunicator Certification (40 hours)
- APCO Emergency Medical Dispatcher Certification (32 hours)
- Telecommunications Devices for the Deaf training (4 hours)
- VisionAir CAD training (24 hours)
- COLLECT/NCIC Certification (24 hours)
- Hazardous Materials Awareness training (8 hours)
- Incident Command training (16 hours)
- Policy & Procedures/On The Job training (150 hours)

Recommendations

1. Change the function of the Communications Supervisor to Communications Director. Given the complexity of the communications function and the emerging technology, the Director should be responsible for the day to day operation of the communications center without having to function as a fill in dispatcher. The Director should be available during normal working hours Monday through Friday, and be on call for emergencies.
2. Change the function of the Public Safety Dispatcher II to Dispatch Supervisor with the responsibility for the overall supervision and training of the other dispatchers.
3. Add two additional Dispatcher I positions to handle the workload and maintain the 3 day shift dispatchers and 2 night shift dispatchers, and allow time for training, vacations, sick leave, etc.
4. The two additional Dispatcher I positions would allow for each work group to have a lead dispatcher. This position would assist the supervisor in training and administrative type functions.
5. Implement an on-call system to provide for automatic coverage during times of sick leave or major incident assistance.
6. The Communications Supervisor/Communications Director should be actively involved in monitoring telecommunications and technology changes which affect the delivery of fire, ems and police services, and should be seeking methods and equipment that will increase the efficiency of the Communications Center staff, and improve service to the citizens of Waterford.
7. WECC should strive to attract outside agencies to contract dispatching services to create additional revenues.
8. Recommend that the Waterford Police Department upgrade their telephone system so that it adds a voicemail feather. Currently the Dispatchers answer all Police Department telephone calls, and either take a written message or page the individual via telephone. If the voicemail feature were added for routine calls this

would decrease the call volume currently handled by the Emergency Communications Center.

9. Recommend that the Police and Fire Departments consider the purchase and installation of mobile digital terminals (MDT) for installation in all police cruisers, fire apparatus and ambulances. The installation of mobile digital terminals will allow units that are responding to acknowledge by the push of a button rather than a voice radio transmission. The same is true for reporting "on scene", "back in service", and "back in quarters". These four features would increase the efficiency of the Emergency Communications Center by automatically recording the times for each activity, and free the dispatcher from answering a radio call. The automatic recording of times will also increase the accuracy in reporting these vital times.
10. Consider an interface between the Computer Aided Dispatch software and the Town computer system, and the computer terminals installed in each fire station. The main reason for this recommendation is to increase the efficiency of reporting by the fire departments. Currently fire and rescue personnel call the Emergency Communications Center and the conclusion of an incident and request their "times" from the dispatcher. Automatic access to "times" and other information without having to call the dispatcher will decrease the overall call volume.

REORGANIZATION

During the month of April 2001, the current Fire Marshal announced his retirement. Following the announcement the Waterford Fire Commission met to discuss a reorganization of the Fire Marshals Office and put in place a Fire Administrator for the Town's Fire Service.

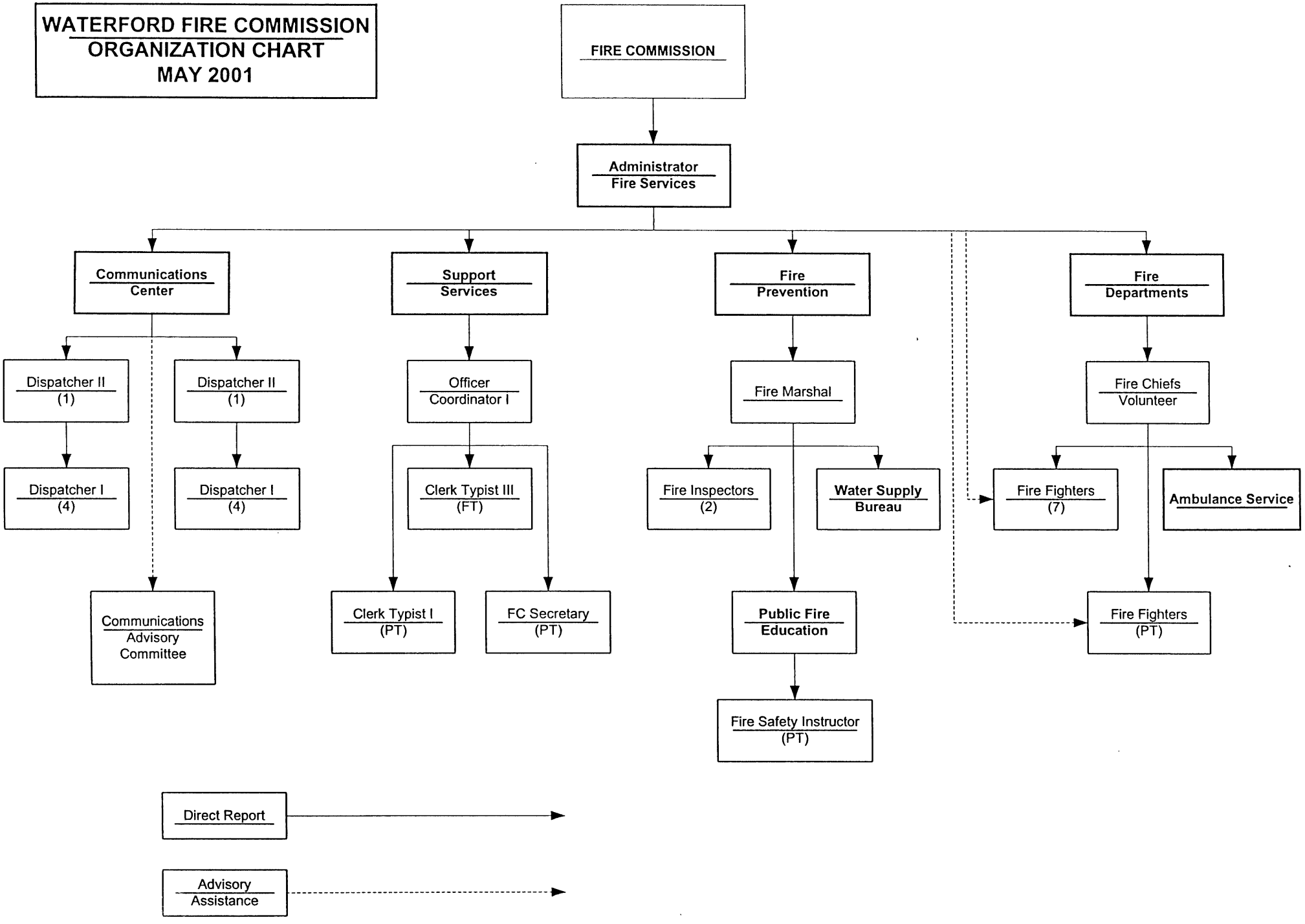
The reorganization plan was adopted by the Fire Commission and the Fire Administrator was appointed effective May 1, 2001. The reorganization was implemented without hiring of additional personnel.

The new organization establishes the relationships between the Fire Commission, Fire Marshal, Emergency Communications, Support Services, Career and Part Time Personnel, and the Fire Departments.

The new organization incorporates several of the recommendations contained in the body of this report.

The following page shows the new organization as adopted by the Fire Commission.

WATERFORD FIRE COMMISSION
ORGANIZATION CHART
MAY 2001



3

Board of Fire Commissioners Long Range Study

Board of Fire Commissioners
Long Range Planning Committee

LONG RANGE PLAN

For the

Town of Waterford
Fire & Rescue Services

February 26, 2007
Revision

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Executive Summary

This report was prepared as a result of a study that was conducted by members of the Waterford Fire Service. The direction of this report is to provide a master plan utilizing the resources available to our fire service members. During the course of this research, it became apparent there are many skilled and motivated volunteers. Recommendations are focused on the organizational relationships within the fire service and are not intended as criticism of any individual or group of individuals. What everyone has come to realize through this process is that "One cannot manage what one cannot measure".

The first and foremost commitment in developing this document is to preserve and improve the volunteer fire service in the Town of Waterford. Our fire departments have and will continue to serve the community with dedication and enthusiasm. To provide around the clock coverage with career firefighters would cost the taxpayers an additional 1.1 million dollars a year in personnel expenses. A full-time career fire department would cost the taxpayers an additional 4.3 million dollars a year in personnel expenses.

The events of September 11, 2001 clearly demonstrated that in time of disaster or crisis, whatever the cause, the local fire service is the critical link, the first line of defense and the primary response to any such event. The fire service can no longer be looked upon as a local resource, but must be seen as a national asset. This being a primary reason the fire departments provide mutual aid assistance and cooperate in programs such as the Connecticut Eastern Regional Response Integrated Team (CERRIT). This program is a regional approach to establish response teams to handle long term, large-scale hazardous materials and terrorism incidents within New London County.

The Volunteer and Combination Officer's Section of the International Association of Fire Chiefs drafted a report in that was released in March 2004 titled "A Call for Action - The Blue Ribbon Report". The report was focused on preserving and improving the future of the volunteer fire service. The most prominent comment brought out in that report was "the lack of quality leadership is the most critical issue confronting the volunteer and combination fire service". That comment is the most important reason as to why this document should be utilized as a planning tool and not just shelved with other plans conducted over the past twenty-five years.

The following recommendations should be further reviewed and implemented:

Fire Station Locations

The current locations are adequate and provide for proper emergency responses based on the time frames outlined in the National Fire Protection Association standards.

Utilizing a two-mile estimation (Representing a 4 minute response) shows that there are currently pockets within town that will result in a delayed response. Attempting to find four locations on a map to cover the town, demonstrates that the town is too large for such coverage. This process demonstrates that some overlaps could be avoided, but numerous other pockets of extended coverage would be created.

Ultimately, a reduction in stations would reduce the protection rating for response coverage in the Insurance Services Office (ISO) grading.

Fire Station Facilities

It is important to recognize that these facilities are utilized as staging areas during emergency situations and serve as front-line shelters during town-wide emergencies. An evaluation needs to be conducted on each building to ensure Occupational Safety & Health Administration (OSHA) and National Fire Protection Association (NFPA) compliance for the Health and Safety of its occupants. Current fire station facilities should be upgraded to make reasonable accommodations for handicapped accessibility under the Americans for Disabilities Act (ADA).

There should be designated Line Item in the Capital Improvement Plan for Fire Station – Building Projects to purse then compliance issues and any additional building maintenance projects that have been identified on the facilities matrix.

Fire Apparatus

It is important to realize that each fire district is unique and needs certain types of apparatus to satisfy their needs. The replacement of fire apparatus will be conducted in accordance with the Town's Fleet Management Plan.

The following changes will take effective over the next ten years as apparatus becomes due for replacement:

Pumpers:

The Jordan Fire Company will eliminate a pumper.
The Oswegatchie Fire Company will upgrade a pumper to an elevated stream device and another with a Class A Foam System.

Aerials:

The Jordan Fire Company will upgrade to a 100' Quint.

Brush Trucks:

The Jordan and Cohanzie Fire Companies will eliminate their brush trucks and replace them with small All-terrain Fire/rescue vehicles.
The Goshen Fire Company will be downsizing their Midi-Pumper to a pick-up truck sized Brush Truck.

Command:

The Jordan and Cohanzie Fire Companies will be adding small Command Vehicles.

Support:

The Jordan Fire Company will be adding a Medium sized HazMat/Resuce Support vehicle.

The Quaker Hill Fire Company will be adding a Dive Rescue Support truck.
The Cohanzie Fire Company will be adding Two (2) Utility-type trailers.

Staffing

There are currently several committees working on drafting stipend/incentive programs, along with several Town ordinance changes. The immediate need is to hire a career firefighter/EMT for the Oswegatchie fire station to supplement the existing position. This would reinforce the central portion of the town, which is rapidly developing.

Additionally there is a need to establish additional part-time for one person at the Jordan Fire Company and for one person at the Cohanzie Fire Company from 12am to 8am, 7 days a week. This would provide the South and North sides of Town with the ability to get at a minimum one-piece emergency of equipment deployed rapidly on a 24-hour basis.

Training

This document provides various goals for the fire service to strive towards to improve its current training programs. We have already instituted a training program that is being administered by the Town wide training committee assisted by the Fire Administrator. It includes scheduled training of the paid and volunteer staff. The new "Fire House" Software will help with better documenting this data for improved recordkeeping.

Financial Resources

The history of the percentage increases during the budget process over the past Fifteen (15) years has created some problems for the fire companies. The controlled increase and rising utilities have forced the administration to shuffle funding, resulting in some safety related hardships. The budget process is being reviewed for potential revisions to allow for proper operations.

Department Administration

All involved do realize that the ultimate resolution for effective operations in the future is to create a unified town-wide fire department and an improved Board of Fire Commissioners. The current stage of services does not require an immediate change. This allows for proper research and review in pursuing the system that will bring the Town of Waterford well into the future and still maintaining the "excellent" volunteer fire and rescue services that it now provides.

Forward

In 2002, a report from the Insurance Services Office was completed and submitted to First Selectman Eccard. The report showed that since the 1986 review the town fire protection classification rating has degraded from a Class 3/9 to a Class 4/9 rating. The report provided several recommendations designed to further enhance the communities fire protection. The Insurance Services Office Fire Protection Classification rating looks at the following areas: Fire Alarm Handling and Dispatching, Fire Departments and Water Supply.

The Long Range Planning Committee has incorporated most of these recommendations into this plan. The intent is to identify areas in need of improvement and foresee expected growth in the community. Additionally, we have focused on a series of goals to improve the quality of the service while enhancing the spirit of volunteerism; thereby increasing the manpower pool at a minimal cost.

We must remember that the responsibility of being a volunteer has changed significantly in the last ten years. This has become one of the most heavily regulated professions in the country. During the past decade, we have seen mandatory training requirements increase substantially while personnel wanting to volunteer have decreased. A new threat emerging is the ability of fire departments to be sued; this will have a negative impact on the service.

It is the committee's belief that in order for Waterford to be spared the costs of an adequate firefighting force, programs that enhance and reward the self-esteem of the volunteer firefighters must be instituted. If this is not done, the system will continue to suffer a serious depletion of personnel due to the economic and social pressures of our current lifestyle. In order for the Board of Fire Commissioners to maintain its charter of enhancing the volunteer system, a performance reward program is essential. We anticipate a considerable return on the communities' investment in direct personnel versus salary and benefits over the program's life.

The committee believes that with implementation of this report, a major improvement in the professionalism and proficiency in our management will be witnessed over the next five years; including the reinstatement of our Class 3 ISO rating.

Background

The Town of Waterford was incorporated in 1801 and presently has a population of approximately 19,000 people, covering approximately 37 square miles. The City of New London and the Thames River bound it on the east; to the north by the Town of Montville and west by the Niantic River that separates the town with the Town of East Lyme. To the south lies the Long Island Sound, a body of water adjacent to the Atlantic Ocean.

The Town of Waterford formerly considered a rural community is presently residential in nature with some light industry; the town's largest commercial facility being the Millstone Nuclear Power Station located on Millstone Point, consisting of Two (2) Nuclear power generating stations. The town hosts numerous shopping and retail facilities. The town also is a recreational and commercial boating center, with access to Niantic River and Long Island Sound at state boat launching facilities.

Mission Statement

The primary mission of the Waterford fire service is to provide a range of programs designed to protect the lives and property of the residents of the Town of Waterford from the adverse effects of fires, sudden medical emergencies or exposure to dangerous conditions created by either man or nature.

Organization

The Town of Waterford Charter creates the Board of Fire Commissioners. The Board of Fire Commissioners are responsible to insure the availability of fire protection and emergency medical services in addition to providing long range planning and development to meet future needs. The Code of Ordinances (Chapter 2.36) stipulates that the Board of Fire Commissioners is to be a five-member board (Representation from each of the five fire districts) appointed by the Representative Town Meeting. The Board of Fire Commissioners has authority vested in it by General Statute of the State of Connecticut.

There are five volunteer fire departments located in and serving the Town of Waterford. Each are incorporated under the General Statutes of the State of Connecticut as non-profit corporations. The Waterford Fire Engine Co. No.1, Inc. (Jordan) was incorporated on March 1, 1923; the Quaker Hill Fire Company, Incorporated, was chartered April 11, 1927 and its charter was amended October 9, 1952; the Goshen Fire Department, Incorporated (originally known as The Goshen Fire Engine Company No.1, Incorporated) received its Articles of Association January 31, 1928. On November 17, 1930, the Oswegatchie Fire Company Inc. was chartered. Cohanzie Fire Company No.5, Incorporated was chartered January 16, 1942.

An independent volunteer non-profit association provides the care for the sick and injured. The Waterford Ambulance Service, Inc. established around 1948, is located in and serves the Town of Waterford.

The fire and ambulance services responded to approximately 3,3,29 emergency calls in 2006. This number of fire incidents has been steady through the years with a constant increase in EMS calls, yet this does not reflect the training classes, training drills, meetings, or fire prevention activities that personnel attend during the year. Combined, the numbers would double the number of emergency calls. Mandatory certification levels have dramatically increased the required qualifications and training for firefighters in order for them to attend emergency calls as well as qualify for the Town's tax incentive offered to these qualified personnel.

The fire service provides emergency response from five fire stations that are fairly active fire departments. The following exhibit provides a summary of the types of calls received by the fire departments from the years 2000 through 2006. The types of calls are typical of what one would anticipate in a town such as Waterford.

Fire Department Calls for Service

Type of Call	1980	1985	1990	1995	2000	2001	2002	2003	2004	2005	2006
Structural	109	60	49	54	23	32	12	27	42	75	80
Vehicle	47	52	36	44	38	34	33	42	19	37	45
Outdoor	189	106	58	51	56	78	50	40	27	72	72
Fire Alarms	137	502	473	403	232	163	240	229	312	279	261
Accidents	146	215	170	214	260	267	270	336	295	277	279
Search & Rescue	11	13	20	15	7	4	4	8	23	10	11
Hazardous Materials	30	47	64	54	66	69	56	73	79	90	77
Carbon Monoxide	0	0	0	31	19	16	15	22	19	23	23
Utility Emergencies	9	9	16	44	64	52	47	63	34	46	60
Mutual Aid	26	17	34	24	17	26	22	24	14	48	44
Miscellaneous	18	52	131	114	202	245	194	203	171	184	23
TOTAL FIRE	*722*	*1,073*	*1,051*	*1,048*	*984*	*986*	*943*	*1,067*	*1,035*	*1,141*	*975*
TOTAL EMS	*908*	*1,134*	*1,381*	*1,603*	*1,805*	*1,788*	*1,787*	*1,999*	*2,018*	*2,131*	*2,354*
GRAND TOTAL	***1,630***	***2,207***	***2,432***	***2,651***	***2,789***	***2,774***	***2,730***	***3,066***	***3,053***	***3,272***	***3,329***

VisionFIRE

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"The Future of Public Safety Automation"

Waterford Fire Department
Incident Analysis By Day Of Week

Incident Dates From 01/01/2006 **To** 12/31/2006

Jurisdiction: 08210

Day	Total	100 - 199	200 - 299	300 - 399	400 - 499	500 - 599	600 - 699	700 - 799	800 - 899	900 - 999
Sunday	465	8	0	359	14	18	29	37	0	0
Monday	468	22	0	355	17	15	29	30	0	0
Tuesday	425	7	0	341	11	14	19	33	0	0
Wednesday	475	17	0	360	17	13	27	41	0	0
Thursday	495	15	1	385	11	16	21	46	0	0
Friday	508	14	0	400	19	19	15	41	0	0
Saturday	491	14	0	365	20	13	32	46	0	1
Totals	**3,327**	**97**	**1**	**2,565**	**109**	**108**	**172**	**274**	**0**	**1**

The codes are organized in a series, as shown below:

Series	Heading
100	Fires
200	Overpressure Rupture, Explosion, Overheat (no ensuing fire)
300	Rescue & Emergency Medical Services (EMS)
400	Hazardous Conditions (No Fire)
500	Service Calls
600	Good Intent Calls
700	False Alarm & False Calls
800	Severe Weather & Natural Disasters
900	Other Type of Incidents

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Waterford Fire Department
Incident Analysis By Hour Of Day

Incident Dates From 01/01/2006 To 12/31/2006

Jurisdiction: 08210

Hour	Total	100 - 199	200 - 299	300 - 399	400 - 499	500 - 599	600 - 699	700 - 799	800 - 899	900 - 999
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02-02:59	60	2	0	40	2	4	4	8	0	0
03-03:59	53	2	0	41	1	2	1	6	0	0
04-04:59	46	2	0	27	3	1	4	9	0	0
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08-08:59	187	5	0	146	6	7	5	18	0	0
09-09:59	163	6	0	126	5	6	8	12	0	0
10-10:59	193	0	0	153	8	7	13	12	0	0
11-11:59	181	5	0	149	4	4	5	14	0	0
12-12:59	205	4	0	163	5	5	7	21	0	0
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15-15:59	186	7	0	140	8	8	9	14	0	0
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18-18:59	190	5	0	137	11	6	11	20	0	0
19-19:59	161	5	1	125	4	2	7	16	0	1
20-20:59	132	1	0	106	1	6	10	8	0	0
21-21:59	127	2	0	88	6	6	15	10	0	0
22-22:59	107	3	0	87	3	2	9	3	0	0
23-23:59	70	3	0	56	0	2	7	2	0	0
Totals	**3,327**	**97**	**1**	**2,565**	**109**	**108**	**172**	**274**	**0**	**1**

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Public Expectations

The community has been very supportive of the services provided. Evidence of this is by overwhelming support received at various and numerous public safety events, fire prevention activities, fundraisers and the donations received for the toy and food drive that are conducted by the fire service. The fire and EMS services take great pride in knowing that we can provide a rapid and effective response with the diversity to mitigate any emergency and that it will be cost conscience and reliable, all of which the community has voiced as an expectation when in need of our services. The expectations of the personnel are for professional conduct with empathy and to do a quality job in a fair, friendly and consistent manner, all of which are goals for our services attained through training and experience.

Homeland security has placed a new aspect of training to the fire and EMS services with the threat of terrorism and biological catastrophes made aware of us due to the events of September 11, 2001. Since that date, our service has grown to incorporate more training on equipment dedicated to handling emergencies involving terrorism and biological/contaminated objects along with the implementation of the National Incident Management System and recertification training in these disciplines.

The community continues with a major growth spurt in both residential and business properties. Major shopping centers have been built or renovated, numerous single-family houses have been built and another major condominium complex is nearing completion. Both major Interstate Highways have seen a tremendous increase in vehicular use and the number of people in our community is nearly doubled during the daytime hours and on weekends. During the Thanksgiving through Christmas period, the number of nearly tripled with people visiting Waterford. Proof is shown in the number of emergency calls increasing and the Police Department providing additional staffing during this period.

Fire Management Areas

Those commercial areas with a value in excess of one million dollars, densely populated neighborhoods, and residential areas with no fire hydrants:

Jordan: Waterford Shopping Center, Boston Post Road & Clark Lane Business and Shopping Area, Waterfall Shopping Area, Jordan Village Area, Mago Point Area, Millstone Training Center, Myrock Avenue Area, Fog Plain Road Area, Governor's Landing, Jordan Commons Condos, Rope Ferry Condos, Longview Village Condos, Stoneheights Condos, Civic Triangle Buildings, Waterford High School, Clark Lane Middle School, Southwest Elementary School, Friendship School & Community Campus, Bayview Healthcare, Haven Healthcare, Fountainview Healthcare, AHEPA Housing, Yorkshire Drive Housing. (23)

Quaker Hill: Quaker Hill Shopping Mall, Quaker Hill Village Area, UBS Lumber Yard, Bloomingdale Road & Applewood Drive Residential Area, Quaker Hill Elementary School, Old Norwich Road Residential Area, Scotch Cap Road Condos. (7)

Goshen: Harkness Park Area, Seaside Area, Pleasure Beach Area, Ridgewood Park Area, Jordan Cove, Hendel's Commercial Area, Eugene O'Neill Theater Area, The Strand, Millstone Nuclear Power Station, Presidential Heights, Westwood Residential Area, Great Neck Elementary School. (12)

Oswegatchie: Boston Post Road Business Area, Cross Road Centre and Commercial Area, Sonalyst Studios, ABCO Business Area, New Medical Facility, Oswegatchie Elementary School, Cross Road Residential Area, Oswegatchie Road Residential Area, Niantic River Road Residential Area, Bridges at Cross Roads Facility. (11)

Cohanzie: Hartford Road (I-95 to I-395 Commercial Area, Cohanzie Elementary School, Industrial Drive Area, Cross Road Industrial Area, Waterford Village Residential Area, Twin Lakes Drive Residential Area, Greentree Manor Healthcare, Waterford Country School Area, Vauxhall Street and Meadow Drive Residential Area, Mary Street Residential Area, Waterford Speedbowl. (11)

Department Administration

Each fire district has its own administrative structure that reflects that particular department's mission, goals and objectives. The primary purpose of each organization is to effectively combat the perils of fire that occur within the respective fire districts. This holds the same for the allocation of resources. The elected fire chief is responsible for the management and operation of the fire department including the supervision of the volunteer and full time employees assigned to the department, training, maintenance of apparatus and facilities, budget preparation and liaison with the Board of Fire Commissioners.

All efforts are made to be compliant with established requirements of local, state and federal authorities. This effort requires a great deal of time on behalf of each company's administration. It is the opinion that, the requirements, being as difficult as they are to be kept within full compliance; the efforts of the Waterford fire departments exceed numerous volunteer fire departments statewide.

Each fire company operates under their own particular By-laws that are very different from station to station. In general most of their personnel functions, roles and responsibilities are pretty well defined, either in the By-laws or within an existing organization summary and/or chart. The fire companies would like to maintain this organizational structure, but are investigating the possibilities of becoming a unified town-wide fire department in the future.

Each company is dedicated solely to volunteer fire-fighting activities for the benefit of the Town. The fire companies operate independently, although provision is made for mutual aid among the companies. The Waterford Fire Officers Association (a volunteer association) serves to centralize and coordinate the efforts of the fire companies and exists to serve the common purposes of the companies and the general welfare of the community. The association has no legislative powers as such; its expression of opinion is merely that, and binds no volunteer firefighter or volunteer fire company.

Financial Resources

As the Town of Waterford continues to urge financial discipline, the fire service still needs to provide effective, efficient, and safe protective services that prevent fires, reduce risk to lives and property, deal with incidents that occur, and prepare for anticipated incidents. The scope and level of services need to be determined so the necessary level of funding may be achieved, including personnel, resources and facilities.

The budget process begins with each fire department submitting a proposed budget to the Board of Fire Commissioners. The commission reviews and approves the budget of each department by meeting with representatives of the department and then prepares a master budget document that includes the five Fire Departments, the Ambulance Service and the Fire Marshal's Office that is then transmitted to the Board of Finance for consideration and review. When approved by the Board of Finance, it is then passed on to the Representative Town Meeting for their consideration and final approval.

It is recognized that in general the true value of the fire service is understood more for its social gathering than in true financial terms. Since the early 1990's the fire departments have been held to very minimal operation budget increase, yet the costs associated with equipment and apparatus have increased exponentially. Just a few years, a single self-contained breathing apparatus (SCBA) cost approximately $1,900; today an SCBA cost approximately $3,500. These types of cost increases have exceeded the minimal budget increases that have been allowed. This forces the fire departments to make purchases based on priorities and abandons the replacement programs that have been designed for firefighter safety. The following is evidence to that fact:

Fire Company	FY96 Budget	FY06 Request	Difference
Jordan Fire Company	$119,000	$131,580	10.6%
Quaker Hill Fire Company	$113,800	$116,210	2.1%
Goshen Fire Company	$86,950	$93,200	7.2%
Oswegatchie Fire Company	$121,876	$128,349	5.3%
Cohanzie Fire Company	$119,000	$130,230	9.4%

	1980	1985	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007
Jordan	$54,025	$79,350	$98,700	$117,250	$134,000	$125,000	$125,000	$125,000	$126,875	$129,000	$131,580	$133,005
Quaker Hill	$56,375	$85,325	$111,900	$113,800	$114,300	$110,500	$110,500	$110,500	$112,158	$114,100	$116,210	$119,695
Goshen	$45,325	$68,525	$80,100	$86,950	$88,620	$88,620	$88,620	$88,620	$89,950	$91,400	$93,200	$96,196
Oswegatchie	$72,690	$77,770	$108,190	$116,735	$121,316	$121,316	$121,316	$121,316	$123,136	$125,252	$128,349	$135,666
Cohanzie	$58,025	$92,825	$109,900	$117,750	$124,311	$123,311	$123,311	$123,310	$125,160	$127,209	$130,230	$134,907
Fire Commission	$442,611	$764,301	$1,214,662	$1,886,401	$2,214,741	$2,308,433	$2,360,495	$2,380,329	$2,167,897	$2,175,761	$1,619,325	$1,660,199
Salaries	*$287,406*	*$509,985*	*$875,271*	*$1,351,431*	*$1,735,749*	*$1,796,839*	*$1,872,722*	*$1,896,675*	*$1,691,614*	*$1,707,542*	*$1,237,784*	*$1,272,680*
Services	*$143,650*	*$228,620*	*$260,721*	*$417,170*	*$378,842*	*$385,548*	*$389,573*	*$387,602*	*$384,549*	*$385,419*	*$325,566*	*$335,544*
Supplies	*$4,340*	*$11,550*	*$11,550*	*$15,600*	*$31,150*	*$30,046*	*$31,200*	*$30,052*	*$29,734*	*$29,800*	*$29,975*	*$30,475*
Equipment	*$7,215*	*$14,146*	*$67,120*	*$13,600*	*$69,000*	*$96,000*	*$67,000*	*$66,000*	*$62,000*	*$53,000*	*$26,000*	*$21,500*
Buildings	*$0*	*$0*	*$0*	*$88,600*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*
	$729,051	$1,168,096	$1,723,452	$2,438,886	$2,797,288	$2,877,180	$2,929,242	$2,949,075	$2,745,176	$2,762,722	$2,218,894	$2,279,668

Planning Process

The planning Committee was different from the standard consultant approach. A previous study was conducted using a facilitator. A lack of participation and focus by several members of the local study groups created a roadblock for the facilitator. This situation resulted in the composition of a document with less than optimal results as suggested by numerous members of the fire service.

A master planning process involves several steps that were followed in developing this plan. There is no exact system or model for the fire service, but there are numerous nationally recommended standards and available resources to utilize as framework for this master plan. The implementation of this plan requires absolute support from all agencies involved as it encroaches on both areas of strategic and operational planning. Everything composed is taken from what is considered to be the best reference documentation on the subject and mutually accepted by the entire Long Range Planning Committee.

The committee reviewed the facilities, apparatus, and staffing structure of the fire service. During the course of this research, it became apparent there are many skilled and motivated volunteers.

Fire Service Planning

A number of factors should be considered when planning for the future of the fire service. From target hazard perspective, in addition to over 8,000 single-family residences and numerous retail centers, the town has a number of facilities that present potential fire and life safety concerns:

- 9 schools
- 12 churches
- 4 nursery and day care centers
- 4 assisted living/nursing homes
- 4 senior housing facilities
- 4 motels with approximately 93 units
- 7 condominiums/apartment complexes with approximately 651 units
- 9 group homes
- 2 interstate highways
- 2 railway lines
- 4 State roadways
- 2 Nuclear Power stations

Hazardous materials are being transported, stored, used in manufacturing, and sold in several areas of the town. Potential (and actual) technical rescue incidents include trench and building collapse, confined space, multiple vehicle crashes, and radiological releases. Natural and human-caused disasters are also possible.

The potential for serious fires and complex Hazardous materials and technical rescue incidents exists, given the number of large facilities and target hazards. Thus, the comprehensive fire prevention, life safety, and public safety education efforts of the fire departments, the Fire Marshal's Office, the Building and Planning department, are especially important.

While the population growth will not be a significant factor in the foreseeable future, the population is aging. Without significant new growth and a substantial movement of young families into the town, the result will be increased numbers and percentages of older residents who will have a greater need for emergency medical services.

Implications for fire protection in the Town of Waterford are clear: comprehensive fire prevention, general safety, and public education programs should continue to be emphasized, and the emergency response services and capabilities of the Waterford fire services must be kept strong.

Planning Criteria

Response and performance objectives should be developed as a means of helping to make informed decisions for fire service and EMS functions. Objectives for these two functions have been based on two nationally accepted concepts, brain death and fire growth. These two concepts provide satisfactory benchmarks for response times.

Brain death is defined as a critical point in time when breathing stops, the brain undergoes potential irreversible damage within four to six minutes without oxygen. After ten minutes without oxygen the chances of survival are minimal. The fire service provides first responder emergency medical service when a district ambulance is unavailable.

The "flashover" stage of fire growth is another critical point when fire departments want to arrive and deploy their resources. Regardless of the speed of growth, or length of burn time, all fires go through the same stages. The three stages of burning are the smoldering stage, the incipient stage, and the flashover stage. The "Flashover" stage of a fire marks the turning point in fire conditions.

In low hazard occupancy, flashover is a critical stage of fire growth for two reasons. First, no living thing in the room or origin will survive, so a chance for firefighters to save lives drops dramatically. Second, flashover creates a quantum jump in the rate of combustion, and a significantly greater amount of water is needed to reduce the burning material below its ignition temperature. Flashover also creates the need for more firefighters to handle larger hose streams to extinguish the fire. A post-flashover fire burns hotter and moves faster, compounding the search and rescue problems in the remainder of the structure.

Predicting when flashover occurs is fairly easy to do. Tests have been conducted and conclude that flashover occurs between six and ten minutes of ignition. Measuring flashover is a function of time and temperature. Fire growth occurs exponentially; fire doubles itself every second of free burning that it is allowed.

Here is a quick comparison of fire conditions and firefighting operations before and after flashover:

Pre-flashover	Post-flashover
Fire is limited to one room	Fire may spread beyond one room
Firefighters operate using small hand lines	Larger and more hand lines are needed
Search and Rescue easier	Search and Rescue is compounded
Initial resources can handle the fire	Incident requires additional resources

All should agree that the concept of time is very important to emergency response. In an emergency there are many components of time - ignition, heart cessation, dispatch processing, firefighter donning safety clothing, and travel time. All these taken together provide for a total reflex time for emergency response.

While looking at these time lines it is important to also establish "performance objectives" that currently do not exist. These objectives need to compare to brain death and flashover benchmarks. The following objectives are being used to perform this exercise:

Standards for Response Coverage

- Respond to 95% of all calls for emergency assistance within 5 minutes of dispatch.
- Provide a minimum of 11 firefighters for initial attack to structural fires within 10 minutes of dispatch.
- Provide a minimum of 21 firefighters for sustained attack to structural fires within 20 minutes of dispatch.

Utilizing these "Standards for Response Coverage" objectives is where the distribution and concentration components come into play. Distribution deals with where we geographically place the proper resources to handle the routine emergency. Following the brain death and flashover benchmarks, it would be reasonable to say that these response goals should provide the first-due unit for either providing basic life support or advancing the first hose line in for fire control or rescue. Concentration is the spacing of multiple resources so that an effective response can be assembled on-scene within a stated performance standard. We presently meet this goal with our current deployment arrangement.

Fire Station Locations

Excessive travel times may mean an increased risk to the public experiencing an emergency. The basic deployment concept for a fire department calls for stations to be located to form an orderly pattern or network of stations from which an emergency service is delivered in a timely manner. The network as a whole seeks to optimize coverage with short travel distances, while giving special attention to natural and man-made barriers that can create response time problems. Because fire stations last for fifty years or more, location has a long-term effect on the community to be served. The apparatus section should also be considered when establishing station locations based on several principles that are utilized for apparatus deployment.

In an effort to evaluate a station location you must consider the street network and traffic patterns and how they affect response times. Keep in mind that fire apparatus is large and heavy and the following items must be considered:

- Condition of roads
- Access and direction of thoroughfares
- Navigable neighborhood streets
- Cul-de-sacs, barricades, railway crossings, and bridges

There are written standards that provide response time guidelines for the fire services to utilize as performance objectives. In general the National Fire Protection Association standards require that your full first alarm assignment should be on scene within 8 minutes of the alarm being received. This response time should be achievable for not less than 95 percent of a fire department's responses. These guidelines are a planning tool that should not be overlooked, but is setting a very high bar for volunteer fire departments to achieve. The Firescope, Inc. study demonstrated that the existing fire station network is adequate to meet the performance objectives of these response time standards.

During severe weather emergencies, the town's emergency plan calls for the combining of Task Forces, comprised of Police, Public Works, Fire and Medical personnel and resources into the five fire districts. Each district is responsible for mitigating emergencies in these geographical

population centers of the town, along with the sheltering of residents. This includes keeping the town's roadway infrastructure clear of debris and assisting the residents with and special needs that can be obtained. The current distribution of fire companies is sufficient to support the Task Force concept. The strategic positioning of companies allow for maximum draw on populated areas while reducing response time. Historically the Task Force concept has worked very well.

The committee agrees with the fire station locations, as it pertains to response times, set forth by Firescope.

The remainder of this section that has been underlined is taken directly from the Firescope, Inc. study:

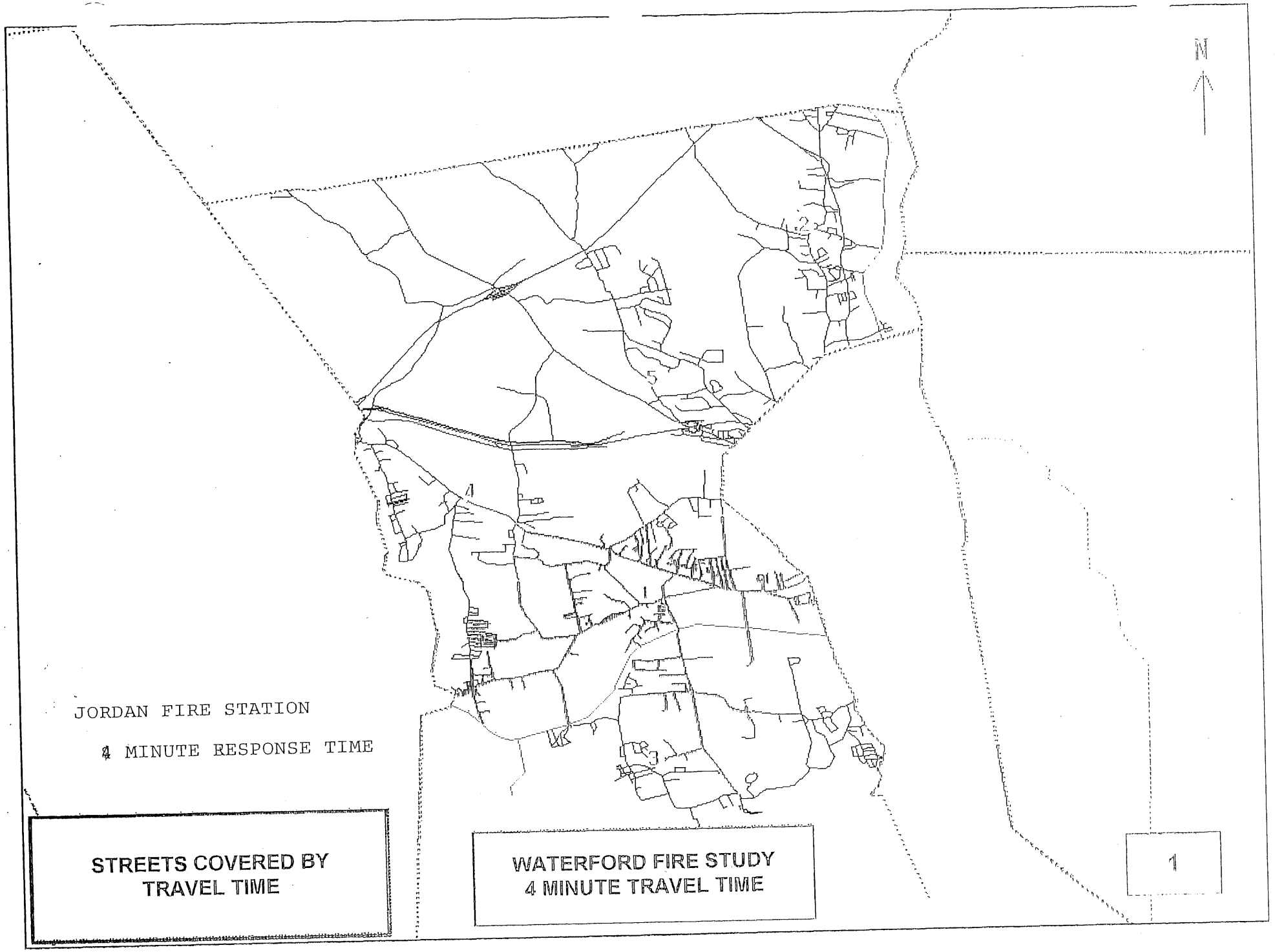
Firescope, Inc. utilized a geo-based computer program that calculates and displays the street network of the area under study. The computer output displays the actual street network of the area under study with the various aspects of the study shown in color. The computer program is an integrated program that accurately models an emergency vehicle response over a street/highway network using actual speeds and distances. The actual speeds are based on fire department input and historical response data.

Unlike grid and concentric circle analysis, the computer program simulates the real road network of the area being analyzed. A high degree of accuracy is insured by using actual travel distances, vehicle speeds, factoring time delays for roadway conditions (congestion, turning radius, weather, hills, etc.) accounting for one way or unusable roadways and implementing user defined risk factors.

The results are shown in a series of color maps of the street/roadway network that are easy to comprehend which show the response areas for each station and the overlap between stations.

The street network that is used as a basis for the study is taken from maps and data that are produced by the U.S. Census Bureau. These are actual scaled maps that have data attached to them. Each street segment is assigned a travel speed. The speeds modeled by the map will be compared with actual travel times to determine the accuracy of the network that is used for the study. Firescope, Inc. obtained a base map for the Town of Waterford and then calibrated it to reflect actual travel times.

Following the calibration a series of color maps were produced to show the coverage provided by each of the five fire stations for a specific travel time increment. Firescope, Inc. produced a series of 30 maps for review by the Committee. The following is a list of the maps that were reviewed. Copies of the maps are included with the report. Please note that the maps show travel time only. Travel time is defined as: The time from wheel start to wheel stop.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4 MINUTE RESPONSE TIME
STREETS COVERED BY TRAVEL TIME
WATERFORD FIRE STUDY
4 MINUTE TRAVEL TIME
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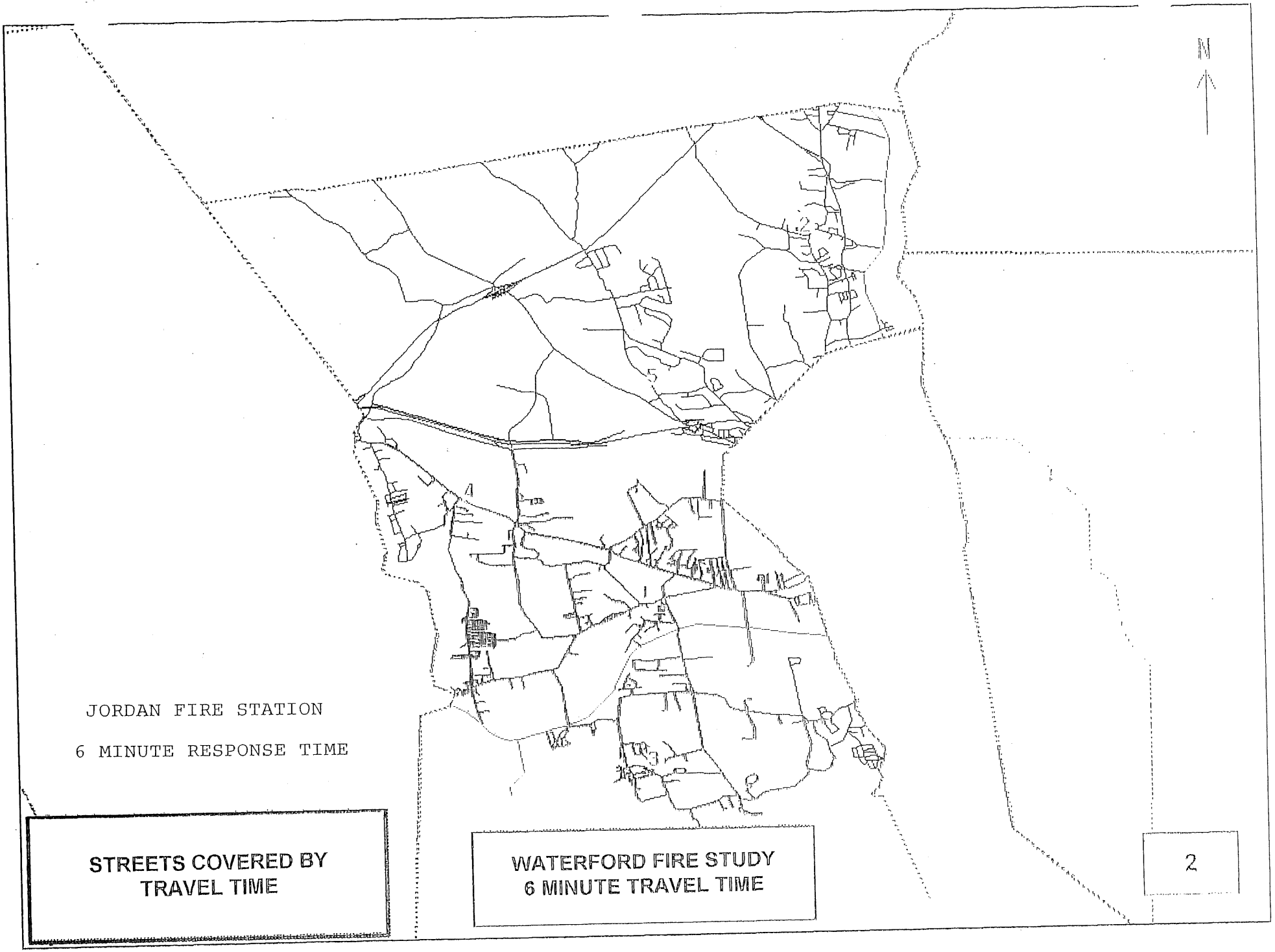
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6 MINUTE TRAVEL TIME
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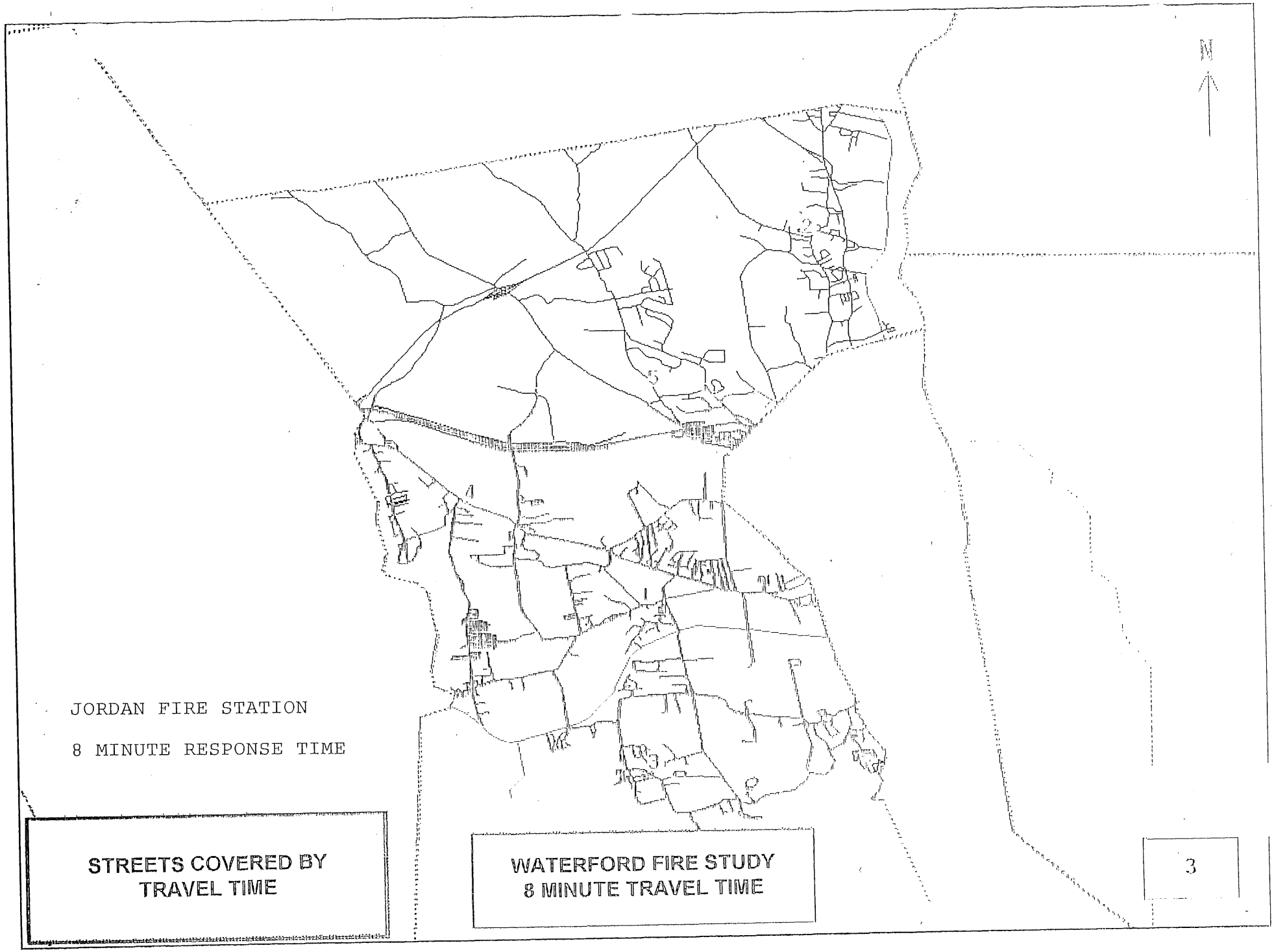
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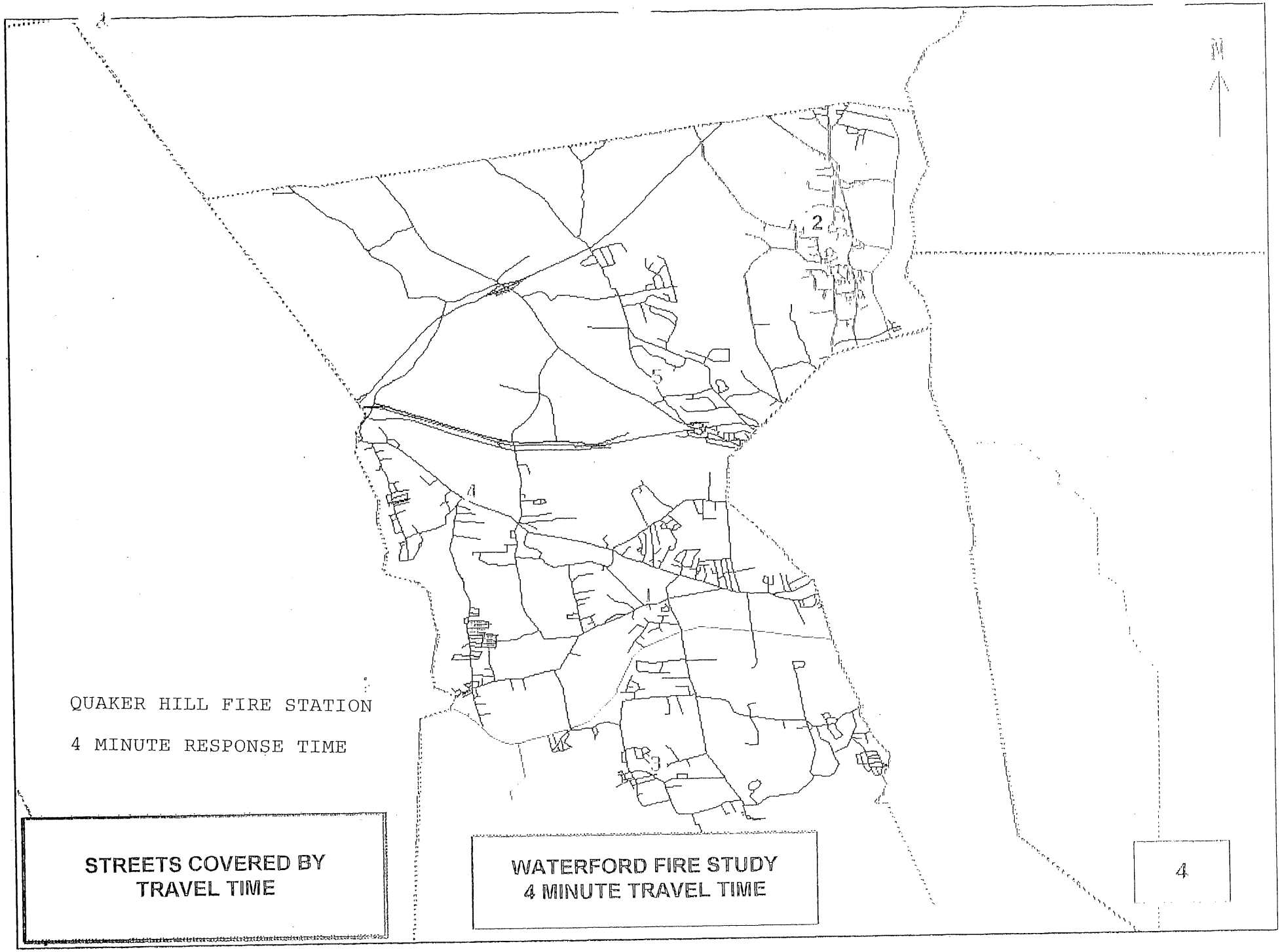
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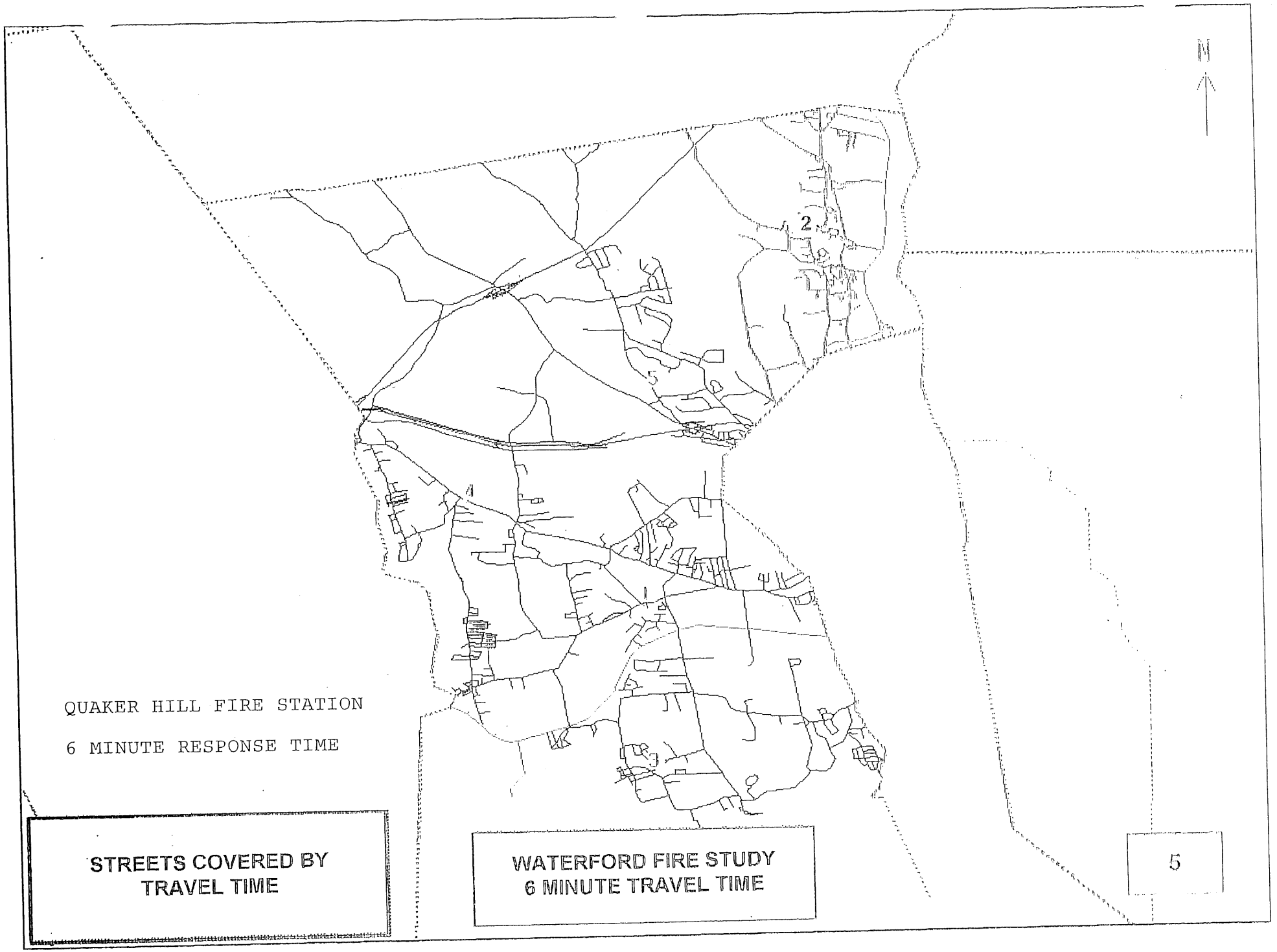
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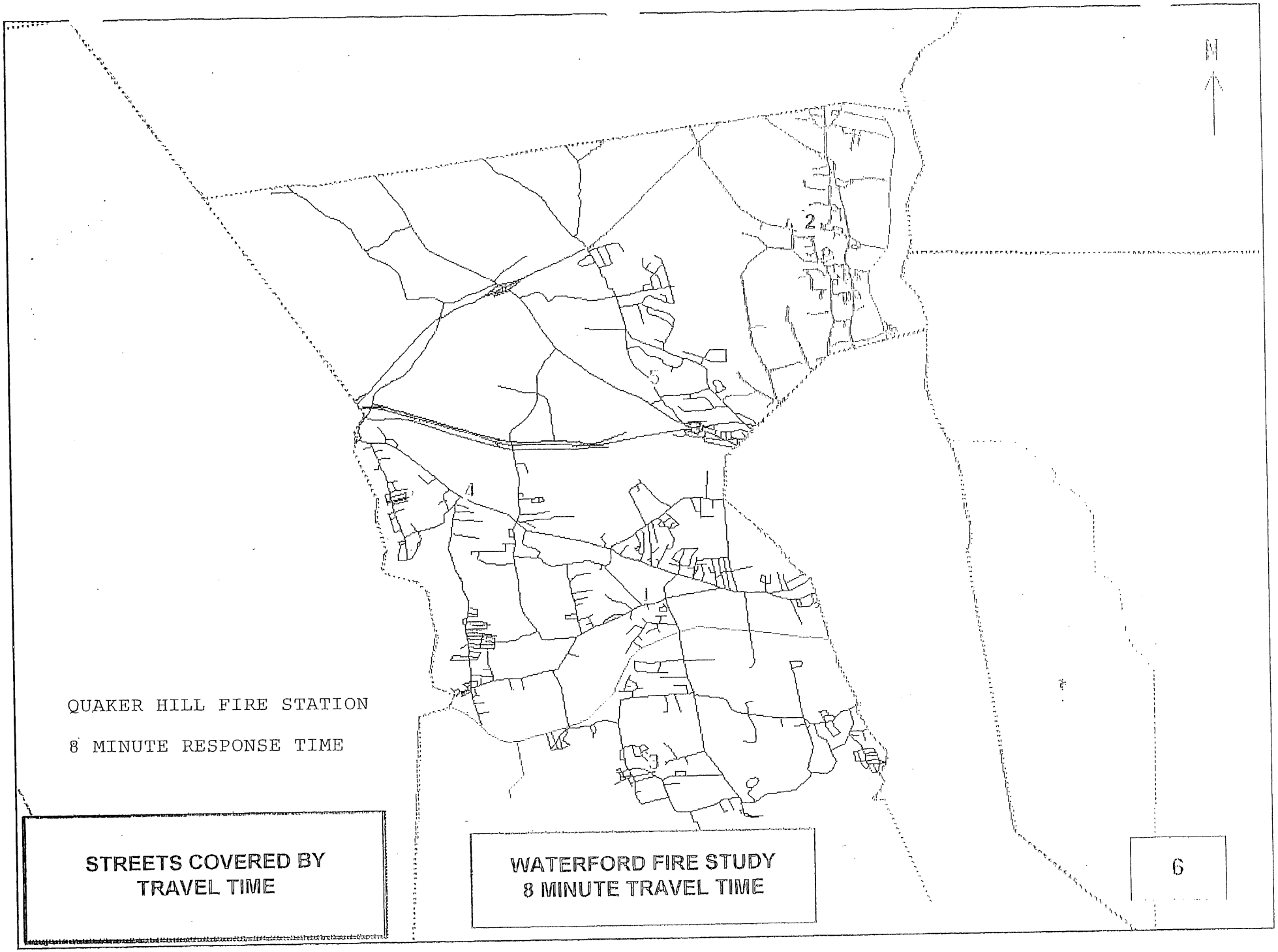
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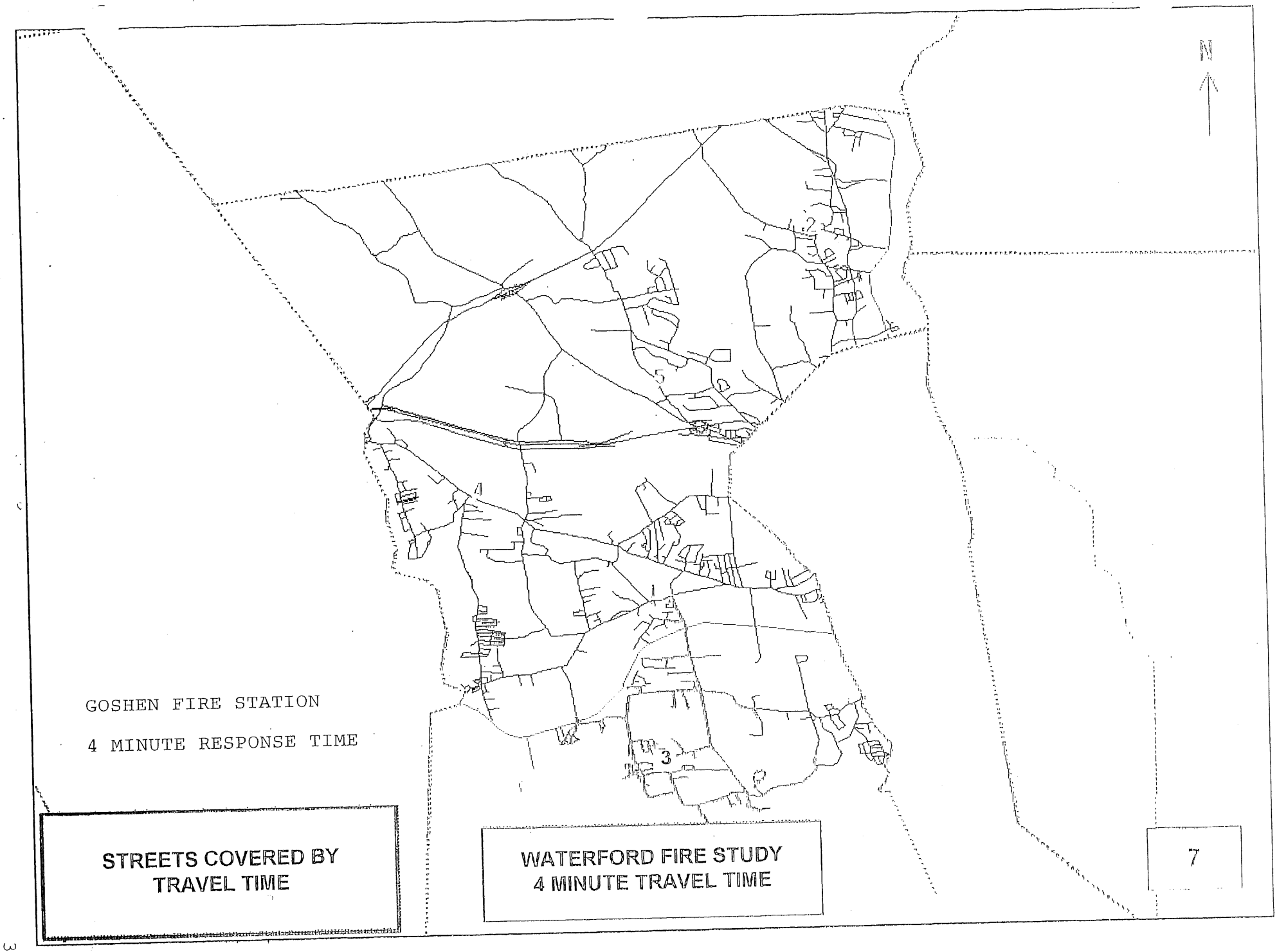
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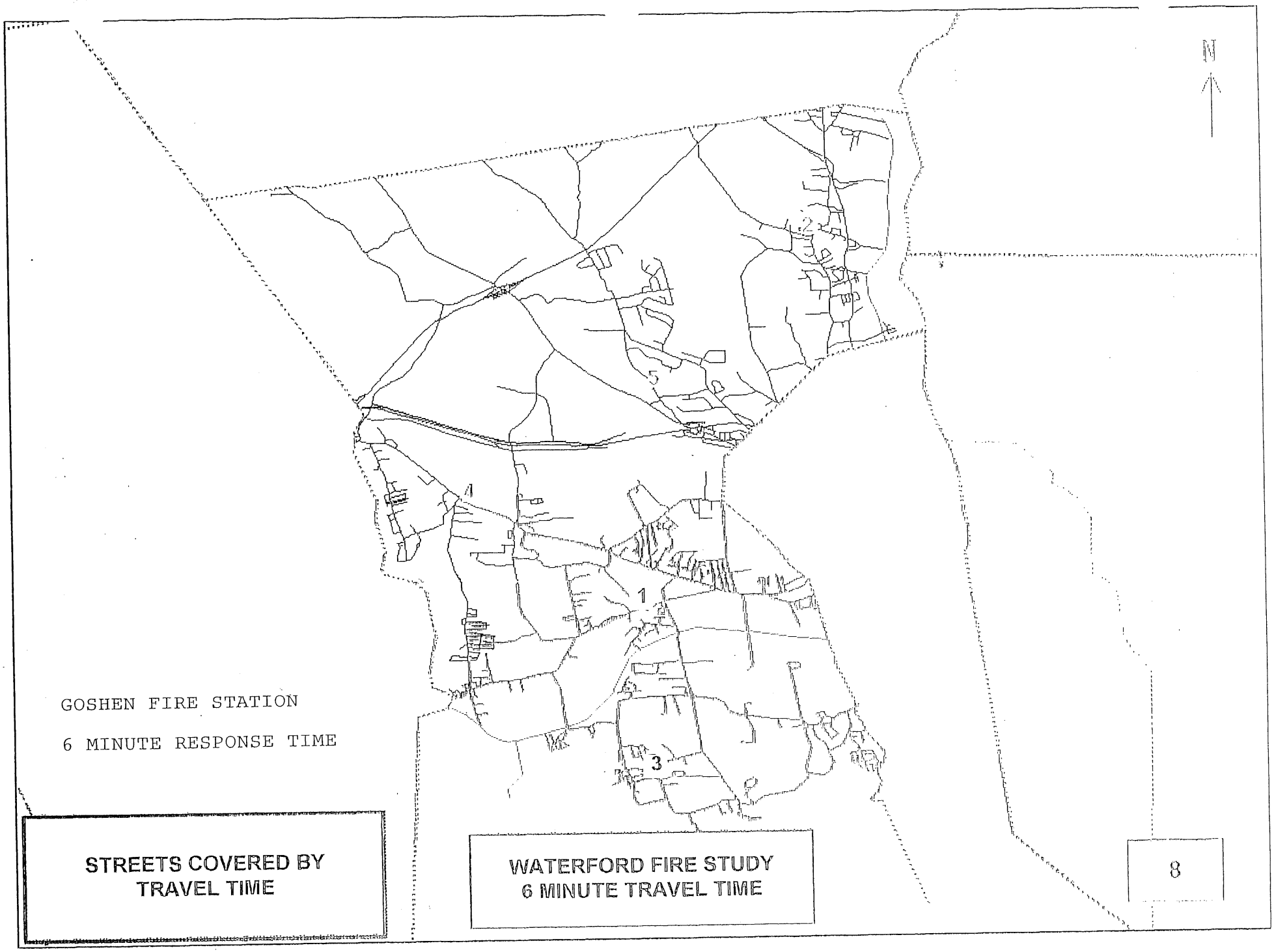
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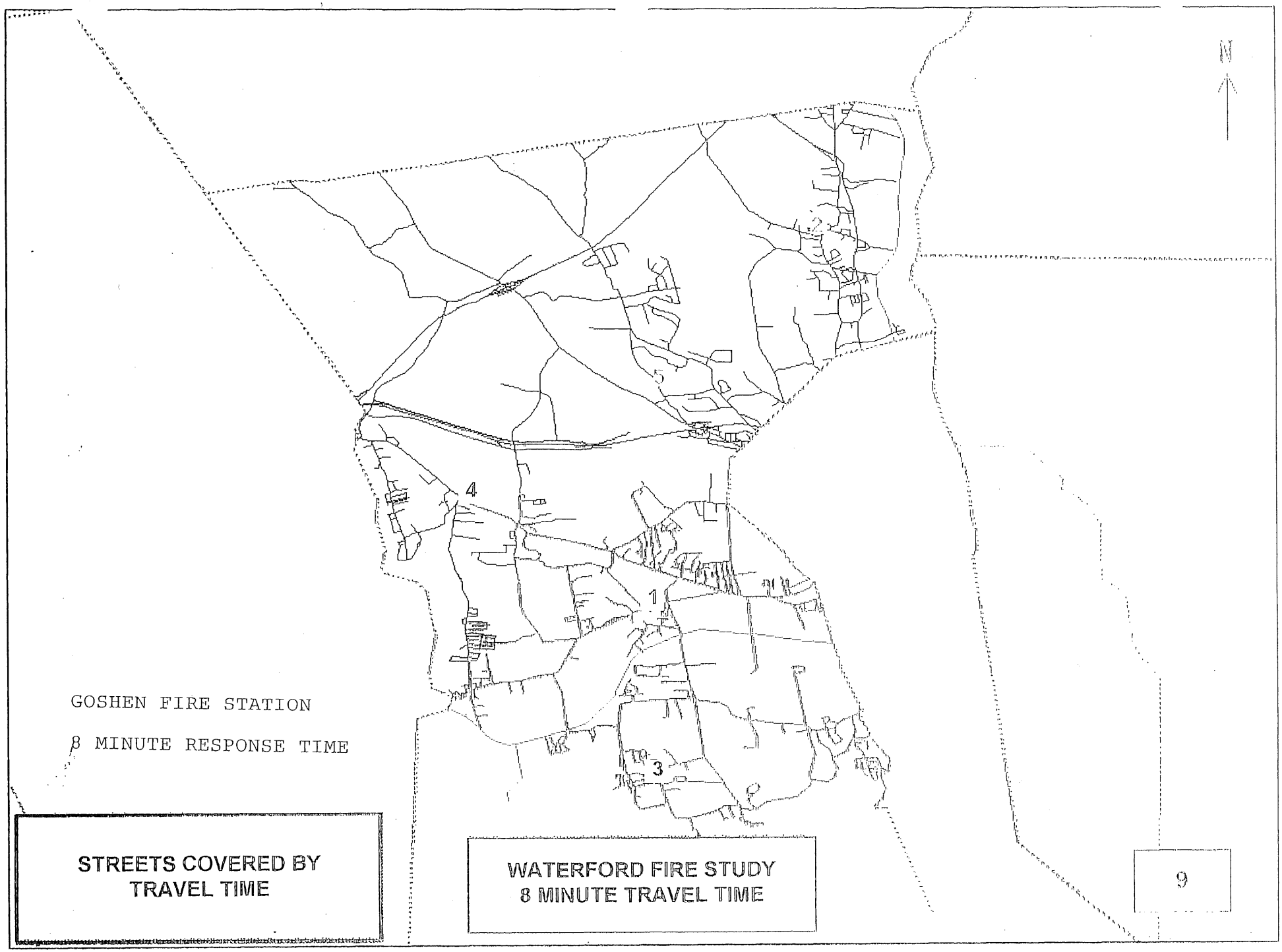
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8 MINUTE TRAVEL TIME
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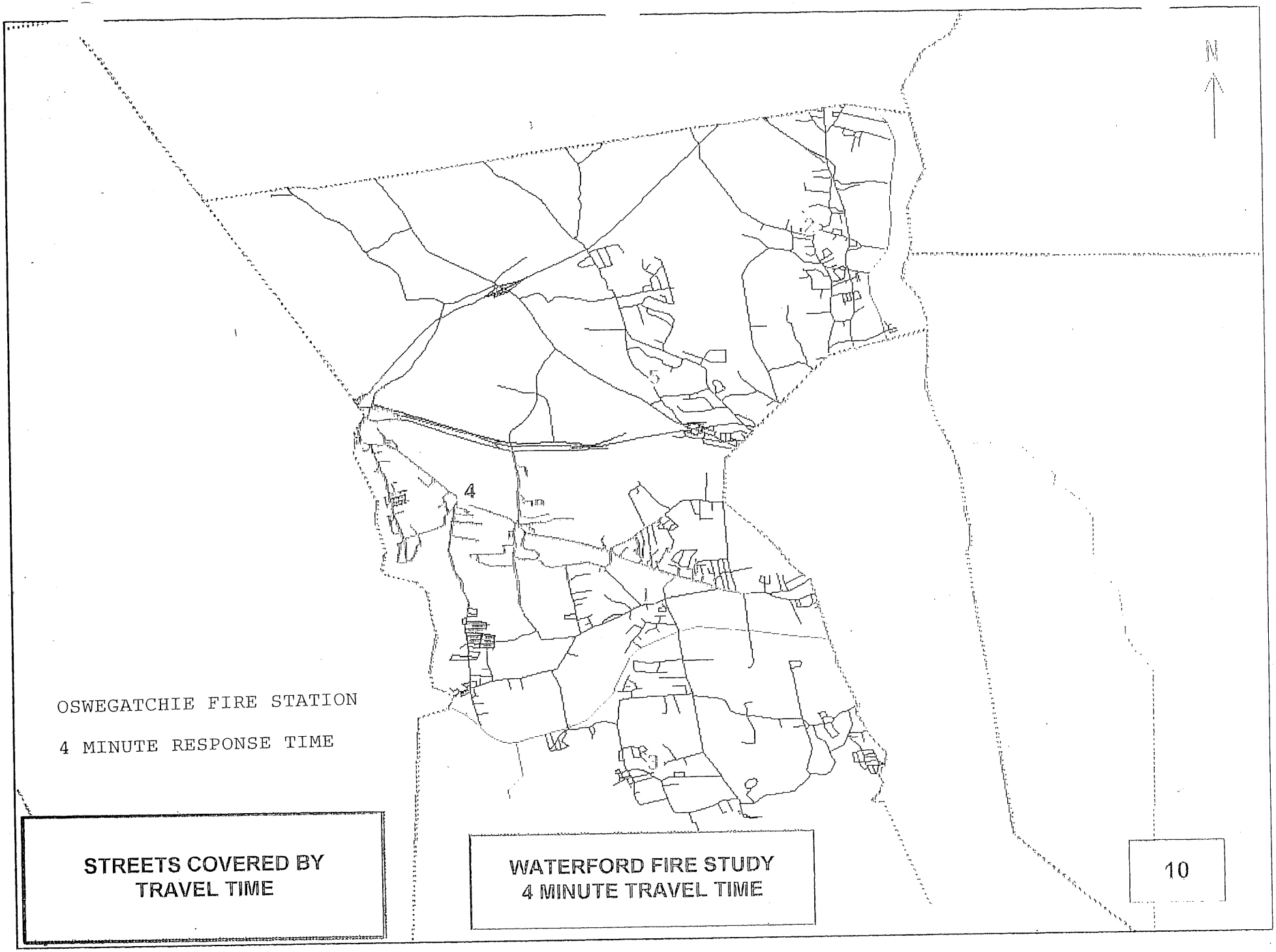
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STREETS COVERED BY TRAVEL TIME
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4 MINUTE TRAVEL TIME
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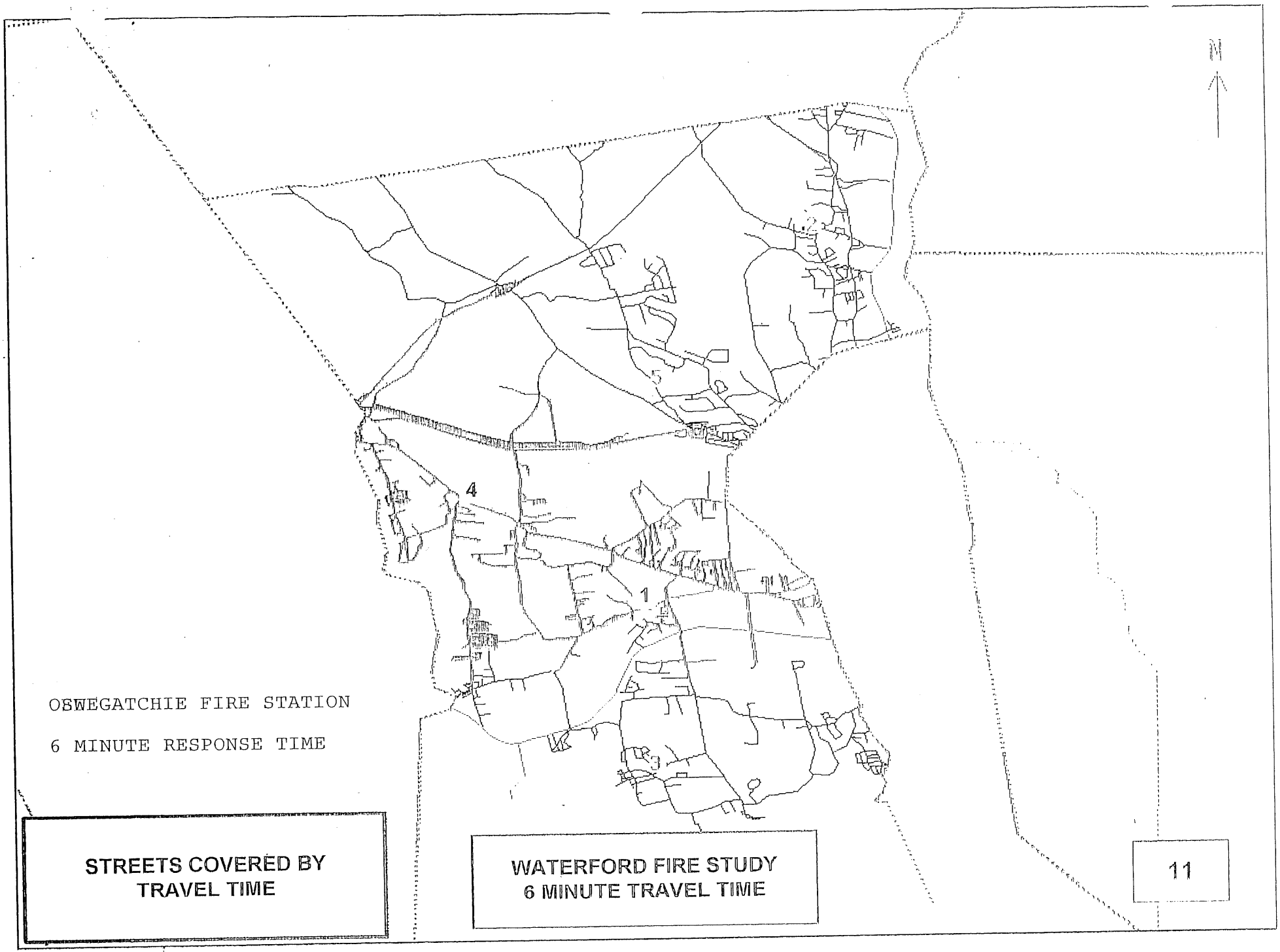
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STREETS COVERED BY TRAVEL TIME
WATERFORD FIRE STUDY
6 MINUTE TRAVEL TIME
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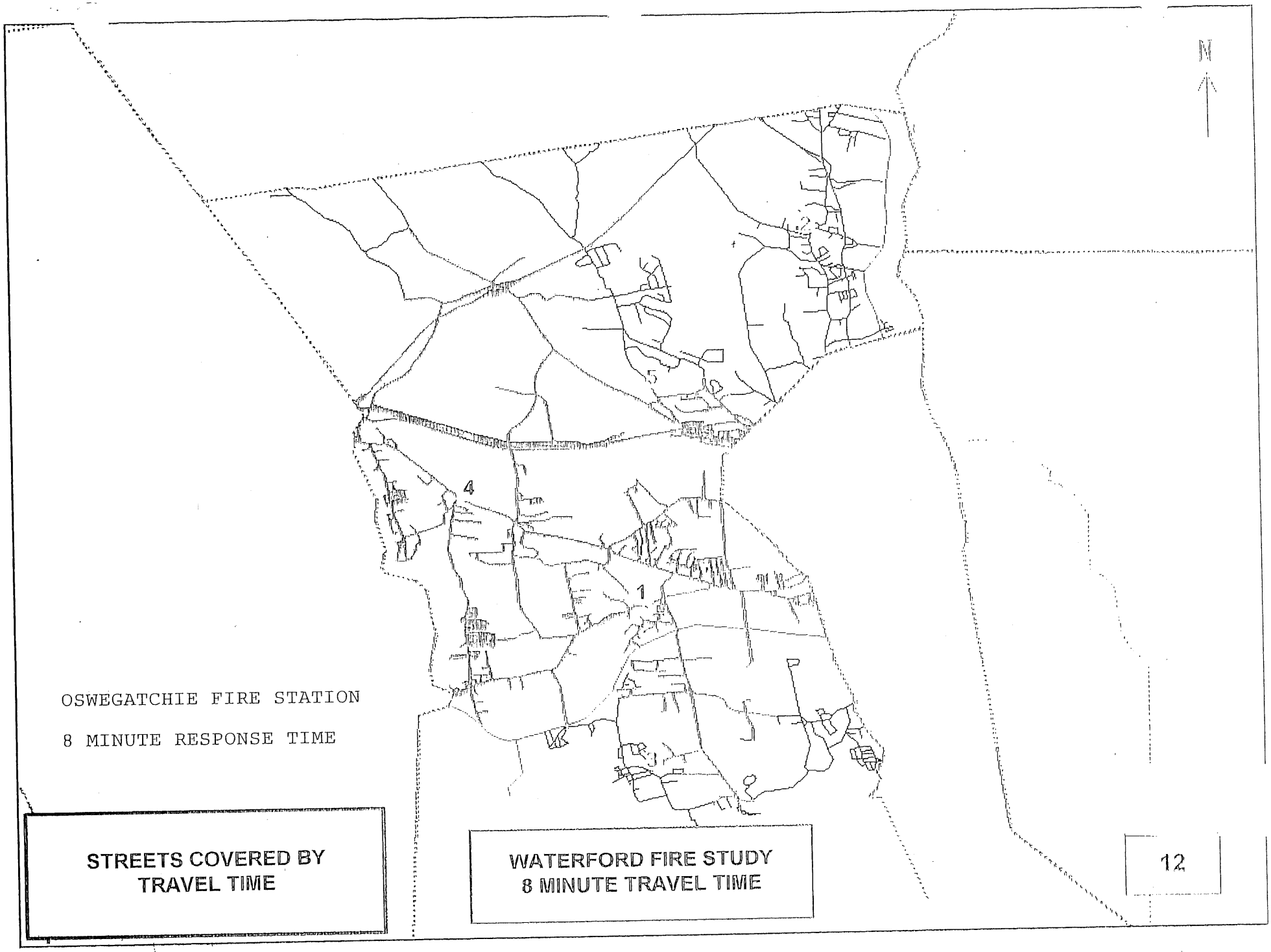
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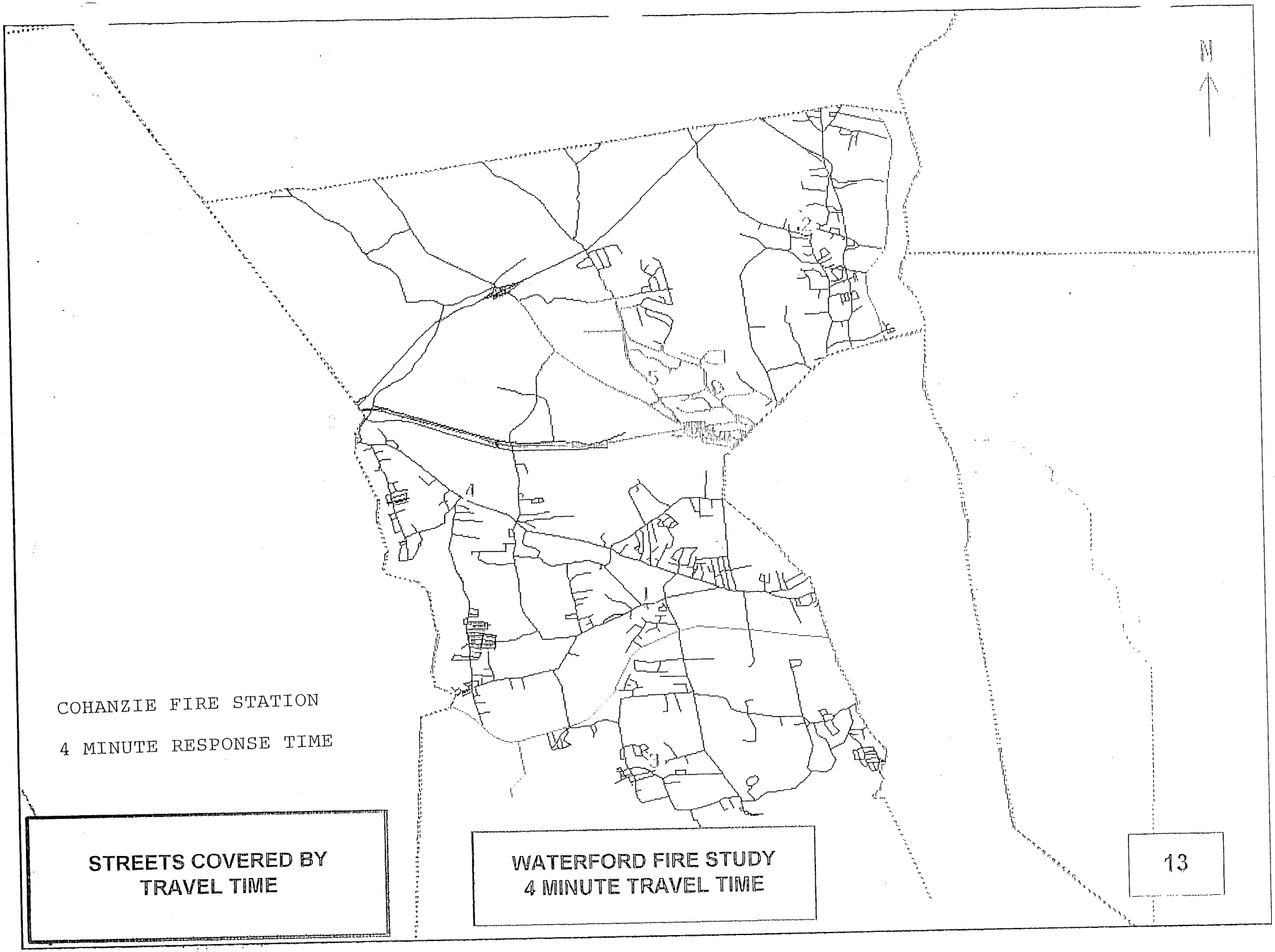
8 MINUTE RESPONSE TIME
STREETS COVERED BY
TRAVEL TIME
WATERFORD FIRE STUDY
8 MINUTE TRAVEL TIME
12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STREETS COVERED BY
TRAVEL TIME
WATERFORD FIRE STUDY
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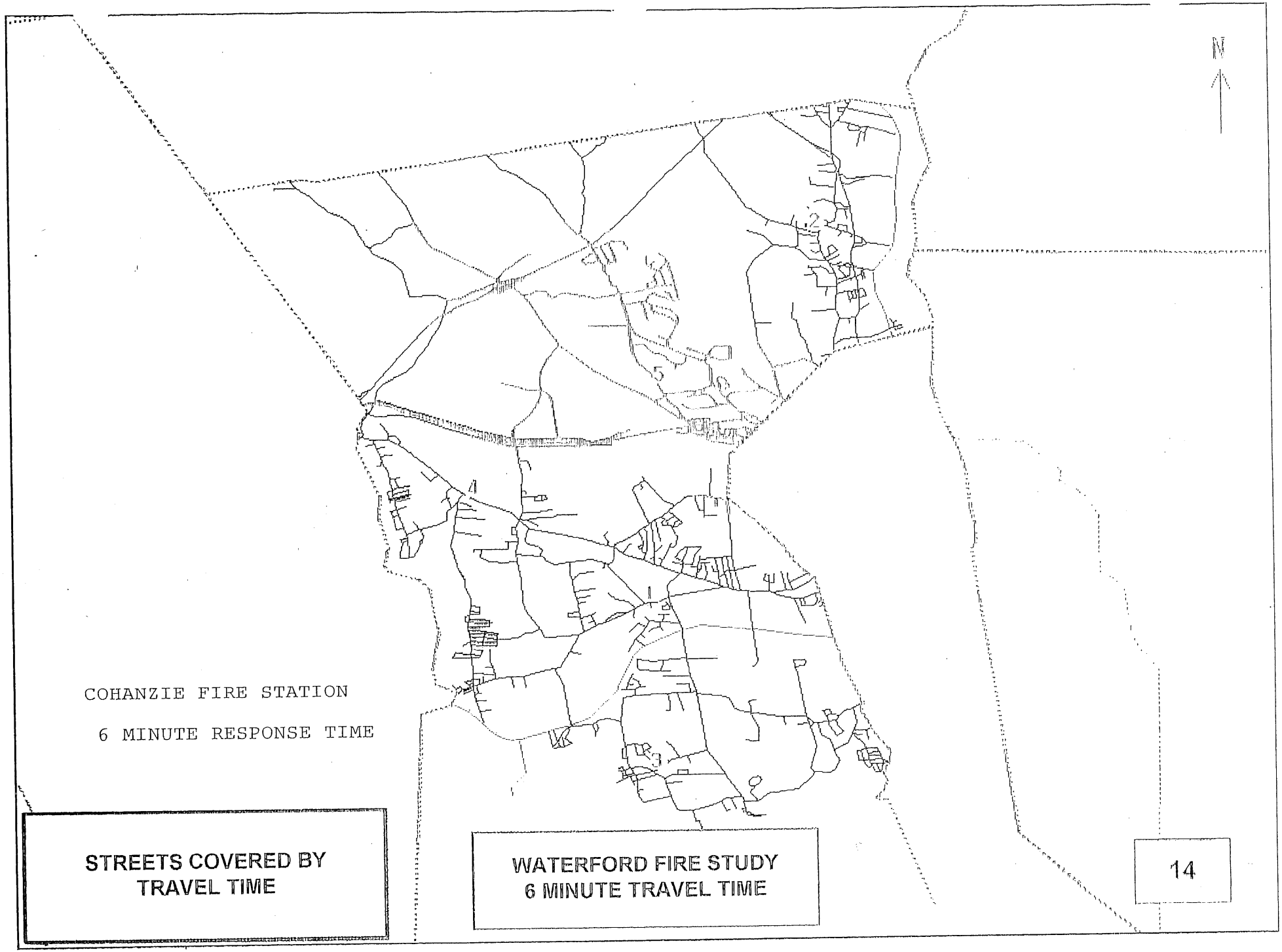
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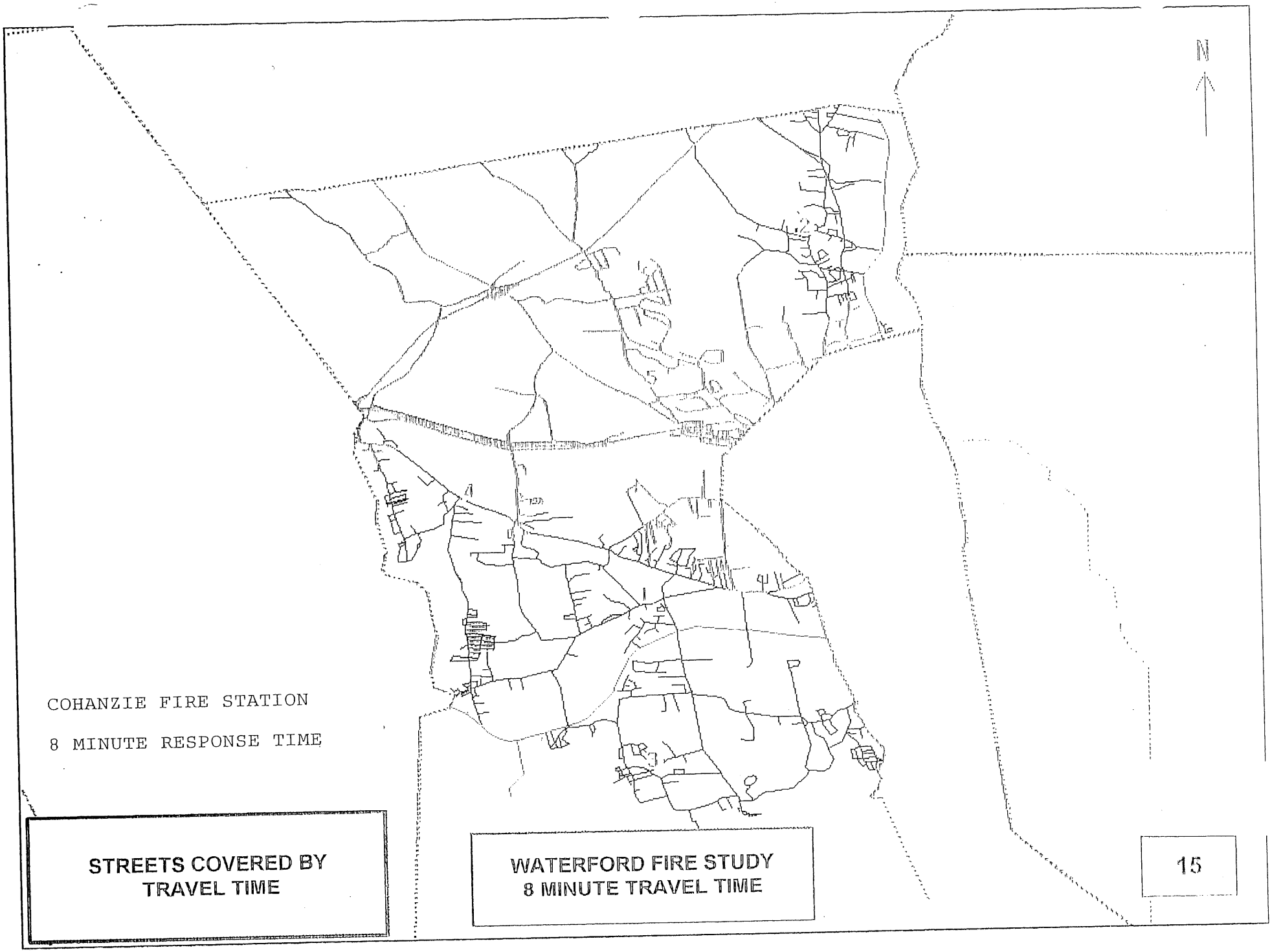
STREETS COVERED BY TRAVEL TIME
WATERFORD FIRE STUDY
6 MINUTE TRAVEL TIME
14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8 MINUTE RESPONSE TIME
STREETS COVERED BY TRAVEL TIME
WATERFORD FIRE STUDY
8 MINUTE TRAVEL TIME
15

Fire Station Facilities

The current fire stations are well maintained buildings, but are very old in age. Throughout the years there have been numerous Capital Improvements made to these buildings to prolong the life expectancy of the facilities. All of these buildings are protected by code compliant fire sprinkler systems. Insurance and Fire Prevention personnel should annually inspect these facilities.

These facilities are utilized as initial emergency shelters during community emergencies and as staging areas during severe weather. Making these facilities handicapped accessible should become a Capital Improvement program.

The following are elements that appear to be inadequate for the following fire stations:

Waterford Fire Engine Company #1 — 89 Rope Ferry Road - Waterford

A. Handicapped Accessibility

Quaker Hill Fire Company #2 — 17 Old Colchester Road - Quaker Hill

A. Handicapped Accessibility

Goshen Fire Company #3 — 63 Goshen Road - Waterford

A. Handicapped Accessibility

Oswegatchie Fire Company #4 — 441 Boston Post Road - Waterford

A. Handicapped Accessibility

Cohanzie Fire Company #5 — 53 Dayton Road - Waterford

A. Handicapped Accessibility

Historically the Town of Waterford has been supportive of the upkeep of these buildings. In order to continue this past practice, the following building/facility matrixes have been established to prepare for the future improvements/upgrades and put into a program.

SUMMARY OF CAPITAL IMPROVEMENT PROJECTS

	JORDAN	QUAKER HILL	QUAKER HILL - Aux	GOSHEN	OSWEGATCHIE	COHANZIE
(Projected Life Expectancy)	*Projected (Performed)*	*Projected (Performed)*	*Projected (Performed)*	*Projected (Performed)*	*Projected (Performed)*	*Projected (Performed)*
ROOF						
High Roof (25/30)	2005/10 (1980)	2028/33 (2003)	2010/15 (1985)	2028/33 (2003)	2013/18 (1988)	2028/33 (2003)
Lower Roof (20)	NA	2024 (2004)	NA	2024 (2004)	2024 (2004)	2023 (2003)
GENERATOR (30)	2007 (1977)	2034 (2004)	2020 (2000)	2004/09 (2007)	2015 (1985)	2015 (1985)
ELECTRICAL SERVICE (30)	2007 (Older)	2034 (2004)	2015 (1985)	2031 (2001)	2015 (1985)	2029 (1999)
FIRE ALARM SYSTEM (25)	2005 (1980)	2006 (1981)	2006 (1981)	2029 (2004)	2010 (1985)	2030 (2005)
BOILER (25)	2027 (2002)	2025 (2000)	2010 (1985)	2015 (1990)	2021 (1996)	2013 (1988)
EXTERIOR/SIDING	BRICK - G/F	VINYL - F	ALUMINUM - G	BRICK - G (1980)	VINYL - E (2002)	VINYL - E (2004)
AIR CONDITIONING						
Bunkroom (25)	2005 (1980)	2008 (1983)	NA	2026 (2001)	2029 (2004)	2005 (1980)
Lounge (25)	Window Unit	2008 (1983)	NA	2026 (2001)	Window Unit	2012 (1987)
Hall (30)	Window Units	2034 (2004)	NA	2010 (1980)	2015 (1985)	Window Unit
UNDERGROUND TANKS						
Heating Oil (20)	1,000 gallon (2006)	1,000 gallon (2012)	NA	1,000 gallon (2020)	2,000 gallon (2001)	1,000 gallon (2012)
Diesel Fuel (20)	1,000 gallon (2006)	Above Ground	NA	1,000 gallon (2012)	1,000 gallon (2012)	4,000 gallon (2012)
Generator Fuel (20)	NA	NA	NA	NA	280 gallon (2005)	NA
Gasoline (20)	NA	NA	NA	NA	1,000 gallon (OOS)	4,000 gallon (2012)
PARKING LOT (25)	2005 (1980)	2002/07 (1977)	2015 (1990)	2020 (1995)	2020 (1995)	2026 (2001)

Standardized Responses

Risk Assessment and Response Effectiveness are two specific areas that are needed to strategically plan for the deployment of apparatus. The risk assessment is a review to determine the level of risk to life and property in the community and should not be viewed as just a means of listing the properties that each district is protecting. The risk assessment needs to look at the level of services that are provided and the degree of risk that should be accepted by the fire service in protecting these properties. This degree of risk has nothing to do with life safety, but with property loss. Whenever the emergency services invest in higher levels of service, the insurance companies have a reduced risk. Conversely, when the emergency services decreases resources, the insurance companies are more at risk. This must be kept in perspective while looking at the resources that are available to the fire service.

Response effectiveness or better known as Standards of Response Coverage are policies and procedures that can be established for demonstrating the distribution and concentration of resources and it consists of three elements that need to be defined:

- Distribution of resources to assure proper response deployment to minimize the severity impact.
- Concentration of resources arranged to create an effective response within a sufficient time frame to terminate emergencies.
- Staffing level to properly accomplish the task assignments of the emergency.

As these standards have not been addressed in town and there is no true industry standard due to the difference in apparatus, the factors utilized for review purposes are more appropriately seen as an average or consensus at the national level.

This process consists of matching the town's fire risk potential with a corresponding level of response. This step will also play a factor in later determining the appropriate staffing requirements to deal with the hazards. The fire risk levels used are categories classified by the National Fire Protection Association and are as follows:

Property Risk Levels	Definition (includes a corresponding fire flow requirement)
Low	One, two, or three family dwellings and scattered small businesses and industrial occupancies (Fire flow is 100 to 1500 gallons per minute).
Moderate	Apartments, offices, mercantile, and industrial occupancies not normally requiring extensive rescue or firefighting operations (Fire flow is 1500 to 4000 gallons per minute.)
High	Schools, hospitals, nursing homes, explosive plants, refineries, high-rise buildings, and other high life hazard or large fire potential occupancies (Fire flow is greater than 4000 gallons per minute).
Special	Railroad and freeway emergencies, aircraft crashes, and natural disasters.
Miscellaneous	Rubbish fires, vehicle fires, small wild land fires.

Of these five risk categories, the Low, Moderate and High-risk levels are important in a standard of response coverage review.

The majority of risk falls into the "Low Risk" category. Waterford is over 90% low risk; mostly residential. High-risk occupancies pose a greater threat because if they burn they will require more water and a greater amount of manpower. Because the majority of our risk falls into the "Low Risk" category most communities tend to design their fire service to deal with that risk.

In attempting to assess the current fleet it was recognized that a standardized response criteria was necessary. This criterion breaks down responses by occupancy hazard/risk assessment results.

Residential Structures (Low Risk)

3 Engines, Ladder, Service Vehicle & 2 Ambulances

Commercial Structures (Moderate Risk)

4 Engines, Ladder, Service Vehicle & 2 Ambulances

Commercial Structures (High Risk)

4 Engines, 2 Ladders, Service Vehicle & 2 Ambulances

Districts having two Ladders to the same call shall operate the first due as a Ladder Company and the second Due as an Engine Company. The number of apparatus reflected in this breakdown represents a fire attack response. Other fireground support functions such as, exposure protection, and rural areas with no water supply will increase the number of apparatus required to mitigate these incidents.

Industry standards for primary response to a single-family ranch style house fire with 100% involvement are 1,000 gallons per minute. Our current response allows approximately 2.5 minutes of sustained fire attack until a water supply is established. In an area without fire hydrants, a minimum of 5,000 gallons of water or equivalent should be available during the incipient stages of the incident. Other collateral duties such as drafting from cisterns, laying large diameter supply lines, water shuttling and in-line pumping, will require additional apparatus to respond.

Goal:

The standardized response of apparatus to specific occupancy risks will begin to accomplish the distribution of resources. The arrangements of the resources (ie: Ladder, Rescue Truck, Etc.) are located in proper response zones to mitigate emergencies. The number of apparatus responding, which will include another station assignment, may bring in more staff on the initial call.

Fire Apparatus

The Waterford fire service has always been misconceived as having a rather large fleet of apparatus and other types of vehicles. This fleet has been procured and built up over the years by utilizing an apparatus replacement plan that the Board of Fire Commissioners and the town instituted in 1974. Since its implementation the apparatus replacement plan has received its funding through the town's capital and non-recurring portion of the town's budget. The original plan was revised in 1991, with the latest revision coming in 2001 as recommended by the Fire Service Study conducted by Firescope Inc.

The fire departments in the Town of Waterford are charged with the responsibility of delivering fire and rescue services. In order to deliver these services a fire department needs to have established response criteria based on experience, risk, and recognized good practice. Many communities have always distinguished responses between a structure fire in a single-family dwelling and a multi family or commercial structure, which was not the case in Waterford.

Each of the five fire departments has a minimum of two pieces of fire apparatus that are capable of pumping 1,500 gallons per minute. Jordan also has an aerial/engine capable of pumping 1,500 gallons per minute. It is most important to realize that currently a minimum of two stations are dispatched to all incidents potentially involving fire.

The maintenance of a modern, reliable, well-maintained fleet of emergency vehicles is fundamental to operation of any department to provide for the delivery of fire and emergency services. It is therefore important that both a well-formulated replacement schedule and maintenance program be supported.

The current fleet of fire apparatus is shown in the table below and is current as of December 7, 2006. This list shows the entire fleet including boats. Currently all ambulances shown on this table are the responsibility of Ambulance Service for maintenance and replacement.

Apparatus		Year Purchased	Age	Mileage
Engine 11	R.D. Murray (1500/750)	1993	14	38,705
Engine 12	Seagrave (1500/500)	1984	23	52,156
Engine 21	Ferrara (1500/1000)	2006	1	2,527
Engine 25	Pierce/Snorkel (1500/500)	1993	14	21,752
Engine 31	Salisbury (1500/500)	1991	16	34,122
Engine 32	R.D. Murray (1500/500)	1998	9	8,819
Engine 41	R.D. Murray (1500/850)	1998	9	13,548
Engine 42	Saulsbury (1500/750)	1989	18	38,596
Engine 51	Pierce (1500/1000)	1996	11	34,569
Ladder 15	Pierce (1500/300)	1996	11	25,867
Ladder 55	Sutphen (2000/500)	2004	3	6,217
Boat 92	Boston Whaler	1985	22	N/A
Boat 93	Boston Whaler	1984	23	N/A
Dive 27	Chevrolet Stepvan	1972	35	17,218
Service 94	Salisbury	1988	19	21,190
Rescue 57	Super-Vac	1987	20	32,073
Attack 13	Emergency One (300/260)	1990	17	23,016
Attack 33	GMC (750/300)	1989	18	23,012
Brush 23	Ford (300/400)	2006	1	742
Brush 43	Ford (300/400)	2006	1	1,111
Brush 53	Chevrolet (120/250)	1986	21	18,988
Utility 16	Ford Pick-up	2005	2	15,932
Utility 26	Ford Pick-up	2006	1	5,743
Utility 36	Ford Pick-up	2007	-	1,007
Utility 46	Ford Pick-up	2006	1	5,723
Utility 56	Ford Pick-up	1998	9	53,382

Apparatus		Year Purchased	Age	Mileage
Car 55	Ford Expedition	2005	2	26,293
Car 85	Ford Sedan	2005	2	17,587
Car 105	Ford Sedan	2005	2	8,108
Car 115	Ford Sedan	2006	1	4,786
EMS 100	Ford	2004	3	22,528
EMS 200	Ford	2004	3	10,067
EMS 300	Ford	2002	5	16,544
EMS 400	Ford	2001	6	32,637
EMS 500	Ford	2002	5	32,590
EMS 600	Ford	1998	9	48,612

Next is how staffing requirements compare to the risk categories. The staffing requirements do increase with the risk level. By looking at the number of firefighters needed at the scene and comparing them with established performance objectives and response data, it becomes clear how to design for routine types of calls and the "Low Risk" structure fire. The previous standard fire response for any structure fire in Waterford varies by its particular geographical location, not by the appropriate risk level.

Utilizing the current five station locations and district boundaries, the maps provided by the FireScope, Inc. study show that the objective of responding to 95% of all calls within 5 minutes of dispatch is obtainable with proper staffing. The objective for the minimum number of firefighters on-scene within the specified time is difficult to project with our volunteer system. The measure of the number of firefighters on-scene for a sustained attack is adequate to response history data and also serves as a good benchmarking tool for the future.

It would not be fair to go much further into resource deployment without the mention of the Insurance Services Office, Inc., which has been a means of measuring fire protection services for many decades. Insurance industry grading is a measure that may be used in the calculation of property insurance premiums. ISO surveys are not conducted for property loss prevention or life safety purposes, thus no life safety or property loss prevention recommendations are made.

It must also be noted that ISO only processes information relating to fire suppression, communications, and water supply. Being insurance industry oriented, the ISO mainly concentrated on the needed fire flows for properties through the community. Their current Fire Suppression Rating Schedule is developed and applied on the concept that property with needed fire flows greater that 3,500 gallons per minute should not affect the needed number of engines in any community. They do realize that there is mutual aid assistance available for these types of situations.

The number of needed engine companies considers several factors from needed fire flow to travel distance. The factor that is most important to this exercise is the item that states "the built upon area of the town should have a first-due engine company within 1 1/2 miles". This is important as it relates to fire station location, which currently the locations are satisfactory for these criteria. Reserve engines are needed to replace first line engines when they are placed out of service for routine maintenance, repair or overhaul. The number of reserve engines is 1 for 8 needed engine companies or fraction thereof.

The number of needed ladder companies considers several factors from building size to travel distance. The criteria for ladder companies that concern our community are as follows.

- Where defined response areas have 5 buildings that are 3 stories or 35 feet or more in height, or
- Where defined response areas have 5 buildings that have a needed fire flow greater than 3,500 gallons per minute, or
- Any combination of the above

The factor that is most important is the item that states "the built upon area of the town should have a first-due ladder-service company within 2 1/2 miles". Areas not needing a ladder company should have a Service Company. The current deployments of our ladder-service companies are satisfactory for these criteria.

Considering all this discussion it must also be noted that the fire departments play a large role of non-emergency type services within our community. A commitment to provide non-emergency activities does not interfere with the ability to effectively respond to emergencies when they occur. The commitment referenced is more truly public perception and expectation in this context.

Rescue Services

The previous exercises were based strictly on fire protection and did not review the areas of rescue and medical emergencies. Although the ambulance service is responsible for their fleet it should be documented as to the number of ambulances needed for providing care to the sick and injured citizens within the community. The proper coverage required is the same as the number of engines needed utilizing the concept of brain death as we previously discussed. Therefore the current ambulance deployment and reserve ambulance is satisfactory for proper medical care.

Rescue services not only refer to the rescue truck but the deployment of rescue equipment resources. This deployment does not have any true concept parameters that have been utilized. The question of need for rescue equipment is a simple answer. Our community does several hundred automobile accidents and various rescue calls per year. Thus the need for a rescue vehicle is justified.

The question then leads to how much rescue services are needed? The current arrangement is the Heavy Rescue vehicle deployed from the Cohanzie fire department and each fire department having varied rescue equipment components on their respective first-due engines. This concept being relatively new has not had the appropriate time to allow for complete standardization of equipment. This area may need further review over the next few years for resolution.

Brush & Wildland Fires

Protection from wildland and rubbish type fires do have a need within our community as to some very large open spaces that do exist. The current arrangement is one brush-type unit in each fire department. This number can be reduced as to the number and frequency of these types of fires in the past.

Utility Vehicles

Utility vehicles do play an import role in the fire station. Utilizing these vehicles reduces unnecessary wear and tear on large, expensive apparatus. Not only are these vehicles used for transportation to meeting and trainings, but also they are equipped to clear snow from the fire department parking lots during inclement weather.

These vehicles are dispatched with an assignment during snowy weather. These vehicles also play a role in emergency response to emergency medical calls, during times when ambulance crews are needed within the district. The current arrangement of one vehicle in each fire department is satisfactory.

Rescue Boats

Rescue Boats are the last equipment to be discussed within this review. There are occasional usages for these levels of service are a few examples as follows:

- Search and rescue operations
- Platform for launching diving operations
- Conducting safety patrols
- Assisting disabled watercraft
- Hazardous materials mitigation

There are currently two boats in the fire service, one at the Goshen fire department and the other at the Quaker Hill fire department. The need for a fireboat is more heavily weighed on the potential from the large waterfront that surrounds our community. The Town of Waterford has a rather large waterfront area that runs from Alewife Cove to the Niantic River, along with the Thames River in the North end of Town. These vehicles should be considered for funding in the fleet management plan on a 20 to 25 year cycle.

Hazardous Materials

At the present time, there is an agreement with the Submarine Base Fire Department to respond to hazardous material emergencies. Under this agreement, the department responds a team of specialists that must be supplemented by the requester. The Submarine Base Fire Department has been and continues to be susceptible to budget cuts and service terminations as the Federal Budget continues to downsize. The Connecticut Eastern Regional Response Integrated Team (CERRIT program) has recently been implemented to supplement the needs of the Submarine Base when it arrives in the form of additional supplies and decontamination. The Waterford fire service has committed to the CERRIT program for HazMat assistance and decontamination. The Mashantucket and Mohegan tribes have also implemented hazardous material teams. These three agencies also provide the town with Firefighter Assist Teams. These agencies must continually be supported by the Town of Waterford fire services.

The following is the recommendations for restructuring the current apparatus fleet:

Jordan Fire Company

W-11	1993 Pumper should be replaced as a Rescue Pumper.
W-12	1984 Pumper should be replaced with a Medium Duty HazMat/Rescue vehicle.
W-13	1986 Mini-Pumper should be replaced with a small all-terrain Fire/Rescue vehicle.
W-15	1996 Ladder should be replaced as a 100' Quint.
W-16	2005 Utility Vehicle should be replaced as scheduled.

Quaker Hill Fire Company

W-21	1987 Pumper should be replaced as scheduled.
W-23	2006 Brush Truck should be replaced scheduled.
W-25	1993 Elevated Stream Pumper should be replaced as scheduled.
W-26	2006 Utility Vehicle should be replaced as scheduled.
W-27	Dive Truck should be added to the replacement schedule for 2009.
W-92	1985 Rescue Boat should be replaced as scheduled.

Goshen Fire Company

W-31	1990 Pumper should be replaced as scheduled.
W-32	1998 Pumper should be replaced as scheduled.
W-33	1989 Midi-Pumper should be replaced as a Pick-up truck with a flatbed Skid mount pump unit.
W-36	2007 Utility Vehicle should be replaced as scheduled.
W-93	2007 Rescue Boat should be replaced as scheduled.

Oswegatchie Fire Company

W-41	1998 Pumper should be replaced as an Elevated Stream Pumper.
W-42	1989 Pumper should be replaced as a minimum 1,000 gallon Pumper with "Class A" foam system.
W-43	2006 Brush Truck should be replaced as scheduled.
W-46	2006 Utility Vehicle should be replaced as scheduled.
W-94	1988 Service/Command Vehicle should be replaced as scheduled.

Cohanzie Fire Company

W-51	1996 Pumper should be replaced as a Tanker Pumper.
W-53	1987 Brush Truck should be replaced with a small all-terrain Fire/Rescue vehicle.
W-55	2004 Quint should be replaced as scheduled.
W-56	1997 Utility Vehicle should be replaced as scheduled.
W-57	1988 Heavy Rescue should be replaced as scheduled.
W-95	2005 Dive Trailer should be added to the replacement schedule for 2011.
W-97	2004 Trench Trailer should be added to the replacement schedule for 2010.

The following should be forwarded to the Fleet management Review Committee for implementation:

YEAR	DEPARTMENT	VEHICLE TYPE	FUNDING
2008	Jordan	HazMat/Rescue Vehicle	160,000
2008	Quaker Hill	Rescue Boat & Trailer	130,000
2009	Quaker Hill	Dive Rescue Vehicle	60,000
2009	Goshen	Pick-Up with Skid Unit	114,748
2009	Oswegatchie	Service/Command Vehicle	388,067
2010	Goshen	Pumper	461,203
2010	Cohanzie	Utility Vehicle	41,816
2010	Cohanzie	Trench Rescue Trailer	8,000
2011	Jordan	Pumper	475,039
2011	Cohanzie	Dive Rescue Trailer	8,000
2013	Quaker Hill	Elevated Stream Pumper	503,969
2014	Cohanzie	Pumper	519,088
2016	Jordan	100' Quint	991,260
2017	Jordan	Utility Vehicle	51,428
2017	Quaker Hill	Utility Vehicle	51,428
2017	Goshen	Pumper	567,221
2017	Goshen	Utility Vehicle	51,428
2017	Oswegatchie	Utility Vehicle	51,428
2019	Oswegatchie	Pumper	601,765
2019	Oswegatchie	Brush Truck	170,000
2023	Quaker Hill	Pumper	677,292
2014	Cohanzie	Quint	1,255,699
2025	Quaker Hill	Brush Truck	184,138

Apparatus Maintenance

The maintenance of all fire apparatus is the responsibility of the individual fire department. Each department receives funding from the Town for normal maintenance consisting of oil changes and lubrication and minor repairs. Included in the maintenance is the testing of apparatus. Each major piece of apparatus such as the engines and those vehicles equipped with aerial devices must be tested each year both for performance and safety. The funds for testing are provided to each department by the Town. The Town through the Board of Fire Commissioners budget funds major repairs of an emergency nature.

All apparatus annual maintenance and testing shall be specified and be subjected to a competitive bidding process by the departments; specifications shall include but are not limited to pump and ladder testing, pump and ladder preventative maintenance, chassis preventative maintenance and transmission service. Qualifying vendors shall be 24-hour emergency service capable, stock parts and ferry apparatus to and from stations to their facility when necessary.

They shall also provide to the fire companies and Fire Commission a complete history of any service or repair for that year. They shall also meet all NFPA, ASE, Insurance and DOT requirements set forth in the specification written by the Waterford fire chiefs. Each department will pay for service from their operating budgets when bidding has been awarded, remaining funds should be kept in the fire department operating budget for miscellaneous repairs and apparatus upgrades.

The State of Connecticut Department of Motor Vehicles should continually perform annual safety inspections.

Apparatus Replacement

Apparatus will be constructed in accordance with standardized specifications established by the Board of Fire Commissioners and Fire Chiefs. Consideration will be given to the location, hazards, occupancies, and water supply configuration in the specific district(s) where the vehicle will be assigned. Apparatus specification will be put out in the form of Performance Specifications and the availability of funding will remain undisclosed to potential vendors.

The Board of Fire Commissioners and Town of Waterford have agreed on the fleet management plan that has developed a replacement schedule that is based on the number of years of service and usage by type of apparatus.

Type Apparatus	Replacement Schedule
Engines	18 Years
Attack Engines	18 Years
Ladders	18 Years
Rescue	20 Years
Service	20 Years
Brush	13 Years
Utility	13 Years

An issue that should be examined is the evolution of the standards by which apparatus is constructed. This issue is somewhat related to the technology issue because new standards incorporate current technology. Much of the new technology is driven either by its availability or in the interest of safety of fire and rescue personnel. An example of this was the development of NFPA 1500, Standard for Fire Department Safety Programs that emphasized firefighter safety and required that all personnel must ride in an enclosed space and have a seat belt.

Apparatus will be constructed in accordance with standardized specifications established by the Fire Commission and Fire Chiefs. Consideration will be given to location, hazards, occupancy and water supply configuration in the area where vehicles will be assigned. Apparatus specifications will be formed as a performance specifications and the availability of funding will remain undisclosed to potential vendors.

There are several areas that can affect the replacement schedule. Of course any decision to replace a piece of apparatus early would have to be justified on a cost/benefit basis.

One aspect that should be considered other than age is the advance in technology over a 15 or 20 year span. Changes in technology will have been developed 10 years into the age of the apparatus and it may be beneficial to replace the apparatus and take advantage of the new technology.

A few examples that are worth noting are:

When annually tested and found to have serious defects the decision will have to be made on the cost/benefit of making the repairs or to replace the apparatus.

Review of maintenance records over the life of the apparatus. If maintenance records indicate a history of expensive repairs, and it appears that these expenses will continue then consideration should be given to replacing the apparatus.

At some point in its useful life may not be functional. It may have been purchased at a time when it was thought to be essential to the department, but over time conditions or the risk has changed so that a different type of apparatus would be more functional.

No one method may determine when apparatus is to be replaced, but a combination of those discussed above, plus others. The final determination will be made based on how well the individual items are documented so that an informed decision can be made on whether to keep the apparatus or replace it.

All information on each piece of apparatus must be kept up to date and monitored so that a decision can be made when the unit starts to fail, incur excessive cost, fail to meet safety standards, or is non functional in the system. Initiation of the replacement process must be as soon as possible because of the lead-time required for the manufacture of apparatus.

Staffing

The purpose of this section is to examine the staffing within Waterford Fire Service in order to determine if there is sufficient staffing to deliver fire and rescue services to the Town. The first step is to examine the existing staffing levels, analyze what is presently being done to determine if there are deficiencies, if there are changes or improvements that can be made to improve the delivery of fire and rescue services, or improve the efficiency of the system.

Although there are no local, state and national standards for minimum staffing levels there are two standards that specify the minimum number of people required for firefighting. The first is the Federal Occupational Safety and Health Administration (OSHA) 2-In/2-Out rule (29 CFR 1910.134). Briefly the OSHA standard requires the following for Interior Structural Firefighting:

- Minimum 2-person entry team with self-contained breathing apparatus (SCBA), work as a team maintaining voice or visual contact.
- Minimum 2-person stand-by team with fully equipped and trained fire fighters must remain outside the structure, monitoring the interior team and be prepared to rescue them.

The minimum staffing requirement for initial interior attack during firefighting operations is five people; two people inside, two people outside plus an incident commander.

The OSHA 2-In/2-Out rule is also consistent with the National Fire Protection Association standard 1500, Standard for Fire Department Occupational Safety and Health Program. NFPA 1500 although neither state nor federal law unless adopted, is a general standard that is used throughout the United States.

In addition, each ambulance response requires a minimum of two certified Emergency Medical Technicians. Many medical incidents require more than the minimum of two people. For example a heart attack incident will require a minimum of three people if CPR is required.

Another aspect that requires personnel is the occurrence of multiple, simultaneous emergencies. Motor vehicle accidents on the interstate highway and local streets and roads often require at least one pumper, one rescue and multiple ambulances.

Volunteer Personnel

Collectively there are approximately 121 active qualified volunteer personnel. These numbers represent individuals that have attended a minimum of 30 alarms within the last 12-month period.

Full-Time Personnel

In addition there are seven career personnel positions as well as two members of the Fire Marshal's staff who are available to respond to emergency calls. These full-time personnel are Town employees whose salaries are paid by the Town through the Board of Fire Commissioners budget, but are supervised by the fire chief of the company or the supervisor of the department to which they are assigned.

Currently, the full-time fire fighters and the fire inspectors provide the majority of staff that responds to fire and ambulance calls during the daytime hours Monday through Friday. The volunteer response to incidents is not as adequate as we would like to see during daytime hours due to the fact that many of them commute out of Waterford during the normal work hours, Monday through Friday.

The present complement of full time personnel is at minimum level. The need for additional full-time personnel must be evaluated on an ongoing basis.

Part-Time Personnel

Part-time fire fighters/EMT are volunteers that meet qualification requirements and are hired at an hourly rate to work a specific schedule. Normally the volunteer that is hired as a part-time person will work in a company at which they previously volunteered. However, some of the part-time personnel may work where they are required.

The following are alternatives that need to be continually reviewed for adequacy. They are listed in order of least cost to try for periods of times only moving to the next alternative plan if the existing one is not meeting the needs of the fire service.

Fire Department

As the Town of Waterford continues to growing in the years to come it is important for the Fire Service in the Town of Waterford to continue to re-evaluate how the five (5) fire stations in Town are staffed. The Town continues to add both commercial and residential structures throughout the town. This growth will continue to impact the Fire Service both in emergency call volume and service requests.

It is the recommendation of the Waterford Fire Service that the fire station staffing be addressed on an annual basis to make sure that the Town of Waterford continues to receive the high quality of service and emergency response from the Waterford Fire Service.

Below is the current recommendation from the Waterford Fire Service on a staffing plan for 2008.

1. Hire a career firefighter/EMT for the Oswegatchie fire station to supplement the existing position. This would reinforce the central portion of the town, which is rapidly developing.

2. Create a town-wide list of Part-Time Firefighters that are available to work at any of the five (5) Fire Stations in Town.

3. A volunteer retainment committee should be established. The committee should actively work on developing incentives for volunteer participation. This would include designing a volunteer retirement program.

4. A volunteer recruitment committee should be established. The committee should be compromised of an aggressive group of members who actively reach out to the community to inform them of the benefits of volunteering in the fire service. This should include door-to-door soliciting, mailings, and media spots.

Although recruitment and retainment programs will theoretically help the volunteer force during "after work" hours, weekday personnel issues are and will continue to be low to operate an emergency scene safely and efficiently as our community expects. All efforts need to be made to help our system survive.

Ambulance

The Waterford Ambulance Association is a private organization that is not funded by the Town of Waterford. The Ambulance Association has a President, 4 Vice Presidents, a secretary and treasurer. It is the responsibility of the President and Vice Presidents to set policy and procedure for this association as well as to address staffing needs for the Ambulances.

Currently the Ambulance Association has an agreement with the Town of Waterford to reimburse the Town for the use of the Town of Waterford Paid Firemen when they respond to ambulance calls, housing the Ambulances in each firehouse, heat and electricity. To further strengthen the ambulance volunteer squad the Ambulance Association provides financial incentives to attract volunteers during times when there used to be insufficient personnel to respond and provide service.

The Waterford Ambulance Association on an annual basis reviews staffing criteria and at such time as a staffing change is made appropriate notification will be made to the Town of Waterford

Alternative Issues

Establish a town-wide "fire Brigade" response team. The team would be made up of both citizens and local business workers, who would be trained to help perform on-scene support duties at an incident. This would include Town Emergency Response Force (TERF) program members and new TERF recruits from the town's workforce. Businesses who participate could be eligible for a tax relief.

Establish a town-wide "Duty Crew". The duty crew would be made up from the pool of volunteers who sign up to be available for the shifs which are needed. These shifts would receive a stipend for their participation.

Establish Part-time hours during the weekday shifts to supplement the career personnel. This would place Part-time Firefighter/EMT shifts at Jordan, Oswegatchie and Cohanzie during daytime hours.

Hire three career firefighters. This would bring the staffing level to ten firefighters and the North and South division of Town would be capable of rapidly deploying a minimum of five firefighters at once to any call.

Consider additional financial incentives to attract volunteers for the times when there are insufficient personnel to respond and provide services.

The Waterford Ambulance Association should evaluate the forming of an autonomous EMS Squad to be composed of employees to respond to strictly ambulance calls.

Staff one ambulance on a 24 hour a day / 7 day a week basis.

Training Issues

Because of the two nuclear power stations, the community has a well-recognized town wide emergency plan. This program encompasses all facets of emergency mitigation and integrates all available community resources into a functional organization. A mass evacuation of the nearby convalescent homes buttresses the effectiveness of the program.

With the availability of government access television, this could provide an opportunity to increase public fire education and also firefighter training. It would be possible to provide firefighter training in much the same manner as many larger departments do to their stations. Except instead of stations, we would be broadcasting to the community.

The Waterford fire service has one of the premier audiovisual training libraries in the state, and this should be expanded to include computer training as well.

The following should be the goals of the fire departments as it relates to training:

A. Incorporate all aspects of Emergency Management into Emergency Operations Center training and other trainings dealing with the Town's Local Emergency Planning Committee.

B. Annual drills of the Emergency Operations Center should be conducted to include all applicable members of the emergency community and should include the newly formed Community Emergency Response Team members.

C. All fire officers should receive annual training in the Town's emergency plan.

D. All fire companies should use the Millstone fire training facility at a minimum, annually.

E. Integrated live fire and rescue training should be conducted at least annually in conjunction with the Millstone fire brigade.

F. Training requirements outlined in Board of Fire Commissioners' Policy 91-3 should be considered minimum requirements.

G. Company training should be redefined around equipment usage, familiarity and ISO requirements. Annual OSHA/NFPA refreshers should continue, as well as, quarterly OSHA/NFPA "Basic" training be incorporated into the program.

H. A town-wide training program including combined company operations should be instituted with a schedule completed for an entire year. This program should be expanded to include computer training.

I. At a minimum, multi-company drills should be conducted and should include day and nighttime drills.

J. Minimum requirements should be established for Company/Chief Officers. An officer training program should be developed to mentor and groom new officers. An additional continuing educational module should be developed for fire officer advanced abilities.

K. A Waterford Fire & Emergency Services website should be developed for community relations and on-line firefighter training. The website should feature access portals for each fire company.

L. Tabletop training sessions for fire officers should be provided to enhance their command abilities.

M. Interagency training should occur to include a regular mass casualty drill.

N. A part-time position should be established for a training officer, at 10 hours a week. This person would be charged with maintaining training records and scheduling all required training classes.

Management Issues

There are several important issues that influence the ability of volunteer service to plan for the future and deliver services to the community. The departments must be appropriately organized; the internal communications within departments must be effective in communicating the goals and objectives of the leadership; and there must be committed volunteers. Moreover, the political leadership within the Town must be committed to the concept of a volunteer fire service.

It is important to understand that while some members of the Waterford fire service desire change, the others are resistant to significant changes within the service. Resistance should be anticipated and frankly expected, since the Waterford fire service has a long and proud history. The Waterford fire service consists of many different personalities, differences in opinions, age differences and training backgrounds. The Waterford fire service has a number of significant strengths and capabilities. These were demonstrated in a System Analysis titled "Task Force 95" that was drafted in February of 1994 by several members of the Waterford fire service.

That particular study was tabled on the recommendation of a Fire Protection Study Committee that was sanctioned by the Board of Fire Commissioners and received a final report on August 5, 1994. The recommendation was based on first attempting to resolve several other issues that existed and some continue to exist to this date.

Currently, the fire service is split into at least two factions. There are conflicts and differences of opinions among the leadership of the individual fire departments, the Board of Fire Commissioners, and the Bureau of Fire Prevention. These conflicts are not immediately detrimental to the service's functioning and delivery of services, but will continue to erode away if they are not addressed and corrected.. The Waterford fire departments are very effective organizations, but have diminished by organizational conflicts. The first step in minimizing the conflicts is to confront the relationships between the individual fire departments.

The functions of the Bureau of Fire Prevention are absolutely essential to the safety and well-being of the Town and obviously will be continued. That division needs to interface with numerous Town departments, as well as the public, and clearly has a demanding workload. The Bureau of Fire Prevention is housed in the Public Safety Complex and consists of the following full time employees: Administrator of Fire Services, Fire Marshal, two Fire Inspectors, Office Coordinator and a Clerk/Typist.

In May of 2001, the Board of Fire Commissioners instituted an organizational restructuring with the creation of an Administrator of Fire Services. This situation has resulted in some unnecessary conflicts or misunderstandings between Fire Commissioners, Fire Chiefs and the Administrator of Fire Services. The types of conflicts are minor in nature, but could detract from the good business practices necessary within the fire service. To end confusion and conflict, it is important that the roles and job duties of the Administrator of Fire Services be clearly defined, since an effective volunteer organization requires clear direction.

Ambulance Service

The Town, through the Board of Fire Commissioners has the responsibility for insuring the availability of fire protection and emergency medical services for all sectors of the Town. Currently the Ambulance Service has five front line ambulances and one reserve. Ambulances are housed in each of the five fire stations in the Town and deliver basic life support on a 24/7 basis to all areas of the town. The Cohanzie fire station also houses the spare ambulance.

The Waterford Ambulance Service is incorporated and not part of the individual fire departments. In August of 1999 the Waterford Ambulance Service, Inc. signed an agreement between the Waterford Ambulance Service, Inc. and the Board of Fire Commissioners of the Town of Waterford. The agreement allowed the Waterford Ambulance Service Inc., a non-profit corporation, to provide a billing mechanism for ambulance services in order to "provide a source of revenue not previously available to the Waterford Ambulance Service, Inc. The Waterford Ambulance Service and the Town of Waterford are currently revising the agreement.

The primary reason for this change allowed the Waterford Ambulance Service, Inc. to start billing for the ambulance service in order to generate revenue for support of the emergency medical system thus offsetting some of the funds that have previously been provided by the Town.

As of January 1, 2001, qualified Emergency Medical Technicians are eligible for a monetary stipend per call. The Ambulance Service with the agreement of the Board of Fire Commissioners makes this payment for two EMT's that transport a patient to a hospital. Even though this plan has been in place a short time the response by volunteer EMT's has reportedly improved.

Bureau of Fire Prevention

The Bureau of Fire Prevention is an integral part of the Waterford Fire Service and provides a range of services that are not provided by the five volunteer fire departments in the Town. The Fire Marshal and staff are responsible for a number of activities. Some of these activities are mandated by the state while others have been assigned because it is the most logical place to place responsibility for these since the office is staffed five days per week by the Fire Marshal's staff and there has to be a central point in the Town where citizens can go to get information on fire protection.

The Bureau of Fire Prevention has a proven record of having an effective code enforcement program. Starting with plan review and continuing onto annual fire safety inspections of approximately 600 inspectable properties, fire hazards are reduced and safety increased. This is mainly due to the emphasis on alarm detection and protection equipment.

Local Fire Marshal Duties - Mandated By The State Statute

The following material is taken from a memorandum from the Office of State Fire Marshal dated January 2001 to Local Fire Marshal Appointing Authority.

Note: A copy of this memorandum will be included in the appendix of this report.

"Local fire marshals are responsible for the enforcement of many of the sections found in Chapter 541 of the Connecticut General Statutes, as well as number of codes which are promulgated under the provision of these statutes.

It is required that each local fire marshal inspect each calendar year, in the interest of public safety, all buildings and facilities of public service and all occupancies regulated by the Fire Safety Code within his/her jurisdictions.

The Fire Safety Code covers all occupancies except one and two family dwelling and premises used for manufacturing."

The memorandum lists 74 occupancy types that require inspection. Some of the most common types of occupancies listed are apartments, churches, day care centers, department stores, general offices nursing homes, power plants, residential-custodial care nurseries, homes for the aged, restaurants, schools, shopping centers, supermarkets and warehouses.

The memorandum also specifies additional duties imposed by statute. The following is a listing of the additional duties:

1. Investigate the cause, origin and circumstance of all fires within their jurisdiction, and transmit a report to the State Fire Marshal within ten days.
2. Issue permits for the use, transportation and storage of explosives.
3. Notify the Labor Commissioner of fire hazards found in manufacturing establishments.
4. Enforce Space Heater Statute.
5. Inspect all flammable and combustible liquids storage tank installations for compliance with regulations
    - Inspect all vehicles that transport flammable and combustible liquids.
    - Issue certificate of approval to each vehicle.
    - Inspect all gasoline service stations.
6. Inspect once each year all dry-cleaning and dry dyeing establishments.
7. Inspect and enforce regulations concerning storage, use and transportation of liquefied petroleum gas and liquefied natural gas.
    - Inspect, at least once each year, all vehicles transporting liquefied petroleum gas or liquefied natural gas.
    - Issue certificate of approval to each vehicle.
8. Annually inspect all storage plants and equipment and vehicles at bulk storage plants for the storage and transportation of hazardous chemicals.
    - Issue certificate of approval to each vehicle.
9. Administer and enforce manufacturing employer hazardous materials notification law.
10. Conduct site inspection of all fireworks and special effects displays for compliance with applicable State legislation.

11. Inspect all outdoor amusements attesting to the event being reasonably safe from the effects of panic, fire or smoke.
12. Conduct review of plans and specification for various occupancies being proposed within the town for compliance with Connecticut Fire Safety Code.
13. Inspect once each year all establishments requiring a liquor permit.
14. Attend schools and seminars to keep abreast of the codes, regulations and new technology.
15. Required to be certified by the State Fire Marshal as of October 1973.
16. Required to obtain ninety (90) hours of continuing education over three (3) years to maintain certification.
17. Provide safety tips and give advice to the general public.
18. Sign applications for burning permits.

Current positions

1. Administrator of Fire Services

   The Board of Fire Commissioners is responsible for the Bureau of Fire Prevention, Bureau of Support Services, Bureau of Public Fire Education, Bureau of Water Supply and the Bureau of Fire Suppression, which collectively devise the town's Fire Service. The Fire Services Administrator is responsible for the Board of Fire Commissioners operations relating to all the bureaus of the fire service, planning, coordination, administration, budget preparation and presentation, personnel matters and the many other functions assigned by Ordinance / Statute or the Administration. The Fire Services Administrator is responsible for supervision of the personnel assigned to the Board of Fire Commissioners.

2. Fire Marshal

   The Fire Marshal is also responsible for the Bureau of Fire Prevention, Bureau of Public Fire Education and other functions assigned by Ordinance / Statute or the Administration. The Fire Marshal is responsible for the coordination of the Bureau's operations and personnel. The Fire Marshal is responsible to plan, coordinate and supervise the operation of this Division and its personnel.

3. Fire Inspector - 2

   The inspectors are responsible to the Fire Marshal for conducting required inspections, plan reviews, and other related fire prevention activities. In addition, each Fire Inspector must be certified as a Fire Fighter I and as an Emergency Medical Technician. The purpose of these certifications is that each Fire Inspector is required to respond to fires and emergency medical incidents while on duty to assist the other fire personnel in the Town.

4. Office Coordinator

   Reports to the Fire Administrator and is responsible for the management of all office functions including, but not limited to supplies, records, budgets, and scheduling to ensure a smooth-running, and well coordinated office.

5. Clerk Typist III

   Reports to the Office Coordinator for clerical and related work.

6. Fire Prevention Instructor

   Reports to the Fire Marshal and is responsible to create, organize, plan and conduct various organized fire safety lessons within the Waterford School System as well as prepare and present various community fire safety programs.

In 2003, the career firefighters have begun certification as fire inspectors to perform in district pre-planning and building inspections.

The community is fortunate to have such a strong fire service, which is anchored by a respected Public Fire Education program. This program has been credited for many lives saved and serious injuries prevented. This program has been expanded to include safety issues and is offered throughout the school year in the town's school system. The fire companies' participation in this program is noteworthy with several impressive activities conducted during fire prevention week as well as other initiatives sporadically performed during the year.

Tax incentives should be offered to homeowners that install and maintain residential fire sprinkler and alarm detection and reporting systems.

Communications

The Town's emergency communications center has been well maintained over the years. Career personnel whom dispatch the towns' Police, Fire and Emergency Medical personnel maintain this service. The center is also responsible for dispatching the Lawrence and Memorial Hospital paramedic program as well as serving as a Regional Control Center for the State Health Departments radio network. The communications center also controls the town's Emergency Preparedness Siren Warning System.

A formal group of users consisting of Police, Fire , EMS, Public Works, Utility Commission and L&M Paramedics comprise an advisory committee to review the center's goals and performance. This committee should take into consideration the regionalization of the town's fire dispatch services.

At any large incident, multiple agencies have the need to closely work together. A town-wide radio system has been proposed for all town radio users. This system needs to move forward into the installation phase to resolve the following issues:

A. Fire Officers should be able to communicate with radio users from any other town agency.

B. There are currently not enough portable radios to equip more than half of the emergency responders.

C. Access to the town's Geographical Information System (GIS) should be available through the communications center.

D. Mobile Display Terminals should be available on fire apparatus.

Water Supply

The Town is partially serviced by a water supply system developed and installed jointly by the Town and the City of New London. The City of New London is responsible for the maintenance and repair of the system including fire hydrants, with the exception of privately owned fire hydrants, which are required to be serviced by the owners. There are presently 1,200 fire hydrants in the system, Ninety-three (93) are privately owned. There are three (3) hydrants that are not usable due to low pressure. Earth Tech currently has a contract with the City to provide the required maintenance and repair of the system and fire hydrants.

The Goshen and Jordan Fire Districts are fully covered by the water system. The system in these two districts has no discernable problems with pressure, volume, and distribution. Static pressure in these districts range from 70 to 95 pounds per square inch (psi). The Pleasure Beach area does have a high rate of water main breaks that is being considered for replacement through the Utility Commission.

The Oswegatchie Fire District has no water supply system north of and including Gurley Road and Parkway South to, but not including Cross Road. There is no coverage on the undeveloped section of Parkway North; also there is no coverage on the majority of Oil Mill Road and no coverage on I-395. The system in the covered areas has adequate pressure, volume and distribution with static pressures around 90 pounds per square inch (psi) in most areas, with the exception of some higher elevations and Cross Road with pressures not lower than 50 pounds per square inch (psi).

The Cohanzie Fire District has good coverage south of I-395 with the exception of Douglas Lane, Harvey Avenue, Gilead Road and I-95. Coverage on Route 85 stops just south of the Lakes Pond Road. There is no coverage on I-395, Butlertown Road, Way Hill Road, Lakes Pond Road, Hunts Brook Road and Unger Road. The water system on Vauxhall Street Extension ends at I-395.

The high-pressure 12-inch main that services Route 85 from I-395 to Crystal Mall and Industrial Drive has a static pressure of approximately 125 pounds per square inch (psi). The pressure and volume in the rest of the district varies but appears adequate for the fire loading.

The Quaker Hill Fire District has more problems with its water supply system than the other districts. The main feed line is a 16-inch pipe supplied by the New London end of the system. A main break in the right location would cut all water service to Quaker Hill and parts of Montville.

Low pressure and inadequate volume are also a problem in certain areas. The static pressure at 88 Old Colchester Road is 27 pounds per square inch (psi). The static pressure at Bloomingdale Road and Gallows Lane can be as low as 18 psi depending on the water level of the on grade storage tank.

There is no coverage on most of Bloomingdale Road, none on Applewood Drive, Miller Pond Road, I-395, I-395 connector, Red Cedar Avenue, Bartlett Place, Hempstead Drive, Cinderella Lane and Mamacoke Road. The coverage on Old Colchester Road ends at #121. There are also areas of Route 32 that have no water.

The lack of water in the Bloomingdale Road area was the subject of a letter sent to WPCA in 1985 by Quaker Hill Fire Chief (On Record). The deficiencies for the rest of Quaker Hill were addressed in a letter sent to WPCA in December 1992 by the Chairman of the Board of Fire Commissioners (On Record). To date there have been some studies and design work done but no construction. Every effort should be made to increase the pressure and volume in this area and to provide a second source so that one broken pipe does not shut the water off for the whole district. This second source should be the two million gallon storage tank in Quaker Hill, a second main into Quaker Hill, by connecting the Vauxhall Street Extension main to Bloomingdale Road and extending the Bloomingdale Road main into the existing main on Bloomingdale Road and Old Mill Road or any other feasible solution.

There are approximately 20 miles of our 119 miles of Town roads and state highways that have no water service. There are approximately 17 miles of Interstate Highways without water and an additional 2.2 miles on the I-395 Connector. See Attachment 1 for a breakdown of these roads.

Located on 20 miles of roads without water service, there are approximately 554 structures, the smallest structure counted was at least as large as a single car garage. As residential expansion continues more homes will be build in these areas that have no water for fire protection purposes. At this point in time it seems to be advisable to purchase a water tanker with a capacity of at least 2,500 gallons of water.

The following improvements to the water supply system would benefit the fire service:

Connect the system from Oil Mill Road to Waterford Parkway North. This loop will bring water farther up Oil Mill Road and bring a water supply closer to I-95.

Connect the system from Hartford Road to the intersection of Wayhill Road and Oil Mill Road. This will bring the water supply closer to Oil Mill Road and Butlertown Road that are both unhydranted areas.

Extend the system from Industrial Drive to Vauxhall Street Extension (west of I-395). This will allow for looping of system East of I-395 and extension to at least Hunt's Brook Road. This will bring the water supply closer to the Waterford Country School and the North section of I-395.

Connect the system on Bloomingdale Road from Old Mill Road to Gallows Lane. This will bring water supply to an unhydranted area.

The program for upgrading large diameter hose to five inch should be pursued to allow for effective water supply management.

The old system of cisterns (natural water sources) has been allowed to decay. These should be reestablished to provide for alternative water supplies. These should be identified in the dispatching computer system. The program should include standpipes on bridge overpasses.

4

MOU between TOW and Oswegatchie

RECEIVED FOR RECORD
WATERFORD, CT
2018 FEB 14 PM 2:33
ATTEST: David L. Cayer
TOWN CLERK

Memorandum of Understanding
between
TOWN OF WATERFORD
and
OSWEGATCHIE FIRE COMPANY, NO. 4, INC.

WHEREAS, pursuant to an Agreement dated August 5, 1979, between the Town of Waterford ("Town"), and Oswegatchie Fire Company, NO. 4, Inc., ("Company") and the Charter and Ordinances of the Town, Oswegatchie is desirous of continuing to provide fire fighting services to the Town and in doing so, requires a new fire station;

WHEREAS, the Town is desirous of continuing to appropriate funds to support the fire fighting activities of the Company;

WHEREAS, the Company and Town wish to construct a new fire station with Town appropriations and municipal bonding on property presently owned by the Company on Boston Post Road in the Oswegatchie sector of Town;

NOW, THEREFORE, it is agreed that in consideration of such funding and to contribute to the Building Project, the Company and Town hereby agree as follows:

1. That this Memorandum of Understanding is evidence of the non-binding intent of the Town and the Company, to engage in good faith negotiations about an agreement, which when signed by both parties, will set forth the terms and conditions upon which the Company will convey its interest in the subject property described herein to the Town, and the Town will construct and own a new fire station as approved by the Town of Waterford and the Oswegatchie Firehouse Building Committee, on the site and lease the new station and the subject property back to the Company;

2. The subject property concerned is that property known as 441 and a portion of 439 Boston Post Road, Waterford, Connecticut, as shown on Schedule A hereto and made a part hereof, subject to Planning and Zoning approval, and any needed modifications to Schedule A attached hereto;

3. That a general premise of the contemplated agreement, is that in exchange for the conveyance of the subject property upon a quit claim deed, the Town will enter into a lease that is satisfactory to the Company, whereby the Company as tenant will have sole use and occupancy of the subject property and the new fire station to be provided to the Company from which it can pursue its mission of providing fire fighting and

related services for the Town, for $1.00 per year, for a term of not less than 75 years, with an option to renew of not less than 25 years, and on such other terms and conditions as agreed upon by the parties prior to the execution of the Company's deeded interest in the property.

IN WITNESS WHEREOF, the parties have set their hands and seals the date affixed next to each signature below.

TOWN OF WATERFORD

By: _____

Daniel M. Steward – First Selectman

Date 9-8-17

Its: First Selectman

Duly Authorized

OSWEGATCHIE FIRE COMPANY NO.4, INC.

By: _____

Its: Chief

Duly Authorized

Date 9/15/17

And President

By: _____

Its:

Duly Authorized

Date 9/15/2017

Schedule A

A certain tract or parcel of land located on the northerly side of Boston Post Road (U.S. Route 1) in the Town of Waterford, County of New London and State of Connecticut, as shown on a certain survey map entitled "Limited Property Survey Property Of Oswegatchie Fire Company #4, Inc. Subject To Memorandum Of Understanding With The Town Of Waterford 441 Boston Post Road Town Of Waterford – County Of New London – Connecticut Sheet 1 of 1 Scale: 1"=20' Date: March 10, 2017 By James Bernardo Land Surveying ,LLC". Said parcel being bounded and described as follows:

Beginning at a nail set at the southwesterly corner of the within described parcel of land and the southeasterly corner of land now or formerly of Alan H. Gardiner;

Thence running N 39°15'05" E along land of said Gardiner a distance of 192.85' to a concrete monument;

Thence running S 65°04'26" E along land of said Gardiner a distance of 238.39' to a point;

Thence running S 20°09'30" W across land of Oswegatchie Fire Company #4, Inc. a distance of 100.41' to a concrete monument at the northwest corner of land now or formerly of Oswegatchie Volunteer Fire Service Benefit Association;

Thence running S 20°09'30" W along said Oswegatchie Volunteer Fire Service Benefit Association a distance of 134.82' to a concrete monument on the northerly highway line of Boston Post road (US Route 1);

Thence running N 62°44'41" W along said northerly highway line of Boston Post Road a distance of 51.64' to a Connecticut Highway Department monument (chd);

Thence running N 66°20'42" W along said northerly highway line of Boston Post Road a distance of 69.98' to a point;

Thence running N 50°44'55" W along said northerly highway line of Boston Post Road a distance of 190.00' to the point of beginning,

Said parcel having an area of 60325 square feet, 1.38 acres

5

Agreements as filed on the Land Records between TOW and the individuals fire houses

VOL 251 PAGE 924

AGREEMENT

THIS AGREEMENT, made this 5th day of August, 1979, by and between the TOWN OF WATERFORD, a municipal corporation located in the County of New London and State of Connecticut, hereinafter called "Town" and the OSWEGATCHIE FIRE COMPANY, NO. 4, INC., a Connecticut non-stock corporation situated in the Town of Waterford, County of New London and State of Connecticut, hereinafter called "Company".

WHEREAS, the Town has annually made appropriations to support the activities of the Company, and;

WHEREAS, the Company is desirous of continuing to receive said appropriations, and;

WHEREAS, the Town wishes to be assured that the Company will continue to provide fire fighting service to the Town.

NOW, THEREFORE, it is agreed as follows:

(1) The Company agrees that in consideration of said appropriations that it will continue to provide fire fighting service to the Town.

(2) The Company agrees that should it cease to provide such fire fighting service other than as a result of circumstances beyond its control, or should the Company be dissolved, it will convey the premises described on Schedule "A", attached hereto and made a part hereof, to the Town at no cost to said Town.

(3) No mortgage shall be placed upon the within described premises after the date of this agreement without the written consent of the Town.

(4) The Town will continue to make annual appropriations to the Company in an amount to be determined by the Town.

(5) This agreement shall be binding on the parties and their successors or assigns, and shall be deemed a covenant running with the land.

IN WITNESS WHEREOF, the parties have set their hands and seals the date first above written.

TOWN OF WATERFORD

Ralph R. Dupont

John A. McGarry

By: Lawrence V. Bettencourt
Lawrence V. Bettencourt
First Selectman

OSWEGATCHIE FIRE COMPANY NO. 4, INC.

Ralph R. Dupont

John A. McGarry

By: R. Alan Rheaume Chief
R. Alan Rheaume
Chief

Judith L. Metcalf

Susan J. Luce

By: E. J. Rouisse
E. J. Rouisse
Chairman, Executive Board

STATE OF CONNECTICUT)
) ss. Waterford, Conn., August 8, 1979
COUNTY OF NEW LONDON)

On this the 8th day of August, 1979, before me, JUDITH L. METCALF, the undersigned officer, personally appeared LAWRENCE J. BETTENCOURT, who acknowledged himself to be the FIRST SELECTMAN of the Town of Waterford, a municipal corporation, and that he as such First Selectman, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as First Selectman.

In Witness Whereof, I hereunto set my hand and official seal.

Judith L. Metcalf
Notary Public
Title of Officer

MY COMMISSION EXPIRES
MARCH 31, 1984.

STATE OF CONNECTICUT)
) ss. Waterford, Conn., August 8, 1979
COUNTY OF NEW LONDON)

On this the 8th day of August, 1979, before me, JUDITH L. METCALF, the undersigned officer, personally appeared R. ALAN RHEAUME, who acknowledged himself to be the Chief of Oswegatchie Fire Company No. 4, Inc.. a non-stock corporation, and that he as such Chief, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as Chief.

In Witness Whereof, I hereunto set my hand and official seal.

Judith L. Metcalf
Notary Public
Title of Officer

MY COMMISSION EXPIRES
March 31, 1984

STATE OF CONNECTICUT)
) ss. Waterford, Conn., August 11, 1979
COUNTY OF NEW LONDON)

On this the 11th day of August, 1979, before me, Judith L. Metcalf, the undersigned officer, personally appeared E.J. Rouisse, who acknowledged himself to be the Chairman of the Executive Board of Oswegatchie Fire Company No. 4, Inc., a non-stock corporation, and that he as such Chairman, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as Chairman.

In Witness Whereof, I hereunto set my hand and official seal.

Judith L. Metcalf

Judith L. Metcalf

Notary Public
Title of Officer

MY COMMISSION EXPIRES
MARCH 31, 1984.

EXHIBIT "A"

FIRST TRACT

A certain tract of land, with the buildings thereon, situated on the north side of the Boston Post Road in the Town of Waterford, County of New London and State of Connecticut and being shown as Lot #1 on a plan entitled "Subdivision Plan of the Hoagland Property Boston Post Road Waterford, Connecticut dated January 1973 Scale 1" = 40' " which plan is on file in the Town Clerk's Office of the Town of Waterford, said property being more particularly bounded and described as follows:

Beginning at a drill hole which marks the southeast corner of the property herein conveyed and the southwest corner of Lot #2 as shown on said plan; thence north 52° 05' west 122.20 feet to a Connecticut highway bound; thence north 36° 29' west 95.00 feet to a merestone and other land of The Oswegatchie Fire Company No 4, Inc. and being the Second Tract hereinafter described; thence north 35° 58' east along said Second Tract 111.95 feet to a merestone and other land of said Fire Company being the Fourth Tract hereinafter described; thence south 50° 39' east along said Fourth Tract 213.57 feet to an iron pipe and the northwest corner of Lot #2 as shown on said Plan; thence south 34° 31' west along said Lot #2 131.06 feet to the point and place of beginning.

Said premises are subject to well rights as set forth in Volume 171, page 308 of the Waterford Land Records.

Being the same and all the same premises conveyed to the Oswegatchie Fire Company No. 4, Inc. by Warranty Deed of Catherine E. Hoagland dated February 3, 1973, and recorded in Volume 200, page 354 in the Land Records of the Town of Waterford, Connecticut.

SECOND TRACT

A certain tract of land situated in the Town of Waterford, on the Northerly side of the Boston Post Road and bounded and described as follows:

Beginning at the Southeasterly corner of the land herein described, and running thence westerly along the northerly line of the said Boston Post Road, as established by the merestone set by the State Highway Department, sixty-five (65) feet; thence running northerly at right angles to the said highway ninety-six and seven tenths (96.7) feet; thence deflecting to the right seventy four degrees and fifty minutes 74° 50' and running easterly thirty four (34) feet to the northwesterly corner of the land of the Oswegatchie Fire Company No. 4, Inc., being the First Tract

hereinbefore described, thence deflecting to the right eighty-eight degrees and thirteen minutes (88° 13') and running southerly along said First Tract one hundred ten and four tenths (110.4) feet to the point of beginning.

Being the same and all the same premises conveyed to the Oswegatchie Fire Company No. 4, Inc. by Warranty Deed of Courtland R. Darrow dated April 10, 1931, and recorded in Volume 46, page 370 in the Land Records of the Town of Waterford, Connecticut.

THIRD TRACT

A certain tract of land situated in the Town of Waterford on the northerly side of the Boston Post Road, so-called, more particularly bounded and described as follows:

Beginning at a point on the northerly side of the Boston Post Road, the same being the southeasterly corner of the tract herein conveyed and the southwesterly corner of other land of Oswegatchie Fire Company No. 4, Inc. being the Second Tract hereinbefore described; thence running westerly by and along the northerly line of said Boston Post Road fifteen (15) feet to a point; thence running northerly at right angles to the said line of said Boston Post Road and parallel to the westerly boundary line of the said Second Tract one hundred five and six-tenths (105.6) feet to a point; thence running easterly at right angles to the last described line forty-seven and eighty-two one hundredths (47.82) feet to the northeasterly corner of said Second Tract; thence deflecting to the right one hundred sixty-four degrees and ten minutes (164° 10') running thirty-four (34) feet by and along said Second Tract to the northwesterly corner of said Second Tract; thence deflecting to the left seventy-four degrees and ten minutes (74° 10') and running southerly by and along the westerly line of the said Second Tract ninety-six and seven-tenths (96.7) feet to the point of beginning.

Being the same and all the same premises conveyed to the Oswegatchie Fire Company No. 4, Inc. by Warranty Deed of Courtland R. Darrow dated March 8, 1938, and recorded in Volume 52, page 328 in the Land Records of the Town of Waterford.

FOURTH TRACT

A certain tract of land situated on the northerly side of the Old Boston Post Road in the Town of Waterford and being bounded and described as follows:

Beginning at a point in the said highway line at the southwesterly corner of the Third Tract hereinbefore described and running thence northerly at right angles to the highway line of said Boston Post Road, one hundred five and six tenths (105.6) ft. to a merestone at the northwesterly corner of said Third Tract; thence deflecting to the right ninety (90) degrees and running forty-seven and eighty-two hundredths (47.82) feet to a merestone at the northeasterly corner of said Third Tract; thence deflecting to the left fourteen degrees and nine minutes (14° 9') and running by and along the First Tract above described and land now or formerly of Courtland R. Darrow and the land now or formerly of Frank Hoagland four hundred twenty (420) feet to the northeasterly corner of said Hoagland's land; thence deflecting to the right eighty-four degrees and fifty-five (84° 55') and running by and along the land of the said Hoagland one hundred twenty-seven (127) ft. to a merestone in the northerly line of said Old Boston Post Road; thence deflecting to the left ninety-three degrees and thirty-nine minutes (93° 39') and running easterly along said highway line twenty-five and five hundredths (25.05) ft.; thence deflecting to the left eighty-six degrees and twenty-one minutes (86° 21') and running northerly, parallel to said Hoagland's easterly line and twenty-five (25) ft. distant therefrom, two hundred twenty-seven (227) ft.; thence deflecting to the left eighty-four degrees and fifty-five minutes (84° 55') and running westerly, parallel to said Hoagland's northerly line and one hundred (100) ft. distant therefrom, four hundred seventy-five and eight tenths (475.8) ft.; thence deflecting to the left seventy-five degrees and fifty-three minutes (75° 53') and running southerly one hundred ninety-two and eighty-five hundredths (192.85) feet, to the northerly line of said Old Boston Post Road; thence deflecting to the left ninety (90) degrees and running easterly along said highway line fifteen (15) ft. to a merestone at the point of beginning.

Being the same and all the same premises conveyed to the Oswegatchie Fire Company No. 4, Inc. by Warranty Deed of Courtland R. Darrow dated November 10, 1952, and recorded in Volume 96, pages 455 and 456 in the Land Records of the Town of Waterford, Connecticut.

RECEIVED FOR RECORD Aug 21 1972
3:22 P M. ATTEST Catherine D. Brew
CLERK

A G R E E M E N T

THIS AGREEMENT, made this 9th day of August, 1979, by and between the TOWN OF WATERFORD, a municipal corporation located in the County of New London and State of Connecticut, hereinafter called "Town" and the WATERFORD FIRE ENGINE CO., NO. 1 INC., a Connecticut non-stock corporation situated in the Town of Waterford, County of New London and State of Connecticut, hereinafter called "Company".

WHEREAS, the Town has annually made appropriations to support the activities of the Company, and;

WHEREAS, the Company is desirous of continuing to receive said appropriations, and;

WHEREAS, the Town wishes to be assured that the Company will continue to provide fire fighting service to the Town.

NOW,THEREFORE, it is agreed as follows:

(1) The Company agrees that in consideration of said appropriations that it will continue to provide fire fighting service to the Town.

(2) The Company agrees that should it cease to provide such fire fighting service other than as a result of circumstances beyond its control, or should the Company be dissolved, it will convey the premises described on Schedule "A", attached hereto and made a part hereof, to the Town at no cost to said Town.

(3) No mortgage shall be placed upon the within described premises after the date of this agreement without the written consent of the Town.

(4) The Town will continue to make annual appropriations to the Company in an amount to be determined by the Town.

(5) This agreement shall be binding on the parties and their successors or assigns, and shall be deemed a covenant running with the land.

IN WITNESS WHEREOF, the parties have set their hands and seals the date first above written.

TOWN OF WATERFORD

Ralph P. Dupont

John A. McGarry

By: Lawrence J. Bettencourt
First Selectman

WATERFORD FIRE ENGINE CO. No. 1, INC.

Ralph P. Dupont

John A. McGarry

By: Felix Brochu
Felix Brochu
Chief

STATE OF CONNECTICUT)
) ss. Waterford, Conn., August 8, 1979
COUNTY OF NEW LONDON)

On this the 8th day of August, 1979, before me, JUDITH L. METCALF, the undersigned officer, personally appeared LAWRENCE J. BETTENCOURT, who acknowledged himself to be the FIRST SELECTMAN of the Town of Waterford, a municipal corporation, and that he as such First Selectman, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as First Selectman.

In Witness Whereof, I hereunto set my hand and official seal.

Judith L. Metcalf
Notary Public
Title of Officer

MY COMMISSION EXPIRES
MARCH 31, 1984.

STATE OF CONNECTICUT)
) ss. Waterford, Conn., August 8, 1979
COUNTY OF NEW LONDON)

On this the 8th day of August, 1979, before me, JUDITH L. METCALF, the undersigned officer, personally appeared FELIX BROCHU, who acknowledged himself to be the Chief of Waterford Fire Engine Company, No. 1, Inc. a non-stock corporation, and that he as such Chief, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as Chief.

In Witness Whereof, I hereunto set my hand and official seal.

Judith L. Metcalf
Notary Public
Title of Officer

MY COMMISSION EXPIRES
MARCH 31, 1984.

EXHIBIT "A"

FIRST TRACT

A certain tract of land with the buildings thereon standing, situated in the Town of Waterford, in the Village of Jordan on the north side of the highway leading from New London to Rope Ferry Bridge, and bounded and described as follows, to wit:

On the north by land now or formerly of Pliny M. Harwood, on the east by land now or formerly of George H. Gallup; on the south by the highway leading from New London to Rope Ferry Bridge; and on the west by land now or formerly of Pliny M. Harwood.

Being the same and all the same premises conveyed to the Waterford Fire Engine Co. No. 1, Inc. by Quit Claim Deed of Charles A. Gallup, Fred W. Jacques, Frederick L. Goss, Frank Howard, W. Ellery Allyn, Courtland R. Darrow, John H. Eccleston, Gurdon S. Allyn, George H. Bathgate, Edgar I. Thomas, dated March 8, 1930 and recorded in Volume 54, pages 279 and 280 in the Waterford Land Records.

Excepting from the within described real estate all that certain tract of land located within said Town of Waterford and heretofore conveyed to J. Rodney Smith by Quit Claim Deed of the Waterford Fire Engine Company, No. 1, Inc. dated February 16, 1953 and recorded in Volume 83, page 531 of the Waterford Land Records and being more particularly bounded and described as follows:

A certain tract or parcel of land, situated in Jordan, in said Town of Waterford:

Beginning at a point in the northerly line of the New London-Niantic Road, which point is marked by a merestone and is the southwesterly corner of land of Waterford Fire Engine Co., No. 1, Inc.; thence running northerly in a line making an interior angle with the highway line of 87° 06' Seventy-six and three-tenths (76.3) feet to another merestone; thence deflecting to the left 88° 12' run westerly three (3) feet; thence deflecting 84° 06' to the right run northerly in a straight line one hundred eight and five-tenths (108.5) feet to another merestone at the northwest corner of the land of Waterford Fire Engine Co. No. 1, Inc.; thence deflecting 91° 54' to the right run easterly in a straight line bounded southerly by land of Waterford Fire Engine Co. No. 1, Inc. ninety-five and five-tenths (95.5) feet, more or less, to the northeasterly corner of Waterford Fire Engine Co. No. 1, Inc.'s land; thence easterly in the same course bounded southerly by lands now or formerly of the Estate of George H. Gallup and by land now or formerly of Sarah G. Brill, two hundred eighty (280) feet, more or less, to Jordan Brook; thence northwesterly with Jordan Brook to land formerly of G. S. Allyn; thence westerly or southwesterly with said Allyn land two hundred fifty-one (251) feet, more or less, to the northeast corner of land now or formerly of May T. Howard; thence southerly with said Howard land two hundred thirty-five (235) feet, more or less, to the northerly line of the New London-Niantic Road; and thence easterly with the northerly line of said Road eighty-three and sixty-six hundredths (83.66) feet to the merestone at the point or place of beginning.

SECOND TRACT

A certain tract of land with the buildings thereon, situated in the Town of Waterford, County of New London, and State of Connecticut, situated at 87 Rope Ferry Road, bounded and described as follows:

Beginning at a merestone on the northerly highway limit of the Rope Ferry Road at the southeast corner of land of the First Tract hereinbefore described and thence running northerly by said First Tract to the northeast corner thereof and land now or formerly of Henry Gardiner Enterprises, Inc.; and thence running easterly by the southerly line of said land now or formerly of Henry Gardiner Enterprises 50 feet; and thence running southerly to a point 100 feet easterly, as measured along said northerly highway limit of Rope Ferry Road, from the point of beginning; and thence running westerly by the said northerly highway limit of Rope Ferry Road to the point of beginning.

Being the same and all the same premises conveyed to the Waterford Fire Engine Co., No. 1, Inc. by Warranty Deed of Aline G. Parish, dated August 21, 1972 and recorded in Volume 196, page 400 of the Waterford Land Records and by Administrator's Deed of George C. Gale, Administrator, DBN, CTA of the Estate of Geraldine G. Gale, deceased, dated April 24, 1972 and recorded in Volume 196, page 398 of the Waterford Land Records.

Excepting, however, a portion of the above-described premises being approximately 25' in width and commencing at the northeasterly corner of the hereinbefore described premises and running in a general Southerly direction a distance of approximately 100' as hereinafter to be laid out by a registered land surveyor.

RECEIVED FOR RECORD Aug. 3, 19 72
3:23P M. ATTEST: Catherine D. Lee
TOWN CLERK

VOL 251 PAGE 936

AGREEMENT

THIS AGREEMENT, made this 9th day of August, 1979, by and between the TOWN OF WATERFORD, a municipal corporation located in the County of New London and State of Connecticut, hereinafter called "Town" and the COHANZIE FIRE COMPANY NO. 5, INC., a Connecticut non-stock corporation situated in the Town of Waterford, County of New London and State of Connecticut, hereinafter called "Company".

WHEREAS, the Town has annually made appropriations to support the activities of the Company, and;

WHEREAS, the Company is desirous of continuing to receive said appropriations, and;

WHEREAS, the Town wishes to be assured that the Company will continue to provide fire fighting service to the Town.

NOW, THEREFORE, it is agreed as follows:

(1) The Company agrees that in consideration of said appropriations that it will continue to provide fire fighting service to the Town.

(2) The Company agrees that should it cease to provide such fire fighting service other than as a result of circumstances beyond its control, or should the Company be dissolved, it will convey the premises described on Schedule "A", attached hereto and made a part hereof, to the Town at no cost to said Town.

(3) No mortgage shall be placed upon the within described premises after the date of this agreement without the written consent of the Town.

(4) The Town will continue to make annual appropriations to the Company in an amount to be determined by the Town.

(5) This agreement shall be binding on the parties and their successors or assigns, and shall be deemed a covenant running with the land.

IN WITNESS WHEREOF, the parties have set their hands and seals the date first above written.

TOWN OF WATERFORD

Ralph P. Dupont

By: Lawrence J. Bettencourt
First Selectman

John A. McGarry

COHANZIE FIRE COMPANY NO. 5, INC.

John A. McGarry

By: James Mugavero Chief
James Mugavero
Chief

Ralph P. Dupont

By: Gurdon C. Avery President
Gurdon C. Avery
President

STATE OF CONNECTICUT)
) ss. Waterford, Conn., August 8, 1979
COUNTY OF NEW LONDON)

On this the 8th day of August, 1979, before me, JUDITH L. METCALF, the undersigned officer, personally appeared LAWRENCE J. BETTENCOURT, who acknowledged himself to be the FIRST SELECTMAN of the Town of Waterford, a municipal corporation, and that he as such First Selectman, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as First Selectman.

In Witness Whereof, I hereunto set my hand and official seal.

Judith L. Metcalf
Notary Public
Title of Officer

MY COMMISSION EXPIRES
MARCH 31, 1981.

STATE OF CONNECTICUT)
) ss. Waterford, Conn., August 8, 1979
COUNTY OF NEW LONDON)

On this the 8th day of August, 1979, before me, JUDITH L. METCALF, the undersigned officer, personally appeared JAMES MUGAVERO, who acknowledged himself to be the Chief of Cohanzie Fire Company, No. 5, Inc., a non-stock corporation, and that he as such Chief, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as Chief.

In Witness Whereof, I hereunto set my hand and official seal.

Judith L. Metcalf
Notary Public
Title of Officer

MY COMMISSION EXPIRES
MARCH 31, 1981.

STATE OF CONNECTICUT)
) ss. Waterford, Conn., August 8, 1979
COUNTY OF NEW LONDON)

On this the 8th day of August, 1979, before me, JUDITH L. METCALF, the undersigned officer, personally appeared GURDON C. AVERY, who acknowledged himself to be the President of Cohanzie Fire Company, No. 5, Inc., a non-stock corporation, and that he as such President, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as President.

In Witness Whereof, I hereunto set my hand and official seal.

Judith L. Metcalf

Judith L. Metcalf
Notary Public
Title of Officer

MY COMMISSION EXPIRES
MARCH 31, 1984.

EXHIBIT "A"

Beginning at an iron pipe set in the easterly street line of Dayton Road at the northwest corner of the herein described parcel thence S82°-37'-20" E along other land of the Cohanzie Fire Co. #5, Inc. 28.00 feet to a point; thence northerly 6.00 feet, easterly 11.00 feet, southerly 6.00 feet to a point, the last three courses describing a jog in the northerly boundry line of said parcel, which jog includes the foundation of a television tower; thence S82°-37'-20"E continuing along other land of said Cohanzie Fire Co. 150.05 feet to an iron pipe set in the northeast corner of said parcel; thence S4°-57'-55"E continuing along land of said Cohanzie Fire Co. 217.41 feet to an iron pipe set in the southeast corner of said parcel at land of the Town of Waterford; thence S87°-36'-40"W along land of the Town of Waterford 175.06 feet to an iron pipe set in the southwest corner of said parcel at the easterly street line of Dayton Road; thence N7°-12'-35"W along the easterly street line of Dayton Road 250.15 feet to the point and place of beginning.

Said parcel includes a 50.00 foot wide right of way, hereby reserved to the Cohanzie Fire Co. #5, Inc., across said parcel and along the southerly boundry of said tract and land of the Town of Waterford. Said right of way running from Dayton Road to other land of the Cohanzie Fire Co. #5, Inc.

For a more particular description reference is made to plan entitled "Plan of Property of the Cohanzie Fire Co. #5, Inc. Showing Parcel A, Dayton Rd., Waterford, Ct. Scale 1" = 30' July, 1979, Edmond Sitty, Land Surveyor, Waterford, Ct., Conn. Reg. #5754" to be filed in the Waterford Land Records.

Being the same and all the same premises conveyed to the Cohanzie Fire Company No. 5, Inc. by Warranty Deed of Reba K. Morgan and Stanley D. Morgan, dated March 13, 1942 and recorded in Volume 63, page 110, in the Land Records of the Town of Waterford.

Being a portion of the same premises conveyed to the Cohanzie Fire Company No. 5, Inc. by Warranty Deed of Stanley D. Morgan and Reba K. Morgan dated November 12, 1952 and recorded in Volume 95, page 157, in the Land Records of the Town of Waterford.

RECEIVED FOR RECORD Aug 31 1979
3:24P M. ATTEST: Catherine D. Shea
TOWN CLERK

AGREEMENT

THIS AGREEMENT, made this 9th day of August, 1979, by and between the TOWN OF WATERFORD, a municipal corporation located in the County of New London and State of Connecticut, hereinafter called "Town" and the QUAKER HILL FIRE COMPANY, INC. a Connecticut non-stock corporation situated in the Town of Waterford, County of New London and State of Connecticut, hereinafter called "Company".

WHEREAS, the Town has annually made appropriations to support the activities of the Company, and;

WHEREAS, the Company is desirous of continuing to receive said appropriations, and;

WHEREAS, the Town wishes to be assured that the Company will continue to provide fire fighting service to the Town.

NOW, THEREFORE, it is agreed as follows:

(1) The Company agrees that in consideration of said appropriations that it will continue to provide fire fighting service to the Town.

(2) The Company agrees that should it cease to provide such fire fighting service other than as a result of circumstances beyond its control, or should the Company be dissolved, it will convey the premises described on Schedule "A", attached hereto and made a part hereof, to the Town at no cost to said Town.

(3) No mortgage shall be placed upon the within described premises after the date of this agreement without the written consent of the Town.

(4) The Town will continue to make annual appropriations to the Company in an amount to be determined by the Town.

(5) This agreement shall be binding on the parties and their successors or assigns, and shall be deemed a covenant running with the land.

IN WITNESS WHEREOF, the parties have set their hands and seals the date first above written.

TOWN OF WATERFORD

Ralph P. Dupont

By: Lawrence J. Bettencourt
First Selectman

John A. McGarry

QUAKER HILL FIRE COMPANY, INC.

Ralph P. Dupont

By: Melvin E. Carson
Chief

John A. McGarry

STATE OF CONNECTICUT)
) ss. Waterford, Conn., August 8, 1979
COUNTY OF NEW LONDON)

On this the 8th day of August, 1979, before me, JUDITH L. METCALF, the undersigned officer, personally appeared LAWRENCE J. BETTENCOURT, who acknowledged himself to be the FIRST SELECTMAN of the Town of Waterford, a municipal corporation, and that he as such First Selectman, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as First Selectman.

In Witness Whereof, I hereunto set my hand and official seal.

Judith L. Metcalf
Judith A. Metcalf
Notary Public
Title of Officer

MY COMMISSION EXPIRES MARCH 31, 1984.

STATE OF CONNECTICUT)
) ss. Waterford, Conn., August 8, 1979
COUNTY OF NEW LONDON)

On this the 8th day of August, 1979, before me, JUDITH L. METCALF, the undersigned officer, personally appeared MELVIN E. CARSON. who acknowledged himself to be the Chief of Quaker Hill Fire Company, Inc., a non-stock corporation, and that he as such Chief, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as Chief.

In Witness Whereof, I hereunto set my hand and official seal.

Judith L. Metcalf
Judith L. Metcalf
Notary Public
Title of Officer

MY COMMISSION EXPIRES MARCH 31, 1984.

EXHIBIT "A"

Those certain tracts of land located on the north side of the Old Colchester Road at Quaker Hill, so-called, in the Town of Waterford, and bounded and described as follows:

FIRST TRACT

Commencing at a merestone at a point two hundred and twenty-five (225) feet northwest of the junction of a stone wall at the junction of the Norwich and Old Colchester Roads, and being the southeast corner of land conveyed to the Quaker Hill Home Building Company, by Frederick Scholfield and Andrew W. Smith, thence running northwesterly sixty (60) feet by and along said Old Colchester Road to another merestone; thence running northeasterly by and along other land of Quaker Hill Fire Company, Inc. and being the Second Tract hereinafter described, one hundred and ten (110) feet to a merestone separating the within described tract from other land formerly of the Quaker Hill Home Building Company and being the Third Tract hereinafter described; thence running southeasterly by and along said Third Tract sixty (60) feet to a merestone separating the within described tract from said other land formerly of said Quaker Hill Home Building Company and being the Third Tract; thence running southwesterly by and along other land now or formerly of the said Quaker Hill Home Building Company one hundred and ten (110) feet to the Old Colchester Road and to the Point of beginning.

Being the same and all the same premises conveyed to Quaker Hill Fire Company, Inc. by the Quaker Hill Home Building Company by Warranty Deed dated May 20, 1927 and recorded in Volume 44, page 225 of the Waterford Land Records.

SECOND TRACT

Beginning at the southwesterly corner of the First Tract above described, sometimes called the Fire House Lot at a point in the north easterly line of the Old Colchester Road; thence run northwesterly with said Road seventy-five (75) feet to a corner at other land formerly of Frederick Scholfield and being the Fourth Tract hereinafter described; thence run northeasterly with said Fourth Tract one hundred and ten (110) feet to another corner; thence run southeasterly with other land formerly of Frederick Scholfield and being the Third Tract hereinafter described, seventy-five (75) feet to the northwest corner of the said First Tract; thence southwesterly with said First Tract one hundred and ten (110) feet, more or less, to the point of departure at the Old Colchester Road.

Being the same and all the same premises conveyed to Quaker Hill Fire Company, Inc. by Frederick Scholfield by Warranty Deed dated September 22, 1945 and recorded in Volume 69, page 234 of the Waterford Land Records.

THIRD TRACT

Beginning at the northeast corner of the First Tract above described, which point is one hundred ten (110) feet north of the northerly line of the Old Colchester Road; thence running northerly on the extension of the easterly line of said First Tract, eighteen and six-tenths (18.6) feet, more or less, to the southerly line of Sunshine Road; thence running westerly, by and along the southerly line of Sunshine Road, one hundred and thirty-five (135) feet, more or less, to the land formerly of Mildred B. Ashcraft and being the Fourth Tract described below; thence southerly, bounded westerly by said Fourth Tract, thirteen (13) feet, more or less, to other land of the said, Quaker Hill Fire Company, Inc. and being the Second Tract above described; thence easterly, bounded southerly by said Second Tract seventy-five (75) feet to a point; thence continuing easterly sixty (60) feet to the point and place of beginning.

Being the same and all the same premises conveyed to Quaker Hill Fire Company, Inc. by Frederick Scholfield by Warranty Deed dated November 28, 1952 and recorded in Volume 95, page 176 of the Waterford Land Records.

FOURTH TRACT

Beginning at a point in the northerly line of the Old Colchester Road at the southwest corner of the Second Tract above described; thence running northerly, bounded easterly by the Second and Third Tracts above described , one hundred and twenty-five (125) feet, more or less, to the southerly line of Sunshine Road; thence running westerly, by and along the southerly line of said Road, fifty (50) feet to other land now or formerly of Frederick Scholfield; thence running southerly a distance of one hundred and twenty-five (125) feet, more or less, to the northerly line of the Old Colchester Road; thence, by and along the northerly line of said road, fifty (50) feet to the point and place of beginning.

Being the same and all the same premises conveyed to Quaker Hill Fire Company, Inc. by Mildred A. Ashcraft by Warranty Deed dated December 2, 1952 and recorded in Volume 95, page 177 of the Waterford Land Records.

RECEIVED FOR RECORD Aug. 2, 1972
3:25 P M. ATTEST: [signature]
TOWN CLERK

AGREEMENT

THIS AGREEMENT, made this 8th day of August, 1979, by and between the TOWN OF WATERFORD, a municipal corporation located in the County of New London and State of Connecticut, hereinafter called "Town" and the GOSHEN FIRE DEPARTMENT, INC., a Connecticut non-stock corporation situated in the Town of Waterford, County of New London and State of Connecticut, hereinafter called "Company".

WHEREAS, the Town has annually made appropriations to support the activities of the Company, and;

WHEREAS, the Company is desirous of continuing to receive said appropriations, and;

WHEREAS, the Town wishes to be assured that the Company will continue to provide fire fighting service to the Town.

NOW, THEREFORE, it is agreed as follows:

(1) The Company agrees that in consideration of said appropriations that it will continue to provide fire fighting service to the Town.

(2) The Company agrees that should it cease to provide such fire fighting service other than as a result of circumstances beyond its control, or should the Company be dissolved, it will convey the premises described on Schedule "A", attached hereto and made a part hereof, to the Town at no cost to said Town.

(3) No mortgage shall be placed upon the within described premises after the date of this agreement without the written consent of the Town.

(4) The Town will continue to make annual appropriations to the Company in an amount to be determined by the Town.

(5) This agreement shall be binding on the parties and their successors or assigns, and shall be deemed a covenant running with the land.

IN WITNESS WHEREOF, the parties have set their hands and seals the date first above written.

TOWN OF WATERFORD

Ralph P. Dupont

John A. McGarry

By: Lawrence J. Bettencourt
First Selectman

GOSHEN FIRE DEPARTMENT, INC.

Ralph P. Dupont

John A. McGarry

By: Bernard J. Douton, Chief
Bernard J. Douton
Chief

Judith L. Metcalf

Geraldine M. Badalucca

By: Harold P. Dimmock, Pres.
Harold P. Dimmock
President

STATE OF CONNECTICUT)
) ss. Waterford, Conn., August 8, 1979
COUNTY OF NEW LONDON)

On this the 8th day of August, 1979, before me, JUDITH L. METCALF, the undersigned officer, personally appeared LAWRENCE J. BETTENCOURT, who acknowledged himself to be the FIRST SELECTMAN of the Town of Waterford, a municipal corporation, and that he as such First Selectman, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as First Selectman.

In Witness Whereof, I hereunto set my hand and official seal.

Judith L. Metcalf
Notary Public
Title of Officer

MY COMMISSION EXPIRES MARCH 31, 1984.

STATE OF CONNECTICUT)
) ss. Waterford, Conn., August 8, 1979
COUNTY OF NEW LONDON)

On this the 8th day of August, 1979, before me, JUDITH L. METCALF, the undersigned officer, personally appeared BERNARD J. DOUTON, who acknowledged himself to be the Chief of Goshen Fire Department, Inc., a non-stock corporation, and that he as such Chief, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as Chief.

In Witness Whereof, I hereunto set my hand and official seal.

Judith L. Metcalf
Notary Public
Title of Officer

MY COMMISSION EXPIRES MARCH 31, 1984.

STATE OF CONNECTICUT)
) ss. Waterford, Conn., August 8, 1979
COUNTY OF NEW LONDON)

On this the 8th day of August, 1979, before me, JUDITH L. METCALF, the undersigned officer, personally appeared HAROLD P. DIMMOCK, who acknowledged himself to be the President of Goshen Fire Department, Inc., a non-stock corporation, and that he as such President, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as President.

In Witness Whereof, I hereunto set my hand and official seal.

Judith L. Metcalf

Judith L. Metcalf
Notary Public
Title of Officer

MY COMMISSION EXPIRES
MARCH 31, 1984.

EXHIBIT "A"

FIRST TRACT

A certain tract of land situated in the Town of Waterford, County of New London and State of Connecticut, on the northerly side of the Goshen Road and adjoining the Second Tract hereinafter described sometimes called the Fire House Lot, and being more particularly bounded and described as follows:

Beginning at the southwest corner of the tract herein described at the southeast corner of the the Second Tract hereinafter described and in the northerly line of said Goshen Road; thence run northerly with said Second Tract about one hundred and fifty-five (155) feet to a corner at land now or formerly owned by John Leiper; thence run easterly bounding land now or formerly of The Goshen Realty Company on the north, twenty-five (25) feet to a corner; thence run southerly in a direct line bounding other land now or formerly of The Goshen Realty Company on the east, one hundred and fifty (150) feet to the north line of Goshen Road before mentioned; and thence westerly by and with said Road line fifty (50) feet to the point of beginning.

Being the same and all the same property conveyed to the Goshen Fire Department, Inc. by Warranty Deed of The Goshen Realty Co., dated November 24, 1969 and recorded in Volume 180, page 525 in the Land Records of the Town of Waterford.

SECOND TRACT

That certain tract of land situated at Pleasure Beach in the Town of Waterford, more particularly bounded and described as follows:

Beginning at a merestone located at the northeast corner of the intersection of the New Shore Road and the Goshen Road; thence running along the line of the Goshen Road in a general easterly direction one hundred fifty (150) feet, more or less, to a stonewall and the First Tract above described; thence running in a general northerly direction along said stonewall, and said First Tract a distance of one hundred fifty (150) feet, more or less, to where said wall intersects another stonewall which runs approximately east and west; thence running in a general westerly direction along said stonewall a distance of one hundred twenty (120) feet, more or less, to other land owned by Goshen Fire Department, Inc. (being the Third Tract hereinafter described); thence running in a general southerly direction along other land of the said Goshen Fire Department, Inc., one hundred five (105) feet, more or less, to a merestone; thence running in a general southwesterly direction along said other land of the Goshen Fire Department, Inc., sixty-three and eight-tenths (63.8) feet, more or less, to a

merestone located on the line of the New Shore Road; thence running in a general southeasterly direction along the line of the New Shore Road one hundred (100) feet, more or less, to the point or place of beginning.

Being the same and all the same property conveyed to the Goshen Fire Department, Inc. by Warranty Deed of The Goshen Realty Company, dated February 13, 1940 and recorded in Volume 58, page 360 in the Land Records of the Town of Waterford.

THIRD TRACT

A certain tract of land near Pleasure Beach in the Town of Waterford and adjoining the Second Tract above described and being bounded and described as follows, viz:

Beginning at a point in the northeasterly line of Shore Avenue (also called New Shore Avenue) at a merestone set one hundred feet northwesterly from another merestone set in the line of Goshen Road, at the southwesterly corner of said Second Tract thence in a northeasterly direction run sixty three and eight tenths (63.8) feet to another merestone, thence northerly one hundred and five (105) feet to a drill mark (T) on wall at land now or formerly of John Leiper, thence westerly with the wall and said Leiper land fifty (50) feet to other land of the Goshen Fire Department, Inc. (being the Fourth Tract hereinafter described); thence southerly and westerly with such other land to Shore Avenue and southeasterly with Shore Avenue to the merestone at the point of departure.

Being the same and all the same premises conveyed to the Goshen Fire Department, Inc. by Warranty Deed of the Goshen Realty Company dated September 25, 1931 and recorded in Volume 46, page 432 in the Land Records of the Town of Waterford.

FOURTH TRACT

Beginning at a point thirty (30) feet east of the angle of the stone wall which bounds the property of John Leiper on the south; thence running in a southeasterly direction one hundred fifty (150) feet by and along the new Shore Road, so called, to a merestone; thence in an easterly direction parallel to the above mentioned wall seventy (70) feet more or less bounded on the south by other land of the Goshen Fire Department, Inc. (being the Third Tract above described); thence northerly eighty (80) feet more or less by and along said other land of The Goshen Fire Department, Inc. to the wall bounding lands belonging to John Leiper thence in a westerly direction by said wall one hundred ninety five (195) feet more or less to the point of beginning.

Being the same and all the same premises conveyed to the Goshen Fire Department, Inc. by Warranty Deed of the Goshen Realty Company dated May 1, 1928 and recorded in Volume 41, page 606 in the Land Records of the Town of Waterford.

Excepting from the within described real estate all that certain tract of land located within said Town of Waterford, and heretofore conveyed to the Town of Waterford by Quit Claim Deed of the Goshen Fire Department, Incorporated dated June 13, 1946 and recorded in Volume 61, Page 254 of the Waterford Land Records and being more particularly bounded and described as follows:

Beginning at a merestone at the intersection of the North line of Goshen Road with the northeasterly line of New Shore Road; thence by and along the northeasterly line of New Shore Road in a northwesterly direction one hundred (100') feet to a merestone; thence in an irregular curved line by and along other property of the Goshen Fire Department, Inc. (being the Second Tract above described) to a point in the northerly line of Goshen Road; thence by and along the Northerly line of Goshen Road in a Westerly direction one hundred (100') feet to the place of beginning. The shortest distance from said irregular curved line to the merestone at the point of beginning being fifteen (15') feet.

RECEIVED FOR RECORD Aug 31, 19 22

3:26 P M. ATTEST: Catherine A. Lee

TOWN CLERK

6

Contract between TOW and the Waterford Professional Firefighters

Collective Bargaining Agreement

between

Town of Waterford

and

Waterford Professional Firefighters Association
Union Local 4629 International Association of Firefighters
AFL-CIO

July 1, 2013 - June 30, 2017

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PREAMBLE

The Parties to this Agreement are the Town of Waterford (hereinafter referred to as the "Town" or "Employer") and the Waterford Professional Firefighters Association Union Local 4629, IAFF, AFL-CIO ("Union").

The Union recognizes the Town's determination that fire protection and related services are provided primarily by individuals denominated by the Town as Volunteer Firefighters. Bargaining unit employees operate consistent with and pursuant to Town Ordinance in support of Volunteer Firefighters as directed by the Town's Director of Fire Services.

OBJECTIVE

It is the objective of this agreement to encourage and strengthen an orderly, harmonious relationship between the parties in order that more efficient and effective fire services shall be rendered to all citizens of Waterford. The signatories to this Agreement pledge to maintain and improve the present standards of service in an efficient manner.

ARTICLE I
RECOGNITION

1.0 The Town recognizes the Union as the sole and exclusive collective bargaining representative and collective bargaining agent of all full time Firefighters and Fire Inspectors employed by the Town of Waterford with the exception of those positions which would be excluded in accordance with the Connecticut State Board of Labor Relations pursuant to the provisions of the Municipal Employee Relations Act, C. G. S § 7-467 et seq. As used throughout this Agreement, unless otherwise specifically noted, the term employee refers to employees who are members of the recognized bargaining unit.

ARTICLE II
MANAGEMENT RIGHTS

2.0 The Employer shall continue to have, whether exercised or not, all of the functions of management and shall have retained and reserved unto itself the right to exercise all the powers, authority and prerogatives of management, except as specifically abridged or modified by a specific provision in this Agreement, including, but not limited to, the following items:

A. the operation and direction of the Fire Services;

B. the determination of the nature and level of services to be provided;

C. the direction, control, supervision and evaluation of all employees;

D. the establishment or change of job assignments;

E. the increase, change or discontinuation of operations in whole or in part;

F. the institution of technological changes;

G. the revising of processes, systems or equipment;

H. the alteration, addition or elimination of existing methods, equipment or facilities;

I. the determination of the location, organization, number and training of personnel;

J. the assignment of duties and work assignments;

K. the assignment of duty stations;

L. the scheduling and assigning of leaves;

M. the hiring, appointment and promotion of all employees;

N. the demotion, suspension, discipline or discharge of employees for just cause;

O. the promulgation and enforcement of rules and regulations for the maintenance of discipline, for the performance of work consistent with the requirements of the Town as determined by the Director of Fire Services or his or her designee and for the efficient and effective provision of fire service to the Town;

P. the Town recognizes its statutory obligation to bargain in good faith regarding the impact of its exercising certain Management Rights set out in this Article.

2.1 In its sole discretion, and without incurring any bargaining obligation regarding its decision to do so, the Town may utilize volunteers to perform fire service functions.

ARTICLE III
STRIKES AND LOCKOUTS

3.0 The Union agrees that neither the Union nor any of its officers, agents or members, nor any employee covered under this Agreement, will call, institute, authorize, participate in or sanction any strike, work stoppage, slowdown, sick out, sympathy strike, or refusal to perform in whole or in part duties of employment, including upon termination of this Agreement.

3.1 The Union agrees further that should any employee or group of employees covered by this Agreement engage in any such job action, the Union shall disavow such activity, refuse to recognize any such job action and will notify, in writing, such employee or group of employees to terminate any such job action.

3.2 The Town shall not lock out employees during the life of this Agreement, including upon termination of the Agreement.

ARTICLE IV
PROBATION

4.0 New bargaining unit employees shall serve a probationary period of six (6) months, and shall have no seniority rights or grievance privileges during this period, but shall be

subject to all other clauses of this Agreement. All employees who have completed the probationary period shall be considered regular employees, and the probation period shall be counted in determining total seniority.

4.1 Probationary employees may be disciplined or terminated at any time during the probationary period without recourse to the grievance and arbitration provisions of the Agreement.

ARTICLE V
NO DISCRIMINATION

5.0 All provisions of this Agreement apply equally to all employees, except in the case of bona fide occupational qualification, without discrimination because the employee is a veteran or because of the individual's race, color, religion, creed, age, sex, marital status, national origin, ancestry, disability, membership or non-membership in the Union or political activity or lack thereof.

5.1 It is the continuing policy of the Town and the Union to protect employees from intrusions upon their privacy and offenses to their personal sensibilities. It is the continuing policy of the Town and Union that no form of sexual harassment of one Town employee by another shall be condoned or permitted to continue. Sexual harassment shall be considered discriminatory under this provision. Employees are urged to report any such trespass on their rights to the Director of Fire Services or his or her designee, the Director of Human Resources or his or her designee or to the First Selectman. Any employee found to have sexually harassed another will be subject to disciplinary action up to and including dismissal.

ARTICLE VI
UNION SECURITY - AGENCY SHOP

6.0 During the term of this Agreement or extension thereof, all employees in the collective bargaining unit shall, from the signing of this Agreement, or within (30) days from the date of employment by the Town, as a condition of employment, either become and remain members of the Union in good standing in accordance with the Constitution and By-Laws of the Union, or, in lieu of Union membership, pay to the Union a service fee which shall not be greater than the amount of dues uniformly required of its members for the proportionate cost of collective bargaining, contract administration and grievance adjustment in accordance with the law.

ARTICLE VII
PAYROLL DEDUCTION

7.0 The Town agrees to deduct Union membership, initiation fees and weekly dues or service fees from the pay of those employees who individually and in writing authorize such deductions. The amounts to be deducted shall be certified to the Town by the Treasurer of the Union, and the aggregate deductions of all employees shall be remitted to the Union

no later than the fifteenth (15th) of the next month following the month which such dues and/or service fees were deducted.

7.1 In the event an employee receives no pay on the payday in which dues are to be deducted, no deductions shall be made for that week.

7.2 When a member's dues are not deducted by reason of the conditions described in Sec. 7.1 of this Article, or by reason of an extended absence from the Department during which time the member is not paid, and such member returns to active duty, the Town shall reactivate and continue the deduction of the member's dues.

7.3 The Union agrees to indemnify and hold the Town harmless against any or all claims, demands, suits, or other forms of liability including attorney's fees and costs of administrative or other hearings or proceedings that shall or may arise out of, or by reason of, any action taken by the Town for purposes of complying with the provisions of this Article.

ARTICLE VIII
UNION ACTIVITIES

8.0 The Union agrees that no union activities except as provided for in this Agreement shall take place on the Town's property during working hours.

Union members who are on duty may attend off-site Union meetings which are otherwise held within Waterford, provided that they maintain complete readiness to respond to dispatched calls and that their participation in any Union meeting will not adversely impact daily operations of the fire service. Members may drive Town utility vehicles to such meetings.

The Union President or his/her designee shall be granted leave with full pay to attend union sponsored seminars, provided that the Union President or his/her designee is scheduled on duty at the time of said union sponsored seminar, and further provided that the total leave for the purposes set forth in this section shall not exceed forty (40) in any fiscal year. All such leaves shall be requested at least one (1) week in advance.

8.1 The Union President or his or her designee and one other bargaining unit employee will be allowed necessary time off with pay from duty for the purpose of negotiations but will remain available for emergency response.

8.2 The Town will place a bulletin board in an accessible place for the exclusive use of the Union.

8.3 The Town shall provide each employee and the President of the Local Union with a copy of this Agreement. The Town shall also provide an electronic copy to the Union in the format which is then in use by the Town for its normal business purposes.

8.4 Upon written request, directed to the Town Human Resources office, the Union may call meetings at reasonable times in Town buildings before or after regular working hours provided such meetings do not conflict with other scheduled activities or events.

ARTICLE IX
DISCIPLINE

9.0 No employee shall be discharged, terminated, demoted, suspended or disciplined in any manner except for just cause.

9.1 Discipline of probationary employees shall be for just cause; however, determination of just cause rests solely with the Town and shall not be subject to the grievance and arbitration procedures of this Agreement.

9.2 Corrective and instructional interviews are not discipline and not subject to the grievance and arbitration procedures of this Agreement.

9.3 Disciplinary actions should generally follow this order:

(a) Verbal warning;
(b) Written warning;
(c) Suspension; and
(d) Discharge.

It is mutually understood and agreed by the Town and the Union that deviation from the above order for disciplinary actions may be warranted depending upon the totality of the circumstances, including the severity of the infraction, its pervasiveness and the employee's history of discipline.

ARTICLE X
GRIEVANCE PROCEDURE

10.0 A grievance is a dispute between an employee (or the Union) and the Town involving the interpretation or application of this Agreement.

10.1 Any employee may use this grievance procedure with or without Union assistance. An employee utilizing this grievance procedure without Union assistance may do so only through Step 2 of this Article. Only the Union may submit a grievance to arbitration.

10.2 No grievance settlement made as a result of an individually processed grievance shall contravene the provisions of this Agreement.

10.3 A grievance shall be processed in the following three (3) steps.

Step 1. Any employee who has a grievance shall reduce the grievance to writing and submit it to the Director of Fire Services within ten (10) working days

of the date of the occurrence, and the Director of Fire Services shall use his best efforts to settle the dispute. The Director of Fire Services shall submit his decision in writing to the aggrieved employee and the employee's representative, if any, within ten (10) working days of receipt of the grievance.

Step 2. If the aggrieved and the aggrieved's representative, if any, are not satisfied with the decision rendered by the Director of Fire Services the employee, or the employee's representative, if any, shall submit the grievance in writing within ten (10) working days, to the Town Human Resources Director. Within ten (10) working days after receiving such grievance, the Town Human Resources Director shall render his or her decision in writing to the aggrieved employee and the employee's representative, if any.

Step 3. If the Union is not satisfied with the decision rendered, the Union may, within fifteen (15) working days, submit the grievance to the Connecticut State Board of Mediation and Arbitration (CSBMA), with written notice to the Town, and the decision rendered by the arbitrator(s) shall be final and binding upon both parties. Any grievance dealing with discipline of less than ten (10) days suspension may upon mutual agreement of the parties be arbitrated under the expedited rules of the Board. In lieu of arbitration before the Connecticut State Board of Mediation and Arbitration, either party may transfer discipline or non-disciplinary discharge cases to the American Arbitration Association ("AAA") provided however, that if the discipline involves less than a ninety (90) day suspension, the expenses of AAA shall be borne by the moving party and provided further that if the discipline is greater than or equal to a ninety (90) day suspension (including termination or a non-disciplinary discharge), the expenses of AAA shall be shared equally by the Town and the Union. When either the Town or the Union seeks to move a matter to AAA, the moving party shall provide notice of the transfer within five (5) working days of the transfer. Under no circumstances shall a case be transferred to AAA after the CSBMA has scheduled such case for arbitration, unless by mutual agreement of both parties.

10.4 The mediation services of the State Board of Mediation and Arbitration may be used in the third step of this procedure provided both parties mutually agree on the desirability of this service.

10.5 If either of the parties related to the grievance process desire to meet for the purpose of oral discussion, a meeting shall be requested and scheduled.

10.6 Time extensions beyond those stipulated in this grievance procedure may be arrived at by mutual agreement of both parties concerned and submitted in writing. The failure of management to respond to grievances within the time limit set forth above shall

constitute denial of said grievance.

10.7 Either party shall have the right to employ a public stenographer at arbitration and shall provide copies of the transcript to the other party at no cost and also to the arbitration panel if requested to do so.

10.8 The Fire Union shall be entitled to submit grievances in the name of the Fire Union in the same manner as is provided herein for employees.

10.9 At its own expense and consistent with the terms of this Article, the Union shall have the right and choice of representation whenever representation is desired.

10.10 Working days, as set forth in this Article, shall mean Monday through Friday, excluding Saturday, Sunday and holidays.

10.11 The jurisdiction and authority of the arbitrator and his opinion and award shall be confined to the interpretation and/or application of the provisions of this Agreement at issue between the Union and the Town. He or she shall have no authority to add to, detract from, alter, amend or modify any provision of this Agreement. The arbitrator shall not have jurisdiction to hear or decide more than one (1) grievance without the mutual consent of the Town and the Union. The written award of the arbitrator on the merits of any grievance adjudicated within his jurisdiction and authority shall be final and binding on the aggrieved employee, the Union, and the Town.

An arbitrator shall not have jurisdiction to hear or decide (i.e., grievance shall not be arbitrable) a claim of discrimination which has been filed in State or Federal Court and/or with a state or federal agency or commission including, but not limited to, the Connecticut Commission on Human Rights and Opportunities (CHRO) OR Equal Employment Opportunity Commission (EEOC).

10.12 The Union president or his designee shall be afforded time while on duty for the purpose of investigating and adjusting grievances without loss of pay. Approval of the Director of Fire Services or his designee must be secured before any such on duty activities take place. Such approval shall not be unreasonably withheld. The Town's decision regarding this section will not be subject to the provisions of the Grievance and Arbitration Article of this Agreement.

ARTICLE XI
ASSIGNMENTS

11.0 Assignments will be made by the Director of Fire Services or his or her designee. The Director of Fire Services may consider employee requests when making assignments to the extent such requests are consistent with providing the highest level of efficient and effective fire service to the Town.

ARTICLE XII
SENIORITY

12.0 Seniority shall be defined as continuous length of service in the bargaining unit from the date of hiring; provided, however, there shall be no loss in seniority for vacation time, sick leave, temporary layoff, suspension, authorized leaves of absence, or call to military service for the duration.

12.1 Seniority shall be lost and the employee terminated if: (a) the employee quits; (b) the employee is discharged, which is not reversed through the grievance procedure or law; (c) a laid off employee, not working for the Town, is not recalled within two (2) years; (d) an employee, without authorization, fails to return at the expiration of a leave of absence, including an unpaid sick leave; (e) an employee is absent from work without authorization for five (5) consecutive days; (f) the employee retires; or (g) the employee fails to give notice of intent to return to work after recall within fourteen (14) calendar days, or fails to return to work on the due date specified for recall, as set forth in the written notice of recall. Notice of intent to return must be in writing and made to the person authoring the notice of recall to which the employee is responding.

12.2 No fulltime employee shall attain seniority under this Agreement until the employee has been continuously employed for a period of six (6) months as a full time firefighter/fire inspector. During the probationary period the employee may be disciplined and/or discharged by the Town without recourse through the grievance and arbitration procedure. The Town shall provide the Union with the reason for the discharge, if asked.

12.3 The Town has the absolute right, in its sole discretion to determine if a layoff will occur or the work force will be reduced. The Town will provide the Union with as much notice as is practicable if a layoff will occur or the work force will be reduced.

Layoffs shall be implemented in inverse order of seniority and recall will be implemented in reverse of the layoff. The Town recognizes its obligation to bargain pursuant to C.G.S. § 7-469 and 470 regarding subcontracting bargaining unit work.

In the event that furlough days must occur, no other personnel outside of the bargaining unit may be paid, and/or compensated, in any way to fill the normal shifts left open by Union employees.

12.4 The Employer shall be entitled to rely upon the employee's last known address according to its records. It shall be the employee's responsibility to keep his current address on file with the employer.

12.5 The Town shall maintain a seniority list for all bargaining unit employees which will include each employee's date of hire, classification and rate of pay. The Town will provide the Union with an up to date list when requested to do so.

ARTICLE XIII
HOURS OF WORK

13.0 The Union recognizes that bargaining unit employees function in support of the volunteer service. It is in the sole discretion of the Town to establish or modify shifts and staffing levels. The Town may set or modify staffing levels with 14 days notice to the Union and employees. Upon the request of the Union, the Town will engage in impact bargaining regarding establishing or modifying shifts and staffing levels. The Town retains the sole discretion to assign employees to particular stations and to change station assignments, and such assignments and/or changes of assignments are not subject to impact bargaining.

13.1 Normal shift hours are as follows:

Firefighters Day Shift: Monday through Friday, ten (10) consecutive hours from 6:00 AM to 4:00 PM each day or such other time as set by the Director of Fire Services or his or her designee.

Evening Shift: Monday through Friday, ten (10) consecutive hours from 4:00 PM to 2:00 AM each day or such other time as set by the Director of Fire Services or his or her designee. In the event two (2) or more bargaining unit employees are scheduled for Evening Shift, the Town will assign two (2) to work at the same station.

Fire Inspector Monday through Friday, eight (8) hours worked with one half hour unpaid lunch from 7:30 AM to 4:00 PM each day or such other time as set by the Director of Fire Services or his or her designee.

13.2 The work period for firefighters shall consist of twenty-eight (28) days and shall comply with the Federal Fair Labor Standards Act, including, but not limited to, Section 7(k) of the Act and the related regulations at 29 CFR §553.200 et seq. Overtime shall be time and one-half (1 1/2) of an employee's regular hourly rate as established in Article XX of the Agreement for any hours worked in excess of 212 hours in any 28 day pay period.

Fire Inspectors working normal shifts as set out above in this Article will receive forty (40) hours pay per week at their regular rate of pay and will receive pay at the rate of one and one half (1 ½) times their regular rate of pay for hours worked over forty (40) per week consistent with this Agreement. Fire Inspectors called back to work shall be paid for a minimum of four (4) hours at the rate of time and one-half.

13.3 Determination of whether overtime will be assigned is in the sole discretion of the Town. When the Town, through the Director of Fire Services or his or her designee, decides overtime assignments which occur outside of normal shift hours as set out in this Article will be made available to employees, the Director of Fire Services or his or her designee

will solicit volunteers from the appropriate bargaining unit classification by telephone, other electronic means, or face-to-face communication.

This solicitation will be based on a rotating, continuous list from which an employee maintains the primary spot on the list until he accepts an overtime assignment. Once the said person accepts an overtime assignment they will then go to the bottom of the list, and the rest of the employees on the list will rotate up one position on the list.

The employee has 10 minutes to respond to the documented request. If there is no response from the employee, the request will be considered as a refusal and the process may continue down the list as needed. Employees are responsible for providing reliable contact information to the Director of Fire Services. If an employee does not do so, and cannot make contact due to non-updated information, it will be considered a refusal.

When a "hold-over" situation is necessary to cover the beginning of a subsequent shift and has been an approved through the Director of Fire Services, the rotational list, does not need to be utilized to solicit the Firefighters already working at the affected station.

A separate Special Over Time list will be utilized for special assignments that may not be categorized as the normal filling of vacant shifts as described in above paragraph. These types of assignments may be short in duration and may include conducting or attending training during nonscheduled hours, fire watch, or other special assignments that would be delegated to the employee by the Director of Fire Services. The solicitation of volunteers from the bargaining unit and the rotating list will follow the same language as above.

The Director of Fire Services in his/her discretion otherwise may call back full-time firefighters on a voluntary basis for the purpose of manpower to assist on scene or cover stations due to a major incident including, but not limited to, structure fire, rescue incidents, mass casualty incidents, natural disaster and major storms.

13.4 Designation of employee on call responsibilities are within the Town's authority referenced in Article II of this Agreement. If the Town in its sole discretion modifies the policy it shall notify the Union and if requested to do so within seven (7) days of such notice, engage in impact bargaining.

13.5 Work for which the Town is paid by a third party may, in the sole discretion of the Director of Fire Services or his or her designee, be assigned to employees. Such assignments if made will be done in order of seniority with bargaining unit employees from the appropriate classification being given the opportunity to volunteer for the assignments. If sufficient employees do not volunteer for such assignments the Director of Fire Services or his or her designee may mandate such assignments from the appropriate classification in order of reverse seniority.

13.6 Employees will be paid holiday, sick and other paid leave in a manner consistent with the pay system referenced in Section 13.2 of this Article. For example if there is one (1)

holiday in a pay week the firefighter employee will receive ten (10) hours pay for that holiday.

13.7 Shift Swaps. Employees may swap shifts provided:

(a) Such swap occurs within the same 28-day period;

(b) Such swap does not impose additional costs on the Town. Further, the Town is authorized to deduct from the wages of the employee granted such shift swap any associated costs.

(c) The Director of Fire Services is provided reasonable notice, normally in excess of one (1) week and the Director then provides employee prior approval of the swap by written or electronic means.

(d) The Town reserves the right to approve or deny any request for a shift swap, and the same shall not be subject to the grievance procedures.

(e) The Town will not be responsible for enforcing agreements made between employees.

ARTICLE XIV
HOLIDAYS

14.0 Observed Paid Holidays. The following holidays shall be observed as days off with full pay:

New Year's Day	Labor Day
Martin Luther King Day	Columbus Day
Presidents' Day	Veterans' Day
Good Friday	Thanksgiving Day
Memorial Day	Friday After Thanksgiving
Independence Day	Christmas Day

Each employee shall receive one (1) floating holiday, which shall be the day immediately prior to or subsequent to Christmas, at the option of the employee, provided, however, that the choice of such day shall be subject to the approval of the Director of Fire Services or his or her designee, depending upon the staffing requirements of the Town.

14.1 In accordance with the practice of the State of Connecticut, holidays falling on a Saturday, shall be celebrated on the proceeding Friday. Holidays falling on a Sunday, shall be celebrated on Monday.

14.2 In order to be eligible for the aforementioned holidays, an employee must work the scheduled day before the holiday, and the scheduled day after the holiday, unless excused by the Director of Fire Services or unless prevented from working by sickness or

accident, proof of which must be submitted if requested by Supervision.

14.3 Unit employees are not expected to work on listed Holidays. Employees will only work on listed Holidays pursuant to any emergent matter involving the provision of fire service to the Town and such work must be approved by the Director of Fire Services or his or her designee. Any employee who does work a listed holiday shall receive full regular pay for that holiday. In addition, the employee will receive one and one half (1 ½) time regular pay for the hours he/she actually works on the holiday or receive compensatory time off reflecting the hours worked. An employee who wishes to utilize compensatory time off earned by working on a listed Holiday must secure approval based on a written request submitted to the Director of Fire Services or his or her designee at least fourteen (14) days before the requested day off.

Assignment of Holiday work will be done in the same manner as set out in Section 13.3 of this Agreement.

ARTICLE XV
VACATION

15.0 Employees shall be given vacations at the base rate on the following basis:

1st year, 2nd year, 3rd year, 4th year employment = ten (10) days earned;
Five (5) years of employment = fifteen (15) days earned;
Six (6) years of employment = sixteen (16) days earned;
Seven (7) years of employment = seventeen (17) days earned;
Eight (8) years of employment = eighteen (18) days earned;
Nine (9) years of employment = nineteen (19) days earned;
Ten (10) years of employment = twenty (20) days earned;
Fifteen (15) years of employment = twenty two (22) days earned;
Twenty (20+) years or more employment = twenty-five (25)

15.1 Vacation Scheduling.

(a) Vacation leave periods may be scheduled throughout the calendar year, consistent with an employee's accumulation of vacation leave, in leave periods of not more than fifteen (15) consecutive days. The Director of Fire Services or his or her designee will schedule vacations based on the needs of providing fire service to the Town and will, to the extent possible, consider seniority. To the extent practicable the Director of Fire Services or his or her designee will inform the employee whether the employee's leave request is granted within two (2) calendar weeks of the employee's written request for leave.

(b) Regardless of seniority, an employee may not preempt a vacation period which another employee has already been granted. An employee may not change or cancel a vacation period except with prior approval of the Director of Fire Services or his or her designee.

15.2 Pro-Rata Accumulated Vacation.

(a) Pro-rata earned vacation pay shall be granted to an employee in the event he/she terminates his/her service with the Town provided the termination is not the result of gross misconduct or dishonesty.

(b) When a holiday occurs during a regular vacation period, said holiday shall not be charged against the employee's earned time.

15.3 Maximum Vacation Accumulation. The maximum number of vacation days that may be used during any anniversary year is thirty (30). The maximum number of vacation days that may be carried over from anniversary year to anniversary year, may not exceed the total number of days earned during the current anniversary year and shall not exceed thirty (30). Accumulated vacation leave in excess of thirty (30) days on the 1st day of the anniversary month of hire will be forfeited.

15.4 Segments. Vacations shall not be taken in segments of less than a half (1/2) day.

15.5 Employee's Death. In the event of an employee's death, his or her prorated accumulated vacation pay shall be paid to his or her surviving spouse. In the event the deceased employee is not survived by a spouse said sum shall be paid to the employee's surviving children in equal shares. In the event the employee is not survived by a spouse or children, said sum shall be paid to the employee's estate.

ARTICLE XVI
LEAVE

16.0 Earned Sick Leave.

(a) Employees shall be entitled to fifteen (15) working days of sick leave with pay during an anniversary year, cumulative to a maximum of one hundred-fifty (150) days, to be earned at the rate of one and one-quarter (1-1/4) days per month.

(b) New employees, upon completion of the probationary period, shall be eligible for sick leave computed from their date of employment.

(c) The Town reserves the right to require proof of illness or other uses of sick leave as provided in this Agreement. Proof of sick leave shall include a doctor's certificate or other reasonable verification available to the employee. The failure of the Town to request proof of illness pursuant to this section shall not constitute a waiver by the Town of this provision.

(d) Sick leave may not be taken in less than one-quarter (1/4) day segments. However, sick leave may be used in increments of one (1) hour, subject to the operational needs of the Town, upon twenty-four (24) hours written notice, where

a reasonable request is submitted to the Director of Fire Services or designee. In the administration of this benefit, the Town may provide reasonable accommodations to qualified employees with a disability and to employees based on the need for family leave. The need for, or extent of, such accommodation shall be determined by the Town in accordance with its interpretation of the requirements of the Americans with Disabilities Act and the Family and Medical Leave Act, even if such accommodations may be in conflict with other provisions of this Agreement.

(e) Paid sick leave will be granted only if the requirements of Section 16.8 are complied with and the initial report of illness is made within the hour the employee is scheduled to report to work. Extenuating circumstances will be considered by the Director of Fire Services or his or her designee and/or Human Resources Office.

16.1 Sick Leave Recognition: The Town provides sick leave as a privilege to members of the bargaining unit for specific illness or injury. The Town recognizes discretionary use of sick leave as follows:

(a) Upon death or termination of employment in good standing, an employee or his/her estate shall be paid: Fifty percent (50%) of his/her accumulated sick leave up to—seventy-five (75) days and seventy-five percent (75%) of his/her accumulated sick leave over seventy-five (75) days (140 maximum) provided he/she has accumulated a minimum of sixty (60) sick leave days.

For employees hired on and/or after January 1, 2015, upon death or termination of employment, in good standing, an employee or his/her estate shall be paid: Fifty percent (50%) of his/her accumulated sick leave up to seventy-five (75) days (37.5 days maximum) provided he/she has accumulated a minimum of sixty (60) sick leave days.

(b) Death Benefit: In the event of the death of an eligible employee, funds due in accordance with this section shall be payable to his or her estate.

(c) Payment Computation: For the purposes of this section, per day pay shall be computed as the employee hourly salary rate on the date of resignation or retirement, multiplied by the number of hours in the employee's regular work day. Payment shall include fractional days payable as fractions.

16.2 Bereavement Leave.

(a) Special leave, not to exceed five (5) days with pay shall be granted an employee in the event of a death of a spouse, mother, father, grandmother, grandfather, child, grandchild, sister or brother.

(b) Special leave, not to exceed three (3) days with pay, shall be granted an employee

to attend the funeral and/or the memorial service in the event of the death of a mother-in-law, father-in-law, sister-in-law, brother-in-law, aunt, uncle, niece, and nephew.

(c) Special leave of one (1) day shall be granted an employee to attend the funeral and/or the memorial service in the event of a death of the spouse's grandmother, grandfather, aunt, uncle, niece or nephew.

16.3 Jury Leave. Any employee who shall be required to serve on any state or federal jury shall be paid the difference between the amount paid for such service and his straight time rate, for up to a maximum of one hundred (100) working days, for the time lost from his scheduled work by reason of such service, subject to the following provisions:

(a) An employee must notify the Director of Fire Services or his or her designee within forty-eight (48) hours after receipt of notice of selection for jury duty;

(b) An employee called for jury duty who shall be temporarily excused from attendance at Court must report for work if sufficient time remains in the work day to permit him to report to his place of employment and work;

(c) In order to be eligible for such payments, the employee must furnish a written statement to the Director of Fire Services or his or her designee from the appropriate public official showing the date and time served and the amount of pay received.

16.4 Military Leave.

(a) Long Term Military Service. Employees entering the Armed Forces of the United States, pursuant to the provisions of the Universal Military Training and Service Act, as amended by the Military Selective Service Act of 1967, and as further amended by the Uniform Services Employment and Reemployment Act (and as may be hereafter amended), shall be granted all rights and privileges provided by law.

(b) Short Term Military Duty Pay. Full-time employees who are National Guardsmen or United States Armed Forces Reservists and who are on ordered annual active duty shall be paid for such time lost for not more than ten (10) days per year, at the rate of straight time pay, less the pay received from the armed services.

16.5 Personal Leave. Each employee shall be entitled to four (4) personal days each year of the contract without loss of pay, non-accumulative, for the purpose of transacting personal business which cannot be carried out on the employee's regularly scheduled day off. Personal leave time may not be taken in lieu of sick days or vacation days. Any employee wishing to take personal leave time shall request such leave at least one (1) day in advance, with the reason given to the Director of Fire Services or his or her designee. In cases of extreme emergency when such notice cannot be given, the employee shall,

upon request, supply a written statement of reasons. Personal leave shall not be taken on days immediately after vacation leave, sick leave or holidays, unless an emergency occurs for which it is necessary to use the personal day, provided such use has been approved by the Director of Fire Services or his or her designee.

16.6 Leave of Absence.

(a) Leaves of absence without pay up to six (6) months may be granted by the Chief Executive, in cases of exceptional need for those employees who have acquired seniority, minimum one (1) year employment. Leaves may be granted for such reasons as serious illness, military, study, personal business, maternity/paternity, government and/or professional service, but not for the purpose of obtaining gainful employment elsewhere. Employees accepting such employment elsewhere during a leave of absence, except as provided in Section 16.6 (e) of this Article, shall be considered to have quit without notice.

Employees shall be eligible for leave in accordance with the Family and Medical Leave Act of 1993.

(b) An employee requesting a leave of absence shall do so in writing, stating the reason for and the length of such leave, to the Director of Fire Services or his or her designee, who shall review and forward with a recommendation to the Chief Executive for final decision. An application for extension of a leave of absence shall also be processed in the aforementioned procedure.

(c) An employee on a leave of absence without pay shall not accrue sick or vacation time and will not receive pay for the holidays falling within the leave of absence. During the period of leave without pay, except for military leave, the employee shall not be credited for length of service. However, the employee's length of service and accumulated sick and vacation time will be reinstated upon return from the absence.

(d) Subject to and consistent with the regulations of the carrier, the group life insurance coverage may be continued during a leave of absence, provided direct payment of the monthly premium is made through and as prescribed by the Human Resources Office.

(e) An employee who is laid off temporarily shall have the privilege of obtaining a leave of absence, which shall be in writing and not to exceed thirty (30) days, in order to seek other employment during the laid off period.

(f) When a leave of absence without pay is granted due to illness or disability which requires the services of a physician, then the employee must procure and make available certification that the employee is physically and/or mentally fit to perform his or her duties.

(g) An employee returning from a leave of absence, shall notify the Director of Fire Services or his or her designee and the Human Resources Office, in writing, ten (10) working days prior to the actual return date.

(h) An employee returning from a leave of absence of a fixed period of time, will be reinstated to his/her former classification, or one of comparable status, unless the employee's circumstances have so changed as to make it unreasonable to do so. In such a case, the employee will be placed in a classification for which she/he has the ability to perform the work.

(i) An employee who fails to report for work on the specified date after the expiration date of leave of absence shall be considered terminated. However, if the employee's failure to return to work is on account of sickness, injury or other serious reason beyond his/her control, employment will be reinstated provided he/she has notified the Director of Fire Services or his or her designee and the Human Resources Office, prior to the specified return date, the cause of delay and the expected return date.

16.7 Workers' Compensation

(a) Any employee who shall suffer personal injury while on the job and who shall be eligible for payment under Workers' Compensation, shall receive the difference between his/her weekly pay and the compensation for a period of up to one (1) year from the date of injury, or until Workers' Compensation payments cease, whichever is sooner.

(b) Until a determination is made as to the eligibility for Workers' Compensation payments, absences shall be charged, at the employee's option, to accumulated sick leave and or vacation time, leave without pay or disability leave, provided eligibility requirements are met. Employee's time will be credited when compensation becomes effective.

(c) Notwithstanding the above, if the Town elects to advance pay before eligibility determination is made, and the employee is thereafter found ineligible or the employee's eligibility is terminated for any reason, the deficiency shall be charged at the employee's option to accumulated sick leave and/or accumulated vacation leave. However, if an employee has not accumulated sufficient sick and annual leave to cover the period of absence, the employee shall be considered on leave with pay and shall be required to repay the Town for any salary advanced while on leave with pay in the following manner:

(1) Sick leave;
(2) Vacation;
(3) Personal Leave;
(4) Incentives;
(5) Wages

16.8 Absence Requirements.

(a) An employee is expected not to be absent from work for any reason without making prior arrangements with the Director of Fire Services or his or her designee. Unless prior arrangements are made, an employee who, for any reason, fails to report for work, must make a sincere effort to immediately notify Director of Fire Services or his or her designee of the reason for being absent. If the absence is to continue beyond the first day, the employee must notify the Director of Fire Services or his or her designee on a daily basis unless otherwise arranged with the Director of Fire Services or his or her designee.

(b) Any unauthorized absence of an employee from duty shall be deemed to be an absence without pay and may be grounds for disciplinary action by the Director of Fire Services or his or her designee. In the absence of such disciplinary action, any employee who is absent for three (3) days or more without authorized leave, may be deemed to have resigned. Such absence may be covered, however, by the Director of Fire Services or his or her designee, by a subsequent leave with or without pay where extenuating circumstances are found to have existed.

16.9 The Town intends to provide light duty when constructive, existing work is available within an individual's physical or mental capabilities and existing skills. The decision on whether or not light duty exists and falls within an individual's stated restrictions and capabilities is to be determined by the Town on a case by case basis. Light duty work likely will be assigned during the day shift; for employees last working on the evening shift, the Town will consider assigning light duty on the evening shift, but maintains the discretion to assign to the day shift.

When an employee returns to work after an approved, extended leave of absence the Town shall allow one week time for said employee to complete OSHA required and all other required trainings. This one week of time will not replace a firefighter's shift.

16.10 Employees who, in the performance of their duties, are subpoenaed to testify in a court hearing shall receive their full net pay, minus any witness fee received, for the time they are required to be in court. This does not apply to any labor matters, including but not limited to, grievance hearings, arbitration, or administrative hearings.

ARTICLE XVII
UNIFORMS

17.0 Employees will wear and use only Town approved and designated uniforms and equipment while on duty. Such approval and designation will be consistent with Department Regulations.

17.1 Shorts approved by the Director of Fire Services may be worn from Memorial Day to Labor Day.

17.2 The Town will reimburse employees for the cost incurred at approved sources of uniforms and equipment for any existing equipment and clothing which is no longer serviceable so long as the Director of Fire Services or his or her designee has approved such purchase. Newly hired employees will be provided an initial issue of uniforms and equipment.

17.3 The Union Logo may be allowed to be worn on all apparel, provided the Union purchases the logo, the Town directs where the logo may be placed/attached, and the Union places/attaches the logo in accordance with the apparel manufacturer recommendations and/or safety requirements.

17.4 The provision, maintenance and utilization of uniforms and equipment will be done in accordance with Department Regulations.

ARTICLE XVIII
PROFESSIONAL EDUCATION SUPPORT

18.0 Course reimbursement may be granted for coursework intended to enhance professional growth and contribute to a more effective performance of duties, provided that enrollment in such course is described in the published curriculum as focusing on firefighting or arson investigation, approved in advance by the Director of Fire Services, and a grade of "C" or better is earned. Courses and programs must be approved at least fifteen days prior to the start of the course. Course(s) taken between fiscal year dates of July 1 to June 30 will be reimbursed in the first pay period of August of the next fiscal year. Request for reimbursement must be submitted by June 30 of the fiscal year in which the course was taken.

The Town will provide, per fiscal year, for reimbursement of up to $5,000 total for all employees, and will prorate the amount reimbursed per semester hour in the event that the total cost of all completed courses eligible for reimbursement is more than $5,000.

18.1 Employees holding a valid certification for Fire Officer I shall receive a $250 annual stipend. Such stipend shall not be added into the base pay of employees.

Employees holding a valid certification for Instructor I shall receive a $250 annual stipend. Such stipend shall not be added into the base pay of employees.

Employees holding a valid certification for Incident Safety Officer – Fire Suppression shall receive a $250 annual stipend. Such stipend shall not be added into the base pay of employees.

Stipends shall be paid in December of each year beginning December 2014.

18.2 At his/her sole discretion, the Director of Fire Services may approve requests to participate in non-mandated training on off-duty hours. The Town will pay the cost of

such approved, non-mandated training program. Employees participating in such approved, non-mandated training program shall receive the equivalent amount of paid time off to be requested and approved in the same manner as vacation leave.

18.3 Payment will be made annually prior to the close of the Town's fiscal year.

18.4 Employee participation in this benefit must be done only on off duty hours.

ARTICLE XIX
COLLEGE EDUCATION INCENTIVE

19.0 The Town agrees to pay only to those bargaining unit employees who are employed by the Town in the bargaining unit on April 1, 2010, and who then receive college education incentive payment, an annual payment for successfully completed courses at a Connecticut accredited college which are described in the published curriculum as focusing on firefighting or arson. This amount is set at the figure received by the individual qualifying bargaining unit employees on April 1, 2010. The Parties explicitly intend for bargaining unit employees who are employed by the Town in the bargaining unit on April 1, 2010 to be Grandfathered in the College Education Incentive at the amount they receive as of that date, this benefit is not applicable to other bargaining unit employees.

ARTICLE XX
WAGES

20.0 Effective and retroactive to July 1, 2013, the rates of pay for all employees shall be increased by one and three-quarters percent (1.75%) and shall remain in full force and effect from July 1, 2013 through June 30, 2014.

Firefighter (FT - 50 hours)							
	STEP 01	STEP 02	STEP 03	STEP 04	STEP 05	STEP 06	STEP 07
RATE/HOUR	$22.8757	$24.0195	$25.2205	$26.4815	$27.8056	$29.1958	$30.6556
SALARY/YR	$59,476.86	$62,450.71	$65,573.25	$68,851.91	$72,294.50	$75,909.23	$79,704.69
Fire Inspector							
	STEP 01	STEP 02	STEP 03	STEP 04	STEP 05	STEP 06	STEP 07
RATE/HOUR	$24.0201	$25.2211	$26.4822	$27.8062	$29.1966	$30.6564	$32.1892
SALARY/YR	$49,961.76	$52,459.86	$55,082.85	$57,836.99	$60,728.84	$63,765.28	$66,953.55

20.1 Effective and retroactive to July 1, 2014, the rates of pay for all employees shall be increased by two percent (2.0%) and shall remain in full force and effect from July 1, 2014 through June 30, 2015.

Firefighter (FT - 50 hours)							
	STEP 01	STEP 02	STEP 03	STEP 04	STEP 05	STEP 06	STEP 07
RATE/HOUR	$23.3333	$24.4999	$25.7249	$27.0111	$28.3617	$29.7798	$31.2688
SALARY/YR	$60,666.40	$63,699.73	$66,884.71	$70,228.94	$73,740.39	$77,427.42	$81,298.79
Fire Inspector							
	STEP 01	STEP 02	STEP 03	STEP 04	STEP 05	STEP 06	STEP 07
RATE/HOUR	$24.5005	$25.7255	$27.0118	$28.3624	$29.7805	$31.2695	$32.8330
SALARY/YR	$50,961.00	$53,509.06	$56,184.51	$58,993.73	$61,943.41	$65,040.59	$68,292.62

20.2 Effective July 1, 2015, the rates of pay for all employees shall be increased by two and one quarter's percent (2.25%) and shall remain in full force and effect from July 1, 2015 through June 30, 2016.

Firefighter (FT - 50 hours)							
	STEP 01	STEP 02	STEP 03	STEP 04	STEP 05	STEP 06	STEP 07
RATE/HOUR	$23.8583	$25.0512	$26.3037	$27.6188	$28.9999	$30.4498	$31.9723
SALARY/YR	$62,031.39	$65,132.97	$68,389.62	$71,809.09	$75,399.55	$79,169.54	$83,128.01
Fire Inspector							
	STEP 01	STEP 02	STEP 03	STEP 04	STEP 05	STEP 06	STEP 07
RATE/HOUR	$25.0518	$26.3043	$27.6196	$29.0005	$30.4505	$31.9730	$33.5718
SALARY/YR	$52,107.62	$54,713.01	$57,448.66	$60,321.09	$63,337.14	$66,504.00	$69,829.20

20.3 Effective July 1, 2016, the rates of pay for all employees shall be increased by two and one quarter percent (2.25%) and shall remain in full force and effect from July 1, 2016 through June 30, 2017.

Firefighter (FT - 50 hours)							
	STEP 01	STEP 02	STEP 03	STEP 04	STEP 05	STEP 06	STEP 07
RATE/HOUR	$24.3951	$25.6148	$26.8955	$28.2403	$29.6524	$31.1349	$32.6917
SALARY/YR	$63,427.10	$66,598.46	$69,928.38	$73,424.80	$77,096.04	$80,950.85	$84,998.39
Fire Inspector							
	STEP 01	STEP 02	STEP 03	STEP 04	STEP 05	STEP 06	STEP 07
RATE/HOUR	$25.6155	$26.8962	$28.2410	$29.6530	$31.1357	$32.6924	$34.3271
SALARY/YR	$53,280.04	$55,944.05	$58,741.25	$61,678.31	$64,762.23	$68,000.34	$71,400.36

20.4 The Step System in effect as of implementation of this Agreement will continue to be applied only to bargaining unit employees who are employed by the Town in the bargaining unit on April 1, 2010. The Parties explicitly intend for bargaining unit employees who are employed by the Town in the bargaining unit on April 1, 2010 to be

Grandfathered in the Step System, this benefit is not applicable to other bargaining unit employees.

ARTICLE XXI
NEW HIRE RATES

21.0 Any employee hired in the bargaining unit will be paid at the rate of nineteen dollars ($19.00) per hour. Employees hired at this New Hire Rate will receive a fifteen percent (15%) wage increase effective on the first anniversary of their employment with the Town in the bargaining unit. These employees will receive a second fifteen percent (15%) increase effective on their second anniversary. After these two (2) raises any pay increases will be based on the amounts and schedule of the general wage increases set out in Article XX of this Agreement.

ARTICLE XXII
LONGEVITY PAY

22.0 Longevity pay shall be considered as an added compensation to employees hired on or before January 1, 2015 for long and faithful continuous service to the Town as follows:

Five (5) years to ten (10) years $150.00
Ten (10) years to fifteen (15) years $300.00
Fifteen (15) years to twenty (20) years $450.00
Twenty (20) years and more $600.00

22.1 Such longevity payments shall be paid annually to the employee within thirty (30) days of the anniversary month of hire.

22.2 In the event an active employee is terminated for any reason other than gross misconduct or dishonesty the employee shall receive a prorated amount of longevity pay to which the employee would be entitled on the employee's next anniversary date.

ARTICLE XXIII
INSURANCE AND RETIREMENT

23.0 (a) As soon as practicable following the ratification of the July 1, 2013 – June 30, 2017 agreement, Town shall provide eligible employees and their eligible dependents, a PPO Hospital, Medical and Prescription Plan; Dental Plan, and Vision Plan as described in Appendix A.

(b) As of July 1, 2015, the Town shall provide eligible employees and their eligible dependents as the primary Hospital, Medical and Prescription Plan an HDHP partnered with an HSA ($2000 single/$4000 family), as described in Appendix B, with Town contribution of seventy percent (70%) of the $2000/$4000 deductible. As a secondary plan as of July 1, 2015, the Town will offer a PPO Hospital, Medical and Prescription Plan; Dental Plan, and Vision Plan as described in

Appendix A. Employees choosing to participate in the PPO Plan are subject to a "buy up", which is the cost difference between the total annual cost for the PPO and the employer's total cost for the HDHP/HSA (inclusive of the employer's deductible funding).

(c) As of July 1, 2016, the Town shall provide eligible employees and their eligible dependents as the primary Hospital, Medical and Prescription Plan an HDHP partnered with an HSA ($2000 single/$4000 family), as described in Appendix B, with Town contribution of fifty percent (50%) of the $2000/$4000 deductible. The Town will continue to offer as a secondary plan the PPO Plan described in Appendix A as a "buy up" option.

(d) The Town, however, reserves the right to change or provide alternate insurance carriers, or benefit levels as it deems appropriate for any form or portion of insurance coverage referred to in this article, so long as the new coverage and benefits are substantially equivalent to the coverage set forth above.

(e) If the total cost of a group health plan or plans offered under this contract triggers an excise tax under Internal Revenue Code Section 4980I, at the increased threshold for high risk professions, the parties agree to open negotiations over a medical insurance plan that will assist reducing the cost of the plan to under the excise tax thresholds for high risk professionals or reduces the amount of any applicable excise tax.

(f) An HRA shall be made available for any employee enrolling in the HDHP who is precluded from participating in the HSA bank account because the individual is enrolled in Medicare and/or receives non-preventive medical services from the VA. The annual maximum reimbursement by the Town shall not exceed the Town's annual deductible contribution for those in the HSA. Unused HRA funds may rollover to subsequent plan years, however, the balance in an individual's HRA shall never exceed the full HDHP deductible. Premium contributions for the participants in the HRA shall be the same as the HSA.

Additionally an HRA (as described above) will also be available for employees who upon initial enrollment in the HDHP are ineligible to contribute to an HSA as a result of enrollment in another employer's Flexible Spending Arrangement (or other tax advantaged account or IRS restriction). The employee will remain in the HRA until the Town's enrollment period immediately following the sooner of the employee's ability to disenroll from the other employer's plan or the other employer's next enrollment period.

23.1 The Employer shall provide a policy of life insurance on each eligible employee of $100,000.

23.2 Until June 30, 2015, Employees shall be responsible for fourteen percent (14%) of the then effective allocation rate (if self-insured) or fully equivalent rate (if fully insured) for the PPO plan set forth in Appendix A.

23.3 Effective July 1, 2015, employee will be responsible for eleven percent (11%) of the then effective allocation rate (if self-insured) or fully equivalent rate (if fully insured) for the HDHP/HSA set forth in Appendix B. Effective July 1, 2016, employee will be responsible for twelve percent (12%) of the then effective allocation rate (if self-insured) or fully equivalent rate (if fully insured) for the HDHP/HSA set forth in Appendix B.

23.4 Waiver of Insurance.

(a) Notwithstanding the above, if the Town is self-insured, employees hired before July 1, 2014 may voluntarily elect to waive, in writing, to the Human Resource Office health and dental insurance outlined in Article XXIII and in lieu thereof, shall receive an annual payment of one thousand dollars ($1,000); provided they are not covered under another Waterford Town or Board of Education Health Plan. Payment to those employees waiving such insurance coverage shall be made payable at the end of the employee's anniversary year. Employees hired on or after July 1, 2014, are not eligible for waiver of $1000.

If the Town is fully-insured, employees may voluntarily elect to waive, in writing, to the Human Resource Office health and dental insurance outlined in Article XXIII and in lieu thereof, shall receive an annual payment of one thousand dollars ($1,000). Payment to those employees waiving such insurance coverage shall be made payable at the end of the employee's anniversary year.

(b) Where a change in an employee's status prompts the employee to resume Town provided insurance coverage, the written waiver may, upon written notice to the Human Resources Office, be revoked. Upon receipt of revocation of the waiver, insurance coverage shall be reinstated as soon as possible, subject however, to any regulations or restrictions, including waiting periods, which may be prescribed by the appropriate insurance carriers. Depending upon the effective date of such reinstated coverage, appropriate financial adjustments shall be made between the employee and the Town, to ensure that the employee has been compensated, but not over-compensated, for any waiver elected in this section.

(c) Notice of intention to waive insurance coverage must be received in the Human Resources Office, at least two (2) months prior to the 1st of the month that the insurance coverage will cease. The election to waive coverage shall only be approved upon written proof of alternative insurance coverage.

(d) Waiver of coverage procedures must be acceptable to the applicable insurance carrier.

23.5 Insurance continuation. Employees who retire after the date this July 1, 2013 – June 30, 2017 contract is signed shall be able to purchase the hospital and medical plan offered to

active employees as such plan(s) may change from time to time at one hundred percent (100%) of active group insurance rates, provided that such continuation rights shall be acceptable to the applicable insurance carrier(s). To the extent that the retiree participates in an HDHP or other plan, the Town shall have no obligation to fund, nor shall it fund, any portion of the Plan deductible. If the total cost of a group health plan or plans offered under this contract triggers an excise tax under Internal Revenue Code Section 4980I, any other local, state or federal statute or regulation, the retiree bears the entire burden of the excise tax.

23.6 Pension Plan. All employees within the bargaining unit shall be eligible for the MERF-B pension plan.

ARTICLE XXIV
PERFORMANCE OF WORK

24.0 Employees will undertake to carry out properly any work assignment given to them without compromising their safety. In the event any dispute or question arises over the propriety of the assignment or the work, the work will be performed by the employee to the best of his or her ability and without interruption, and the employee will have the right to timely grieve in accordance with the grievance procedure of this Agreement.

ARTICLE XXV
SAFETY COMMITTEE

25.0 The Union will have a representative, at its discretion, as a member of the Town-wide Safety Committee

ARTICLE XXVI
ONLY AGREEMENT

26.0 No agreement, understanding, alteration or variation of the agreements, terms or provisions contained herein shall bind the parties signatory hereto, unless made and executed in writing by the parties.

26.1 The failure of the Town to insist in any one or more incidents, upon performance of any of the terms or conditions of this Agreement, shall not be considered as a waiver or relinquishment of any such term or condition, and both the Union's and the Town's obligations to such term or condition, and both the Union's and the Town's obligations to such future performance shall continue in full force and effect.

26.2 Savings Clause: Notwithstanding any other provisions of this Agreement to the contrary, in the event that any Article, or Subsections thereof, of this Agreement shall be declared invalid by any court of competent jurisdiction, or by any applicable State or Federal law or regulation, or should a decision by any court of competent jurisdiction or any applicable State or Federal law or regulation diminish the benefits provided by this Agreement, or impose additional obligations on the Town, the parties shall meet and

confer or negotiate on the Article or Subsections thereof affected. All other provisions of this Agreement not affected shall continue in full force and effect.

ARTICLE XXVII
DURATION

27.0 This agreement shall be effective as of the first day of July 2013 and shall remain in full force and effect through June 30, 2017. It shall then be automatically renewed for a mutually agreeable period thereafter, unless either party shall notify the other in writing, one hundred twenty (120) days prior to the expiration date above, that it desires to modify the Agreement. In the event that such notice is given negotiations shall begin not later than sixty (60) days prior to the expiration date. All contract changes shall be effective as soon as possible after the ratification by the Union and the approval of the Representative Town Meeting.

IN WITNESS WHEREOF the Parties have caused their names to be signed on the 17th day of December, 2014.

FOR THE TOWN OF WATERFORD

FOR WATERFORD PROFESSIONAL FIREFIGHTERS ASSOCIATION IAFF LOCAL 4629

APPENDIX A

PPO PLAN DESIGN

Effective date as soon as practicable following ratification of 7/1/13-6/30/17 Agreement

PPO Plan	07-01-14
COST SHARE PROVISIONS	**In-Network Member pays:**
Office Visit Copayment	$25 per visit
Specialist Visit Copayment	$25per visit
Hospital Copayment Prior Authorization required	$200per admission
Urgent Care Copayment	$25
Emergency Room Copayment	$75
Outpatient Surgery Copayment	$150 per procedure
Lifetime Maximum	Unlimited

PREVENTIVE CARE	
Well child care : Birth to 12 years All others	 No Charge No charge
Periodic, routine health exam	No charge
Routine eye exam 1 exam 2 yr.	No charge
Routine OB/GYN visits	No charge
Mammography	No charge
Hearing screening 1 exam 2 yr.	No charge

EMERGENCY CARE	
Walk-in centers	$25per visit
Urgent care - at participating center	$25co-payment
Emergency care	$75 co-payment
Ambulance	No charge

*PRESCRIPTION DRUGS	
Generic	$5 copayment
Listed Brand	$20 copayment
Non-Listed Brand	$35 copayment
Mail Order	2x retail
Annual Maximum	$1,000
Plan	Managed

OUT-OF-NETWORK SERVICES

Calendar Year Deductible: Individual Two Person Family	 $200 $400 $500
Coinsurance	20% after deductible
Coinsurance Maximum: Individual Two Person Family	 $800 $1,600 $2,000
Cost Share Maximum: Individual Two Person Family	 $1,000 $2,000 $2,500
Lifetime Maximum	Unlimited

** The drug rider includes certain management features (e.g. a change from a public sector drug rider option to a managed drug rider, including but not limited to features such as step therapy and mandatory generic substitution).*

APPENDIX B
HDHP PLAN DESIGN
Effective July 1, 2015

High Deductible Health Plan

BENEFIT	
COST SHARES	
	Combined Deductible In and Out-of-Network Deductible: $2,000 Individual, $4,000 Two or More **No Referrals Required** **July 1, 2015** **In Network** Medical and RX Coinsurance 100% Out-of-pocket Maximum $2,000 Individual, $4,000 Two or More Lifetime Maximum In-Network - Unlimited **Out-of-Network Benefits** Medical and RX Coinsurance 80% / 20% Out-of-pocket Maximum $4,000 Individual, $8,000 Two or More Lifetime Maximum Out-of-Network – Unlimited **Combined In/Out-of-Network** Out-of-pocket Maximum $4,000 Individual, $8,000 Two or More **July 1, 2016** **In Network** Medical Coinsurance 100% Post Deductible RX Copays $0 Generic/$15 Listed Brand/$30 Non-Listed Brand Out-of-pocket Maximum $2,500 Individual, $5,000 Two or More Lifetime Maximum In-Network - Unlimited **Out-of-Network Benefits** Medical and RX Coinsurance 80% / 20% Out-of-pocket Maximum $4,000 Individual, $8,000 Two or More Lifetime Maximum Out-of-Network – Unlimited **Combined In/Out-of-Network** Out-of-pocket Maximum $4,500 Individual, $9,000 Two or More
PREVENTIVE CARE	**Only In-Network Benefits Illustrated Below** **Annual**
Pediatric	Covered 100% - Not Subject to Deductible
Adult	Covered 100% - Not subject to Deductible
Vision Exam	Covered 100% - Not Subject to Deductible
Hearing	Covered 100% - Not Subject to Deductible

Routine Gynecological	Covered 100% - Not Subject to Deductible

MEDICAL SERVICES	
Medical Office Visit	100% after deductible
Outpatient - PT/OT	100% after deductible
Chiropractic	50 visits per calendar year Add'l coverage after 50 visits subject to OON deductible/coinsurance
Allergy Services	100% after deductible
Diagnostic Lab & X-ray	100% after deductible
Surgery Fees	100% after deductible
Office Surgery	100% after deductible
Outpatient MH/SA	100% after deductible
EMERGENCY SERVICES	
Emergency Room	100% after deductible
Urgent Care Facility	100% after deductible
Ambulance	100% after deductible
INPATIENT HOSPITAL	Note: **All hospital admissions require pre-cert**
General/Medical & Surgical	100% after deductible
Ancillary Services (Medication, Supplies)	100% after deductible
Psychiatric	100% after deductible
Substance Abuse/Detox	Covered 100%
Rehabilitative	100% after deductible Covered up to 100 days per calendar year. Add'l coverage after 100 days subject to OON deductible/coinsurance
Skilled Nursing Facility	100% after deductible 120 days per calendar year
Hospice	100% after deductible

HDHP PLAN DESIGN CONTINUED

OUTPATIENT HOSPITAL	
Outpatient Surgery Facility Charges	100% after deductible
Diagnostic Lab & X-ray	100% after deductible
Pre-Admission Testing	100% after deductible
OTHER SERVICES	
Durable Medical Equipment	100% after deductible
Prosthetics	100% after deductible
Home Health Care	100% after deductible 200 visits per calendar year.
Infertility Services	100% after deductible No Age or Cycle Limits GIFT & ZIFT are covered
Prescription Drugs	July 1, 2015-100% after deductible July 1, 2016- After the deductible prescriptions will be subject to copays of: $0 Generic/$15 Listed Brand/$30 Non-Listed Brand with 2x Mail Order Co-pay **July 1, 2015 – No co-pays after deductible** **July 1, 2016 – Maximum co-pays after deductible = $500/$1,000**

For employees electing the HDHP Plan, the Town will contribute seventy percent (70%) for July 1, 2015 and fifty percent (50%) for July 1, 2016 of the applicable HDHP deductible amount. The Town's contribution toward the HDHP deductible will be deposited into the HSA accounts with the first payroll date of the contract year. The parties acknowledge that the Town's contribution toward the funding of the HDHP plan is not an element of the underlying insurance plan, but rather relates to the manner in which the deductible shall be funded for those actively employed. The Town shall have no obligation to fund any portion of the HDHP deductible for individuals upon their separation from employment.

In addition to the insurance offerings noted in these appendices, the Town may implement such Wellness Incentive Plan(s) as may be suitable and desirable.

7

Contract between TOW and the Waterford Public Safety Dispatchers

BETWEEN THE

TOWN OF WATERFORD

-AND-

UPSEU,
WATERFORD PUBLIC SAFETY DISPATCHERS UNIT

RECEIVED FOR RECORD
WATERFORD CT
15 OCT -9 PM 1:55
ATTEST:
TOWN CLERK

JULY 2015

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PREAMBLE

The parties to this Agreement are the Town of Waterford (hereinafter referred to the "Town" or "Employer") and United Public Service Employees Union, hereinafter referred to as "UPSEU" or "Union" on behalf of the Waterford Public Safety Dispatchers Unit hereinafter referred to as the "bargaining unit."

ARTICLE I – RECOGNITION

1.1 The Town recognizes the Union as the sole and exclusive bargaining agent for all Public Safety Dispatchers, inclusive of Dispatcher I and Dispatcher II/Training Coordinator, who work 20 or more hours per week excluding those positions which would be excluded in accordance with the Municipal Employees Relations Act, C.G.S. 7-467 *et seq.* and, further, as provided by Connecticut State Board of Labor Relations Decision No. 4548 (2013).

ARTICLE II - MANAGEMENT RIGHTS

2.1 The Employer shall continue to have, whether exercised or not, all of the functions of management and shall have retained and reserved unto itself the right to exercise all the powers, authority and prerogatives of management, except as specifically abridged or modified by a specific provision of this Agreement, including the following items:

(a) the operation and direction of the Waterford Emergency Communications Center ("WECC");

(b) the determination of the level of services to be provided;

(c) the direction, control, and supervision of employees;

(d) the establishment or change of job descriptions;

(e) the institution of technological changes;

(f) the revising of processes, systems or equipment;

(g) the alteration, addition or elimination of existing methods, equipment or facilities;

(h) the determination of the location, organization, number and training of personnel;

(i) the assignment of duties and work assignments;

(j) the assignment of duty stations;

(k) the scheduling and assigning of leaves;

(l) the hiring, appointment and promotion of employees;

(m) the demotion, suspension, discipline or discharge of employees for just cause;

(n) the making, amendment and enforcement of such rules, regulations, operating and administrative procedures from time to time as the Employer deems necessary;

(o) the layoff of employees due to lack of funds or of work.

(p) during an emergency, the Town shall have the right to take any action necessary to meet the emergency notwithstanding any contrary provisions of this Agreement.

(q) the entry into an inter-local, regional agreement and/or other agreement as recognized under state law to provide dispatch services.

The parties agree, however, that the exercise of any managerial right which concerns or impacts wages, hours or work conditions shall be first negotiated with the Union.

ARTICLE III - STRIKES AND LOCKOUTS

3.1 The Union agrees that neither the Union nor any of its local officers or members covered under this Agreement, will call, institute, authorize, participate in or sanction any strike, work stoppage, slowdown, sick out, sympathy strike, or refusal to perform in whole or in part their duties of employment.

3.2 The Union agrees further that should any member or group of members covered by this Agreement engage in any such job action, the Union shall disavow such activity, refuse to recognize any such job action and will notify, in writing, such member or group of members to terminate any such job action.

3.3 The Town shall not lock out employees.

ARTICLE IV - UNION SECURITY / AGENCY SHOP / DUES DEDUCTION

4.1 All employees, covered herein, who do not voluntarily join the Union, shall, as a condition of continued employment pay to the Union each pay period during the life of this Agreement, or any extension thereof, a service fee set by the Union in accordance with law.

4.2 The Town agrees to deduct Union membership dues or service fees, on a pay period basis, from the pay of those employees who individually and in writing authorize such deductions. The amount to be deducted shall be certified to the Town by the Union, and the aggregate deductions of all employees shall be remitted each pay period to UPSEU, 3555 Veterans Highway, Suite H, Ronkonkoma, NY 11779. The Union will notify the Town in writing of any address change.

4.3 In the event an employee receives no compensation on the payday on which dues are to be deducted, no deductions shall be made for that pay period.

4.4 When a member's dues and/or agency fees are not deducted by reason of the conditions described in Sec. 4.3, or by reason of an extended absence from the Department during which time the member is not receiving compensation, and such member returns to active duty, the Town shall reactivate and continue the deduction of the member's dues.

4.5 The Union agrees to indemnify and save the Town harmless from and against any and all claims, suits or other form of liability, including, but not limited to, reasonable court costs and legal fees, that may arise out of or by reason of action or inaction taken by the Union, or the Employer for the purpose of complying with any provision of this Article, or in reliance on any list, notice or assignment furnished under any such provision.

ARTICLE V - GRIEVANCE PROCEDURE

5.1 A grievance is an allegation by an individual employee and/or the Union of a dispute involving the interpretation or application of this Agreement including, but not limited to:

(a) discharge, termination, suspension or other disciplinary action. Corrective or developmental counseling of an employee by a supervisor is not considered disciplinary action.

5.2 Any employee may use this grievance procedure with or without Union assistance. An employee utilizing this grievance procedure without Union assistance may do so only through Step 2. Only the Union may submit a grievance to arbitration.

5.3 No grievance settlement shall be made as a result of an individually processed grievance without Union involvement.

5.4 A grievance shall be processed in the following three (3) steps.

Step 1. Any employee and/or the Union shall reduce the grievance to writing and submit it to the Emergency Management Director within fifteen (15) calendar days of the date of the occurrence. The Emergency Management Director shall submit his/her decision in writing to the

aggrieved employee and/or the Union (if participating), within fifteen (15) calendar days of receipt of the grievance.

Step 2. If the employee and/or Union (if participating) are not satisfied with the decision rendered by the Emergency Management Director, the employee and/or the Union (if participating), shall submit the grievance in writing within fifteen (15) calendar days, to the Director of Human Resources for the Town. Within fifteen (15) calendar days after receiving such grievance, the Director of Human Resources shall render his/her decision in writing to the employee and the Union.

Step 3. If the Union is not satisfied with the decision rendered, the Union may, within fifteen (15) calendar days, submit the grievance to the Connecticut State Board of Mediation and Arbitration (CSBMA), with written notice to the Director of Human Resources. Either party may transfer a grievance to the American Arbitration Association (AAA) in lieu of the CSBMA. For discipline consisting of suspensions of five (5) days or greater, discharges or terminations from employment, the Town and Union will split AAA costs and arbitrator fees equally; for all other grievances submitted or transferred to AAA, the party submitting or transferring the grievance bears the AAA costs and arbitrator fees.

5.5 The jurisdiction and authority of the arbitrator and his opinion and award shall be confined to the interpretation and/or application of the provisions of this Agreement at issue between the Union and the Town. He/She shall have no authority to add to, detract from, alter, amend, or modify any provision of this Agreement. The arbitrator shall not have jurisdiction to hear or decide more than one (1) grievance without the mutual consent of the Town and the Union. The written award of the arbitrator on the merits of any grievance adjudicated within his jurisdiction and authority shall be final and binding on the employee, the Union, and the Town.

5.6. The mediation services of the Connecticut State Board of Mediation and Arbitration ("CSBMA") and/or other mediator may be used at any time during the grievance and/or arbitration process provided both parties mutually agree on the desirability of this service.

5.7 Time extensions beyond those set forth in this grievance procedure may be arrived at by mutual, written agreement of the Town and employee and/or Union (if participating) for Steps 1 and 2, and the Town and Union only for Step 3.

ARTICLE VI - DISCIPLINARY PROCEDURES AND PRIVILEGES

6.1 No employee who has successfully completed his/her probationary period shall be discharged, terminated, suspended or disciplined in any manner except for just cause.

Corrective or developmental counseling of an employee by a Supervisor does not constitute discipline and shall not be grievable and/or arbitrable.

6.2 Not later than ten (10) calendar days prior to the date of any Loudermill conference, the Town shall furnish the Union with copies of all statements, reports, and other documents relied upon by the Town in support of the charges against the employee, including, if applicable, documents related to any civilian complaint which formed a basis for the proposed discipline.

ARTICLE VII - SENIORITY

7.1 For members of the bargaining unit hired before July 1, 2014, the dates from which seniority is determined and the order of seniority are listed in Appendix A. For employees entering the bargaining unit on or after July 1, 2014, "seniority" shall be defined as length of service within the bargaining unit. There shall be no loss in seniority (and seniority will continue to accrue) during vacation time, sick leave, temporary layoff, suspension, authorized leaves of absence, or call to military service.

7.2 Seniority shall cease upon:

(a) Resignation and Town-issued notice accepting the resignation

(b) Discharge or termination, and restoration of seniority is not otherwise required by virtue of the grievance/arbitration procedure or law;

(c) Layoff for a period of eighteen (18) consecutive months, or for a period equal to the employee's seniority at the time of layoff (whichever is less)

(d) Failure to return to work upon an expiration of an approved leave of absence, including paid and/or unpaid sick leave

(e) Failure to provide notice or intent to return to work after recall within ten (10) calendar days following mailing written recall notice and/or confirmed receipt of written recall notice (which occurs first), or failure to return to work on the date specified in the written recall notice (which specified date shall be 21 or more calendar days from the date of the letter). Notice of intent to return must be in writing and made to the person authoring the written recall notice to which the individual is responding.

7.3 No employee covered by this Agreement shall attain seniority under this Agreement until continuously employed for a period of eighteen (18) months as a dispatcher. During the probationary period the employee may be disciplined, discharged and/or terminated by the Town without recourse to the grievance and/or arbitration procedure. Upon completion of the probationary period, the seniority of an employee shall date back to the time of the employee's hire as an employee covered by this Agreement.

7.4 In the case of layoffs, no bargaining unit member shall be laid off until all part-time non-bargaining unit dispatchers have been laid off. Bargaining unit members may, in lieu of layoff, be offered a reduced schedule in the discretion of and/or consistent with the needs of the Town. No non-bargaining unit dispatchers shall be hired or re-hired until laid off bargaining unit members are recalled for dispatcher positions (within the recall time frame for seniority set forth in 7.3), which positions may or may not equate to twenty (20) or more hours. Recalled bargaining unit members may require various levels of training and/or certification, dependent upon the length of layoff, and, if resuming membership in the bargaining unit, shall have the seniority, and be paid the hourly rate earned, as of the time of layoff. In the event of layoffs of bargaining unit members, layoffs shall be in inverse order of seniority and rehire shall be by seniority at the time of layoff.

7.5 The Employer shall be entitled to rely upon the dispatcher's last known address according to its records. It shall be the dispatcher's responsibility to keep his/her current address on file with the Employer.

7.6 The Town shall maintain a seniority list for all bargaining unit members which will include each employee's date of hire, classification and rate of pay. This list will be updated on or about July 1 each year, with a copy provided to the Union. Section 7.1 and the accompanying Appendix identify the seniority order and pertinent date of hire for bargaining unit members hired before July 1, 2014; the contents of Appendix A are not subject to change absent circumstances set forth in Section 7.1.

ARTICLE VIII - ASSIGNMENTS AND PROMOTIONS

8.1 The bargaining unit includes two (2) classifications of employees:

Dispatcher I
Dispatcher II/Training Coordinator

8.2 The Dispatcher II/Training Coordinator classification shall be considered to be a promotion.

8.3 A member of the bargaining unit shall not be eligible for consideration as a Dispatcher II/Training Coordinator until the individual has completed five (5) years of public safety communications/dispatch in the WECC, possesses current APCO certification, and is a current certified APCO instructor. The Employer may recognize comparable certifications in lieu of APCO. This section otherwise may be waived, but only upon mutual agreement between the Employer and the Union, and said waiver shall be without precedent.

8.4 When a vacancy in the Dispatcher II/Training Coordinator classification is created and it is determined by the Town that it will be filled, the Town shall administer an examination

(50% oral and 50% written) related to the Dispatcher II duties and responsibilities contained in the job description. The top three (3), if any, employees with scores of 70% or higher then will be submitted for consideration for promotion. The Employer in its discretion may select from any of the employees submitted for consideration. Eligibility for the vacancy shall be determined at the time of the examination.

ARTICLE IX - RATES OF PAY

9.1 Effective and retroactive to July 1, 2015, the rates of pay for all employees shall be increased by two and one half percent (2.5%).

9.2 Effective July 1, 2016, the rates of pay for all employees shall be increased by two and one half percent (2.5%).

ARTICLE X – OVERTIME AND PREMIUM PAY

10.1 An employee shall receive one-and-one half (1 1/2) times his/her regular hourly rate of pay for all hours worked over forty (40) hours in one week. Compensation for hours actually worked over forty (40) in one week is "overtime" pay for purposes of this Agreement. Paid leave excluding sick time is considered hours actually worked for the determination of overtime pay.

There shall be no pyramiding of overtime pay and any premium pay. In the event of conflicting pay rates, the higher rate shall be paid.

10.2 (a) Shifts which become available due to planned or unplanned employee absences and which the Town determines to fill will be distributed by seniority on a rotating basis among a combined group of Dispatcher I and II. No employee may be skipped, but a refusal will move the employee to the bottom of the rotation. In the event that the Town must attempt to contact employees by phone, it will do so on up to two (2) telephone numbers on record with the Town; refusals include the failures to answer phones. Employees are responsible for providing current telephone contact information to the Town at all times.

(b) Except in cases of emergency or cases of unforeseen absence of another employee(s), employees shall not be required to work more than sixteen (16) hours in any twenty-four (24) hour period.

(c) Mandatory holdover or order-in shall be made on the basis of fewest hours of overtime worked. In case of a mandatory holdover or order-in, the Town shall make every effort to give two (2) hours' notice to the employee. The Union and the Town recognize there are situations which prevent such a two (2) hour notice. In such circumstances, no notice is necessary and the Town will make reasonable efforts to relieve the employee as soon as possible. Employees who

are on approved, paid time off shall not be subject to mandatory holdover or order in.

Absent emergency circumstances or cases of unforeseen absence of another employee(s), an employee held over or ordered in will not be held over or ordered in again within a five (5) work day period.

(d) Full time dispatchers shall have the first right of refusal for overtime opportunities.

10.3 Upon a dispatcher's acceptance of scheduled overtime, he/she has committed to the Department his/her availability for normal scheduling. This dispatcher's commitment becomes mandated and permanent seven (7) days prior to the scheduled shift.

ARTICLE XI - LONGEVITY PAY

11.1 Bargaining unit members as of the later of the date of ratification of the agreement or July 1, 2015, shall be eligible for longevity pay as follows:

Five (5) years to ten (10) years	*$250.00*
Ten (10) years to fifteen (15) years	*$400.00*
Fifteen (15) years to twenty (20) years	*$550.00*
Twenty (20) years and more	*$700.00*

No individual who becomes a bargaining unit member after the later of the date of ratification of the agreement or July 1, 2015, shall be eligible for longevity pay.

11.2 Such longevity payments shall be paid annually to the employee within thirty (30) days of the anniversary month of hire.

11.3 In the event an active employee is discharged for any reason other than just cause, the employee shall receive a prorated amount of longevity pay to which the employee would be entitled on the employee's next anniversary date.

ARTICLE XII - UNIFORM AND CLOTHING

12.1 The Town shall provide members of the bargaining unit as of July 1, 2015, and new bargaining unit members thereafter with three (3) long sleeved uniform shirts and three (3) short sleeved uniform shirts to be worn during working hours. The Town will replace shirts as needed upon request of employees. In addition the Town shall provide two (2) sweatshirts, and will replace as needed upon request of employees. On a fiscal year basis and upon presentation of valid receipts, the Town will reimburse employees for khaki style pants, not to exceed a total of one hundred dollars ($100). No open toed shoes, jeans, shorts and/or short skirts are permitted. Employees shall maintain a neat and clean appearance, with no torn or tattered clothing.

ARTICLE XIII - COLLEGE EDUCATION INCENTIVE

13.1 An amount of ten dollars ($10.00) per annum per college credit shall be paid to any employee who successfully completed a course at an accredited college or university, provided, however, that the employee has completed his/her probationary period and that payment under this provision shall not be made for more than one hundred and twenty (120) credits cumulative.

13.2 The Town will pay the cost of tuition, course registration and books incurred by employees in seeking an Associate or Bachelor Degree as outlined below, provided the employee has completed his/her probationary period. Course reimbursement may be granted for coursework intended to enhance professional growth and contribute to a more effective performance of duties provided the course, whether taken on-line or in person, must be taken at a college or university accredited by an accreditation organization recognized by the United States Department of Education, must be approved in advance by the Emergency Management Director, and a grade of "C" or better is earned. Courses and programs must be approved at least fifteen days prior to the start of the course. Eligible course(s) will be reimbursed upon successful (i.e., "C" or better) completion.

The Town will provide for reimbursement of up to $12,000 total for all employees per fiscal year; each employee, however, may only take up to two (2) courses per fiscal year, and may only be reimbursed up to $3,000 per fiscal year. Requests for reimbursement must be submitted no later than June 30 of the fiscal year in which the course was taken, and reimbursement will be made within thirty (30) days following submission.

ARTICLE XIV - HOURS AND DAYS OF WORK

14.1 Definitions

(a) A "bid cycle" is identified as a 28 day period in which an employee is assigned through a bid shift process to a position on the work schedule.

(b) A "work week" is based on the (7) day calendar week, which for payroll purposes shall be Sunday at 12:01 a.m. to Saturday at 12:00 midnight.

14.2 For purposes of this Article there shall be three work shifts: 1) the Day Shift which shall commence at 0700 hours and end at 1500 hours; 2) the Evening Shift which shall commence at 1500 hours and end at 2300 hours; and 3) the Midnight Shift which shall commence at 2300 hours and end at 0700 hours. Nothing contained in this Article or otherwise in this Agreement, however, shall be construed as a guarantee or commitment by the Town to any employee of a minimum or maximum number of hours of work per day, per week or per year.

14.3 Bid Shift System

(a) An employee's work schedule shall be established through a bid system.

(b) The Town will provide Bid Shift Forms which will be the only method used to implement the bidding function of this Article. Employees will bid shifts in twenty-eight (28) day cycles.

Bid Shift Forms will be submitted by employees thirty (30) days prior to the start of each cycle and may not be modified after submission. The Town will post the work schedule at least twenty (20) days prior to the start of each cycle. Employees will list their shift preference(s) for the cycle based on their seniority rank for that bid cycle. If a Bid Shift Form is not submitted timely, the individual will be assigned to a shift at the Town's sole discretion.

Every third cycle the shift assignment of employees will be made on the basis of inverse seniority, that is, least senior to most senior with less senior personnel receiving preference in shift assignment over more senior employees.

If an employee is required to work a double shift as a result of a Bid Shift cycle change, the overtime provisions of this Collective Bargaining Agreement shall not apply.

(c) Employees will not participate in the bid shift process until successful completion of the probation period.

(d) The bid slots posted on the bid sheet shall be:

MIDS 1	2300 – 0700 hours with Friday and Saturday off.
MIDS 2	2300 – 0700 hours with Sunday and Monday off.
DAYS 2	0700 – 1500 hours with Friday and Saturday off.
DAYS 3	0700 – 1500 hours with Sunday and Monday off.
EVES 1	1500 – 2300 hours with Thursday and Friday off.
EVES 2	1500 – 2300 hours on Sunday, Monday, and Thursday 2300 – 0700 hours on Friday & Saturday with Tuesday and Wednesday off.
EVES 3	1500 – 2300 hours with Sunday and Monday off.
RELIEF	1500 – 2300 hours on Friday 0700 – 1500 hours on Saturday 2300 – 1500 hours on Sunday 2300 – 0700 hours on Monday with Tuesday, Wednesday and Thursday off.

Dispatcher II/Training Coordinator 0700 – 1500 hours with Saturday and Sunday off. Upon five (5) days' notice, however, the Town may flex the schedule of the Dispatcher II/Training Coordinator to eight (8) consecutive hours between the

hours of 0700-1900, with Saturday and Sunday off. The Town and Dispatcher II/Training Coordinator may otherwise mutually agree to modify the 0700-1500 shift for any specific day.

(e) Should two (2) or more employees share an identical date of full time hire and seniority cannot be clearly established, the employees' names shall be listed in alphabetical order and they shall alternate as senior Dispatcher for bidding purposes each bid cycle.

(f) Employees off duty on extended sick leave, injury leave, or for any other reason who, based upon a written statement from their treating physician, will be back to work during the first two (2) weeks of the bid cycle shall be eligible to bid. Should the employee return to work unexpectedly during the work period, (s)he shall be assigned by the Director of Emergency Management or his/her designee.

(g) Upon request to and approval by the Emergency Management Director or his/her designee, employees shall be permitted to "swap" shifts within the seven (7) day, Sunday – Saturday workweek identified in Section 14.1 provided that there is no creation of overtime or premium pay resulting from the swap at the time the swap is requested.

ARTICLE XV - HOLIDAYS

15.1 (a) The following thirteen (13) days are recognized as holidays:

New Year's Day	January 1st
Martin Luther King's Birthday	Third Monday in January
President's Day	Third Monday in February
Good Friday	Friday of Easter Weekend
Easter Sunday	Easter Sunday
Memorial Day	Last Monday in May
Fourth of July	July 4th
Labor Day	First Monday in September
Columbus Day	Second Monday in October
Veteran's Day	November 11th
Thanksgiving Day	Fourth Thursday in November
Day after Thanksgiving	Day after Thanksgiving
Christmas Day	December 25th

(b) Each employee shall be credited with a due day when the holiday occurs.

Each employee shall be entitled to accumulate a total of twenty-six (26) due days. On a yearly basis with the cutoff date of December 1st, all due days over twenty-six will be paid for at the employees regular rate of pay. To the extent practicable, payment will be made during the first pay period of December.

(c) Any employee who desires to take a due day must submit a written request to the Emergency Management Director or his/her designee no later than fourteen (14) days prior to the date requested.

The department may accept requests submitted less than fourteen (14) days before the date requested and any such exceptions granted by the Department shall be without precedence.

15.2 An employee actually working on a holiday shall be paid at the premium rate of one-and-one half (1 1/2) times his/her regular hourly rate of pay for all such hours worked, with the exception of Christmas Day and Thanksgiving Day, for which an employee shall be paid at the premium rate of two (2) times his/her regular hourly rate.

15.3 If an unanticipated national holiday or national day of mourning is declared by the federal government and the Town observes the same for all Town services other than dispatch, police protection and fire protection, an employee who actually works on such a day shall be paid at the premium rate of one-and-one half times his/her regular hourly rate or pay for all hours worked. The provisions of Section 15.1 do not apply to such a holiday or day of mourning.

ARTICLE XVI – VACATIONS

16.1 Regular full-time Telecommunicators as of the later of the date of ratification of this agreement or July 1, 2015, shall earn vacation leave at the employee's regular rate of pay in accordance with the following schedule:

(a)	After one (1) year(s)	80 hours plus eight (8) additional hours for each year of service up to a maximum total of one hundred sixty (160) hours.
(b)	After fifteen (15) years	176 hours
(c)	After twenty (20) years	200 hours

Regular full-time Telecommunicators hired on or after the date of ratification of the initial Agreement, shall be granted time off with pay for vacations according to the following schedule:

(a)	After one (1) year	40 hours
(b)	After three (3) years	80 hours
(c)	After seven (7) years	120 hours
(d)	After twenty (20) years	160 hours

16.2 The vacation period shall be between January 1st and December 31st of each year, and each employee shall be afforded the opportunity to be off on vacation within the calendar year. Employees shall be allowed to carry over on his/her anniversary date no more than twenty (20) days of vacation; additional vacation shall be lost.

16.3 Requests for vacation day(s) shall be made not less than thirty (30) days in advance of the requested day(s) off and are subject to the approval of the Town.

In the event that two or more employees at the same time seek the same vacation leave, entitlement, if any, shall be determined in accordance with seniority as identified in Section 7.1.

Vacation requests submitted within the thirty (30) days prior to the requested day(s) off may be granted in the discretion of the Town. The granting or denial of such requests by the Town will be without precedence and shall not be subject to the grievance and/or arbitration process.

16.4 In the event of an employee's death, his/her earned vacation pay shall be paid to his/her surviving spouse. In the event the deceased employee is not survived by a spouse, the Town will attempt to contact employee's surviving children, as identified by employee in his/her personnel file, at the addresses most recently identified by employee in his/her personnel file; the Town will pay said children in equal shares. Any Town payment under this provision is not subject the grievance and/or arbitration process

16.5 In the event of an employee's separation from employment in good standing (i.e., separation from employment with two (2) weeks notice), his/her earned vacation pay shall be paid to him/her.

ARTICLE XVII - SICK LEAVE

17.1 Sick leave shall be considered to be absence from duty with pay for the following reasons:

(a) Illness or injury except where directly traceable to employment by an employer other than the Town of Waterford;

(b) When an employee is required to undergo medical, optical or dental treatment, and cannot, despite his/her best efforts, reasonably coordinate such treatment on his/her off duty hours.

(c) In the event of illness, injury or maternity in the immediate family which requires the attendance or aid of the employee for up to ten (10) days in a calendar year.

17.2 Sick leave shall be earned by each employee at the rate of ten (10) hours for each calendar month of service, the total of which shall not exceed one hundred twenty (120) hours in a twelve (12) month period, commencing with the month of hire, cumulative to one thousand two hundred (1200) hours. Sick leave is not earned during periods of unpaid leaves of absence and/or suspensions from employment (and earned leave for the month will be pro-rated to the time actually worked).

Sick leave may only be used in increments of not less than under thirty (30) minutes sick leave under Section 17.1(b) may only be used at the beginning or end of a shift.

17.3 Whenever an employee has been on sick leave for three (3) or more consecutive days, or used sick leave during vacation, or before or after a holiday, and/or sick leave absence occurs frequently or in a pattern and the employee has been notified in advance by his supervisor that a doctors certificate will be required, the employee shall be required to submit a certificate signed by a physician verifying the need for sick leave, the nature of the illness or injury, together with a statement that the employee is fit to resume work.

The Union shall support the Town's efforts to control abuse of sick time.

17.4 The Town may provide a physician to make any necessary examination or investigation of any alleged abuses of sick leave or injury leave. The cost of such examination or investigation shall be paid by the Town.

17.5 When an employee must be absent from work on sick leave, the employee must notify the Emergency Management Director or designee as soon as reasonably practicable before the start of the employee's scheduled shift. Notifications shall be made by speaking with the Emergency Management Director or designee (i.e. – on-duty police supervisor).

17.6 Any employee who becomes separated from the service by reason of death shall have payable to the employee's surviving spouse a lump sum of money that is equal to the number of sick hours due such employee times the prevailing hourly rate of pay receivable by such employee on the date of the employee's death.

ARTICLE XVIII - PERSONAL LEAVE

18.1 All employees shall be entitled to two (2) days of personal leave per fiscal year (i.e., as of July 1), non-cumulative, for the purpose of transacting personal business which cannot be carried out on the employee's regularly scheduled days off. Employees hired between July 2 and December 31 shall receive one-half (1/2) day personal leave as of January 1.

Personal leave days may not be taken in lieu of other paid or unpaid leave.

18.2 Personal days may also be used for voluntary schools, seminars or trainings; and/or as an additional funeral day to that which is otherwise provided in this Agreement.

18.3 Any employee wishing to take a personal leave shall request the same in writing to the Emergency Management Director or his/her designee, and identify the reasons for the leave as provided by the current day off request form. Personal leave shall not be taken on days immediately before or immediately after vacation leave, sick leave or holidays unless an emergency occurs for which it is necessary to take the personal day.

ARTICLE XIX - FUNERAL LEAVE

19.1 Funeral leave not to exceed five (5) working days with pay may be granted an employee in the event of the death of a spouse, mother, father, child, sister, brother, stepchild, grandmother, grandfather or grandchild. All funeral leave shall be taken within fourteen (14) days of the date of death.

19.2 Funeral leave not to exceed two (2) working days with pay may be granted for the purpose of attending a family funeral in the event of the death of a brother-in-law, sister-in-law, mother-in-law, father-in-law, aunt, uncle, niece, nephew or other relative who might reside in the employee's home if not covered in Section 19.1 relationships.

ARTICLE XX- INJURY LEAVE

20.1 Injury leave, as distinguished from sick leave, shall mean paid leave given to an employee due to absence from duty caused by an accident or injury which occurred while the employee was engaged in the performance of the employee's duties. Employees of the Town are covered by workers compensation insurance and are paid stated amounts due to injuries sustained on the job. The employee shall be paid by the employer for the difference between the employee's regular pay and workers compensation for a period not to exceed nine (9) months. Extensions may be granted by the Chief Executive Officer at the Chief Executive Officer's option upon request. If, during the nine (9) month period after the accident or injury, the disability is determined by the workers compensation commission to be permanent, salary continuation payments by the Town will be terminated.

ARTICLE XXI - UNION BUSINESS LEAVE

21.1 The three (3) members of the Union negotiating committee shall be granted leave from duty with pay for all meetings between the Town and the Union for the purpose of negotiating the terms of the Agreement.

21.2 One (1) member of the Union Executive Board and one (1) employee alleged to have been specifically aggrieved (if any) shall be granted leave from duty with full pay for all

meetings between the Town and the Union for the purpose of processing grievances when such meetings take place at a time during which such members are scheduled to be on duty. This section does not apply to arbitration proceedings. Employees participating in arbitration proceedings on behalf of and/or at the request or mandate of the Union (e.g., subpoena) must notify the Town and, to the extent available, utilize existing paid leave.

21.3 The President, or member elected to attend labor conventions and state-wide educational conferences, may be granted leave with full pay provided that the President or elected member is scheduled on duty at the time of said labor convention or state-wide educational conference and further provided that the total leave for the purposes set forth in this section shall not exceed two (2) working days in any fiscal year. All such leave requests shall be made to the Emergency Management Director at least one (1) week in advance; approval by the Emergency Management Director is subject to the operational needs of the Town, but will not be unreasonably denied.

ARTICLE XXII - INSURANCE AND RETIREMENT

22.1 (a) The Town shall provide eligible employees and their enrolled dependents, a Preferred Provider Organization Plan (the "PPO Plan") with a Prescription rider as described in summary form in Appendix B. Each employee shall be responsible for thirteen percent (13%) of the applicable fully insured premium rates or fully insured equivalent rates determined by the insurance carrier or administrator for all health insurance benefits excluding life insurance and accidental death and dismemberment. Effective July 1, 2016, each employee shall be responsible for fourteen percent (14%) of the applicable fully insured premium rates or fully insured equivalent rates as determined by the insurance carrier or administrator for all health insurance benefits excluding life insurance and accidental death and dismemberment.

(b) Master Group certificates and/or policies are available in the Human Resources office for more specifics. The master certificates and/or policies are the governing documents concerning the Town's insurance plan designs; the information contained herein and in the contract appendices is therefore intended as a summary.

(c) The employee contributions in this article will be deducted on a pre-tax basis.

22.2 (a) The Town will provide full dental coverage with additional basic benefits and orthodontia benefits with the employee paying the percentage cost share equal to that of the PPO plan. The Dental plan is described in summary form in Appendix C.

(b) The Town will provide a vision rider as described in summary form in Appendix D with the employee paying the percentage cost share equal to that of the PPO plan.

22.3 Change of Insurance Carrier. The Town shall have the right to change insurance carriers and/or to self-insure and/or fully insure in whole or in part, in order to provide insurance coverage as set forth above, provided further that coverages which result from change in carriers and/or self-insurance are substantially equivalent or better than the coverage described above in terms of coverage, benefits and administration. The absence of assignment of benefits afforded through Anthem Blue Cross and Blue Shield provider network shall not act as a bar to the consideration of alternative carriers.

The President of the Union shall be notified in writing within thirty (30) days of any intention to change carriers and shall have a reasonable opportunity to review the proposed changes. Should the Union and the Town disagree that the changes proposed will provide coverages substantially equivalent to the coverages, benefits and administration described above at no additional cost to staff members, the disagreement(s) shall be subject to arbitration before the State Board of Mediation and Arbitration. The status quo will be maintained during the above procedures.

22.4 Waiver of Insurance.

(a) Notwithstanding the above, if the Town is self-insured, employees hired before July 1, 2015 may voluntarily elect to waive, in writing, to the Human Resource Office health and dental insurance outlined in Article XXII and in lieu thereof, shall receive an annual payment of one thousand dollars ($1,000), provided they are not covered under another Waterford Town or Board of Education Health Plan. Payment to those employees waiving such insurance coverage shall be made payable at the end of the employee's anniversary year. Employees hired on or after July 1, 2015, are not eligible for waiver of one thousand dollars ($1000).

If the Town is fully-insured, any employee, regardless date of hire, may voluntarily elect to waive, in writing, to the Human Resource Office health and dental insurance outlined in Article XXII and in lieu thereof, shall receive an annual payment of one thousand dollars ($1,000). Payment to those employees waiving such insurance coverage shall be made payable at the end of the employee's anniversary year.

(b) Where a change in an employee's status prompts the employee to resume Town provided insurance coverage, the written waiver may, upon written notice to the Human Resources Office, be revoked. Upon receipt of revocation of the waiver, insurance coverage shall be reinstated as soon as possible, subject however, to any regulations or restrictions, including waiting periods, which may be prescribed by the appropriate insurance carriers. Depending upon the effective date of such reinstated coverage, appropriate financial adjustments shall be made between the employee and the Town, to ensure that the employee has

been compensated, but not over-compensated, for any waiver elected in this section.

(c) Notice of intention to waive insurance coverage must be received in the Human Resources Office, at least two (2) months prior to the 1st of the month that the insurance coverage will cease. The election to waive coverage shall only be approved upon written proof of alternative insurance coverage.

(d) Waiver of coverage procedures must be acceptable to the applicable insurance carrier.

22.5 Retirees are not eligible to purchase or otherwise participate in health insurance continuation (other than what may be required under state and/or federal (e.g., COBRA) law.

22.6 Pension Plan. All employees within the bargaining unit shall be eligible for the MERF-B pension plan.

ARTICLE XXIII - GENERAL PROVISIONS

23.1 As soon as reasonably practicable following the ratification and execution of this and/or successor Agreements, the Town shall provide each bargaining unit member with access, electronically and/or in hard copy, to a copy of the Agreement and any written Rules and Regulations of the WECC. The Town likewise, at the time of hire and/or as soon as reasonably practicable thereafter, shall provide each new bargaining unit member with access, electronically and/or in hard copy, to a copy of the Agreement and any written Rules and Regulations of the WECC.

23.2 At the request of the Union, the Town will provide the Union with a bulletin board, the size, appearance and location of which shall be satisfactory to the Emergency Management Director, for the sole purposes of posting announcements of Union meetings, Union elections and the results thereof, appointments to Union offices, changes in Union by-laws, and social and recreational affairs.

23.3 The Chief Executive Officer may grant leaves of absence without pay for a period not to exceed one (1) year. The decision of the Chief Executive Officer to deny leaves of absence and/or to grant in part (e.g., for a short period of time than requested) is not subject to the grievance and arbitration provisions of the contract. No benefits accrue and/or are provided for absences in excess of one (1) month.

ARTICLE XXIV - SCOPE OF AGREEMENT

24.1 Duration: This Agreement shall be effective as of the date of ratification and acceptance, and shall remain in full force and effect through the thirtieth day of June, 2017. Successor Agreements shall be negotiated pursuant to the Municipal Employee Relations Act.

24.2 If any Article or any section of this Agreement is declared invalid for any reason, such declaration of invalidity shall not affect other articles or sections, or portions thereof, which shall be valid. The Town and Union shall meet to negotiate a clause to replace the clause declared invalid.

Notwithstanding anything in this Agreement to the contrary, the employer shall have the right to take any action necessary to ensure its wage and hour practices comply with applicable law.

24.3 Changes in this Agreement, whether by addition, waiver, deletion, amendment, or modification, must be reduced to writing and executed by both the Town and the Union.

24.4 The failure of the Town or the Union to insist in any one or more incidents, or upon performance of any of the terms or conditions of the Agreement, shall not be considered as a waiver or relinquishment of the right of the Town or Union to future performance of any such term or condition, and the obligations of the Town and the Union to such future performance shall continue in full force and effect.

24.5 The paragraph captions used in this Agreement are included solely for convenience and shall not affect or be used in conjunction with the interpretation of this Agreement.

IN WITNESS WHEREOF the parties have caused their names to be signed on this the 6th day of October 2015.

Town of Waterford

BY: _____
Daniel M Steward
First Selectman

DATE: 10/9/15

UPSEU

BY: _____
Laurie Lewis, President
Waterford Public Safety Dispatchers Unit

DATE: 10-7-15

BY: _____
Kevin E. Boyle, Jr., President
UPSEU

DATE: 10/6/15

APPENDIX A

Pursuant to Section 7.1, that the date from which seniority is determined for each bargaining unit member and the order of seniority for members of the bargaining unit hired before July 1, 2014, are as follows:

Laurie Lewis	6/24/92
Jodie Strohl	9/23/96
Todd Goodhind	5/15/97
Susan Descisciolo	6/2/97
Michael Smith	4/22/02
Debra Abbey	9/8/09
Ronald Williams	9/4/12

APPENDIX B - PPO PLAN DESIGN

Effective as soon as practicable following ratification of the initial Agreement

PPO Plan

COST SHARE PROVISIONS	In-Network Member pays:
Office Visit Copayment	$25 per visit
Specialist Visit Copayment	$25 per visit
Hospital Copayment	$200 per admission
Urgent Care Copayment	$25 per visit
Emergency Room Copayment	$75 per visit
Outpatient Surgery Copayment	$150 per procedure
Lifetime Maximum	Unlimited

PREVENTIVE CARE

Well child care : Birth to 12 years All others	 No Charge No charge
Periodic, routine health exam	No charge
Routine eye exam 1 exam 2 yr.	No charge
Routine OB/GYN visits	No charge
Mammography	No charge
Hearing screening 1 exam 2 yr.	No charge

HOSPITAL CARE - Prior authorization required

Semi-private room	$200 co-payment
Inpatient Mental Health	$200 co-payment
Inpatient Substance Abuse	$200 co-payment
Skilled nursing facility (120 days)	$200 co-payment
Rehabilitative services (60 days)	$200 co-payment
Outpatient surgery	$150 co-payment

APPENDIX B
PPO PLAN DESIGN

MEDICAL CARE

Office visits: Primary Care Specialists	 $25 per visit $25 per visit
Outpatient mental health Prior authorization required after 40th visit	$25 per visit
OB/GYN care	$25 per visit
Maternity care, initial visit	$25 per visit
Laboratory	No charge
Diagnostic X-ray	No charge
High cost diagnostic (MRI, CAT, etc.)	$50, max $375 yr.
Allergy services: Office visits/testing Injections - 80 visits in 3 years	 $25per visit No charge

EMERGENCY CARE

Walk-in centers	$25 per visit
Urgent care - at participating center	$25 co-payment
Emergency care	$75 co-payment
Ambulance	No charge

OTHER HEALTH CARE

Outpatient rehabilitative services For PT, OT, ST, and Chiro. 50 visit max.	$25 per visit
Durable medical equip. / Prosthetics	No charge
Diabetic supplies	No charge
Infertility services	State Mandate
Home Health Care	No charge

APPENDIX B
PPO PLAN DESIGN

***PRESCRIPTION DRUGS**

Generic	$5 copayment
Listed Brand	$20 copayment
Non-Listed Brand	$35 copayment
Mail Order	2x retail
Annual Maximum	$1,000
Plan	Managed

OUT-OF-NETWORK SERVICES

Calendar Year Deductible: Individual Two Person Family	 $200 $400 $500
Coinsurance	20% after deductible
Coinsurance Maximum: Individual Two Person Family	 $800 $1,600 $2,000
Cost Share Maximum: Individual Two Person Family	 $1,000 $2,000 $2,500
Lifetime Maximum	Unlimited

**** The drug rider includes certain management features (e.g. a change from a public sector drug rider option to a managed drug rider, including but not limited to features such as step therapy and mandatory generic substitution).***

APPENDIX C – DENTAL

Anthem
FULL DENTAL PLAN

The Full Dental Plan covers diagnostic, preventive and restorative procedures necessary for adequate dental health.

COVERED SERVICES INCLUDE:

- □ Oral Examinations
- □ Periapical and bitewing x-rays
- □ Topical fluoride applications for members under age 19
- □ Prophylaxis, including cleaning, scaling and polishing
- □ Relining of dentures
- □ Repairs of broken removable dentures
- □ Palliative emergency treatment
- □ Routine fillings consisting of silver amalgam and tooth color materials; including stainless steel crowns (primary teeth)*
- □ Simple extractions **
- □ Endodontics-including pulpotomy, direct pulp capping and root canal therapy (excluding restoration)

*Payment for an inlay, onlay or crown will equal the amount payable for a three-surface amalgam filling when the member is not covered by Dental Amendatory Rider A.

** Payment for a surgical extraction or a hemisection with root removal will equal the amount payable for a simple extraction when the member is not covered by the Dental Amendatory Rider A.

ACCESSING BENEFITS:

Participating Dentists Benefits

When a member receives care from one of over 1,800 Participating Dentists, he or she simply presents his or her identification card showing dental coverage. The dentist bills us directly for all covered services.

For dental care provided by a Participating Dentist, we will pay the lesser of the dentist's usual charge or the Usual, Customary and Reasonable Charge as determined by us. The dentist accepts our reimbursement as full payment and may not bill the member for any additional charges.

Non-Participating Dentists Benefits

For covered dental services provided by a Non-Participating Dentist, in or out of Connecticut, we pay the lesser of the dentist's charge or the applicable allowance for the procedure, as determined by us. The member is responsible for any difference between the amount paid by us and the fee charged by the dentist.

This does not constitute your health plan or insurance policy. It is only a general description for the purposes of this Request for Proposal, of the Anthem Blue Cross Blue Shield Full Dental Plan. Refer to your Master Group Policy or Description of Benefits, on file with your employer, for a complete listing of benefits, maximums, exclusions and limitations.

Anthem

Dental Amendatory Rider A
Additional Basic Benefits

In addition to the services provided under your dental program, the following additional basic benefits are provided:

- Inlays (not part of bridge)
- Onlays (not part of bridge)
- Crown (not part of bridge)
- Space Maintainers
- Oral surgery consisting of fracture and dislocation treatment, diagnosis and treatment of cyst and abscess, surgical extractions and impaction
- Apicoectomy

The dental services listed above are subject to the following qualifications:

We will pay for individual crowns, inlays and onlays only when amalgam or synthetic fillings would not be satisfactory for the retention of the tooth, as determined by us.

We will not pay for a replacement provided less than five (5) years following a placement or replacement which was covered under this Rider. We will not pay for individual crowns, inlays or onlays placed to alter vertical dimension, for the purpose of precision attachment of dentures, or when they are splinted together for any reason.

ACCESSING BENEFITS:

Participating Dentists Benefits
Anthem Blue Cross and Blue Shield will pay the lesser of 50% of the dentist's usual charge or 50% percent of the Usual, Customary and Reasonable Charge, as determined by us, for the dental services described in this Rider. Dentists who participate in our dental programs agree to accept our allowance as full payment and may not bill the member for any additional charges except for the remaining coinsurance balance.

Non-Participating Dentists Benefits
In the event these services are rendered by a non-participating dentist, we will pay to the member the lesser of 50% of the dentist's charge or 50% of the applicable allowance for the procedure as determined by us. The member is responsible for any difference between the amount paid by us and the fee charged by the dentist.

This does not constitute your health plan or insurance policy. It is only a general description for the purposes of this Request for Proposal, of the Anthem Blue Cross and Blue Shield Dental Amendatory Rider A. Refer to your Master Group Policy or Description of Benefits, on file with your employer, for a complete listing of benefits, maximums, exclusions and limitations.

Anthem

Dental Amendatory Rider D
ORTHODONTICS

The following Orthodontic services are provided:

Handicapping malocclusion for a member under age 19, consisting of the installation of orthodontic appliances and orthodontic treatments concerned with the reduction or elimination of an existing malocclusion through the correction of malposed teeth.

The maximum amount payable for orthodontic services is $600.00 per member per lifetime.

ACCESSING BENEFITS:

Participating Dentists Benefits
Anthem Blue Cross & Blue Shield will pay the lesser of sixty percent (60%) of the dentist's usual charge or sixty percent of the Usual, Customary and Reasonable Charge, as determined by us, for the dental services described in this Rider. Dentists who participate in our dental programs agree to accept our allowance as full payment and may not bill the member for any additional charges except for the remaining coinsurance balance.

Non-Participating Dentists Benefits
In the event these services are rendered by a non-participating dentist, we will pay to the member the lesser of sixty percent of the dentist charge or sixty percent of the applicable allowance for the procedures as determined by us. The member is responsible for any difference between the amount paid by us and the fee charged by the dentist.

This does not constitute your health plan or insurance policy. It is only a general description for the purposes of this Request for Proposal, of the Anthem Blue Cross & Blue Shield Dental Amendatory Rider A. Refer to your Master Group Policy or Description of Benefits, on file with your employer, for a complete listing of benefits, maximums, exclusions and limitations.

APPENDIX D – VISION CARE

ANTHEM BLUE CROSS AND BLUE SHIELD'S VISION CARE RIDER OFFERS:

- Yearly eye examinations for vision corrections
- Coverage for prescription lenses (single-vision, bifocals, trifocals), frames, and contact lenses with fitting, adjustment and aftercare for maintenance of comfort and efficiency.
- In-plan and out-of-plan coverage.

VISION EXAM COVERAGE:

Exam with dilation of pupils (cycloplegia) and post cycloplegic visit if required	Up to $50 per calendar year
Exam without cycloplegia	Up to $50 per calendar year

OPTICAL SERVICES:

Frames for prescription lenses	Up to $28 per calendar year
Single vision lenses	Up to $33.50 per calendar year
Bifocal lenses	Up to $52 per calendar year
Trifocal lenses	Up to $84 per calendar year
Contact lenses when used to correct visual acuity to 20/70 or when medically necessary	Up to $225 per calendar year
Contact lenses when used for any other reason, equivalent to amount payable for single vision	Up to $33.50 per calendar year

PRINCIPAL LIMITATIONS & EXCLUSIONS

Services, frames, and lenses required by the employer as a condition of employment. Sunglasses, tinted glasses or industrial glasses unless they are prescription lenses. Contact lenses for cosmetic, convenience or any purpose other than correction of visual acuity to 20/70 or medical necessity as determined by Anthem Blue Cross and Blue Shield, will be covered in an amount up to the single prescription lenses indemnity amount subject to the annual maximum.

APPENDIX E - WAGE SCHEDULE
2015-2016

Public Safety Dispatcher I					Emergency Management		
GRADE:04	DESC: PS-04		PAY PERIODS :52		HOURS/YR:	2080	
	STEP 01	STEP 02	STEP 03	STEP 04	STEP 05	STEP 06	STEP 07
RATE/HOUR	22.6301	23.7620	24.9496	26.1994	27.5105	28.8850	30.3302
SALARY/YR	$47,070.52	$49,425.05	$51,895.27	$54,494.70	$57,221.88	$60,080.90	$63,086.75

Public Safety Dispatcher II/Training Coordinator					Emergency Management			
GRADE:05	DESC: PS-05		PAY PERIODS :52		HOURS/YR:	2080		
	STEP 01	STEP 02	STEP 03	STEP 04	STEP 05	STEP 06	STEP 07	STEP 08**
RATE/HOUR	24.8992	26.1447	27.4525	28.8270	30.2668	31.7821	33.3702	35.0387
SALARY/YR	$51,790.44	$54,381.06	$57,101.18	$59,960.21	$62,954.90	$66,106.70	$69,410.02	$72,880.52

**Step 8 has been incorporated solely and specifically to recognize increased duties performed by Laurie Lewis. This step is applicable only to Ms. Lewis.

APPENDIX E – WAGE SCHEDULE

2016 – 2017

Public Safety Dispatcher I — Emergency Management

GRADE:04	DESC: PS-04		PAY PERIODS :52		HOURS/YR:	2080	
	STEP 01	STEP 02	STEP 03	STEP 04	STEP 05	STEP 06	STEP 07
RATE/HOUR	23.1958	24.3561	25.5734	26.8544	28.1983	29.6072	31.0884
SALARY/YR	$48,247.28	$50,660.67	$53,192.65	$55,857.07	$58,652.42	$61,582.92	$64,663.92

Public Safety Dispatcher II/Training Coordinator — Emergency Management

GRADE:05	DESC: PS-05		PAY PERIODS :52		HOURS/YR:	2080		
	STEP 01	STEP 02	STEP 03	STEP 04	STEP 05	STEP 06	STEP 07	STEP 08**
RATE/HOUR	25.5217	26.7984	28.1388	29.5477	31.0234	32.5766	34.2045	$35.9147
SALARY/YR	$53,085.20	$55,740.58	$58,528.71	$61,459.21	$64,528.77	$67,759.36	$71,145.27	$74,702.53

**Step 8 has been incorporated solely and specifically to recognize increased duties performed by Laurie Lewis. This step is applicable only to Ms. Lewis.

8

Agreement between TOW and the Waterford Ambulance Association

AGREEMENT BY AND BETWEEN
THE TOWN OF WATERFORD AND
THE WATERFORD AMBULANCE ASSOCIATION, INC.

RECEIVED FOR RECORD
WATERFORD, CT
16 MAR 10 PM 12:14
ATTEST: David K. Cooper
TOWN CLERK

THIS AGREEMENT is entered into this 10th day of May, 2012, effective and retroactive to July 1, 2010, by and between THE TOWN OF WATERFORD, CONNECTICUT (hereinafter "TOWN"), a Connecticut municipal corporation with a place of business at 15 Rope Ferry Road, Waterford, Connecticut 06385 and the WATERFORD AMBULANCE ASSOCIATION, INC., a Connecticut non-stock corporation with its principal place of business in Waterford, mailing address: P.O. Box 137, Waterford, Connecticut 06385, (hereinafter "WAA").

WHEREAS, pursuant to Connecticut General Statutes §7-148, the TOWN has the power to provide for ambulance service by the municipality or any person, firm or corporation; and

WHEREAS, pursuant to CGS §7-148, the TOWN has the authority to enter into an agreement with WAA for the provision of ambulance services by its Emergency Medical Technicians; and

WHEREAS, pursuant to Regulations of Connecticut State Agencies §19a-179-4, WAA holds the First Responder and Basic Ambulance Primary Service Area Responder (PSAR) designations within the geographical boundaries of The Town of Waterford; and

DMS Init. TOS Init.

WHEREAS, pursuant to said power and authority, the TOWN is desirous of entering into an agreement with WAA for the provision of emergency medical services and ambulance services to the residents of Waterford in accordance with the standards established in state statutes and regulations; and

WHEREAS, WAA is desirous of entering into an agreement with the TOWN for the provision of emergency medical services and ambulance services in accordance with the standards established in state statutes and regulations to the residents of Waterford; and

WHEREAS, WAA is and will continue to remain a non-profit, §501(c)(3) corporation.

NOW, THEREFORE, IN CONSIDERATION OF THE FOREGOING AND THE MUTUAL PROMISES CONTAINED HEREIN, THE PARTIES HEREBY AGREE AS FOLLOWS:

1. **DEFINITIONS**

The definitions as contained in Connecticut General Statutes §19a-175 and applicable emergency medical services regulations, as amended, established by the Commissioner of the State of Connecticut Department of Public Health (hereinafter "DPH") shall be applicable to and incorporated in this agreement.

DMS Init. TDS Init.

2. PRIOR AGREEMENTS

Any and all prior agreements between the TOWN and WAA for the provision of ambulance services are hereby superseded and replaced as of the effective date of this Agreement, July 1, 2010.

3. PRIMARY PROVIDER

The TOWN agrees to designate WAA as the primary provider of ambulance service and WAA shall be called whenever an ambulance is needed by or on behalf of the TOWN.

4. PRIMARY SERVICE AREA RESPONDER (PSAR)

WAA shall provide emergency ambulance and emergency medical services within the geographical boundaries of The Town of Waterford. All vehicles and equipment necessary to carry out such services shall be equipped and staffed pursuant to Connecticut General Statues and State regulations. WAA will render the highest level of ambulance services to the TOWN that it is certified by DPH to provide. Upon execution of this agreement, WAA will provide the TOWN with a copy of the Certificate issued by the DPH verifying that WAA is the Primary Service Area Responder at the FIRST RESPONDER (R-1) and BASIC AMBULANCE (R-2) levels. Said certificates shall be annexed hereto as Exhibit A and updated as necessary. WAA shall also provide appropriate documentation of any other levels of emergency care that it is authorized to provide, either by the DPH or any other regional or local medical control or sponsor hospital. When provided, the additional certificate(s) shall be annexed hereto as Exhibit B with a table of contents updated as necessary.

DMS Init. TOS Init.

5. LICENSE AND CERTIFICATIONS

During the term of this agreement, WAA will maintain all licenses and certificates required by DPH.

6. CERTIFICATE OF OPERATION

During the term of this agreement, WAA will provide the TOWN Finance Department with a copy of each annual Certificate of Operation issued by the DPH within 30 days of receipt from DPH.

7. STANDARDS OF SERVICE

WAA shall provide ambulance services, in accordance with state statutes and regulations, twenty-four (24) hours per day, seven (7) days per week, fifty-two (52) weeks per year. WAA will make all reasonable efforts to provide a second ambulance for simultaneous calls when needed. All medical services provided by WAA shall be in accordance with all area medical and hospital protocols, as well as state, federal and local laws and regulations.

8. MUTUAL AID

In the event that one or more requests for ambulance service are made while WAA's first ambulance is already committed to a call, and where a second ambulance cannot be provided by WAA, both parties realize that mutual aid ambulances may be deployed to the Town and that "system overload" will be in effect. Mutual aid ambulances, when deployed, will be called utilizing existing

DMS Init. TOS Init.

mutual aid protocols. During a "system overload", it is recognized that ambulance response could be delayed to some 9-1-1 callers.

9. CONDUCT OF BUSINESS

WAA will conduct all of its business (including banking business) under the name "Waterford Ambulance Association, Inc." The TOWN shall be notified in the event WAA creates any new business entities or organizations, or affiliates with any other organizations. WAA agrees to use its best efforts to notify the TOWN of any changes prior to such changes taking effect; however, both parties recognize that such notice may not always be practical, in which case, the TOWN shall be notified of these changes not more than ten (10) business days after they take effect. WAA shall conduct its activities and business in such a manner as to maintain full compliance with Internal Revenue Service statutes and regulations pertaining to §501(c)(3) entities. The TOWN only recognizes WAA and no part or whole of this Agreement is transferable to any other party or entity without prior agreement of the TOWN.

10. INDEPENDENT CONTRACTOR

The status of WAA as it relates to the TOWN is that of an independent contractor. Except as required for insurance coverage purposes, under no circumstances shall WAA, its volunteers, employees or agents be considered as officers, employees or agents of the TOWN nor shall WAA represent that it or any of its agents or employees are agents or employees of the TOWN. This Agreement shall not constitute a contract of employment and shall be considered as an agreement for independent services.

DMS Init. TOS Init.

11. USE OF TOWN-FUNDED PERSONNEL

In order to perform its emergency medical services in accordance with state statutes and regulations, it is understood that WAA currently utilizes the TOWN-funded firefighting staff to respond with the ambulance to calls for emergency medical assistance. The parties further agree that if and when WAA increases or decreases the usage of Town resources, payments due to the Town under this agreement shall be adjusted in accordance with Paragraph 26 of this Agreement.

12. NONDISCRIMINATION CLAUSE

No person shall be denied or subjected to discrimination on account of any service or activities made possible by or resulting from this Agreement on the grounds of sex, race, color, creed, national origin, age (except minimum age and retirement provisions), marital status, or sexual orientation. WAA agrees to treat and/or transport all patients regardless of race, ethnicity, sexual orientation, disability or ancestry. WAA represents that it complies fully with all applicable State and Federal anti-discrimination laws, rules, regulations and requirements.

13. OPERATING EXPENSES

WAA recognizes that the TOWN indirectly funds a substantial portion of WAA's operating expenses through the TOWN Funding of the five (5) independent Waterford Fire Companies, the payroll of and benefits of the TOWN'S paid firefighters who respond to ambulance-related calls, and the Town's Dispatch Center. In lieu of any other leases or agreements with the TOWN or other entities already subsidized by the TOWN, WAA shall pay an amount annually consistent with the following:

DMS Init. TOS Init.

a) 5% of the budgeted firefighter payroll and fringe benefits expenses (including firefighter payroll, Dispatch payroll, and overtime); plus

b) 12% of the budgeted subsidy to the five (5) independent Waterford Fire Companies for property insurance, electricity, heat, telephone service, building maintenance and radios); plus

c) 33% of the budgeted operating costs of the Waterford Dispatch Center.

Schedule A, attached hereto and made part hereof, shall set forth the annual budgeted amount owed to the TOWN by WAA, consistent with the above percentage allocations. Schedule A shall be restated annually based upon budget projections for the next applicable fiscal year. Any eligible expense which is actually above or below the budgeted estimate at the conclusion of the applicable fiscal year shall be adjusted in the subsequent fiscal year and either applied as a credit to WAA or billed as a supplemental expense.

Based upon the percentage allocations set forth herein, WAA shall pay the TOWN $200,508 for FY10-11. As noted above, this amount shall be adjusted annually based upon the above percentage allocations, with the adjusted amount being set forth in Schedule A.

14. PAYMENT

The Town agrees to invoice WAA twice per year with each invoice representing one-half of the annual payment due under this agreement, plus any adjustments as required by Section 13 herein. Payments due under this Agreement shall be

AMS Init. TDS Init.

due and payable in full within 30 days of receipt of invoice from the Town. WAA herby represents that payment for FY10-11, as required by Section 13 herein, has been paid in full as of the date of execution of this Agreement.

15. ANNUAL OPERATING BUDGET

Using the most recent audited Fiscal Year financial data, WAA shall annually develop an Operating Budget. Included in the budget shall be a line item entitled "Town Reimbursement".

No later than January 31st of each year, the WAA President shall submit a copy of WAA's annual Operating Budget, containing the reasonable and customary operational expenses of WAA, including but not limited to, fuel, vehicle maintenance costs, utilities, training, and administrative costs, to the First Selectman, Board of Finance and the Town Finance Director. Said budget shall also indicate the dollar amount which will be paid over to the TOWN as reimbursement for expenses for the prior fiscal year, based upon the formula set forth in Section 13 above and as set forth in Schedule A.

16. INSURANCES

During the term of this agreement, the TOWN agrees to maintain any and all insurances provided by the TOWN for the benefit of WAA, its officers, members and employees as previously maintained by the TOWN or as required by law for the TOWN to provide for WAA. The TOWN also agrees to continue to provide Worker's Compensation Insurance to the active members and employees of

DMS Init. TOS Init.

WAA in accordance with the provisions of C. G.S. §7-314a. The Town also agrees to continue to provide Worker's Compensation Insurance to the employees of the Town of Waterford, who, at various times, provide services to WAA pursuant to this agreement, in accordance with the provisions of C.G.S. §7-134a. Under no circumstances shall the levels of insurance coverage drop below any State-mandated minimum requirements. In the event that WAA desires additional coverage, above any coverage currently provided by the TOWN, the parties agree that the TOWN may arrange for such additional coverage, and the TOWN can seek reimbursement from WAA for any additional costs of such coverage. The TOWN agrees to use its best efforts to ensure no lapse of any TOWN-provided insurance coverage occurs. The TOWN shall provide evidence of insurance coverage to WAA annually, within 15 days of renewal. WAA shall also provide a copy of its Certificate of Insurance to the TOWN Finance Department, naming the TOWN as an additional insured on its vehicular and liability policies.

17. WAA PERSONNEL

Nothing in this Agreement shall prevent WAA from hiring its own personnel in place of and/or in addition to the TOWN employees.

18. EMERGENCY REQUESTS / SPECIAL APPROPRIATIONS

Any requests for additional or emergency appropriations shall be made to the Board of Selectmen, Board of Finance, and the Waterford Representative Town Meeting in accordance with the Connecticut General Statutes, and the Charter and Ordinances of the Town of Waterford.

Init. Init.

19. BILLING

WAA shall have the right to bill any person for ambulance services according to the *Maximum Schedule of Rates* as assigned by the DPH and/or the Fee Schedules promulgated by the Centers for Medicare and Medicaid Services (hereinafter, "CMS") as may be amended from time to time. WAA shall follow the guidelines set forth by the DPH for filing and processing an annual billing rate application.

20. ANNUAL ACCOUNTING

WAA shall submit to the First Selectmen, the Board of Finance and the Town Finance Director copies of its annual Financial Statements, including a Budget-to-Actual analysis, which shall be prepared by an independent Certified Public Accountant in accordance with Generally Accepted Accounting Principles (GAAP) and/or Generally Accepted Auditing Standards (GAAS).

21. LIAISON

The President of WAA or his/her designee shall act as the liaison between the TOWN and WAA. Said President or his/her designee shall also serve as the Town's representative on any other EMS boards or committees requiring such representation from the Town.

22. EMS PLAN

The parties agree that they will establish a local emergency medical services plan and that, in accordance with that plan and the requirements of PA 00-151,

DMS Init. TDS Init.

they will enter into a separate agreement between themselves and the Public Safety Answering Point (PSAP) for all 9-1-1 emergency calls within The Town of Waterford.

23. TERM

The initial term of this agreement shall be through June 30, 2016. Not less than 90 days prior to June 30, 2016, WAA and the Board of Selectmen, or their designee(s), shall meet to confirm, revise or alter the terms of the Agreement for the future year(s) as may be mutually agreed to by both parties.

24. RENEWAL

If it is mutually agreeable to both parties, the terms of this contract shall be extended for additional years as determined and agreed upon prior to June 30, 2016. A minimum of 90 days written notice by both parties is required to extend and/or cancel the Agreement. This Agreement may be renewed annually under the same provisions hereof for as many terms as mutually agreed by both parties. This Agreement may not be terminated for illegal purposes or in violation of any law or regulation governing the provision of emergency medical services.

25. TERMINATION OF SERVICES BY WAA

If WAA ceases to provide ambulance services in accordance with this Agreement, this Agreement shall be of no further force and effect.

26. CHANGES IN FUNDING AND RESOURCE USAGE

DMS Init. TPS Init.

The parties agree that in the event of a promulgation or change in insurance funding regarding the provision of emergency medical care and/or the payment practices for same, the parties shall re-open and negotiate the payment structure under this agreement, at the option of either party.

The parties further agree that in the event of a substantive change in by WAA in the usage of Town resources, the parties shall re-open and negotiate the payment structure under this agreement, at the option of either party.

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27. **WAIVER**

No waiver of right hereunder shall be effective for any purpose unless it is in writing and signed by the party waiving such right. The waiver by either party of a breach of any provision of this Agreement by the other party shall not operate or be construed as a waiver of any subsequent breach.

28. **AMENDMENT OR MODIFICATION**

This Agreement cannot be modified or altered except by written agreement signed by both parties.

29. **CONSTRUCTION**

Section headings herein are for convenience only and shall not affect the construction thereof.

30. **GOVERNING LAW**

This Agreement shall be governed by the laws of the State of Connecticut.

DMS Init. TDS Init.

Venue shall lie with the Judicial District of New London, Connecticut. In any action or legal proceeding, the Court shall apply such rule of law of the State of Connecticut, including any conflicts of law rules as may be applicable. The prevailing party in any dispute under this Agreement shall be entitled to recover its reasonable attorneys' fees, costs and expenses of litigation.

31. SEVERABILITY

The invalidity or unenforceability of any terms or provisions hereof shall in no way affect the validity or enforceability of any other terms or provisions.

32. NOTICES

All notices, requests, claims, demands and other communications hereunder shall be in writing and shall be given by hand delivery or mail (registered or certified mail, postage prepaid, return receipt requested) to the respective parties as follows:

If to The TOWN:
15 Rope Ferry Road
Waterford, CT 06385
ATTN: First Selectman

If to WAA:
P.O. Box 137
Waterford, CT 06385
ATTN: President

Or to such other addresses as either party may have furnished to the other in writing in accordance herewith, except that notices of change of address shall be effective only upon receipt.

33. COUNTERPARTS; FACSIMILE SIGNATURES

DMS Init. TDS Init.

This Agreement may be executed in two or more counterparts, each of which shall be deemed to be an original, but all of which shall constitute one and the same instrument. Facsimile signatures shall be treated as original signatures.

34. EFFECTIVE DATE

This Agreement shall be retroactive and effective as of July 1, 2010, subject to approval by the Waterford Board of Selectmen and the Waterford Ambulance Association Board of Directors and execution by an authorized representative of both parties.

Witnesses:

Kathleen M. Peterson

Kathleen M. Peterson

WATERFORD AMBULANCE ASSOCIATION, INC.

By: _____
Title: PRESIDENT

TOWN OF WATERFORD, CONNECTICUT

By: _____
Title: Daniel Steward
First Selectman

DMS Init. TMS Init.

9

Miscellaneous ordinances including tax abatement info provided by the Tax Collector

Chapter 2.108 - EMERGENCY MANAGEMENT

Sections:

2.108.010 - State of emergency—Authority to declare.

2.108.020 - State of emergency—Filing proclamation—Continuation or termination.

2.108.030 - State of emergency—Succession of command.

2.108.010 - State of emergency—Authority to declare.

The first selectman of the town is authorized to declare that a state of emergency exists within the town at any time that conditions develop that threaten the health, safety or welfare of the residents and/or extensive property damage in the community.

(R.T.M. 8-2-99 (part): prior code § 4 1/2-1)

2.108.020 - State of emergency—Filing proclamation—Continuation or termination.

Any such emergency situation proclaimed by the first selectman shall be filed in writing with the town clerk of the town and shall include the nature of the disaster and additionally the date and time that the state of emergency is declared. Copies of the proclamation shall be delivered to the other members of the board of selectmen. In the event that the state of emergency exists for a period of twenty-four hours, the board of selectmen shall notify and meet with the representative town and the moderator, majority leader and the chairman of the public protection and safety committee, hereinafter referred to as the municipal emergency committee, for purposes of reviewing the nature and degree of disaster in the community, and by a majority vote of the municipal emergency committee members present the state of emergency may be continued or terminated. In the event of continuation of the state of emergency, the board of selectmen and the municipal emergency committee shall meet at intervals not to exceed forty-eight hours until it is declared that the state of emergency no longer exists in the town.

(R.T.M. 8-2-99 (part): prior code § 4 1/2-2)

2.108.030 - State of emergency—Succession of command.

Under such emergency conditions, the first selectman of the town will assume complete command of all local government functions and public safety facilities, including school facilities and personnel. The authority of the first selectman shall be limited in disaster situations only by the governor of the state in state-declared emergencies or the President in a declared national emergency. In the event of the first selectman's absence or inability to serve, the line of succession shall be:

1. Director of emergency management;

2. Chief of police;
3. Director of fire services;
4. Director of public works;
5. Ranking officer of Waterford Police Department.

(R.T.M. 8-2-99 (part): prior code § 4 1/2-3)

(Amend. of 6-6-11(6))

2.108.040 - Preparedness agency organization.

A. *Authority, established, supervision.* By authority of Section 28-7 of the Connecticut General Statutes Annotated, there is established an agency of town government to be known as the office of emergency management; the agency to be under the direction and supervision of a local director who shall be responsible for the organization, administration and supervision of a local director who shall be responsible for the organization, administration and operation of such local organization.

B. *Appointment, powers and duties.* The emergency management coordinator, emergency management operations officer and emergency management administrative officer of the office of emergency management shall be appointed by the first selectman of the town and shall serve at the will of the first selectman, who serves as the chief executive officer of the town, and may be removed from office at any time by the first selectman or the state office of emergency management director. The emergency management coordinator, operations officer and administrative officer are management staff positions. The emergency management coordinator, who serves as director of the office of emergency management, shall report directly to the first selectman. The emergency management operations officer and the emergency management administrative officer shall report directly to the emergency management coordinator. The emergency management coordinator shall advise the first selectman on all matters pertaining to emergency management and disaster emergency operations and will coordinate the activities of all town agencies in disaster emergency situations, but in no instance shall assume command of any agency or department other than the emergency management agency unless directed by written authority from the first selectman. They will coordinate the activities of the volunteer personnel and will be responsible for recruiting and training of necessary personnel. These staff positions shall also assist the first selectman in the preparation and updating of the town

emergency preparedness operations plan and procedures. They shall maintain contact with the state emergency management office designated for the town and will cooperate with the state office of emergency management in preparation of required reports, procedures and other necessary paperwork to ensure the town receives all possible funding, equipment and other benefits or assistance through state and national emergency management. They shall perform such other emergency management related functions as may be assigned by the first selectman and shall prepare an annual budget for the agency. Funding procedure shall be to the board of selectmen, the board of finance and the representative town meeting.

(R.T.M. 8-2-99 (part): R.T.M. 6-5-89, Attachment C: prior code § 4 1/2-4)

2.108.050 - Advisory council.

A. *Formation.* An emergency management advisory council shall be established by appointment from the first selectman of the town. The advisory council shall contain representatives of town agencies and departments concerned with public safety and emergency management and shall serve in an advisory capacity to the first selectman. The emergency management coordinator, operations officer and administrative officer of the emergency management agency shall be members of the advisory council. The chairperson shall be elected from the members of the public representatives. By nature of their positions, the chief of police, director of fire services, public works director and the communications supervisor or their designated representative shall be members of the advisory council. One representative shall be from the board of fire chiefs, police commission, and superintendent of schools' office, public protection and safety committee of the representative town meeting and the Waterford Ambulance Service. Additionally, four members shall be appointed.

B. *Terms of officials.* The chief of police, director of fire services, public works director and communications supervisor or their designated representatives shall serve so long as they hold their office within the town. Advisory council members appointed from the board of fire chiefs, police commission, superintendent of schools' office, public protection and safety committee of the representative town meeting and the Waterford Ambulance Service shall serve so long as they remain members of the represented body or until removed by the first selectman. Other advisory council members shall serve for a term of four years or until removed by the first selectman. The initial terms of office shall be two for two years and two for four years from July 1, 1978.

(R.T.M. 8-2-99 (part): R.T.M. 6-5-89, Attachment D: prior code § 4 1/2-5).

(Amend. of 6-6-11(7))

Chapter 2.36 - FIRE SERVICE[2]

Sections:

2.36.010 - Repeal of former provisions.

The former Chapter 2.36 is repealed and the following is substituted in lieu thereof.

(Amend. of 6-6-11(4))

2.36.015 - Purpose.

The purpose of this chapter is to implement the intention of Waterford's voters acting through the November 2, 2010 Charter Revision vote, to eliminate the fire commission and replace it with a director of fire services administering fire services for the Town of Waterford.

(Amend. of 6-6-11(4))

2.36.020 - Acknowledgment.

The town, by the ordinance from which this chapter derives, acknowledges the existence of and value to the Waterford Community of the Fire Service, comprised primarily of volunteers of the following private fire companies: Waterford Fire Engine Co. No. 1, Inc. (Jordan); Quaker Hill Fire Company, Incorporated (Quaker Hill); Goshen Fire Department, Incorporated (Goshen); Oswegatchie Fire Company, Inc. (Oswegatchie); and Cohanzie Fire Company No. 5 (Cohanzie). Various town employees, acting together with these volunteers and organizations provide efficient, effective and invaluable fire-fighting, rescue and emergency medical services throughout the town.

(Amend. of 6-6-11(4))

2.36.030 - Structure; authority.

The fire service in its operations shall utilize the Jordan Fire Station, Quaker Hill Fire Station, Goshen Fire Station, Oswegatchie Fire Station, and Cohanzie Fire Station and any other station or substation as may from time to time be established.

A. The existing volunteer fire companies shall continue as operating entities and shall function as constituent units of the service.

B. The board of selectmen shall appoint a director of fire services.

C. The director of fire services is hereby charged with managing the fire service and with directing and being responsible to the first selectman for the coordination of all fire, rescue and emergency medical services provided within the town; however on-scene fire ground operations shall be commanded by the respective fire chiefs as well as their designated officers. Each volunteer fire company and its officers shall be responsible for operating in conformance with unified procedures established by the director of fire services, with the assistance of the fire companies.

(Amend. of 6-6-11(4))

2.36.040 - Board of fire chiefs: membership; vacancies.

The board of fire chiefs shall consist of five members; the fire chief from each of the five existing volunteer fire companies. The fire chiefs shall personally serve on the board of fire chiefs; and shall not be permitted to name designees. If a fire chief is unable to fulfill his or her duties, takes a leave of absence, and appoints an acting fire chief, the acting fire chief shall be permitted to serve on the board of fire chiefs so long as he or she is serving in the capacity of acting fire chief.

(Amend. of 6-6-11(4))

2.36.050 - Powers and duties.

A. The director of fire services shall have all reasonable powers necessary to fulfill the obligations of managing and being responsible for all fire, rescue and emergency medical services excluding on-scene fire ground operations which shall be commanded by the fire chief(s) as well as their officers.

B. The director of fire services, with assistance from the board of fire chiefs, shall establish standard policies, rules and procedures for providing fire-fighting, rescue and other emergency and safety services throughout the town as from time to time shall be deemed appropriate. Such policies, rules and procedures shall be consistent with policies and direction from the first selectman and shall comply with the Town Charter, personnel policies and applicable collective bargaining agreements.

C. The director of fire services, with assistance from the board of fire chiefs, shall coordinate the training program of the service; take appropriate steps to improve efficiency, recruitment and community awareness; develop specifications for needed

equipment and determine purchase requirements; evaluate risk management issues; develop annual budget recommendations; and develop strategic and tactical plans for future equipment and facilities.

D. The director of fire services, with assistance from the board of fire chiefs, shall plan new programs and take necessary steps to have such programs implemented and represent the service before the board of selectman, board of finance, representative town meeting, other town agencies, other state and local agencies and the general public. The director of fire services, with assistance from the board of fire chiefs, shall analyze the needs of the service and coordinate programs to meet those needs, keeping in mind the unique nature of volunteer emergency services being rendered by the volunteer fire companies.

E. The fire chiefs shall be the supervisors of the volunteer fire fighters assigned to their stations. The fire chiefs are responsible for carrying out the directives of the director of fire services and ensuring that they are followed by the volunteer fire fighters assigned to their stations.

F. The director of fire services shall make recommendations to the first selectman and fire chief respectively regarding the direction, discipline, suspension and relief from active duty of any paid employee or voluntary member in the service, subject to the provisions of town ordinances, personnel policies and applicable collective bargaining contracts. The fire chiefs shall direct full-time firefighters in providing on-scene ground operations at fire scenes and fire stations. Such on-site direction shall be performed mindful of the provisions cited above. All direction from the fire chiefs to the full-time fire fighters shall be consistent with all policies, rules, and procedures set forth by the director of fire services.

(Amend. of 6-6-11(4))

2.36.060 - Organization.

The board of fire chiefs shall meet with the director of fire services a minimum of six times per calendar year to manage and conduct the operations of the fire service.

(Amend. of 6-6-11(4))

2.36.070 - Funding of fire protection service.

A.

Full authority shall be vested in the board of selectmen to reach agreement as to the basis which will be used for funding the needs of the Waterford Ambulance Service and the purchase of equipment, apparatus and that part of the operation of each volunteer company or department which is devoted to providing fire protection and emergency medical services. If town funds are disbursed to any volunteer company or department or to the Waterford Ambulance Service, such disbursement shall be based on a need as evidenced to the board of selectmen. Such evidence shall include records of expenditures necessary to provide fire protection and emergency medical services for the previous year plus a projection of the cost of the services for the coming year.

B. Operation of fire protection and emergency medical services equipment and apparatus shall be the responsibility of the fire company to which it was assigned and shall be consistent with all policies, rules, and procedures set forth by the director of fire services.

(Amend. of 6-6-11(4))

2.36.080 - Appointment of fire marshals and deputies.

The board of selectmen shall have authority for the appointment of a fire marshal and deputies. Funding requirements for the fire marshal's office shall be included in the fire service budget.

(Amend. of 6-6-11(4))

2.116.090 - Status of paid firefighters.

Firefighters receiving direct compensation from the town shall be employees of the town, shall be under the overall supervision of the director of fire services, and shall operate consistent with and pursuant to town ordinance in support of volunteer firefighters as determined by the town's director of fire services. Paid firefighters may be assigned to a volunteer company or department only upon request or agreement of the company or department concerned, which agreement shall not be unreasonably withheld. Selection of a firefighter to fill such a position shall be made from a list of applicants, compiled by the director of human resources. All applicants must have successfully passed the town's applicant testing process administered by the town's human resources office. Consistent with these ordinances, the firefighter will be subject to the direction of the chief when providing on-scene ground operations at fire scenes and fire stations. Direction and supervision of these employees shall be in accordance with all town employment-related policies and procedures, applicable collective bargaining agreements and shall be in compliance with all applicable laws.

(R.T.M. 4-9-07: prior code § 7-10)

(Amend. of 6-6-11(8); Amend. of 8-3-15)

2.116.100 - Fire service personnel liability.

In addition to the protections otherwise provided by statute, the town shall protect and save harmless all fire service/ambulance personnel, paid or volunteer, employed in the Waterford Fire Service/Ambulance from financial loss and expense, including legal fees and costs, if any, arising out of any claim, demand or suit instituted against such fire service/ambulance personnel by reason of alleged malicious, wanton or wilful acts or ultra vires act, on the part of such fire service/ambulance personnel, while acting in the discharge of their official duty. In the event that a judgment enters against such fire service/ambulance personnel for such acts in a court of law, the town shall be reimbursed by such fire service/ambulance personnel for expenses it incurred in providing such defense and shall not be held liable to such fire service/ambulance personnel for any financial loss or expense resulting from the malicious, wanton or wilful acts established.

(R.T.M. 6-5-89, Attachment B: prior code § 7-12)

(Amend. of 8-3-15)

Firefighter Tax Abatement

Each year, before March 1, the Director of Fire Services sends a list to the Tax Collector of all firefighters who qualify for the abatement. The list is sent to the Utility Commission by the tax office. The Tax Collector verifies that all real estate and motor vehicle taxes are paid in full and that all sewer taxes are also paid. In order to qualify for the abatement, all taxes must be paid before May 1.

The list of qualifying fire fighters is sent to the Assessor's office for processing and the dollar amount of the abatement is applied to the tax accounts before the July billing each year.

The Abatement ordinance is attached.

3.12.160 - Tax abatement for volunteer firefighters.

A. Definitions.

1. "Firefighter" includes any firefighter certified as a Firefighter I or greater by the state of Connecticut Commission on Fire Prevention and Control or any fireperson appointed as a fire-police by the chief of any fire company or department to perform fire police duties per Connecticut General Statutes Section 7-313A.

2. "EMT (emergency medical technician)" means an individual who has successfully completed the requirements of the State of Connecticut, Department of Health Services Office of Emergency Medical Services, and shall include EMT-P (emergency medical technician-paramedic) and MRT (medical response technician).

B. In order to efficiently administer this abatement program, two separate processes will occur each year:

1. A determination of who is eligible for the program and their level of participation.

2. A computation of the abatement by the tax collector.

The next two subsections describe these two processes.

C. To be eligible for the tax abatement pursuant to this section for any calendar year, a firefighter/EMT must have served as a volunteer firefighter/EMT for a Waterford Volunteer Fire Company/Department for not less than one immediately preceding calendar year, or a resident of a town with whom Waterford has executed an inter-local agreement for purposes of participating in this abatement program. The director of fire services shall on or before March 1st prior to such the next fiscal year, present to the tax collector a written statement certified as correct by that firefighter/EMT's chief of a Waterford Volunteer Fire Company/Department, which statement shall include the name and address of the firefighter/EMT, and that the firefighter/EMT has been determined eligible for this abatement program. Eligibility for this abatement program will only be made available to firefighters/EMT's who are not delinquent as of the May 1st due date on any financial obligations (i.e., taxes, sewer use or assessment) to the Town of Waterford and who does not share property ownership with anyone who is delinquent on any financial obligation to the Town of Waterford. A volunteer firefighter/EMT's level of participation in the program will be determined by the number of fires/EMT calls attended during the immediately preceding calendar year expressed as a percentage of the total number of calls of the department with the lowest number of calls dispatched. The total number of calls required for each level of eligibility will be established annually by the director of fire services. Thereafter the eligibility shall be computed based on the total number of calls throughout the calendar year. In cases where a firefighter/EMT has responded to a call as to which a department other than his/her own has been dispatched, in calculating the percentage of calls attended for that firefighter/EMT, the attendance shall be treated as if it were attendance at a call to which the firefighter/EMT's own department had been dispatched, and the number of calls to which the firefighter/EMT's department has been dispatched shall, as to him/her, be increased by the same number. Years of service shall not be deemed to have been interrupted by department medical leave, by military service with the United States, or by injury where worker's compensation is received. When a person has served as a volunteer firefighter/EMT and left such service, and then returned to volunteer firefighting/EMT duty, the person shall not be eligible for the tax abatement until he or she has completed one full calendar year of service. All issues or appeals between the EMT/volunteer firefighter regarding eligibility as well as level of eligibility must be resolved prior to March 1st of the year the abatement is sought.

D. Computation of the abatement. The property taxes of each eligible volunteer firefighter/EMT of the Waterford Volunteer Fire Companies/Department (Jordan, Quaker Hill, Goshen, Oswegatchie, Cohanzie) and the Waterford Ambulance Service shall be entitled to an abatement against real and/or regular (not supplemental) motor vehicle property tax bills owed to the Town of Waterford by such firefighter/EMT. The abatement will be at different levels

established by this section as either fifteen percent, twenty percent, twenty-five percent, and thirty percent, depending upon the participation level attained by eligible volunteers. Each participation level will give an anticipated tax benefit as follows:

Participation level	Tax Benefit (+/–)
15%	$300.00
20%	500.00
25%	750.00
30%	1,000.00

E. The order of application of the tax abatement shall be first against real estate tax owing to the Town of Waterford and then the remainder against regular (not supplemental) motor vehicle taxes owing to the Town of Waterford. Tax abatements shall not accumulate and must be applied to taxes due the following July 1st or forfeited.

F. The director of fire services of the Town of Waterford shall oversee the administration of this section, review department attendance records, and maintain a record of all abatements arising from this section.

G. The tax abatement under this section shall be applicable to any real estate or regular (not supplemental) motor vehicle tax bill of a volunteer firefighter/EMT eligible for such abatement whether such property is owned individually, jointly, or as tenant in common with one or more other persons and shall reflect the extent of the eligible firefighter/EMT's ownership interest in the property, with jointly held property treated in a manner consistent with other state tax abatement programs. In the event real estate is transferred to a nonqualifying party in the applicable calendar year, the proration of the tax reduction shall be billed to the new owner in a manner consistent with C.G.S. 12-170aa(i).

H. A volunteer firefighter/EMT shall not be eligible for a tax abatement under this section unless that firefighter/EMT, during the immediately preceding calendar year, has completed and maintained as a minimum; (fire police shall maintain as noted with an *).

1. State of Connecticut Firefighter One or EMT.

2. Physical per standard N.F.P.A. 1582.

3. SCBA Fit Testing per OSHA Standard.

4. Bloodborne Pathogens per OSHA Standard.*

5. Hazmat Awareness per OSHA Standard.*

I. The abatement afforded hereunder shall terminate at the end of the calendar year in which a qualifying member dies.

J. The sale or transfer of any grand list property by a qualifying member shall disqualify the property from abatement application for the remainder of the then calendar year, on a pro-rata basis.

K. This section shall take effect April 28, 2004 and shall be applicable for tax abatement purposes to taxes owing on the Grand List of October 1, 2004, due July 1, 2005.

(R.T.M. 4-12-04: R.T.M. 10-2-00)

(Amend. of 6-6-11(10))

10

*Board of Fire Commissioners, Long Range Plan

(Added by Fire Director Chris Haley, 06/10/25)

Board of Fire Commissioners
Long Range Planning Committee

LONG RANGE PLAN

For the

Town of Waterford
Fire & Rescue Services

August 29, 2006
Revision

Forward

In 2002, a report from the Insurance Services Office was completed and submitted to First Selectman Eccard. The report showed that since the 1986 review the town fire protection classification rating has degraded from a Class 3/9 to a Class 4/9 rating. The report provided several recommendations designed to further enhance the communities fire protection. The Insurance Services Office Fire Protection Classification rating looks at the following areas: Fire Alarm Handling and Dispatching, Fire Departments and Water Supply.

The Long Range Planning Committee has incorporated most of these recommendations into this plan. The intent is to identify areas in need of improvement and foresee expected growth in the community. Additionally, we have focused on a series of goals to improve the quality of the service while enhancing the spirit of volunteerism; thereby increasing the manpower pool at a minimal cost.

We must remember that the responsibility of being a volunteer has changed significantly in the last ten years. This has become one of the most heavily regulated professions in the country. During the past decade, we have seen mandatory training requirements increase substantially while personnel wanting to volunteer have decreased. A new threat emerging is the ability of fire departments to be sued; this will have a negative impact on the service.

It is the committee's belief that in order for Waterford to be spared the costs of an adequate firefighting force, programs that enhance and reward the self-esteem of the volunteer firefighters must be instituted. If this is not done, the system will continue to suffer a serious depletion of personnel due to the economic and social pressures of our current lifestyle. In order for the Board of Fire Commissioners to maintain its charter of enhancing the volunteer system, a performance reward program is essential. We anticipate a considerable return on the communities' investment in direct personnel versus salary and benefits over the program's life.

The committee believes that with implementation of this report, a major improvement in the professionalism and proficiency in our management will be witnessed over the next five years; including the reinstatement of our Class 3 ISO rating.

Background

The Town of Waterford was incorporated in 1801 and presently has a population of approximately 19,000 people, covering approximately 37 square miles. The City of New London and the Thames River bound it on the east; to the north by the Town of Montville and west by the Niantic River that separates the town with the Town of East Lyme. To the south lies the Long Island Sound, a body of water adjacent to the Atlantic Ocean.

The Town of Waterford formerly considered a rural community is presently residential in nature with some light industry; the town's largest commercial facility being the Millstone Nuclear Power Station located on Millstone Point, consisting of Two (2) Nuclear power generating stations. The town hosts numerous shopping and retail facilities. The town also is a recreational and commercial boating center, with access to Niantic River and Long Island Sound at state boat launching facilities.

Mission Statement

The primary mission of the Waterford fire service is to provide a range of programs designed to protect the lives and property of the residents of the Town of Waterford from the adverse effects of fires, sudden medical emergencies or exposure to dangerous conditions created by either man or nature.

Organization

The Town of Waterford Charter creates the Board of Fire Commissioners. The Board of Fire Commissioners are responsible to insure the availability of fire protection and emergency medical services in addition to providing long range planning and development to meet future needs. The Code of Ordinances (Chapter 2.36) stipulates that the Board of Fire Commissioners is to be a five-member board (Representation from each of the five fire districts) appointed by the Representative Town Meeting. The Board of Fire Commissioners has authority vested in it by General Statute of the State of Connecticut.

There are five volunteer fire departments located in and serving the Town of Waterford. Each are incorporated under the General Statutes of the State of Connecticut as non-profit corporations. The Waterford Fire Engine Co. No.1, Inc. (Jordan) was incorporated on March 1, 1923; the Quaker Hill Fire Company, Incorporated, was chartered April 11, 1927 and its charter was amended October 9, 1952; the Goshen Fire Department, Incorporated (originally known as The Goshen Fire Engine Company No.1, Incorporated) received its Articles of Association January 31, 1928. On November 17, 1930, the Oswegatchie Fire Company Inc. was chartered. Cohanzie Fire Company No.5, Incorporated was chartered January 16, 1942.

An independent volunteer non-profit association provides the care for the sick and injured. The Waterford Ambulance Service, Inc. established around 1948, is located in and serves the Town of Waterford.

The fire and ambulance services responded to approximately 3,053 emergency calls in 2004. This number of fire incidents has been steady through the years with a constant increase in EMS calls, yet this does not reflect the training classes, training drills, meetings, or fire prevention activities that personnel attend during the year. Combined, the numbers would double the number of emergency calls. Mandatory certification levels have dramatically increased the required qualifications and training for firefighters in order for them to attend emergency calls as well as qualify for the Town's tax incentive offered to these qualified personnel.

The fire service provides emergency response from five fire stations that are fairly active fire departments. The following exhibit provides a summary of the types of calls received by the fire departments from the years 2000 through 2004. The types of calls are typical of what one would anticipate in a town such as Waterford.

Fire Department Calls for Service

Type of Call	1980	1985	1990	1995	2000	2001	2002	2003	2004	2005
Structural	109	60	49	54	23	32	12	27	42	
Vehicle	47	52	36	44	38	34	33	42	19	
Outdoor	189	106	58	51	56	78	50	40	27	
Fire Alarms	137	502	473	403	232	163	240	229	312	
Accidents	146	215	170	214	260	267	270	336	295	
Search & Rescue	11	13	20	15	7	4	4	8	23	
Hazardous Materials	30	47	64	54	66	69	56	73	79	
Carbon Monoxide	0	0	0	31	19	16	15	22	19	
Utility Emergencies	9	9	16	44	64	52	47	63	34	
Mutual Aid	26	17	34	24	17	26	22	24	14	
Miscellaneous	18	52	131	114	202	245	194	203	171	
TOTAL FIRE	*722*	*1,073*	*1,051*	*1,048*	*984*	*986*	*943*	*1,067*	*1,035*	*0*
TOTAL EMS	*908*	*1,134*	*1,381*	*1,603*	*1,805*	*1,788*	*1,787*	*1,999*		
GRAND TOTAL	***1,630***	***2,207***	***2,432***	***2,651***	***2,789***	***2,774***	***2,730***	***3,066***	***1,035***	***0***

Time of Day / Day of Week - Total Calls 2004

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total	
0	7	13	7	9	6	9	15	**66**	
1	17	3	7	11	7	5	14	**64**	
2	6	4	12	10	10	9	18	**69**	
3	10	10	6	7	6	3	11	**53**	
4	6	7	5	2	9	8	13	**50**	
5	6	8	4	5	7	6	4	**40**	
6	11	11	15	15	11	12	10	**85**	
7	16	16	16	11	10	21	15	**105**	***532***
8	20	21	16	18	21	27	20	**143**	
9	18	27	21	28	25	22	21	**162**	
10	19	29	26	29	25	30	20	**178**	
11	25	28	24	29	25	28	35	**194**	
12	30	27	35	30	23	25	27	**197**	
13	22	30	35	25	26	25	30	**193**	
14	24	31	27	20	21	32	24	**179**	
15	26	36	24	24	31	28	18	**187**	***1,433***
16	21	22	23	17	22	38	21	**164**	
17	18	22	25	25	22	36	22	**170**	
18	12	23	25	21	18	23	20	**142**	
19	12	21	20	21	23	27	25	**149**	
20	19	25	17	19	20	22	18	**140**	
21	18	17	12	16	24	27	22	**136**	
22	10	12	21	13	15	14	18	**103**	
23	12	4	8	12	9	18	21	**84**	***1,088***
Total	**385**	**447**	**431**	**417**	**416**	**495**	**462**	**3,053**	

Public Expectations

The community has been very supportive of the services provided. Evidence of this is by overwhelming support received at various and numerous public safety events, fire prevention activities, fundraisers and the donations received for the toy and food drive that are conducted by the fire service. The fire and EMS services take great pride in knowing that we can provide a rapid and effective response with the diversity to mitigate any emergency and that it will be cost conscience and reliable, all of which the community has voiced as an expectation when in need of our services. The expectations of the personnel are for professional conduct with empathy and to do a quality job in a fair, friendly and consistent manner, all of which are goals for our services attained through training and experience.

Homeland security has placed a new aspect of training to the fire and EMS services with the threat of terrorism and biological catastrophes made aware of us due to the events of September 11, 2001. Since that date, our service has grown to incorporate more training on equipment dedicated to handling emergencies involving terrorism and biological/contaminated objects along with the implementation of the National Incident Management System and recertification training in these disciplines.

The community continues with a major growth spurt in both residential and business properties. Major shopping centers have been built or renovated, numerous single-family houses have been built and another major condominium complex is nearing completion. Both major Interstate Highways have seen a tremendous increase in vehicular use and the number of people in our community is nearly doubled during the daytime hours and on weekends. During the Thanksgiving through Christmas period, the number of nearly tripled with people visiting Waterford. Proof is shown in the number of emergency calls increasing and the Police Department providing additional staffing during this period.

Fire Management Areas

Those commercial areas with a value in excess of one million dollars, densely populated neighborhoods, and residential areas with no fire hydrants:

Jordan: Waterford Shopping Center, Boston Post Road & Clark Lane Business and Shopping Area, Waterfall Shopping Area, Jordan Village Area, Mago Point Area, Millstone Training Center, Myrock Avenue Area, Fog Plain Road Area, Governor's Landing, Jordan Commons Condos, Rope Ferry Condos, Longview Village Condos, Stoneheights Condos, Civic Triangle Buildings, Waterford High School, Clark Lane Middle School, Southwest Elementary School, Friendship School & Community Campus, Bayview Healthcare, Haven Healthcare, Fountainview Healthcare, AHEPA Housing, Yorkshire Drive Housing. (23)

Quaker Hill: Quaker Hill Shopping Mall, Quaker Hill Village Area, UBS Lumber Yard, Bloomingdale Road & Applewood Drive Residential Area, Quaker Hill Elementary School, Old Norwich Road Residential Area, Scotch Cap Road Condos. (7)

Goshen: Harkness Park Area, Seaside Area, Pleasure Beach Area, Ridgewood Park Area, Jordan Cove, Hendel's Commercial Area, Eugene O'Neill Theater Area, The Strand, Millstone Nuclear Power Station, Presidential Heights, Westwood Residential Area, Great Neck Elementary School. (12)

Oswegatchie: Boston Post Road Business Area, Cross Road Centre and Commercial Area, Sonalyst Studios, ABCO Business Area, New Medical Facility, Oswegatchie Elementary School, Cross Road Residential Area, Oswegatchie Road Residential Area, Niantic River Road Residential Area, Bridges at Cross Roads Facility. (11)

Cohanzie: Hartford Road (I-95 to I-395 Commercial Area, Cohanzie Elementary School, Industrial Drive Area, Cross Road Industrial Area, Waterford Village Residential Area, Twin Lakes Drive Residential Area, Greentree Manor Healthcare, Waterford Country School Area, Vauxhall Street and Meadow Drive Residential Area, Mary Street Residential Area, Waterford Speedbowl. (11)

Department Administration

Each fire district has it's own administrative structure that reflects that particular department's mission, goals and objectives. The primary purpose of each organization is to effectively combat the perils of fire that occur within the respective fire districts. This holds the same for the allocation of resources. The elected fire chief is responsible for the management and operation of the fire department including the supervision of the volunteer and full time employees assigned to the department, training, maintenance of apparatus and facilities, budget preparation and liaison with the Board of Fire Commissioners.

All efforts are made to be compliant with established requirements of local, state and federal authorities. This effort requires a great deal of time on behalf of each company's administration. It is the opinion that, the requirements, being as difficult as they are to be kept within full compliance; the efforts of the Waterford fire departments exceed numerous volunteer fire departments statewide.

Each fire company operates under their own particular By-laws that are very different from station to station. In general most of their personnel functions, roles and responsibilities are pretty well defined, either in the By-laws or within an existing organization summary and/or chart.

Each company is dedicated solely to volunteer fire-fighting activities for the benefit of the Town. The fire companies operate independently, although provision is made for mutual aid among the companies. The Waterford Fire Officers Association (a volunteer association) serves to centralize and coordinate the efforts of the fire companies and exists to serve the common purposes of the companies and the general welfare of the community. The association has no legislative powers as such; its expression of opinion is merely that, and binds no volunteer firefighter or volunteer fire company.

Financial Resources

As the Town of Waterford continues to urge financial discipline, the fire service still needs to provide effective, efficient, and safe protective services that prevent fires, reduce risk to lives and property, deal with incidents that occur, and prepare for anticipated incidents. The scope and level of services need to be determined so the necessary level of funding may be achieved, including personnel, resources and facilities.

The budget process begins with each fire department submitting a proposed budget to the Board of Fire Commissioners. The commission reviews and approves the budget of each department by meeting with representatives of the department and then prepares a master budget document that includes the five Fire Departments, the Ambulance Service and the Fire Marshal's Office that is then transmitted to the Board of Finance for consideration and review. When approved by the Board of Finance, it is then passed on to the Representative Town Meeting for their consideration and final approval.

It is recognized that in general the true value of the fire service is understood more for its social gathering than in true financial terms. Since the early 1990's the fire departments have been held to very minimal operation budget increase, yet the costs associated with equipment and apparatus have increased exponentially. Just a few years, a single self-contained breathing apparatus (SCBA) cost approximately $1,900; today an SCBA cost approximately $3,500. These types of cost increases have exceeded the minimal budget increases that have been allowed. This forces the fire departments to make purchases based on priorities and abandons the replacement programs that have been designed for firefighter safety. The following is evidence to that fact:

Fire Company	FY96 Budget	FY06 Request	Difference
Jordan Fire Company	$119,000	$131,580	10.6%
Quaker Hill Fire Company	$113,800	$116,210	2.1%
Goshen Fire Company	$86,950	$93,200	7.2%
Oswegatchie Fire Company	$121,876	$128,349	5.3%
Cohanzie Fire Company	$119,000	$130,230	9.4%

Planning Process

The planning Committee was different from the standard consultant approach. A previous study was conducted using a facilitator. A lack of participation and focus by several members of the local study groups created a roadblock for the facilitator. This situation resulted in the composition of a document with less than optimal results as suggested by numerous members of the fire service.

A master planning process involves several steps that were followed in developing this plan. There is no exact system or model for the fire service, but there are numerous nationally recommended standards and available resources to utilize as framework for this master plan. The implementation of this plan requires absolute support from all agencies involved as it encroaches on both areas of strategic and operational planning. ~~There is no claim that the product of this master plan is of the author's ideas.~~ Everything composed is taken from what is considered to be the best reference documentation on the subject and mutually accepted by the entire Long Range Planning Committee.

The committee reviewed the facilities, apparatus, and staffing structure of the fire service. During the course of this research, it became apparent there are many skilled and motivated volunteers. ~~However, there is a concern with some of the ongoing conflict within the fire service and the understandable reluctance of some personnel to consider changes in methods of operations.~~

Fire Service Planning

A number of factors should be considered when planning for the future of the fire service. From target hazard perspective, in addition to over 8,000 single-family residences and numerous retail centers, the town has a number of facilities that present potential fire and life safety concerns:

- ~~10~~ 9 schools
- 12 churches
- 4 nursery and day care centers
- 4 assisted living/nursing homes
- 4 senior housing facilities
- 4 motels with approximately 93 units
- 7 condominiums/apartment complexes with approximately 651 units
- 9 group homes
- 2 interstate highways
- 2 railway lines
- 4 State roadways
- 2 Nuclear Power stations

Hazardous materials are being transported, stored, used in manufacturing, and sold in several areas of the town. Potential (and actual) technical rescue incidents include trench and building collapse, confined space, multiple vehicle crashes, and radiological releases. Natural and human-caused disasters are also possible.

The potential for serious fires and complex Hazardous materials and technical rescue incidents exists, given the number of large facilities and target hazards. Thus, the comprehensive fire prevention, life safety, and public safety education efforts of the fire departments, the Fire Marshal's Office, the Building and Planning department, are especially important.

While the population growth will not be a significant factor in the foreseeable future, the population is aging. Without significant new growth and a substantial movement of young families into the town, the result will be increased numbers and percentages of older residents who will have a greater need for emergency medical services.

Implications for fire protection in the Town of Waterford are clear: comprehensive fire prevention, general safety, and public education programs should continue to be emphasized, and the emergency response services and capabilities of the Waterford fire services must be kept strong.

Planning Criteria

Response and performance objectives should be developed as a means of helping to make informed decisions for fire service and EMS functions. Objectives for these two functions have been based on two nationally accepted concepts, brain death and fire growth. These two concepts provide satisfactory benchmarks for response times.

Brain death is defined as a critical point in time when breathing stops, the brain undergoes potential irreversible damage within four to six minutes without oxygen. After ten minutes without oxygen the chances of survival are minimal. The fire service provides first responder emergency medical service when a district ambulance is unavailable.

The "flashover" stage of fire growth is another critical point when fire departments want to arrive and deploy their resources. Regardless of the speed of growth, or length of burn time, all fires go through the same stages. The three stages of burning are the smoldering stage, the incipient stage, and the flashover stage. The "Flashover" stage of a fire marks the turning point in fire conditions.

In low hazard occupancy, flashover is a critical stage of fire growth for two reasons. First, no living thing in the room or origin will survive, so a chance for firefighters to save lives drops dramatically. Second, flashover creates a quantum jump in the rate of combustion, and a significantly greater amount of water is needed to reduce the burning material below its ignition temperature. Flashover also creates the need for more firefighters to handle larger hose streams to extinguish the fire. A post-flashover fire burns hotter and moves faster, compounding the search and rescue problems in the remainder of the structure.

Predicting when flashover occurs is fairly easy to do. Tests have been conducted and conclude that flashover occurs between six and ten minutes of ignition. Measuring flashover is a function of time and temperature. Fire growth occurs exponentially; fire doubles itself every second of free burning that it is allowed.

Here is a quick comparison of fire conditions and firefighting operations before and after flashover:

Pre-flashover	Post-flashover
Fire is limited to one room	Fire may spread beyond one room
Firefighters operate using small hand lines	Larger and more hand lines are needed
Search and Rescue easier	Search and Rescue is compounded
Initial resources can handle the fire	Incident requires additional resources

All should agree that the concept of time is very important to emergency response. In an emergency there are many components of time - ignition, heart cessation, dispatch processing, firefighter donning safety clothing, and travel time. All these taken together provide for a total reflex time for emergency response.

While looking at these time lines it is important to also establish "performance objectives" that currently do not exist. These objectives need to compare to brain death and flashover benchmarks. The following objectives are being used to perform this exercise:

Standards for Response Coverage

- Respond to 95% of all calls for emergency assistance within 5 minutes of dispatch.
- Provide a minimum of 11 firefighters for initial attack to structural fires within 10 minutes of dispatch.
- Provide a minimum of 21 firefighters for sustained attack to structural fires within 20 minutes of dispatch.

Utilizing these "Standards for Response Coverage" objectives is where the distribution and concentration components come into play. Distribution deals with where we geographically place the proper resources to handle the routine emergency. Following the brain death and flashover benchmarks, it would be reasonable to say that these response goals should provide the first-due unit for either providing basic life support or advancing the first hose line in for fire control or rescue. Concentration is the spacing of multiple resources so that an effective response can be assembled on-scene within a stated performance standard. We presently meet this goal with our current deployment arrangement.

Fire Station Locations

Excessive travel times may mean an increased risk to the public experiencing an emergency. The basic deployment concept for a fire department calls for stations to be located to form an orderly pattern or network of stations from which an emergency service is delivered in a timely manner. The network as a whole seeks to optimize coverage with short travel distances, while giving special attention to natural and man-made barriers that can create response time problems. Because fire stations last for fifty years or more, location has a long-term effect on the community to be served. The apparatus section should also be considered when establishing station locations based on several principles that are utilized for apparatus deployment.

In an effort to evaluate a station location you must consider the street network and traffic patterns and how they effect response times. Keep in mind that fire apparatus is large and heavy and the following items must be considered:

- Condition of roads
- Access and direction of thoroughfares
- Navigable neighborhood streets
- Cul-de-sacs, barricades, railway crossings, and bridges

There are written standards that provide response time guidelines for the fire services to utilize as performance objectives. In general the National Fire Protection Association standards require that your full first alarm assignment should be on scene within 8 minutes of the alarm being received. This response time should be achievable for not less than 95 percent of a fire department's responses. These guidelines are a planning tool that should not be overlooked, but is setting a very high bar for volunteer fire departments to achieve. The Firescope, Inc. study demonstrated that the existing fire station network is adequate to meet the performance objectives of these response time standards.

During severe weather emergencies, the town's emergency plan calls for the combining of Task Forces, comprised of Police, Public Works, Fire and Medical personnel and resources into the five fire districts. Each district is responsible for mitigating emergencies in these geographical

population centers of the town, along with the sheltering of residents. This includes keeping the towns roadway infrastructure clear of debris and assisting the residents with and special needs that can be obtained. The current distribution of fire companies is sufficient to support the Task Force concept. The strategic positioning of companies allow for maximum draw on populated areas while reducing response time. Historically the Task Force concept has worked very well.

The committee agrees with the fire station locations, as it pertains to response times, set forth by Firescope.

The remainder of this section that has been underlined is taken directly from the Firescope, Inc. study:

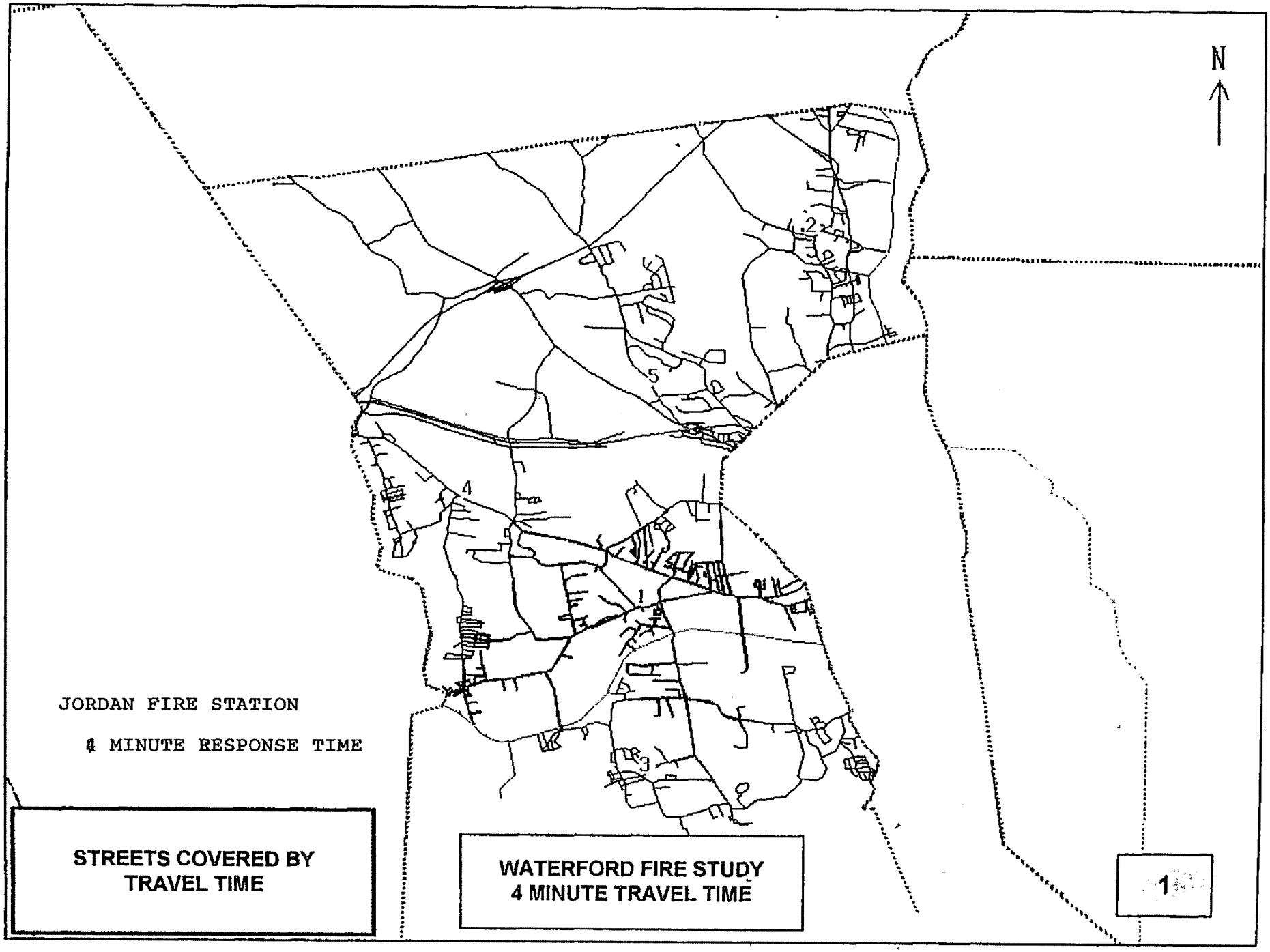
Firescope, Inc. utilized a geo-based computer program that calculates and displays the street network of the area under study. The computer output displays the actual street network of the area under study with the various aspects of the study shown in color. The computer program is an integrated program that accurately models an emergency vehicle response over a street/highway network using actual speeds and distances. The actual speeds are based on fire department input and historical response data.

Unlike grid and concentric circle analysis, the computer program simulates the real road network of the area being analyzed. A high degree of accuracy is insured by using actual travel distances, vehicle speeds, factoring time delays for roadway conditions (congestion, turning radius, weather, hills, etc.) accounting for one way or unusable roadways and implementing user defined risk factors.

The results are shown in a series of color maps of the street/roadway network that are easy to comprehend which show the response areas for each station and the overlap between stations.

The street network that is used as a basis for the study is taken from maps and data that are produced by the U.S. Census Bureau. These are actual scaled maps that have data attached to them. Each street segment is assigned a travel speed. The speeds modeled by the map will be compared with actual travel times to determine the accuracy of the network that is used for the study. Firescope, Inc. obtained a base map for the Town of Waterford and then calibrated it to reflect actual travel times.

Following the calibration a series of color maps were produced to show the coverage provided by each of the five fire stations for a specific travel time increment. Firescope, Inc. produced a series of 30 maps for review by the Committee. The following is a list of the maps that were reviewed. Copies of the maps are included with the report. Please note that the maps show travel time only. Travel time is defined as: The time from wheel start to wheel stop.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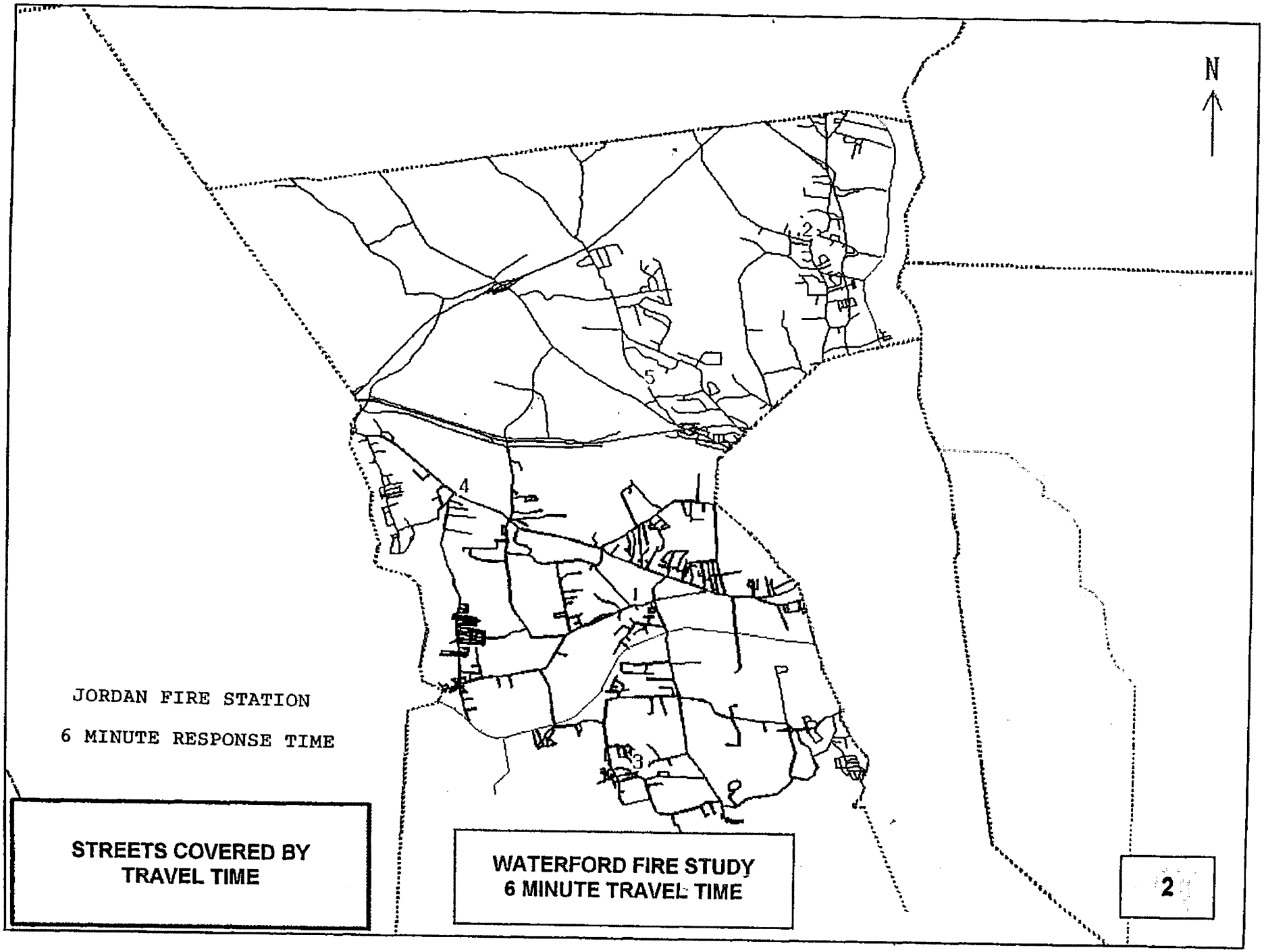
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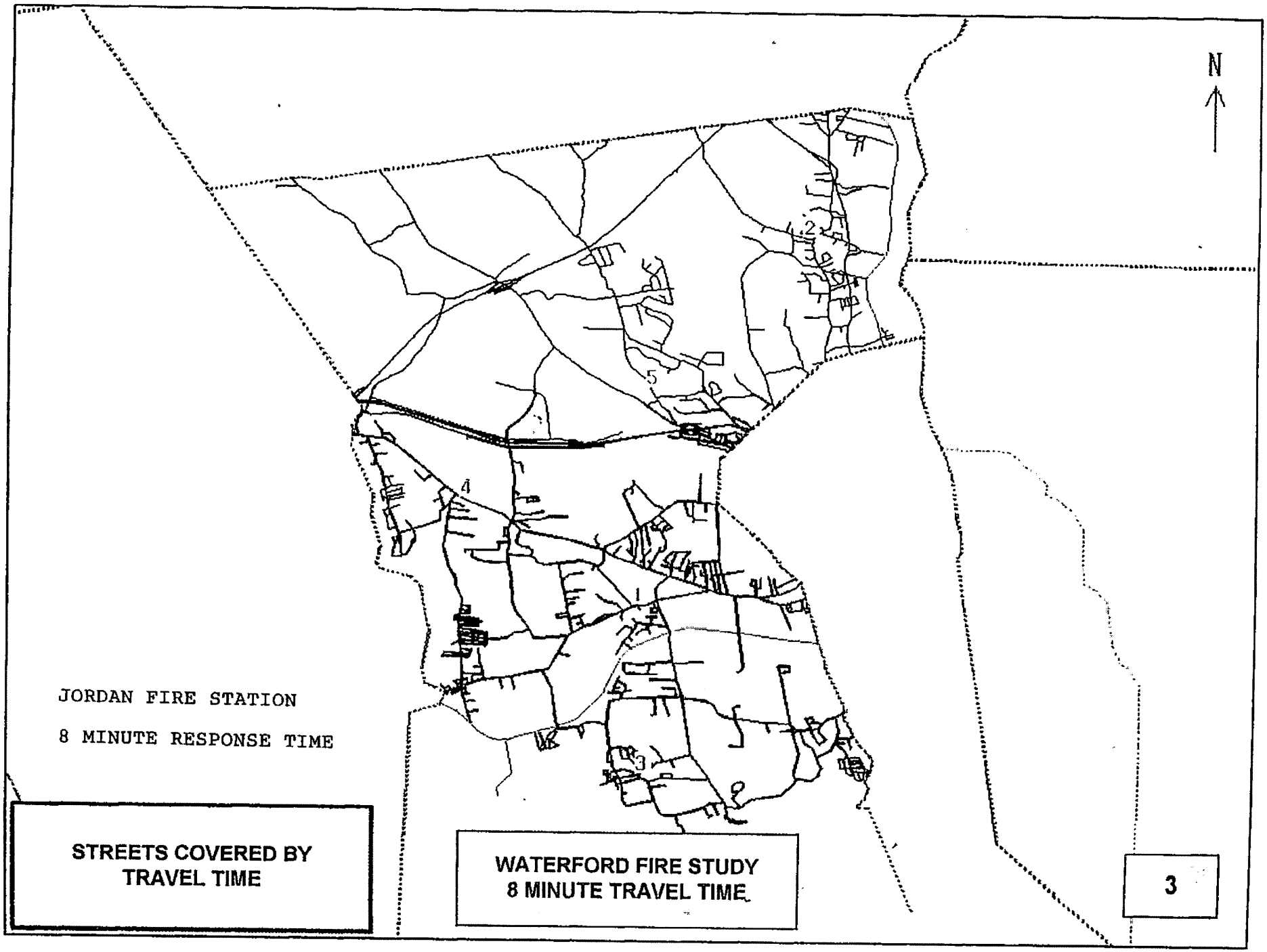
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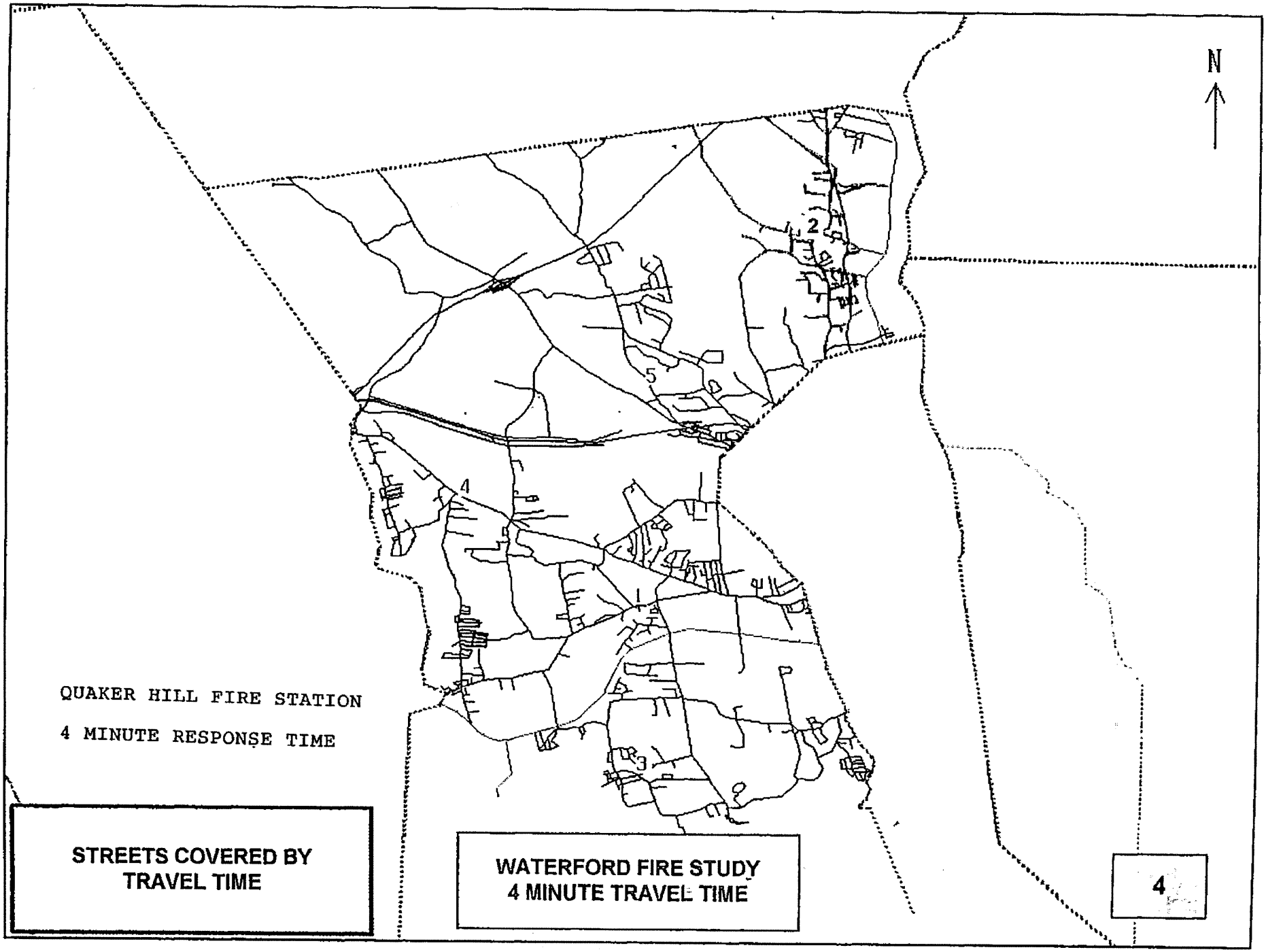
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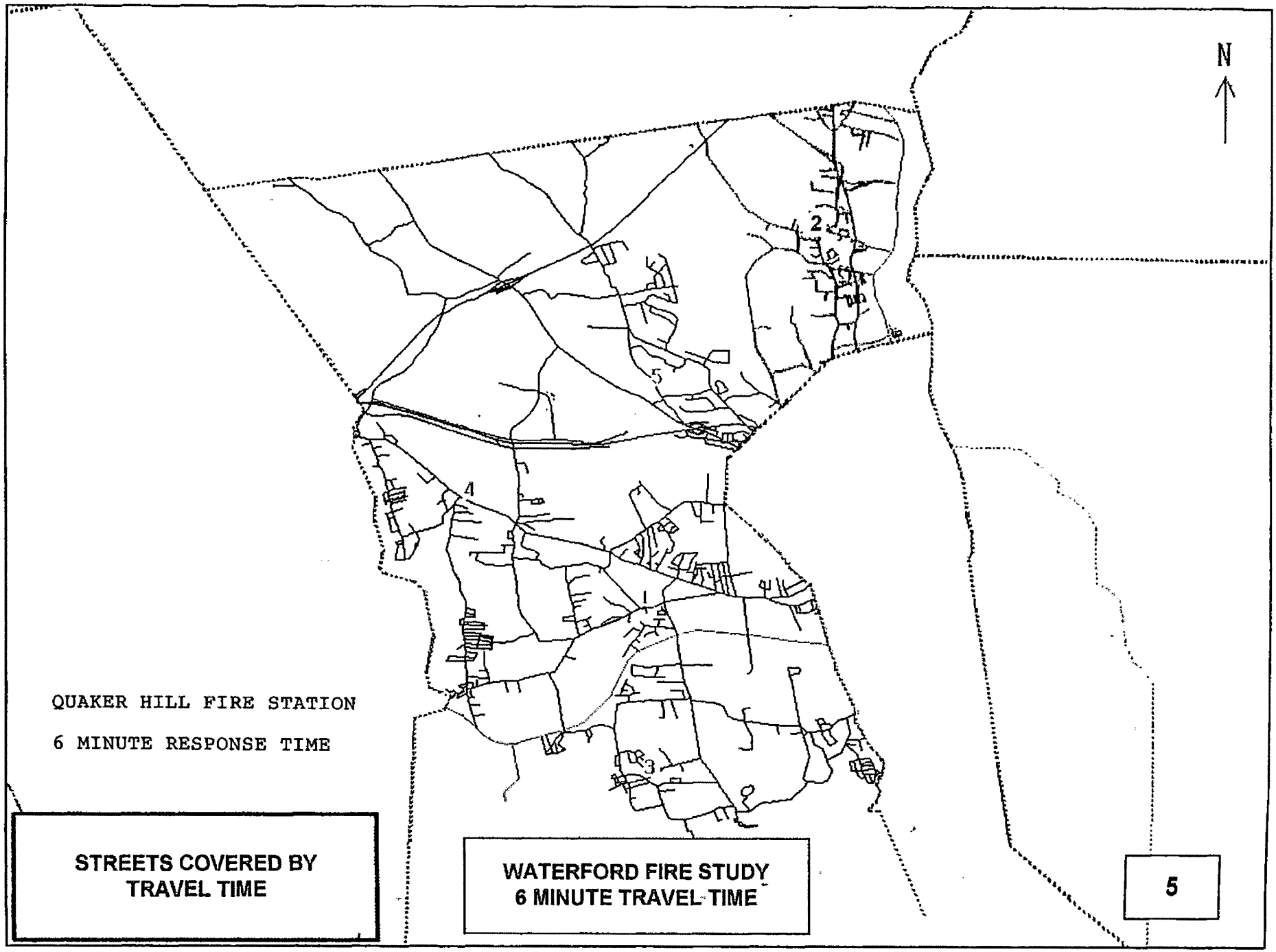
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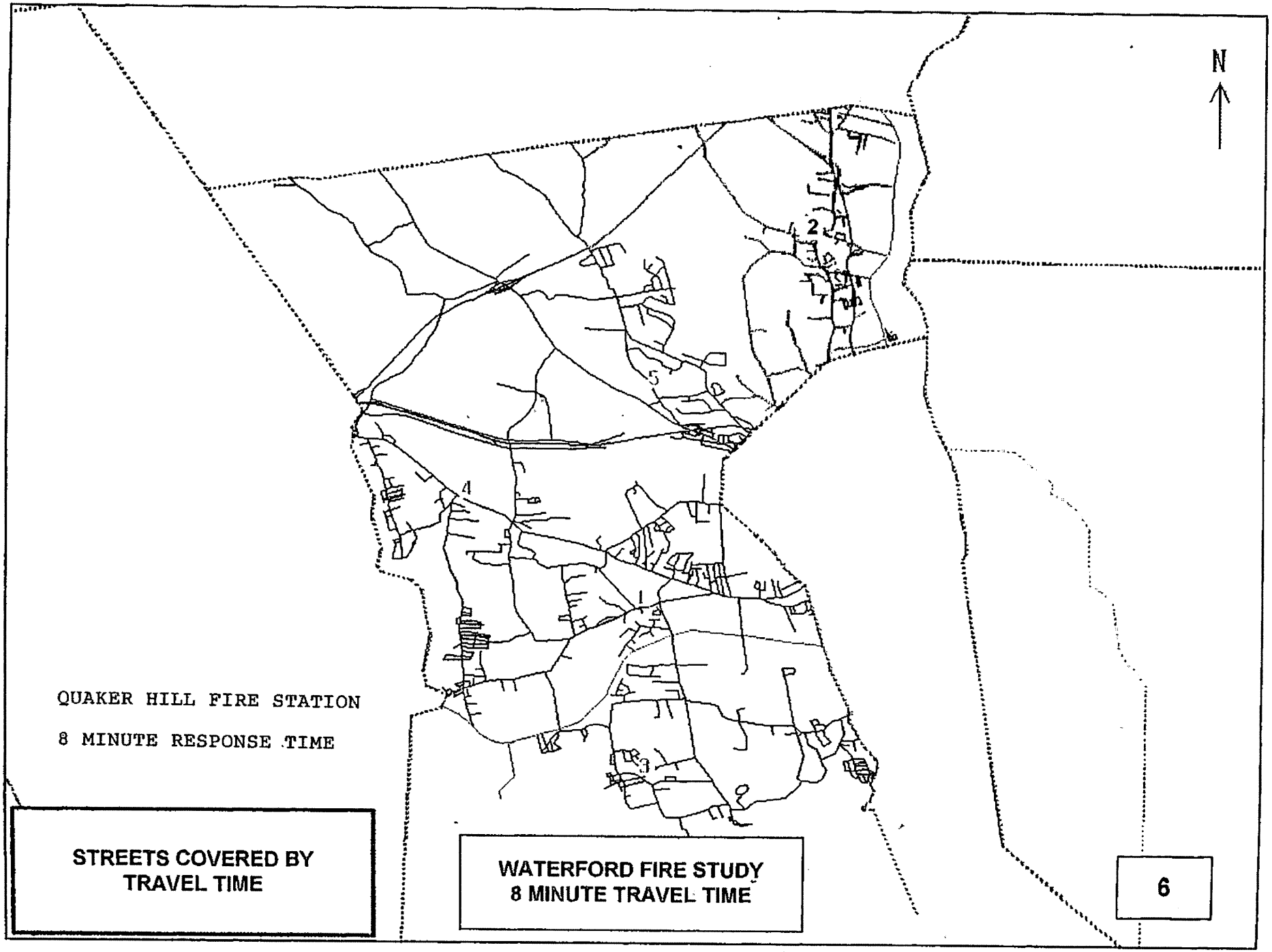
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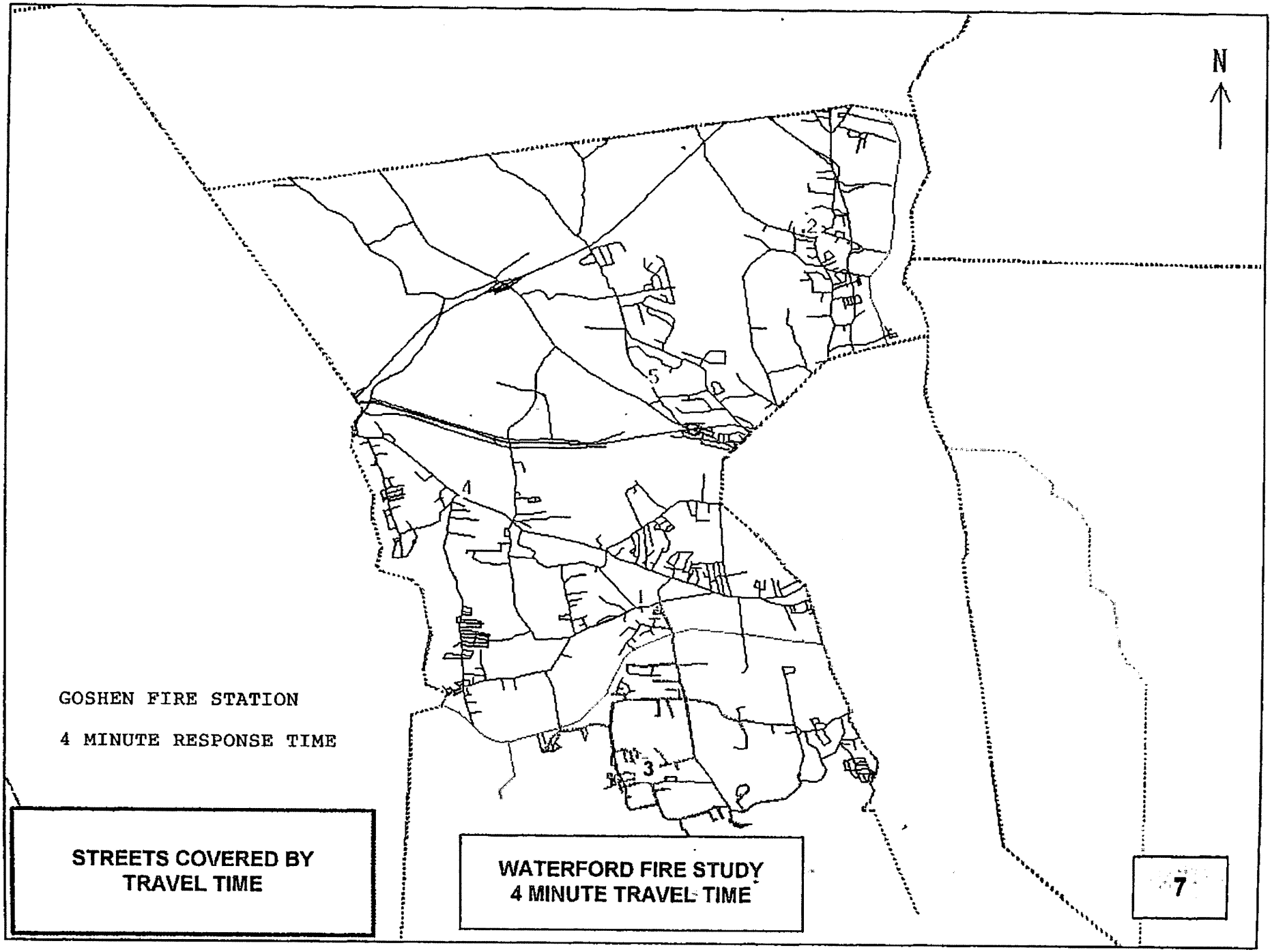
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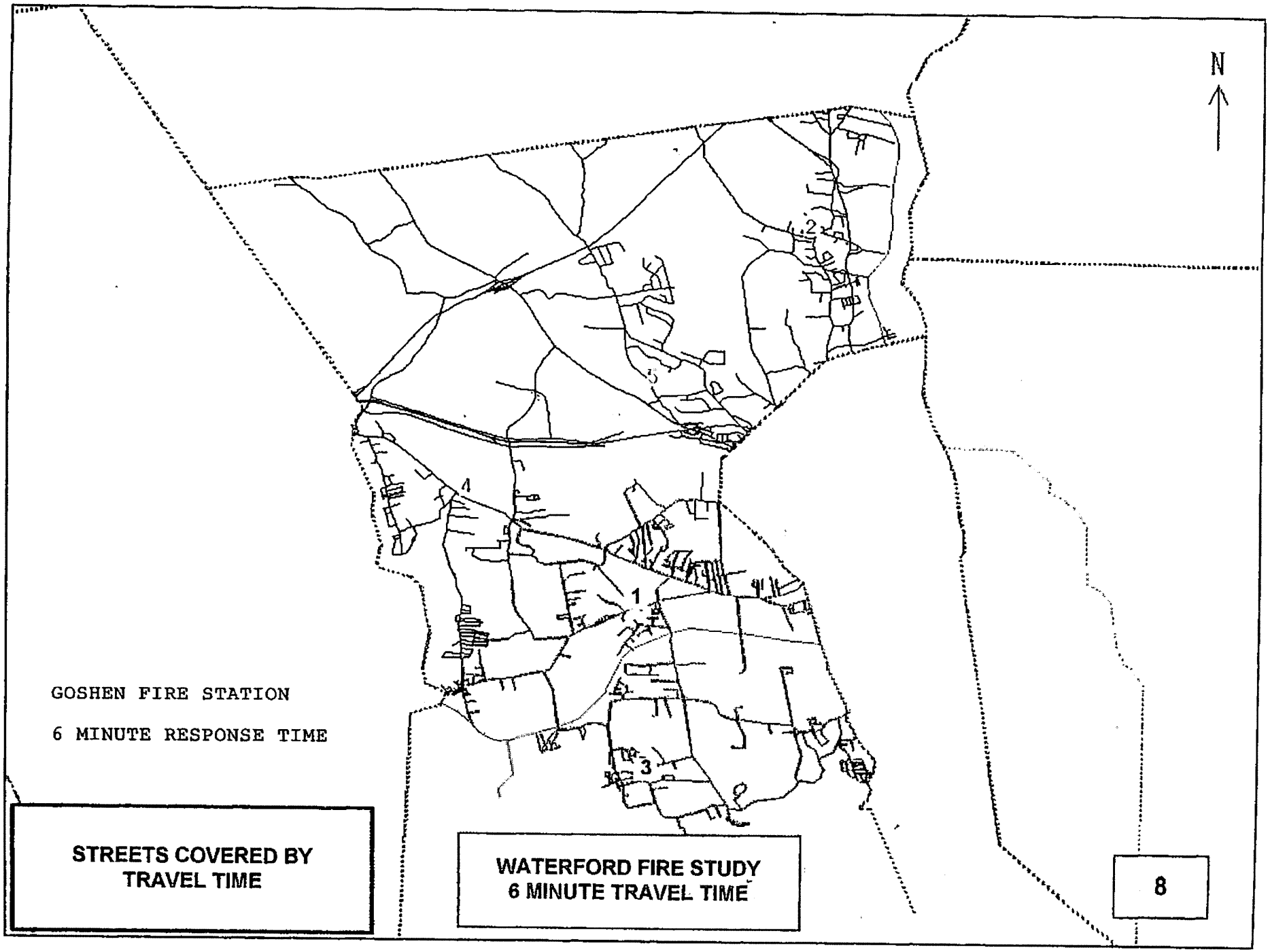
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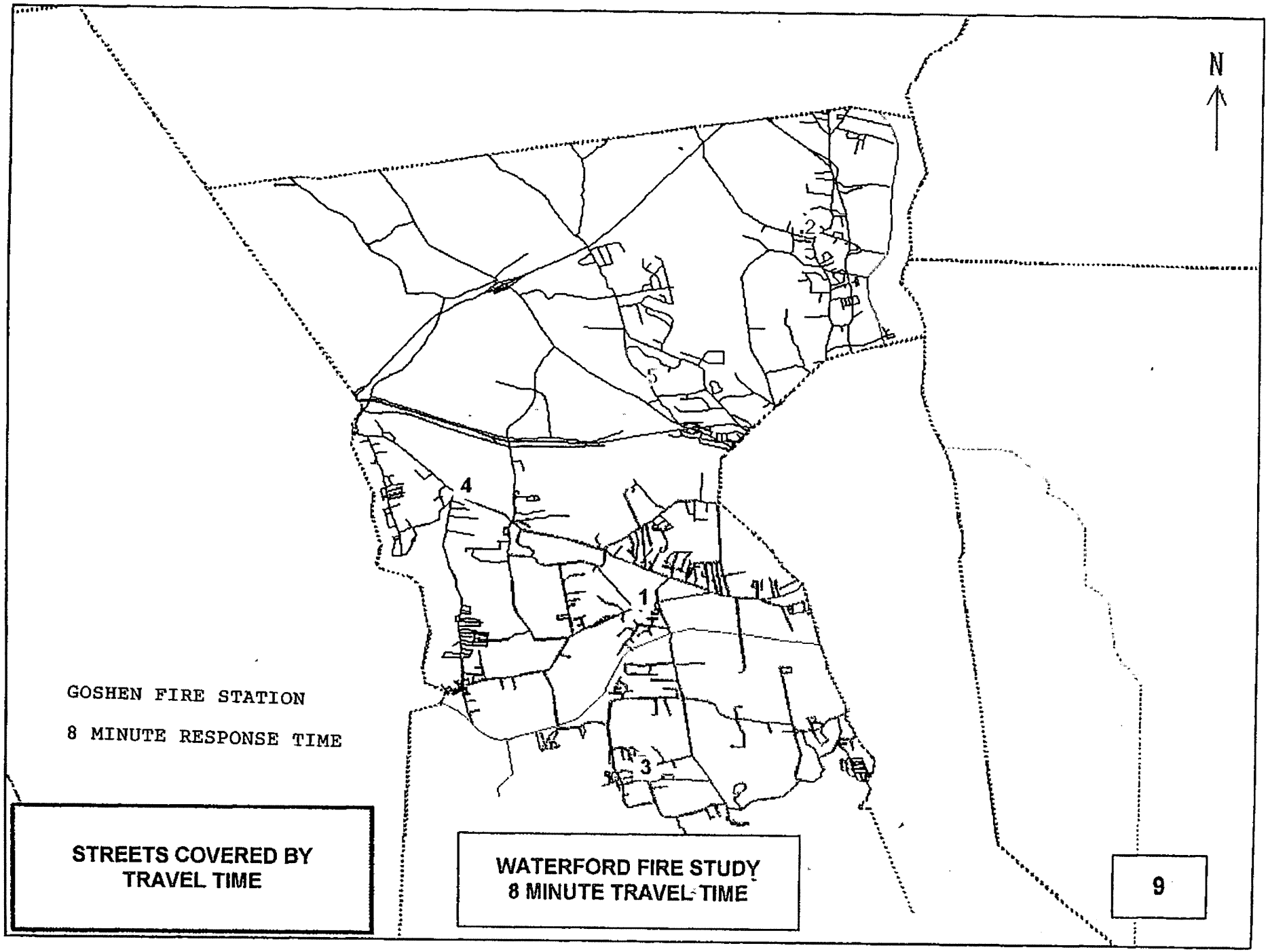
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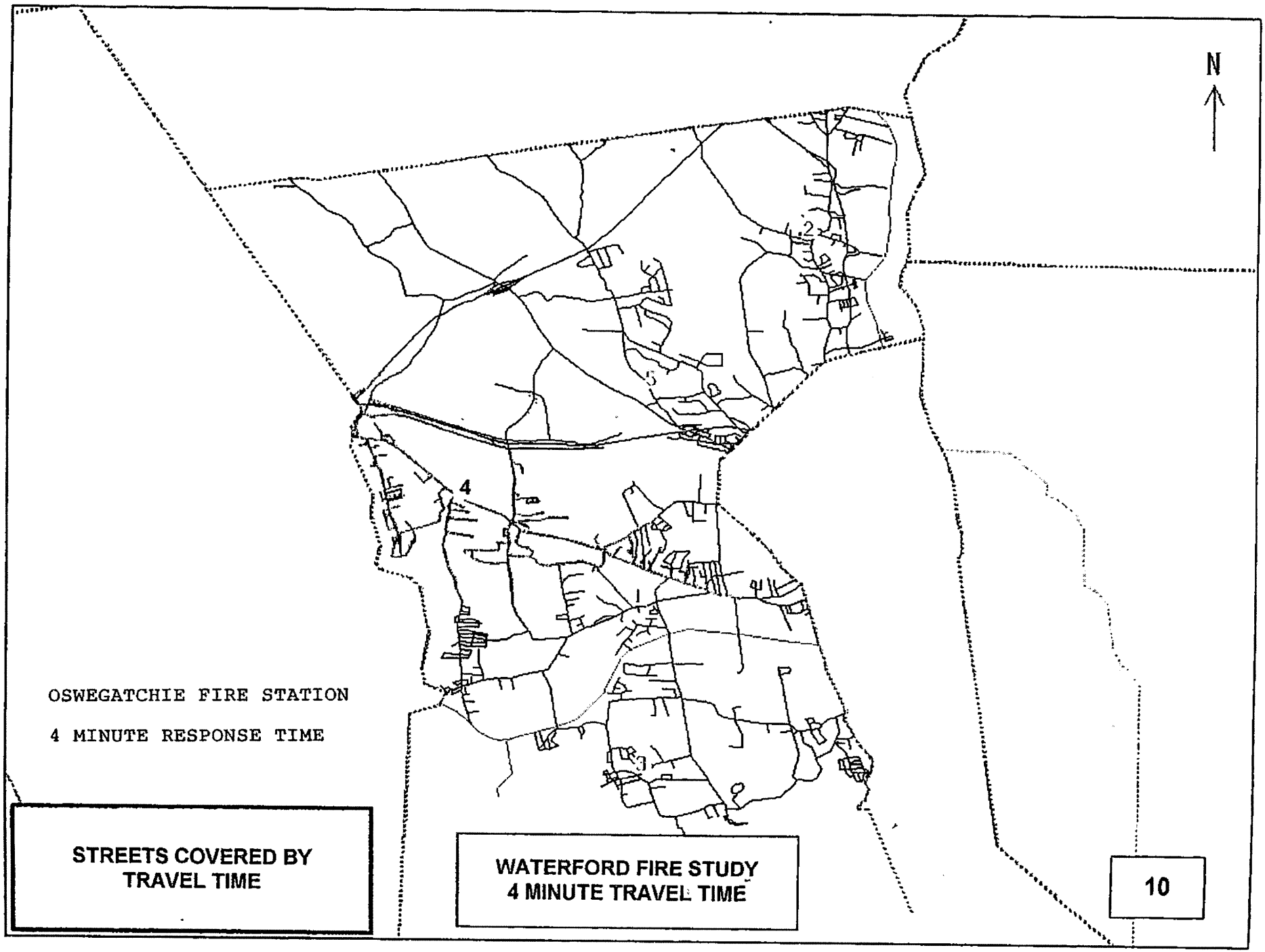
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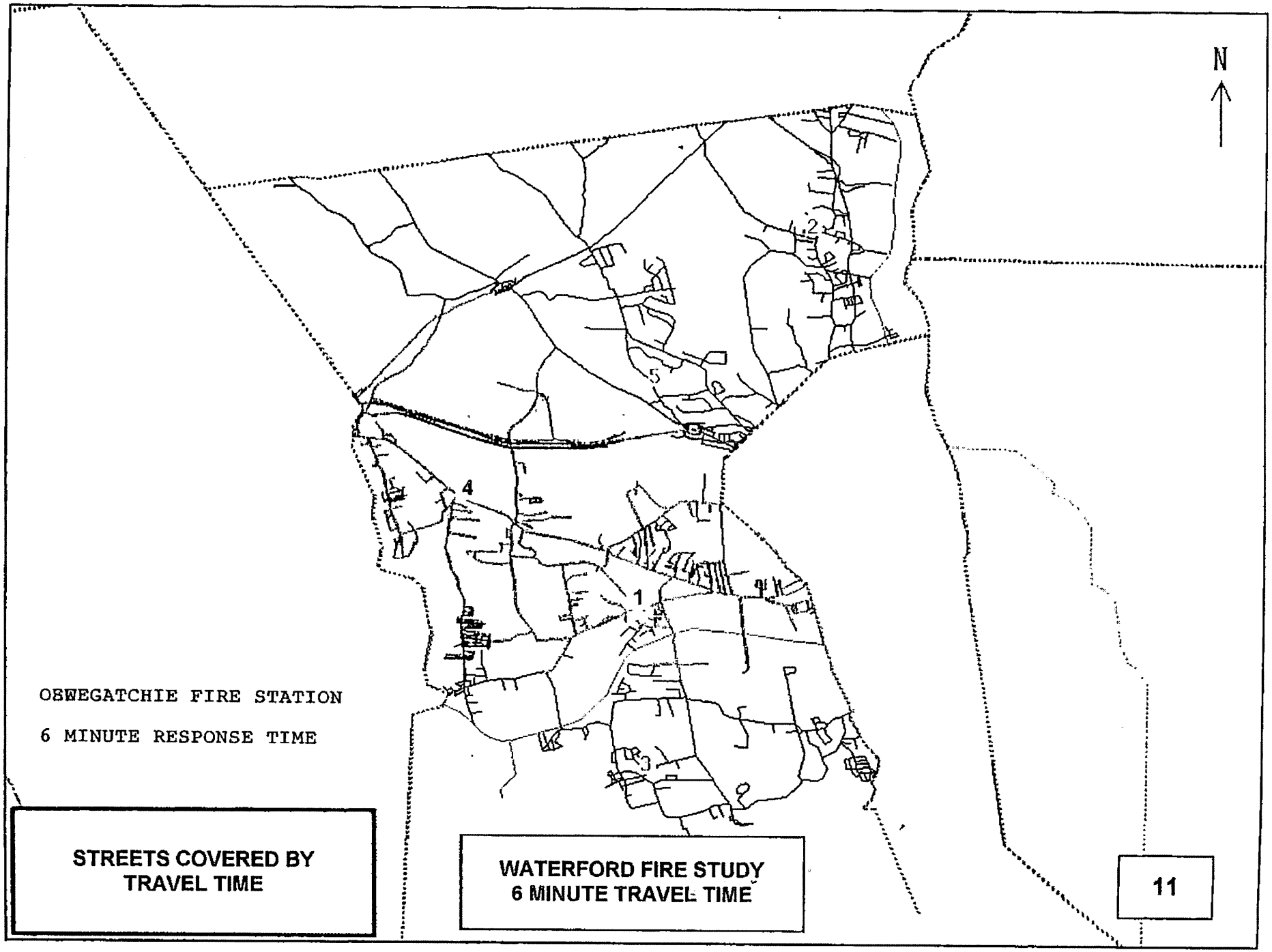
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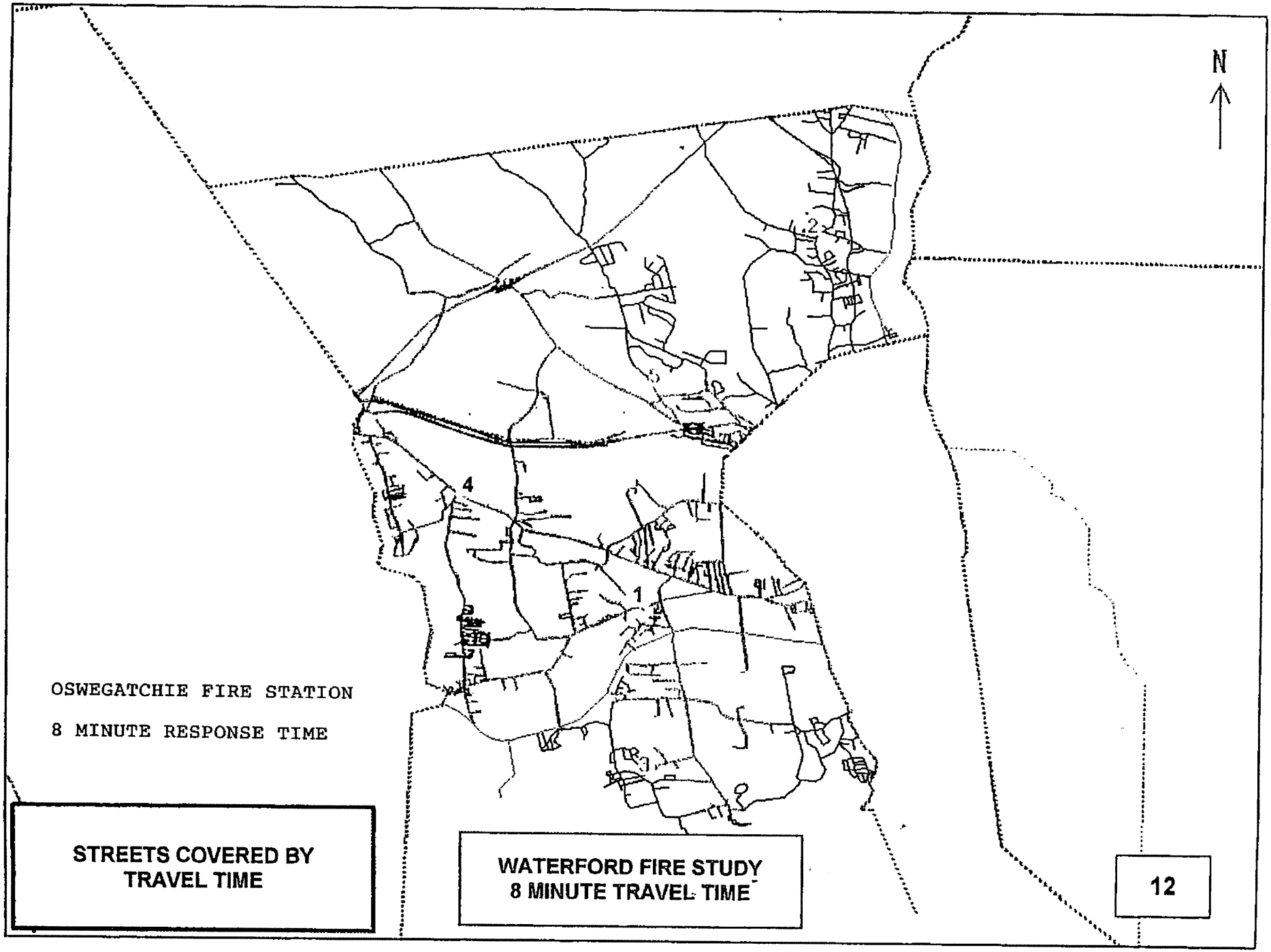
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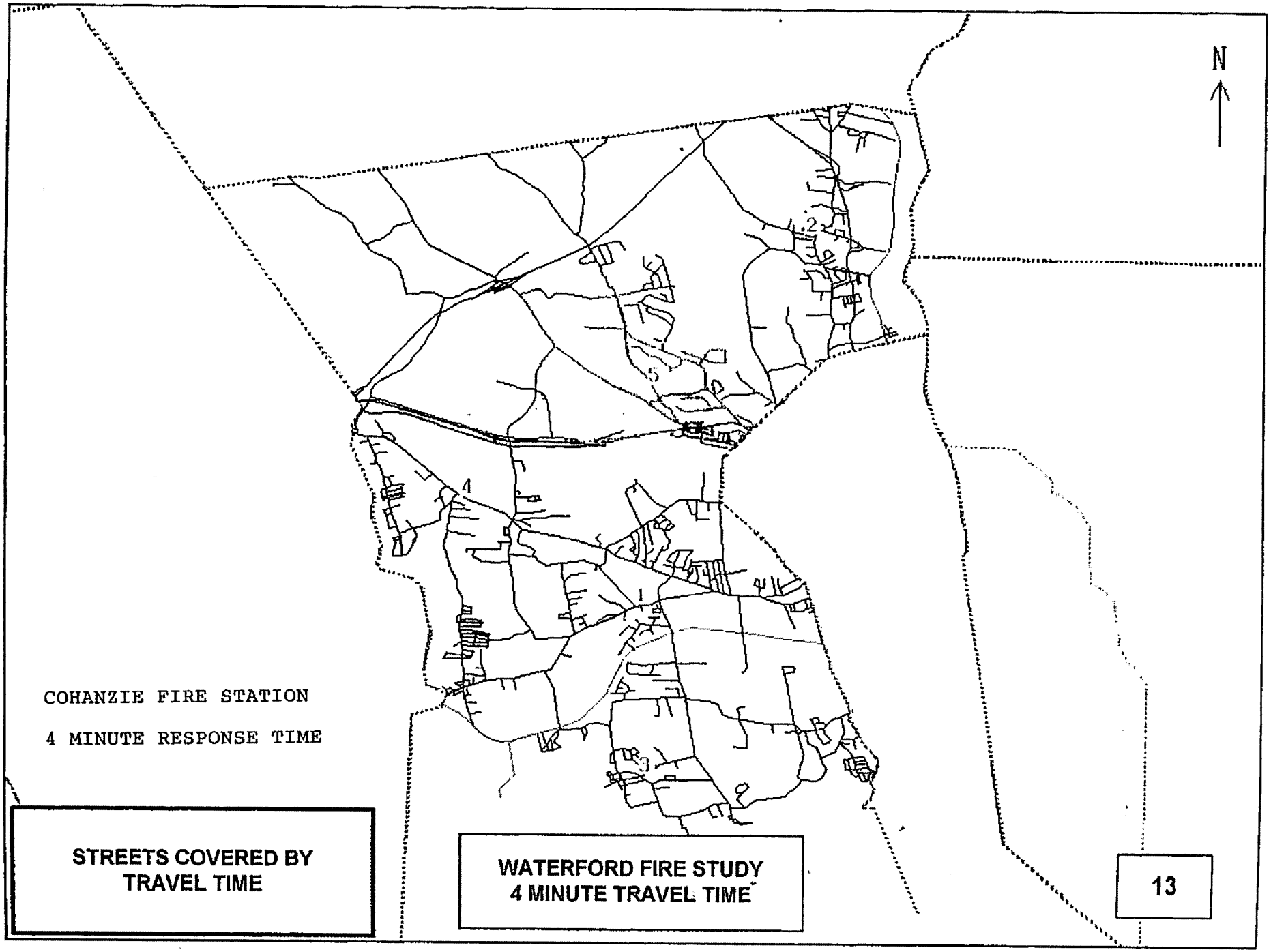
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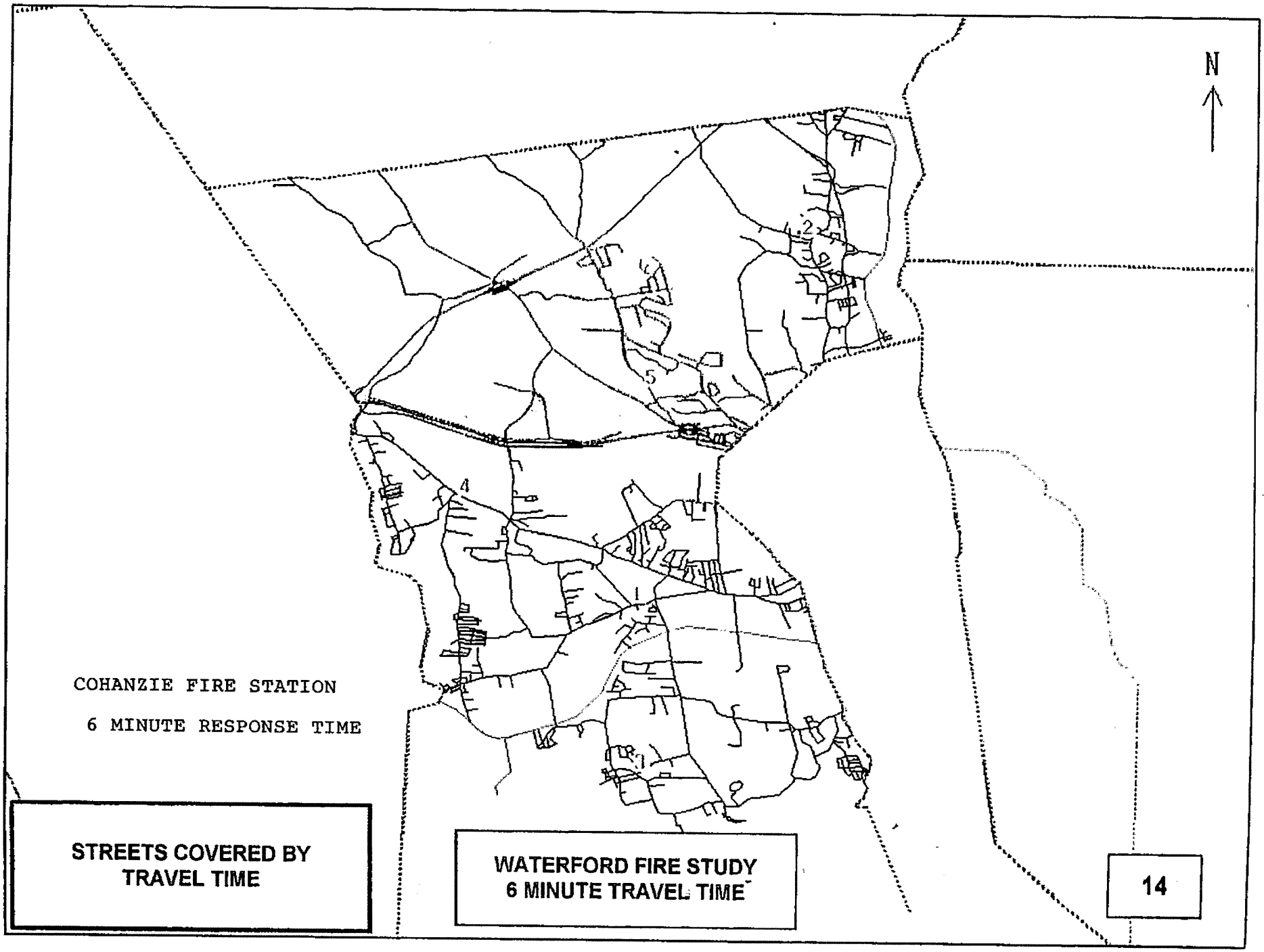
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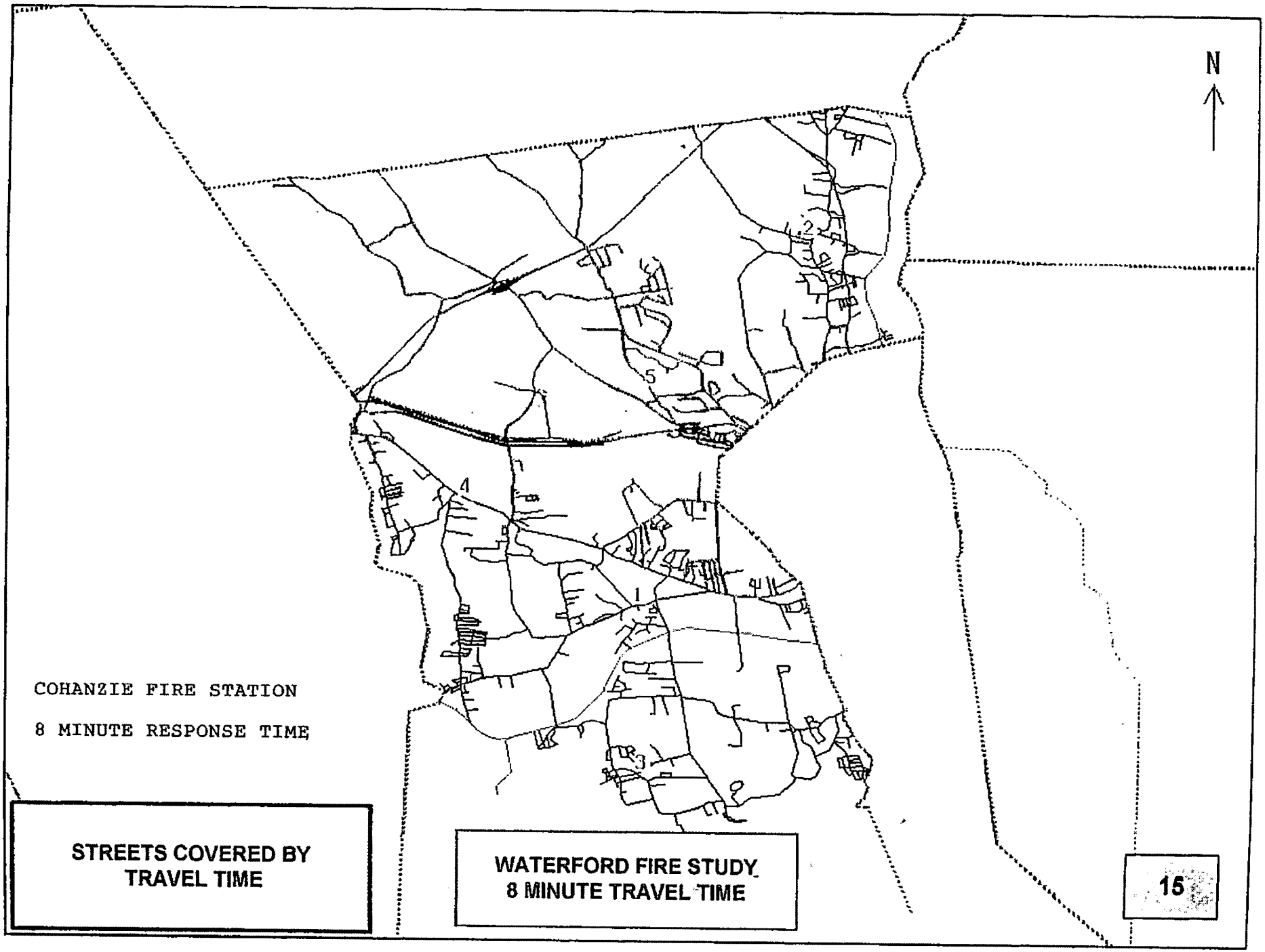
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8 MINUTE TRAVEL TIME
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Fire Station Facilities

The current fire stations are well maintained buildings, but are very old in age. Throughout the years there have been numerous Capital Improvements made to these buildings to prolong the life expectancy of the facilities. All of these buildings are protected by code compliant fire sprinkler systems. Insurance and Fire Prevention personnel should annually inspect these facilities.

These facilities are utilized as initial emergency shelters during community emergencies and as staging areas during severe weather. Making these facilities handicapped accessible should become a Capital Improvement program.

The following are elements that appear to be inadequate for the following fire stations:

Waterford Fire Engine Company #1 — 89 Rope Ferry Road - Waterford

A. Handicapped Accessibility

Quaker Hill Fire Company #2 — 17 Old Colchester Road - Quaker Hill

A. Handicapped Accessibility

Goshen Fire Company #3 — 63 Goshen Road - Waterford

A. Handicapped Accessibility

Oswegatchie Fire Company #4 — 441 Boston Post Road - Waterford

A. Handicapped Accessibility

Cohanzie Fire Company #5 — 53 Dayton Road - Waterford

A. Handicapped Accessibility

Historically the Town of Waterford has been supportive of the upkeep of these buildings. In order to continue this past practice, the following building/facility matrixes have been established to prepare for the future improvements/upgrades and put into a program.

SUMMARY OF CAPITAL IMPROVEMENT PROJECTS

	JORDAN	QUAKER HILL	QUAKER HILL - Aux	GOSHEN	OSWEGATCHIE	COHANZIE
(Projected Life Expectancy)	*Projected (Performed)*	*Projected (Performed)*	*Projected (Performed)*	*Projected (Performed)*	*Projected (Performed)*	*Projected (Performed)*
ROOF						
High Roof (25/30)	2005/10 (1980)	2028/33 (2003)	2010/15 (1985)	2028/33 (2003)	2013/18 (1988)	2028/33 (2003)
Lower Roof (20)	NA	2024 (2004)	NA	2024 (2004)	2024 (2004)	2023 (2003)
GENERATOR (30)	2007 (1977)	2034 (2004)	2020 (2000)	2004/09 (2007)	2015 (1985)	2015 (1985)
ELECTRICAL SERVICE (30)	2007 (Older)	2034 (2004)	2015 (1985)	2031 (2001)	2015 (1985)	2029 (1999)
FIRE ALARM SYSTEM (25)	2005 (1980)	2006 (1981)	2006 (1981)	2029 (2004)	2010 (1985)	2030 (2005)
BOILER (25)	2027 (2002)	2025 (2000)	2010 (1985)	2015 (1990)	2021 (1996)	2013 (1988)
EXTERIOR/SIDING	BRICK - G/F	VINYL - F	ALUMINUM - G	BRICK - G (1980)	VINYL - E (2002)	VINYL - E (2004)
AIR CONDITIONING						
Bunkroom (25)	2005 (1980)	2008 (1983)	NA	2026 (2001)	2029 (2004)	2005 (1980)
Lounge (25)	Window Unit	2008 (1983)	NA	2026 (2001)	Window Unit	2012 (1987)
Hall (30)	Window Units	2034 (2004)	NA	2010 (1980)	2015 (1985)	Window Unit
UNDERGROUND TANKS						
Heating Oil (20)	1,000 gallon (2006)	1,000 gallon (2012)	NA	1,000 gallon (2020)	2,000 gallon (2001)	1,000 gallon (2012)
Diesel Fuel (20)	1,000 gallon (2006)	Above Ground	NA	1,000 gallon (2012)	1,000 gallon (2012)	4,000 gallon (2012)
Generator Fuel (20)	NA	NA	NA	NA	280 gallon (2005)	NA
Gasoline (20)	NA	NA	NA	NA	1,000 gallon (OOS)	4,000 gallon (2012)
PARKING LOT (25)	2005 (1980)	2002/07 (1977)	2015 (1990)	2020 (1995)	2020 (1995)	2026 (2001)

Standardized Responses

Risk Assessment and Response Effectiveness are two specific areas that are needed to strategically plan for the deployment of apparatus. The risk assessment is a review to determine the level of risk to life and property in the community and should not be viewed as just a means of listing the properties that each district is protecting. The risk assessment needs to look at the level of services that are provided and the degree of risk that should be accepted by the fire service in protecting these properties. This degree of risk has nothing to do with life safety, but with property loss. Whenever the emergency services invest in higher levels of service, the insurance companies have a reduced risk. Conversely, when the emergency services decreases resources, the insurance companies are more at risk. This must be kept in perspective while looking at the resources that are available to the fire service.

Response effectiveness or better known as Standards of Response Coverage are policies and procedures that can be established for demonstrating the distribution and concentration of resources and it consists of three elements that need to be defined:

- Distribution of resources to assure proper response deployment to minimize the severity impact.
- Concentration of resources arranged to create an effective response within a sufficient time frame to terminate emergencies.
- Staffing level to properly accomplish the task assignments of the emergency.

As these standards have not been addressed in town and there is no true industry standard due to the difference in apparatus, the factors utilized for review purposes are more appropriately seen as an average or consensus at the national level.

This process consists of matching the town's fire risk potential with a corresponding level of response. This step will also play a factor in later determining the appropriate staffing requirements to deal with the hazards. The fire risk levels used are categories classified by the National Fire Protection Association and are as follows:

Property Risk Levels	Definition (includes a corresponding fire flow requirement)
Low	One, two, or three family dwellings and scattered small businesses and industrial occupancies (Fire flow is 100 to 1500 gallons per minute).
Moderate	Apartments, offices, mercantile, and industrial occupancies not normally requiring extensive rescue or firefighting operations (Fire flow is 1500 to 4000 gallons per minute.)
High	Schools, hospitals, nursing homes, explosive plants, refineries, high-rise buildings, and other high life hazard or large fire potential occupancies (Fire flow is greater than 4000 gallons per minute).
Special	Railroad and freeway emergencies, aircraft crashes, and natural disasters.
Miscellaneous	Rubbish fires, vehicle fires, small wild land fires.

Of these five risk categories, the Low, Moderate and High-risk levels are important in a standard of response coverage review.

The majority of risk falls into the "Low Risk" category. Waterford is over 90% low risk; mostly residential. High-risk occupancies pose a greater threat because if they burn they will require more water and a greater amount of manpower. Because the majority of our risk falls into the "Low Risk" category most communities tend to design their fire service to deal with that risk.

In attempting to assess the current fleet it was recognized that a standardized response criteria was necessary. This criterion breaks down responses by occupancy hazard/risk assessment results.

Residential Structures (Low Risk)

3 Engines, Ladder, Service Vehicle & 2 Ambulances

Commercial Structures (Moderate Risk)

4 Engines, Ladder, Service Vehicle & 2 Ambulances

Commercial Structures (High Risk)

4 Engines, 2 Ladders, Service Vehicle & 2 Ambulances

Districts having two Ladders to the same call shall operate the first due as a Ladder Company and the second Due as an Engine Company. The number of apparatus reflected in this breakdown represents a fire attack response. Other fireground support functions such as, exposure protection, and rural areas with no water supply will increase the number of apparatus required to mitigate these incidents.

Industry standards for primary response to a single-family ranch style house fire with 100% involvement are 1,000 gallons per minute. Our current response allows approximately 2.5 minutes of sustained fire attack until a water supply is established. In an area without fire hydrants, a minimum of 5,000 gallons of water or equivalent should be available during the incipient stages of the incident. Other collateral duties such as drafting from cisterns, laying large diameter supply lines, water shuttling and in-line pumping, will require additional apparatus to respond.

Goal:

The standardized response of apparatus to specific occupancy risks will begin to accomplish the distribution of resources. The arrangements of the resources (ie: Ladder, Rescue Truck, Etc.) are located in proper response zones to mitigate emergencies. The number of apparatus responding, which will include another station assignment, may bring in more staff on the initial call.

Fire Apparatus

The Waterford fire service has always been misconceived as having a rather large fleet of apparatus and other types of vehicles. This fleet has been procured and built up over the years by utilizing an apparatus replacement plan that the Board of Fire Commissioners and the town instituted in 1974. Since it's implementation the apparatus replacement plan has received it's funding through the town's capital and non-recurring portion of the town's budget. The original plan was revised in 1991, with the latest revision coming in 2001 as recommended by the Fire Service Study conducted by Firescope Inc.

The fire departments in the Town of Waterford are charged with the responsibility of delivering fire and rescue services. In order to deliver these services a fire department needs to have established response criteria based on experience, risk, and recognized good practice. Many communities have always distinguished responses between a structure fire in a single-family dwelling and a multi family or commercial structure, which was not the case in Waterford.

Each of the five fire departments has a minimum of two pieces of fire apparatus that are capable of pumping 1,500 gallons per minute. Jordan also has an aerial/engine capable of pumping 1,500 gallons per minute. It is most important to realize that currently a minimum of two stations is dispatched to all incidents potentially involving fire.

The maintenance of a modern, reliable, well-maintained fleet of emergency vehicles is fundamental to operation of any department to provide for the delivery of fire and emergency services. It is therefore important that both a well-formulated replacement schedule and maintenance program be supported.

The current fleet of fire apparatus is shown in the table below and is current as of December 20, 2004. This list shows the entire fleet including boats. Currently all ambulances shown on this table are the responsibility of Ambulance Service for maintenance and replacement.

Apparatus		Year Purchased	Age	Mileage
Engine 11	R.D. Murray (1500/750)	1993	~~11~~13	~~34,095~~37,862
Engine 12	Seagrave (1500/500)	1984	~~20~~22	~~49,221~~51,522
Engine 21	Pierce (1500/750)	1987	~~17~~19	~~23,800~~25,682
Engine 25	Pierce/Snorkel (1500/500)	1993	~~11~~13	~~19,400~~21,307
Engine 31	Salisbury (1500/500)	1991	~~13~~15	~~30,410~~33,512
Engine 32	R.D. Murray (1500/500)	1998	~~6~~8	~~7,074~~8,537
Engine 41	R.D. Murray (1500/850)	1998	~~6~~8	~~9,795~~12,721
Engine 42	Saulsbury (1500/750)	1989	~~15~~17	~~35,073~~38,207
Engine 51	Pierce (1500/1000)	1996	~~8~~10	~~24,187~~33,688
Ladder 15	Pierce (1500/300)	1996	~~8~~10	~~21,369~~24,791
Ladder 55	Sutphen (2000/500)	2004	-2	~~1,183~~5,247
Boat 92	Boston Whaler	1985	~~19~~21	N/A
Boat 93	Boston Whaler	~~1985~~1984	~~19~~22	~~N/A~~
Dive 27	Chevrolet Stepvan	1972	34	17,186
Service 94	Salisbury	1988	~~16~~18	~~18,840~~20,734
Rescue 57	Super-Vac	1987	~~17~~19	~~28,842~~31,579
Attack 13	Emergency One (300/260)	1990	~~14~~16	~~22,360~~22,961
Attack 33	GMC (750/300)	1989	~~15~~17	~~21,381~~22,785
Brush 23	~~Chevrolet~~ Ford ~~(150/200)~~(300/400)	~~1982~~2006		~~22,729~~8,492
Brush 43	Ford~~Chevrolet~~ (300/400)~~(100/125)~~	~~1991~~2006		~~13,538~~10,552
Brush 53	Chevrolet (120/250)	1986	~~18~~20	~~17,746~~18,878
Utility 16	Ford Pick-up	2005	-	~~New~~11,962
Utility 26	~~Chevrolet Suburban~~Ford Pick-up	~~1989~~2006		~~15,750~~5,036
Utility 36	GMC Suburban	1992	~~12~~14	~~41,330~~47,853

Utility 46	~~Chevrolet Suburban~~Ford Pick-up	~~1990~~ 2005	~~14~~1	~~43,269~~3,640
Utility 56	Ford Pick-up	1998	~~6~~8	~~40,042~~50,387

Apparatus		Year Purchased	Age	Mileage
Car 55	Ford Expedition	~~2004~~2005	~~1~~1	~~3,465~~22,953
Car 85	Ford Sedan	~~2004~~2005	~~1~~1	~~1,579~~16,975
Car 105	Ford Sedan	~~1996~~2005	~~8~~1	~~137,262~~6,339
Car 115	Ford Sedan	~~1996~~2006	~~8~~-	~~107,678~~3,312

EMS 100	Ford	2004	-2	~~3,410~~18,818
EMS 200	Ford	2004	-2	~~2,188~~8,412
EMS 300	Ford	2002	~~2~~4	~~10,197~~15,454
EMS 400	Ford	2001	~~3~~5	~~20,632~~30,400
EMS 500	Ford	2002	~~2~~4	~~18,246~~29,481
EMS 600	Ford	1998	~~6~~8	~~45,721~~49,782

Next is how staffing requirements compare to the risk categories. The staffing requirements do increase with the risk level. By looking at the number of firefighters needed at the scene and comparing them with established performance objectives and response data, it becomes clear how to design for routine types of calls and the "Low Risk" structure fire. The previous standard fire response for any structure fire in Waterford varies by its particular geographical location, not by the appropriate risk level.

Utilizing the current five station locations and district boundaries, the maps provided by the FireScope, Inc. study show that the objective of responding to 95% of all calls within 5 minutes of dispatch is obtainable with proper staffing. The objective for the minimum number of

firefighters on-scene within the specified time is difficult to project with our volunteer system. The measure of the number of firefighters on-scene for a sustained attack is adequate to response history data and also serves as a good benchmarking tool for the future.

It would not be fair to go much further into resource deployment without the mention of the Insurance Services Office, Inc., which has bean a means of measuring fire protection services for many decades. Insurance industry grading is a measure that may be used in the calculation of property insurance premiums. ISO surveys are not conducted for property loss prevention or life safety purposes, thus no life safety or property loss prevention recommendations are made.
It must also be noted that ISO only processes information relating to fire suppression, communications, and water supply. Being insurance industry oriented, the ISO mainly concentrated on the needed fire flows for properties through the community. Their current Fire Suppression Rating Schedule is developed and applied on the concept that property with needed fire flows greater that 3,500 gallons per minute should not affect the needed number of engines in any community. They do realize that there is mutual aid assistance available for these types situations.

The number of needed engine companies considers several factors from needed fire flow to travel distance. The factor that is most important to this exercise is the item that states "the built upon area of the town should have a first-due engine company within 1 1/2 miles". This is important as it relates to fire station location, which currently the locations are satisfactory for these criteria. Reserve engines are needed to replace first line engines when they are placed out of service for routine maintenance, repair or overhaul. The number of reserve engines is 1 for 8 needed engine companies or fraction thereof.

The number of needed ladder companies considers several factors from building size to travel distance. The criteria for ladder companies that concern our community are as follows.

- Where defined response area have 5 buildings that are 3 stories or 35 feet or more in height, or
- Where defined response area have 5 buildings that have a needed fire flow greater than 3,500 gallons per minute, or

- Any combination of the above

The factor that is most important is the item that states "the built upon area of the town should have a first-due ladder-service company within 2 1/2 miles". Areas not needing a ladder company should have a Service Company. The current deployments of our ladder-service companies are satisfactory for these criteria.

Considering all this discussion it must also be noted that the fire departments play a large role of non-emergency type services within our community. A commitment to provide non-emergency activities does not interfere with the ability to effectively respond to emergencies when they occur. The commitment referenced is more truly public perception and expectation in this context.

Rescue Services

The previous exercises were based strictly to fire protection and did not review the areas of rescue and medical emergencies. Although the ambulance service is responsible for their fleet it should be documented as to the number of ambulances needed for providing care to the sick and injured citizens within the community. The proper coverage required is the same as the number of engines needed utilizing the concept of brain death as we previously discussed. Therefore the current ambulance deployment and reserve ambulance is satisfactory for proper medical care.

Rescue services not only refer to the rescue truck but the deployment of rescue equipment resources. This deployment does not have any true concept parameters that have been utilized. The question of need for rescue equipment is a simple answer. Our community does several hundred automobile accidents and various rescue calls per year. Thus the need for a rescue vehicle is justified.

The question then leads to how much rescue services are needed? The current arrangement is the Heavy Rescue vehicle deployed from the Cohanzie fire department and each fire department having varied rescue equipment components on their respective first-due engines. This concept being relatively new has not had the appropriate time to allow for complete standardization of equipment. This area may need further review over the next few years for resolution.

Brush & Wildland Fires

Protection from wildland and rubbish type fires do have a need within our community as to some very large open spaces that do exist. The current arrangement is one brush-type unit in each fire department. This number can be reduced as to the number and frequency of these types of fires in the past.

Utility Vehicles

Utility vehicles do play an import role in the fire station. Utilizing these vehicles reduces unnecessary wear and tear on large, expensive apparatus. Not only are these vehicles used for transportation to meeting and trainings, but also they are equipped to clear snow from the fire department parking lots during inclement weather.

These vehicles are dispatched with an assignment during snowy weather. These vehicles also play a role in emergency response to emergency medical call, during times when ambulance crews are needed within the district. The current arrangement of one vehicle in each fire department is satisfactory.

Command Vehicles

These vehicles will be stationed at the Jordan and Cohanzie stations. They will enable both the North and South ends of town to be covered, benefiting all five (5)-fire districts. With each district undergoing change and/or growth in some way, these vehicles are long overdue and would alleviate several fire officers from each company carrying pertinent information around in their personally owned vehicles. The following are the benefits of command vehicles:

1. **A forward command post that is not fire apparatus where there is much commotion and events to have an effective command post.**
2. **A command vehicle can better accommodate the growth process into a unified command that will benefit other responding agencies just as much as ours.**
3. **A much more effective accountability system from the command vehicle which enhances responder safety.**
4. **The Waterford Fire Officers Association is exploring a duty officer system. The system cannot be effective without a vehicle for the duty officer that contains vital information needed when responding to an emergency call. The duty officer schedule will ensure that both the North and South ends of town are covered with the guarantee of an officer and the needed information responding to each call.**
5. **All buildings within the Town of Waterford will be pre-planned with as-built drawings. All of this information will be stored in the command vehicles that will also include building shut-offs, special hazards, emergency contacts, etc.**
6. **Other computer programs that significantly aid an emergency scene will be stored in the command vehicles (DOT Guidebook, CHRIS Manual, Vehicle extrication information, etc.).**

Rescue Boats

Rescue Boats is the last equipment to be discussed within this review. There are occasional usages for these levels of service are a few examples as follows:

- Search and rescue operations
- Platform for launching diving operations

- Conducting safety patrols
- Assisting disabled watercraft
- Hazardous materials mitigation

There are currently two boats in the fire service, one at the Goshen fire department and the other at the Quaker Hill fire department. The need for a fireboat is more heavily weighed on the potential from the large waterfront that surrounds our community. The Town of Waterford has a rather large waterfront area that runs from Alewife Cove to the Niantic River, along with the Thames River in the North end of Town. These vehicles should be considered for funding in the fleet management plan on a 20 to 25 year cycle.

Hazardous Materials

At the present time, there is an agreement with the Submarine Base Fire Department to respond to hazardous material emergencies. Under this agreement, the department responds a team of specialists that must be supplemented by the requester. The Submarine Base Fire Department has been and continues to be susceptible to budget cuts and service terminations as the Federal Budget continues to downsize. The Connecticut Eastern Regional Response Integrated Team (CERRIT program) has recently been implemented to supplement the needs of the Submarine Base when it arrives in the form of additional supplies and decontamination. The Waterford fire service has committed to the CERRIT program for HazMat assistance and decontamination. The Mashantucket and Mohegan tribes have also implemented hazardous material teams. These three agencies also provide the town with Firefighter Assist Teams. These agencies must continually be supported by the Town of Waterford fire services.

The following is the recommendations for restructuring the current apparatus fleet:

Jordan Fire Company

W-11 1993 Pumper should be replaced as a Rescue Pumper.

W-12 1984 Pumper should be ~~eliminated when ladder truck (W-15) is replaced.~~replaced with a Medium Duty HazMat./Rescue vehicle.

W-13 1986 Mini-Pumper should be replaced ~~as a Pick-up w/Skid Unit~~with a small all-terrain Fire/Rescue vehicle.

W-14 Command Vehicle should be added to the replacement schedule for 2008.

W-15 1996 Ladder should be replaced as a 100' Quint.

W-16 2005 Utility Vehicle should be replaced as scheduled.

Quaker Hill Fire Company

W-21 1987 Pumper should be replaced as scheduled.

W-23 ~~1982~~ 2006 Brush Truck should be replaced ~~as a Pick-up w/Skid Unit~~scheduled.

~~W-24 Command Vehicle will be further reviewed for possible implementation.~~

W-25 1993 Elevated Stream Pumper should be replaced as scheduled.

W-26 ~~1989~~ 2006 Utility Vehicle should be replaced as scheduled.

W-27 Dive Truck should be added to the replacement schedule for 2009.

W-92 1985 Rescue Boat should be replaced as scheduled. ~~added to the replacement schedule.~~

Goshen Fire Company

W-31 1990 Pumper should be replaced as scheduled.

W-32 1998 Pumper should be replaced as scheduled.

W-33 ~~———~~1989 Midi-Pumper should be replaced as a Pick-up truck with a flatbed Skid mount pump unit ~~scheduled~~.

~~W-34 Command Vehicle will be further reviewed for possible implementation.~~

W-36 1992 Utility Vehicle should be replaced as scheduled.

W-93 ~~1985~~ 1984 Rescue Boat should be ~~added to the replacement schedule~~replaced as scheduled.

Oswegatchie Fire Company

W-41 1998 Pumper should be replaced as an Elevated Stream Pumper.

W-42 ~~———~~1989 Pumper should be replaced as a ~~2,500~~minimum 1,000 gallon ~~Tanker~~Pumper with Class A foam system.

W-43 ~~1991 Pick-up w/Skid Unit~~2006 Brush Truck should be replaced as scheduled.

~~W-44 Command Vehicle will be further reviewed for possible implementation.~~

W-46 ~~1990~~ 2006 Utility Vehicle should be replaced as scheduled.

W-94 1988 Service/Command Vehicle should be replaced as scheduled.

Cohanzie Fire Company

W-51 1996 Pumper should be replaced as a Tanker Pumper.

W-53 ~~———~~1987 Brush Truck should be replaced with a small all-terrain Fire/Rescue vehicle~~as a Pick-up w/Skid Unit~~.

W-54 Command Vehicle should be added to the replacement schedule for 2008.

W-55 2004 Quint should be replaced as scheduled.

W-56 1997 Utility Vehicle should be replaced as scheduled.

W-57 1988 Heavy Rescue should be replaced as scheduled.

W-95 2005 Dive Trailer should be added to the replacement schedule for 2011.

W-97 2004 Trench Trailer should be added to the replacement schedule for 2010.

The following should be forwarded to the Fleet management Review Committee for implementation:

YEAR	DEPARTMENT	VEHICLE TYPE	FUNDING
2007	Jordan	All Terrain Fire/Rescue Vehicle	50,000
2007	Goshen	Rescue Boat & Trailer	57,000
2007	Oswegatchie	Pumper	422,066
2007	Cohanzie	Heavy Rescue	365,790
2007	Cohanzie	All Terrain Fire/Rescue Vehicle	50,000
2008	Jordan	Haz/Mat Rescue Vehicle	160,000
2008	Jordan	Command Vehicle	60,000
2008	Quaker Hill	Rescue Boat & Trailer	130,000
2008	Cohanzie	Command Vehicle	60,000
2009	Quaker Hill	Dive Rescue Vehicle	60,000
2009	Goshen	Pick-Up with Skid Unit	114,748
2009	Oswegatchie	Service/Command Vehicle	388,067

YEAR	DEPARTMENT	VEHICLE TYPE	FUNDING
2010	Goshen	Pumper	461,203
2010	Cohanzie	Utility Vehicle	41,816
2010	Cohanzie	Trench Rescue Trailer	8,000
2011	Jordan	Pumper	475,039
2011	Cohanzie	Dive Rescue Trailer	8,000
2013	Quaker Hill	Elevated Stream Pumper	503,969
2014	Cohanzie	Pumper	519,088
2016	Jordan	100' Quint	991,260
2017	Jordan	Utility Vehicle	51,428
2017	Quaker Hill	Utility Vehicle	51,428
2017	Goshen	Pumper	567,221
2017	Goshen	Utility Vehicle	51,428
2017	Oswegatchie	Utility Vehicle	51,428
2019	Oswegatchie	Pumper	601,765
2019	Oswegatchie	Brush Truck	170,000
2023	Quaker Hill	Pumper	677,292
2014	Cohanzie	Quint	1,255,699
2025	Quaker Hill	Brush Truck	184,138

Apparatus Maintenance

The maintenance of all fire apparatus is the responsibility of the individual fire department. Each department receives funding from the Town for normal maintenance consisting of oil changes and lubrication and minor repairs. Included in the maintenance is the testing of apparatus. Each major piece of apparatus such as the engines and those vehicles equipped with aerial devices must be tested each year both for performance and safety. The funds for testing are provided to each department by the Town. The Town through the Board of Fire Commissioners budget funds major repairs of an emergency nature.

Each fire company should implement an apparatus maintenance program for all apparatus that includes preventative maintenance and required annual testing

Preventative Maintenance shall include, but not limited to the following:

- Chassis Maintenance
- Engine Maintenance
- Transmission Maintenance
- Generator Maintenance
- Pump Maintenance
- Ladder Maintenance

Annual Testing shall include, but not limited to the following:

- Pump Testing
- Ladder Testing

The State of Connecticut Department of Motor Vehicles should continually perform annual safety inspections.

Apparatus Replacement

Apparatus will be constructed in accordance with standardized specifications established by the Board of Fire Commissioners and Fire Chiefs. Consideration will be given to the location, hazards, occupancies, and water supply configuration in the specific district(s) where the vehicle will be assigned. Apparatus specification will be put out in the form of Performance Specifications and the availability of funding will remain undisclosed to potential vendors.

The Board of Fire Commissioners and Town of Waterford have agreed on the fleet management plan that has developed a replacement schedule that is based on the number of years of service and usage by type of apparatus.

Type Apparatus	Replacement Schedule
Engines	18 Years
Attack Engines	18 Years
Ladders	~~20~~ 18 Years
Rescue	20 Years
Service	20 Years
Brush	13 Years
Utility	13 Years

An issue that should be examined is the evolution of the standards by which apparatus is constructed. This issue is somewhat related to the technology issue because new standards incorporate current technology. Much of the new technology is driven either by its availability or in the interest of safety of fire and rescue personnel. An example of this was the development of NFPA 1500, Standard for Fire Department Safety Programs that emphasized firefighter safety and required that all personnel must ride in an enclosed space and have a seat belt.

There are several areas that can affect the replacement schedule. Of course any decision to replace a piece of apparatus early would have to be justified on a cost/benefit basis.

One aspect that should be considered other than age is the advance in technology over a 15 or 20 year span. Changes in technology will have been developed 10 years into the age of the apparatus and it may be beneficial to replace the apparatus and take advantage of the new technology.

A few examples that are worth noting are:

When annually tested and found to have serious defects the decision will have to be made on the cost/benefit of making the repairs or to replace the apparatus.

Review of maintenance records over the life of the apparatus. If maintenance records indicate a history of expensive repairs, and it appears that these expenses will continue then consideration should be given to replacing the apparatus.

At some point in its useful life may not be functional. It may have been purchased at a time when it was thought to be essential to the department, but over time conditions or the risk has changed to that a different type of apparatus would be more functional.

No one method may determine when apparatus is to be replaced, but a combination of those discussed above, plus others. The final determination will be made based on how well the individual items are documented so that an informed decision can be made on whether to keep the apparatus or replace it.

All information on each piece of apparatus must be kept up to date and monitored so that a decision can be made when the unit starts to fail, incur excessive cost, fail to meet safety standards, or is non functional in the system. Initiation of the replacement process must be as soon as possible because of the lead-time required for the manufacture of apparatus.

Staffing

The purpose of this section is to examine the staffing within Waterford Fire Service in order to determine if there is sufficient staffing to deliver fire and rescue services to the Town. The first step is to examine the existing staffing levels, analyze what is presently being done to determine if there are deficiencies, if there are changes or improvements that can be made to improve the delivery of fire and rescue services, or improve the efficiency of the system.

Although there are no local, state and national standards for minimum staffing levels there are two standards that specify the minimum number of people required for fire fighting. The first is the Federal Occupational Safety and Health Administration (OSHA) 2-In/2-Out rule (29 CFR 1910.134). Briefly the OSHA standard requires the following for Interior Structural Firefighting:

- Minimum 2-person entry team with self-contained breathing apparatus (SCBA), work as a team maintaining voice or visual contact.
- Minimum 2-person stand-by team with fully equipped and trained fire fighters must remain outside the structure, monitoring the interior team and be prepared to rescue them.

The minimum staffing requirement for initial interior attack during firefighting operations is five people; two people inside, two people outside plus an incident commander.

The OSHA 2-In/2-Out rule is also consistent with the National Fire Protection Association standard 1500, Standard for Fire Department Occupational Safety and Health Program. NFPA 1500 although neither state nor federal law unless adopted, is a general standard that is used throughout the United States.

In addition, each ambulance response requires a minimum of two certified Emergency Medical Technicians. Many medical incidents require more than the minimum of two people. For example a heart attack incident will require a minimum of three people if CPR is required.

Another aspect that requires personnel is the occurrence of multiple, simultaneous emergencies. Motor vehicle accidents on the interstate highway and local streets and roads often require at least one pumper, one rescue and multiple ambulances.

Volunteer Personnel

Collectively there are approximately 124 active qualified volunteer personnel. These numbers represent individuals that have attended a minimum of 30 alarms within the last 12-month period.

Full Time Personnel

In addition there are seven career personnel positions as well as two members of the Fire Marshal's staff who are available to respond to emergency calls. These full time personnel are Town employees whose salaries are paid by the Town through the Board of Fire Commissioners' budget, but are supervised by the fire chief of the company or the supervisor of the department to which they are assigned.

Currently, the full time fire fighters and the fire inspectors provide the majority of staff that responds to fire and ambulance calls during the daytime hours Monday through Friday. The volunteer response to incidents is not as adequate as we would like to see during daytime hours due fact that many of them commute out of Waterford during the normal work hours, Monday through Friday.

The present complement of full time personnel is at minimum level. The need for additional full time personnel must be evaluated on an ongoing basis.

Part Time Personnel

Part time fire fighters/EMT are volunteers that meet qualification requirements and are hired at an hourly rate to work a specific schedule. Normally the volunteer that is hired as a part time person will work in a company at which they previously volunteered. However, some of the part time personnel may work where they are required.

The following are alternatives that need to be continually reviewed for adequacy. They are listed in order of least cost to try for periods of times only moving to the next alternative plan if the existing one is not meeting the needs of the fire service.

Ambulance

Alternate Plan #1 Consider additional financial incentives to attract volunteers for the times when there are insufficient personnel to respond and provide services.

Alternative Plan #2 The Waterford Ambulance Association should evaluate the forming of an autonomous EMS Squad to be composed of employees to respond to strictly ambulance calls.

Alternative Plan #3 Staff one ambulance on a 24 hour a day / 7 day a week basis.

Fire Department

Alternate Plan #1 Establish a townwide "fire Brigade" response team. The team would be made up of both citizens and local business workers, who would be trained to help perform on-scene support duties at an incident. This would include TERF members and new TERF recruits form the towns workforce. Businesses who participate could be eligible for a tax relief.

Alternate Plan #2 Establish a townwide "Duty Crew". The duty crew would be made up from the pool of volunteers who sign up to be available for the shift which are needed. These shifts would receive a stipend for their participation.

Alternate Plan #3 Establish Part-time hours during the weekday shifts to supplement the career personnel. This would place Part-time Firefighter/EMT shifts at Jordan, Oswegatchie and Cohanzie during daytime hours.

Alternate Plan #4 Hire a career firefighter /EMT at the Oswegatchie fire station to supplement the existing position. This would reinforce the central portion of the town, which is rapidly developing.

Alternate Plan #5 Hire three career firefighters. This would bring the staffing level to ten firefighters and the North and South division of Town would be capable to rapidly deploy a minimum of five firefighters at once to any call.

Additional Issues

A volunteer recruitment committee should be established. The committee should be compromised of an aggressive group of members who actively reach out to the community to inform them of the benefits of volunteering in the fire service. This should include door-to-door soliciting, mailings, and media spots.

A volunteer retainment committee should be established. The committee should actively work on developing incentives for volunteer participation. This would include designing a volunteer retirement program.

Although recruitment and retainment programs will theoretically help the volunteer force during "after work" hours, weekday personnel issues are, and will continue to be low to operate an emergency scene safely and efficiently as our community expects. All efforts need to be made to help our system survive.

Training Issues

Because of the two nuclear power stations, the community has a well-recognized town wide emergency plan. This program encompasses all facets of emergency mitigation and integrates all available community resources into a functional organization. A mass evacuation of the nearby convalescent homes buttresses the effectiveness of the program.

With the availability of government access television, this could provide an opportunity to increase public fire education and also firefighter training. It would be possible to provide firefighter training in much the same manner as many larger departments due to their stations. Except instead of stations, we would be broadcasting to the community.

The Waterford fire service has one of the premier audiovisual training libraries in the state, and this should be expanded to include computer training as well.

The following should be the goals of the fire departments as it relates to training:

A. All fire officers should receive annual training in the Towns emergency plan.
B. Integrated training should be conducted utilizing live fire evolutions in conjunction with the Millstone fire brigade.
C. Training requirements outlined in Board of Fire Commissioners' Policy 91-3 should be considered minimum requirements.
D. Company training should be redefined around equipment usage and familiarity.
E. Tabletop training sessions for fire officers should be provided to enhance their command abilities.
F. Interagency training should occur to include a regular mass casualty drill.
G. Establish a business tax relief program to allow trained personnel to actively respond from work during the business hours.
H. A standardized training program needs to be established for career firefighters.

Management Issues

There are several important issues that influence the ability of volunteer service to plan for the future and deliver services to the community. The departments must be appropriately organized; the internal communications within departments must be effective in communicating the goals and objectives of the leadership; and there must be committed volunteers. Moreover, the political leadership within the Town must be committed to the concept of a volunteer fire service.

It is important to understand that while some members of the Waterford fire service desire change, the others are resistant to significant changes within the service. Resistance should be anticipated and frankly expected, since the Waterford fire service has a long and proud history. The Waterford fire service consists of many different personalities, differences in opinions, age differences and training backgrounds. The Waterford fire service has a number of significant strengths and capabilities. These were demonstrated in a System Analysis titled "Task Force 95" that was drafted in February of 1994 by several members of the Waterford Fire Service.

That particular study was tabled on the recommendation of a Fire Protection Study Committee that was sanctioned by the Board of Fire Commissioners and received a final report on August 5, 1994. The recommendation was based on first attempting to resolve several other issues that existed and some continue to exist to this date.

Currently, the fire service is split into at least two factions. There are conflicts and differences of opinions among the leadership of the individual fire departments, the Board of Fire Commissioners, and the Bureau of Fire Prevention. These conflicts are not immediately detrimental to the service's functioning and delivery of services, but will continue to erode away if they are not addressed and corrected.. The Waterford fire departments are very effective organizations, but have diminished by organizational conflicts. The first step in minimizing the conflicts is to confront the relationships between the individual fire departments.

The functions of the Bureau of Fire Prevention are absolutely essential to the safety and well-being of the Town and obviously will be continued. That division needs to interface with numerous Town departments, as well as the public, and clearly has a demanding workload. The Bureau of Fire Prevention is housed in the Public Safety Complex and consists of the following full time employees: Administrator of Fire Services, Fire Marshal, two Fire Inspectors, Office Coordinator and a Clerk/Typist.

In May of 2001, the Board of Fire Commissioners instituted an organizational restructuring with the creation of an Administrator of Fire Services. This situation has resulted in some unnecessary conflicts or misunderstandings between fire commissioners, fire chiefs and the fire administrator. The types of conflicts are minor in nature, but could detract from the good business practices necessary within the fire service. To end confusion and conflict, it is important that the roles and job duties of the Administrator of Fire Services be clearly defined, since an effective volunteer organization requires clear direction.

Ambulance Service

The Town through the Board of Fire Commissions has the responsibility for insuring the availability of fire protection and emergency medical services for all sectors of the Town. Currently the Ambulance Service has five front line ambulances and one reserve. Ambulances are housed in each of the five fire stations in the Town and deliver basic life support on a 24/7 basis to all areas of the town. The Cohanzie fire station also houses the spare ambulance.

The Waterford Ambulance Service is incorporated and not part of the individual fire departments. In August of 1999 the Waterford Ambulance Service, Inc. signed an agreement between the Waterford Ambulance Service, Inc. and the Board of Fire Commissioners of the Town of Waterford. The agreement allowed the Waterford Ambulance Service Inc., a non-profit corporation, to provide a billing mechanism for ambulance services in order to "provide a source of revenue not previously available to the Waterford Ambulance Service, Inc. The Waterford Ambulance Service and the Town of Waterford are currently revising the agreement.

The primary reason for this change allowed the Waterford Ambulance Service, Inc. to start billing for the ambulance service in order to generate revenue for support of the emergency medical system thus offsetting some of the funds that have previously been provided by the Town.

As of January 1, 2001, qualified Emergency Medical Technicians are eligible for a monetary stipend per call. The Ambulance Service with the agreement of the Board of Fire Commissioners makes this payment for two EMT's that transport a patient to a hospital. Even though this plan has been in place a short time the response by volunteer EMT's has reported improved.

Bureau of Fire Prevention

The Bureau of Fire Prevention is an integral part of the Waterford Fire Service and provides a range of services that are not provided by the five volunteer fire departments in the Town. The Fire Marshal and staff are responsible for a number of activities. Some of these activities are mandated by the state while others have been assigned because it is the most logical place to place responsibility for these since the office is staffed five days per week by the Fire Marshals staff and there has to be a central point in the Town where citizens can go to get information on fire protection.

The Bureau of Fire Prevention has a proven record of having an effective code enforcement program. Starting with plan review and continuing onto annual fire safety inspections of approximately 600 inspectable properties, fire hazards are reduced and safety increased. This' main due to the emphasis on alarm detection and protection equipment.

Local Fire Marshal Duties - Mandated By The State Statute

The following material is taken from a memorandum from the Office of State Fire Marshal dated January 2001 to Local Fire Marshal Appointing Authority.

Note: A copy of this memorandum will be included in the appendix of this report.

"Local fire marshals are responsible for the enforcement of many of the sections found in Chapter 541 of the Connecticut General Statutes, as well as number of codes which are promulgated under the provision of these statutes.

It is required that each local fire marshal inspect each calendar year, in the interest of public safety, all buildings and facilities of public service and all occupancies regulated by the Fire Safety Code within his/her jurisdictions.

The Fire Safety Code covers all occupancies except one and two family dwelling and premises used for manufacturing."

The memorandum lists 74 occupancy types that require inspection. Some of the most common types of occupancies listed are apartments, churches, day care centers, department stores, general offices nursing homes, power plants, residential-custodial care nurseries, homes for the aged, restaurants, schools, shopping centers, supermarkets and warehouses.

The memorandum also specifies additional duties imposed by statute. The following is a listing of the additional duties:

1. Investigate the cause, origin and circumstance of all fires within their jurisdiction, and transmit a report to the State Fire Marshal within ten days.
2. Issue permits for the use, transportation and storage of explosives.
3. Notify the Labor Commissioner of fire hazards founding manufacturing establishments.
4. Enforce Space Heater Statute.
5. Inspect all flammable and combustible liquids storage tank installations for compliance with regulations
    - Inspect all vehicles that transport flammable and combustible liquids.
    - Issue certificate of approval to each vehicle.
    - Inspect all gasoline service stations.
6. Inspect once each year all dry-cleaning and dry dyeing establishments.
7. Inspect and enforce regulations concerning storage, use and transportation of liquefied petroleum gas and liquefied natural gas.
    - Inspect, at least once each year, all vehicles transporting liquefied petroleum gas or liquefied natural gas.
    - Issue certificate of approval to each vehicle.
8. Annually inspect all storage plants and equipment and vehicles at bulk storage plants for the storage and transportation of hazardous chemicals.
    - Issue certificate of approval to each vehicle.
9. Administer and enforce manufacturing employer hazardous materials notification law.
10. Conduct site inspection of all fireworks and special effects displays for compliance with applicable State legislation.

11. Inspect all outdoor amusements attesting to the event being reasonably safe from the effects of panic, fire or smoke.
12. Conduct review of plans and specification for various occupancies being proposed within the town for compliance with Connecticut Fire Safety Code.
13. Inspect once each year all establishments requiring a liquor permit.
14. Attend schools and seminars to keep abreast of the codes, regulations and new technology.
15. Required to be certified by the State Fire Marshal as of October 1973.
16. Required to obtain ninety (90) hours of continuing education over three (3) years to maintain certification.
17. Provide safety tips and give advice to the general public.
18. Sign applications for burning permits.

Current positions

1. Administrator of Fire Services

   The Board of Fire Commissioners is responsible for the Bureau of Fire Prevention, Bureau of Support Services, Bureau of Public Fire Education, Bureau of Water Supply and the Bureau of Fire Suppression, which collectively devise the town's Fire Service. The Fire Services Administrator is responsible for the Board of Fire Commissioners operations relating to all the bureaus of the fire service, planning, coordination, administration, budget preparation and presentation, personnel matters and the many other functions assigned by Ordinance / Statute or the Administration. The Fire Services Administrator is responsible for supervision of the personnel assigned to the Board of Fire Commissioners.

2. Fire Marshal

   The Fire Marshal is also responsible for the Bureau of Fire Prevention, Bureau of Public Fire Education and other functions assigned by Ordinance / Statute or the Administration. The Fire Marshal is responsible for the coordination of the Bureau's operations and

personnel. The Fire Marshal is responsible to plan, coordinate and supervise the operation of this Division and its personnel.

3. Fire Inspector - 2

   The inspectors are responsible to the Fire Marshal for conducting required inspections, plan reviews, and other related fire prevention activities. In addition, each Fire Inspector must be certified as a Fire Fighter I and as an Emergency Medical Technician. The purpose of these certifications is that each Fire Inspector is required to respond to fires and emergency medical incidents while on duty to assist the other fire personnel in the Town.

4. Office Coordinator

   Reports to the Fire Administrator and is responsible for the management of all office functions including, but not limited to supplies, records, budgets, and scheduling to ensure a smooth-running, and well coordinated office.

5. Clerk Typist III

   Reports to the Office Coordinator for clerical and related work.

6. Clerk Typist I

   Reports to the Office Coordinator for clerical and related work. This is a part time position - 12 hours per week.

7. Fire Prevention Instructor

   Reports to the Fire Marshal and is responsible to create, organize, plan and conduct various organized fire safety lessons within the Waterford School System as well as prepare and present various community fire safety programs.

In 2003, the career firefighters have begun certification as fire inspectors to perform in district pre-planning and building inspections.

The community is fortunate to have such a strong fire service, which is anchored by a respected Public Fire Education program. This program has been credited for many lives saved and serious injuries prevented. This program has been expanded to include safety issues and is offered throughout the school year in the towns school system. The fire companies participation in this program is noteworthy with several impressive activities conducted during fire prevention week as well as other initiatives sporadically performed during the year.

Tax incentives should be offered to homeowners that install and maintain residential fire sprinkler and alarm detection and reporting systems.

Communications

The Towns emergency communications center has been well maintained over the years. Career personnel whom dispatch the towns' Police, Fire and Emergency Medical personnel maintain this service. The center is also responsible for dispatching the Lawrence and Memorial Hospital paramedic program as well as serving as a Regional Control Center for the State Health Departments radio network. The communications center also controls the towns' Emergency Preparedness Siren Warning System.

A formal group of users consisting of Police, Fire , EMS, Public Works, Utility Commission and L&M Paramedics comprise an advisory committee to review the centers goals and performance. This committee should take into consideration the regionalization of the towns' fire dispatch services.

At any large incident, multiple agencies have the need to closely work together. A town-wide radio system has been proposed for all town radio users. This system needs to move forward into the installation phase to resolve the following issue:

A. Fire Officers should be able to communicate with radio users from any other town agency.

B. There are currently not enough portable radios to equip more than half of the emergency responders.

C. Access to the towns' Geographical Information System (GIS) should be available through the communications center.

D. Mobile Display Terminals should be available on fire apparatus.

Water Supply

The Town is partially serviced by a water supply system developed and installed jointly by the Town and the City of New London. The City of New London is responsible for the maintenance and repair of the system including fire hydrants, with the exception of privately owned fire hydrants, which are required to be serviced by the owners. There are presently 1,200 fire hydrants in the system, Ninety-three (93) are privately owned. There are three (3) hydrants that are not usable due to low pressure. Earth Tech currently has a contract with the City to provide the required maintenance and repair of the system and fire hydrants.

The Goshen and Jordan Fire Districts are fully covered by the water system. The system in these two districts has no discernable problems with pressure, volume, and distribution. Static pressure in these districts range from 70 to 95 pound per square inch (psi). The Pleasure Beach area does' have a high rate of water main breaks that is being considered for replacement through the Utility Commission.

The Oswegatchie Fire District has no water supply system north of and including Gurley Road and Parkway South to, but not including Cross Road. There is no coverage on the undeveloped section of Parkway North; also there is no coverage on the majority of Oil Mill Road and no coverage on I-395. The system in the covered areas has adequate pressure, volume and distribution with static pressures around 90 pounds per square inch (psi) in most areas, with the exception of some higher elevations and Cross Road with pressures not lower than 50 pound per square inch (psi).

The Cohanzie Fire District has good coverage south of I-395 with the exception of Douglas Lane, Harvey Avenue, Gilead Road and I-95. Coverage on Route 85 stops just south of the Lakes Pond Road. There is no coverage on I-395, Butlertown Road, Way Hill Road, Lakes Pond Road, Hunts Brook Road and Unger Road. The water system on Vauxhall Street Extension ends at I-395.

The high-pressure 12-inch main that services Route 85 from I-395 to Crystal Mall and Industrial Drive has a static pressure of approximately 125 pounds per square inch (psi). The pressure and volume in the rest of the district varies but appears adequate for the fire loading.

The Quaker Hill Fire District has more problems with its water supply system than the other districts. The main feed line is a 16-inch pipe supplied by the New London end of the system. A main break in the right location would cut all water service to Quaker Hill and parts of Montville.

Low pressure and inadequate volume are also a problem in certain areas. The static pressure at 88 Old Colchester Road is 27 pounds per square inch (psi). The static pressure at Bloomingdale Road and Gallows Lane can be as low as 18 psi depending on the water level of the on grade storage tank.

There is no coverage on most of Bloomingdale Road, none on Applewood Drive, Miller Pond Road, I-395, I-395 connector, Red Cedar Avenue, Bartlett Place, Hempstead Drive, Cinderella Lane and Mamacoke Road. The coverage on Old Colchester Road ends at #121. There are also areas of Route 32 that have no water.

The lack of water in the Bloomingdale Road area was the subject of a letter sent to WPCA in 1985 by Quaker Hill Fire Chief (On Record). The deficiencies for the rest of Quaker Hill were addressed in a letter sent to WPCA in December 1992 by the Chairman of the Board of Fire Commissioners (On Record). To date there have been some studies and design work done but no construction. Every effort should be made to increase the pressure and volume in this area and to provide a second source so that one broken pipe does not shut the water off for the whole district. This second source should be the two million gallon storage tank in Quaker Hill, a second main into Quaker Hill, by connecting the Vauxhall Street Extension main to Bloomingdale Road and extending the Bloomingdale Road main into the existing main on Bloomingdale Road and Old Mill Road or any other feasible solution.

There are approximately 20 miles of our 119 miles of Town roads and state highways that have no water service. There are approximately 17 miles of Interstate Highways without water and an additional 2.2 miles on the I-395 Connector. See Attachment 1 for a breakdown of these roads.

Located on 20 miles of roads without water service, there are approximately 554 structures, the smallest structure counted was at least as large as a single car garage. As residential expansion continues more homes will be build in these areas that have no water for fire protection purposes. At this point in time it seems to be advisable to purchase a water tanker with a capacity of at least 2,500 gallons of water.

The following improvements to the water supply system would benefit the fire service:

Connect the system from Oil Mill Road to Waterford Parkway North. This loop will bring water farther up Oil Mill Road and bring a water supply closer to I-95.

Connect the system from Hartford Road to the intersection of Wayhill Road and Oil Mill Road. This will bring the water supply closer to Oil Mill Road and Butlertown Road that are both unhydranted areas.

Extend the system from Industrial Drive to Vauxhall Street Extension (west of I-395). This will allow for looping of system East of I-395 and extension to at least Hunt's Brook Road. This will bring the water supply closer to the Waterford Country School and the North section of I-395.

Connect the system on Bloomingdale Road from Old Mill Road to Gallows Lane. This will bring water supply to an unhydranted area.

The program for upgrading large diameter hose to five inch should be pursued to allow for effective water supply management.

The old system of cisterns (natural water sources) has been allowed to decay. These should be reestablished to provide for alternative water supplies. These should be identified in the dispatching computer system. The program should include standpipes on bridge overpasses.

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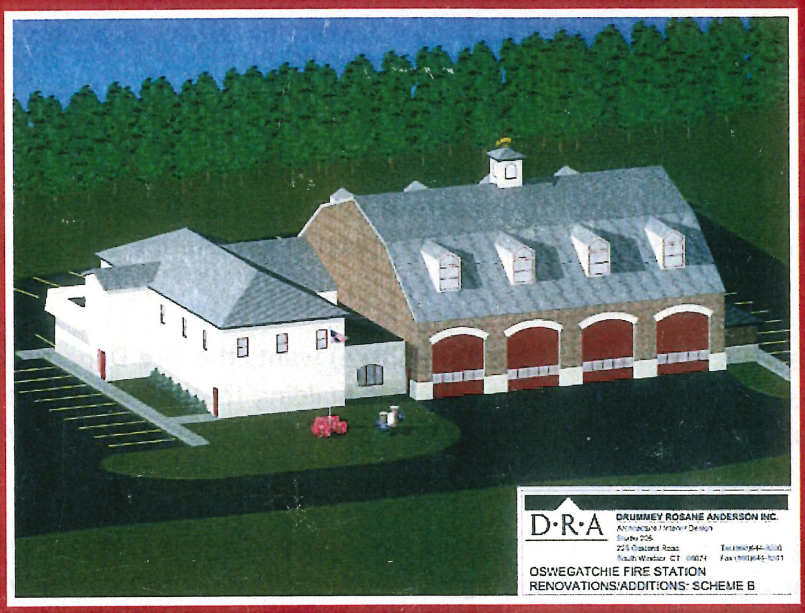
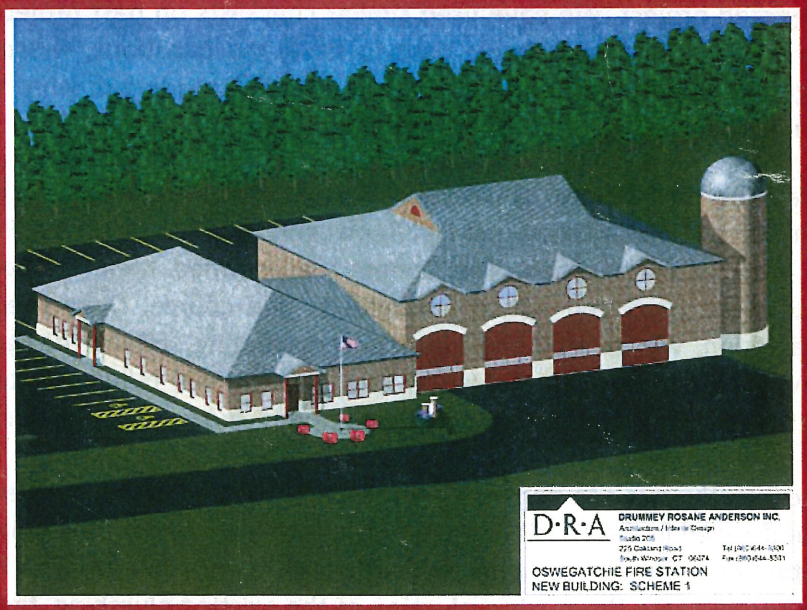
*Oswegatchie Fire Station Feasibility Study, 11/20/2014

(Added by Fire Director Chris Haley, 06/10/2025)

11/20/14
FEASIBILITY STUDY
OSWEGATCHIE FIRE STATION
WATERFORD, CT





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EXECUTIVE SUMMARY

We were selected through a competitive process to prepare a Feasibility Study and Preliminary Design for the Renovation/Addition or Full Replacement of Oswegatchie Fire Station at 441 Boston Post Road, Waterford, CT.

The Oswegatchie Fire Company Building Committee (The Committee) wants the Fire Department to stay at the current site. Their goal is to build an energy efficient building that will be in the best interest of the residents, visitors, Fire Department members and employees of the Town of Waterford.

Before scheduling a Programming Meeting, we started the process by providing the Committee/User Group a "Questionnaire/Programming Checklist" consisting of broad and narrow scope questions & issues pertaining to their understanding of the project goals and what they would like to see in the completed project. We have used similar checklists on past projects successfully. The object was to provide the Committee ample time to study the questions, reflect upon answers and come to the Programming Meeting with some advance understanding of what to expect. This process empowers them to guide the project in the right direction.

During the next several bi-weekly meetings with the Committee we presented various options for both Renovation/Addition and Full Replacement of Oswegatchie Fire Station. We explained the pros and cons of each option. The Committee provided their feedback and comments. Through this process the preferred option emerged in due course. Once the floor plan met the Committee's expectation, we focused our attention on creating suitable designs for the building exteriors. The Committee agreed with our vision that a traditional building exterior will be a better fit with the neighborhood and the Town than a contemporary/modern exterior.

Concurrently, our site engineer met with the Town Planner to identify major site issues that should be addressed in the Feasibility Study. Similarly, our structural engineer evaluated the integrity of the existing building and compliance with current codes for use as a Fire Station. Our MEP Consultants also conducted a thorough evaluation of the existing plumbing, fire suppression, HVAC and electrical systems. They identified deficiencies, remaining life expectancy and code issues pertaining to the existing systems. It is the opinion of our MEP Consultants that most of these systems have lived their useful lives and cannot support the needs of a modern day fire station.

Once we reached the stage during the design process when all stake holders were satisfied with the preferred design solutions for both Renovation/Addition and Full Replacement options, our cost estimator prepared an "Opinion of Professional Cost Estimate" for each of these solutions.

The Renovation/Addition option consists of removing the 1928 and 1960 portions of the building, completely renovating the 1976 and 1985 wings and adding a new entrance/apparatus bay. The New Building option consists of constructing a new building on the same site while the existing building remains in full operation. Once complete, all fire station operations will move into the new building, the existing structures will be demolished, and site improvements then completed.

Our task was to evaluate both options; we have provided these evaluations in our report. However, to meet the goal of an energy efficient fire station that will serve the needs of the town for many years to come, we recommend the new building option.

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1. PROJECT UNDERSTANDING

2. APPROACH METHODOLOGY

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6. MEP SYSTEMS EXISTING CONDITIONS EVALUATION

7. GREEN/SUSTAINABLE DESIGN

8. OUTLINE SPECIFICATIONS & ROOM FINISH SCHEDULE

9. DESIGN PROCESS SEQUENCE DRAWINGS & RENDERINGS

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1. PROJECT UNDERSTANDING

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PROJECT UNDERSTANDING

It is our understanding that the RFQ issued by the Purchasing Agent was to solicit design professionals for a Feasibility Study to include Preliminary Design for two options: 1) "Renovation/Addition" to the existing station and 2) "Full Replacement" with a new building on the existing site located at 441 Boston Post Road, Waterford, CT.

Oswegatchie Fire Department houses two fire engines, a hazmat command vehicle, an ambulance, a brush truck, a service vehicle and an inflatable boat. It is anticipated that Oswegatchie Fire Department will maintain the number of apparatus that it currently houses.

The Oswegatchie Fire Company Building Committee is comprised of the Fire Chief, Deputy Fire Chief, Fire Executive Committee Chairman, three members of the Fire Company, and one member each from the Board of Selectmen, Board of Finance and RTM. The Committee is focused on keeping the Fire Station at the current site and is not seeking any other site for the purpose of this Study. "It is the opinion of the Committee that a new energy efficient building constructed on the current site is in the best interests of residents, visitors, Fire Department members and employees of the Town of Waterford" is how the RFQ defined the project background.

During the programming and design phases, the Committee made it very clear that the completed Fire Station, whether a Renovation/Addition or Full Replacement, must be designed to serve the needs of the Town for not just 20 years but well beyond to a much longer period, perhaps 50 years. All feasible energy efficient design features, green technologies and sustainable materials should be incorporated in the project. The focus needs to be on Life Cycle Cost, not just the initial cost of the building and site, as energy costs of buildings are one of the single largest line items in most municipal budgets. The Committee also expressed their desire for systems and materials that require little or no maintenance.

The Town has allocated $20,000 for the Feasibility Study and related expenses. However, the method of seeking construction funding has not been determined at this time. Once the "Report" is complete, the Committee will present it to the Board of Selectmen, Board of Finance and to other Boards and Commissions as required by the Town Charter for municipal projects such as this one. The Town Leaders will then investigate the appropriate way of funding this project.

The Committee is prepared to spend their time and energy to promote the project in Town and educate the public about the need for the project.

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2. APPROACH METHODOLOGY

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APPROACH METHODOLOGY

Prior to scheduling a Programming Meeting, we started the process by providing the Committee/User Group a "Questionnaire/Programming Checklist" consisting of broad and narrow scope questions & issues pertaining to their understanding of the project goals and what they would like to see in the completed project. We have used similar checklists on past projects successfully. The object was to provide the Committee ample time to study the questions, reflect upon answers and come to the Programming Meeting with some advance understanding of what to expect. This process empowers them to guide the project in the right direction. We received from the Committee three sets of filled in "Questionnaire/Programming Checklist".

During the "Kickoff/Programming" meeting, the Design Team was able to listen to the project goals, objectives and vision as outlined by the Committee. We feel that during the initial phase of the project it is important to get from the Committee and the User Group as much information as possible, regardless of how broad or narrow the information might be. We as design professionals are then able to sort out the "needs" from "wishes". It is also critical that our major consultants be part of the exchange of ideas between us and the Owner's Team. The participation of DiCesare Bentley Engineers, our Site consultant and JLN Associates, our Fire Station Space Needs consultant, made it possible to explore with the Committee the full scope of issues and challenges for the project.

The next step was to review the responses provided by the Fire Department/User Group and establish a Program of Spaces that will satisfy the space needs of both Renovation/Addition as well as New Building options. Before any design could begin, it was imperative to get a consensus from the Committee on the type, number and approximate size of the spaces they will need. Once we received the green light from the Committee, the design work started.

At the next Committee meeting, we presented the following two options:

OPTION 1: RENOVATION/ADDITION

For the Renovation/Addition, we proposed that the 1928 and 1960 buildings be demolished due to age, poor structural condition and the inability to support the future needs of a modern day fire station. We further proposed that the two-story 1976/1985 portion of the existing building be renovated along with constructing additions for a new entrance and four double deep drive-through fire apparatus bays. A new elevator, one new stair and rebuilding the existing stair were included in this option to meet codes and program of spaces. This option resulted in a building with 8,600 sq. ft. of new construction and 6,500 sq. ft. of renovations adding up to 15,100 sq. ft. of total area. Since the fire department needs to stay in operation during the renovations/addition process, this option would require "phased construction", which by its very nature means difficulties and compromises on the part of building occupants such as living with the inconvenience of construction activities in the immediate vicinity, renting of office/storage trailers and possibly even renting portable toilets for short durations. Phased construction costs are also higher compared to single phase construction.

A broad brush look at the phasing for this option will consist of the following:

Phase 1:
Strip existing parking area on the east and build the new apparatus bays and the new connector. Construct new drives on the north and south of the new apparatus bays. Build new parking lot on the east side. Existing operations shall continue in the existing building.

Phase 2:
Move the apparatus to the new bays. Vacate 1960 wing and the second floor of the 1985 wing and operate on a temporary basis from the first floor of the 1976/1985 wing. Demolish the 1928 and 1960 wings.

Phase 3:
Renovate the second floor of the 1976/1985 wing. Build new stair and the elevator. Move all operations from the first floor to the newly renovated second floor. Complete site work on the north and west sides.

Phase 4:
Renovate the first floor of the 1976/1980 wing. Complete remaining site work.

OPTION 2: NEW ONE STORY FIRE STATION

The other option we presented was to build a brand new one story fire station on the same site. Designing a fire station on a clean slate has many advantages, including but not limited to, customized spaces to suit specific needs, efficient layout, adjacencies based on function and an energy efficient building envelope. Because of the efficient layout we were able to fit the programmed spaces in a total area of 13,350 sq. ft. compared to 15,100 sq. ft. in the renovation/addition option. There is ample room at the site to build this brand new building while maintaining operations from the existing building. Clearly there will be some inconveniences during construction, but nothing as serious as the ones for the other option. Furthermore, temporary swing spaces or rental of portable structures will not be required for this option.

A broad brush look at the phasing for this option will consist of the following:

Phase 1:
Strip existing parking area on the east and build new fire station. Construct new drives on the north and south of the new apparatus bays. Build new parking lot on the north side.

Phase 2:
Move existing operations to the new building and demolish existing buildings. Complete remaining site work.

The Design Team made changes and improvements to both options based on the feedback received from the Committee and the User Group. The process of refinement and fine tuning continued over several meetings. During these meetings, the Committee reserved final judgment on which option to select, however, the distinct advantages of a new one story custom designed, energy efficient building did not escape their attention. They especially understood the benefits to fire fighters of responding safely to emergencies without rushing down the stair from the second floor.

Our next task was to develop colored three-dimensional renderings to show various design possibilities of the building exterior for both options. We focused on creating traditional looking design schemes to fit the fabric of the neighborhood and the town rather than pursuing a contemporary modern looking design. We also kept in mind the climate in the region, durability and ease of maintenance of building materials and aesthetics in these design schemes. We presented a total of five different design schemes for both options which were received favorably by the Committee.

We made it clear that when the project goes into the next phase, after construction funding is approved by the Town, there will be more opportunities for the Fire Department to participate in revisions, refinement and fine tuning before the project goes out to bid. The Committee concurred that the layout as presented has all the spaces that the Fire Department had asked for in the "Programming Checklist".

Once the design process was concluded, we asked our professional cost estimator to provide cost estimates for both options. This was the final piece in our approach methodology.

TIMELINE: DESIGN PROCESS

July 16, 2014	Programming Questionnaire (PQ) emailed to the Committee
August 11, 2014	DRA requested copies of existing drawings
August 14, 2014	Kickoff/Programming Meeting at the Fire Station
August 16, 2014	List of spaces and sizes derived from the PQ emailed to the Committee
September 4, 2014	Design Review Meeting with the Committee
September 25, 2014	Design Review Meeting with the Committee
October 16, 2014	Design Review Meeting with the Committee
October 30, 2014	Draft Copy of Report provided to the Committee
November	The Committee met with the Board of Selectmen
November	The Committee met with the Board of Finance

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3. PROGRAM OF SPACES / COMPLETED CHECKLISTS

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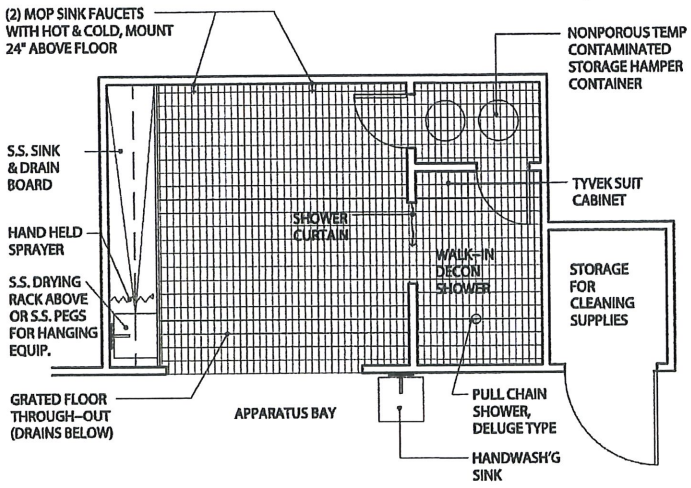
PROGRAM OF SPACES

Based on the Programming Checklists No. 1 - 3, the following have been noted as the needs for various spaces. Clarification is requested for the variations listed in red font.

APPARATUS BAY:	**4 Double Deep Bays for 8 pieces of equipment; DRA recommends 20' x 40' bays.**
GEAR STORAGE:	**Separate room vs. along Apparatus Bay wall; Total number 20 – 40.**
SCBA CHARGING:	**10' x 12'**
MAINTENANCE ROOM:	**12' x 20'**
HOSE STORAGE:	**Separate room vs. along Apparatus Bay wall**
BULK STORAGE:	**TBD**
DECON SHOWER:	**See sketch below and advise what features you wish to keep***
APPARATUS BAY TOILET:	**Provide**
WATCH ROOM:	**2 – 3 Work Stations**
EMS STORAGE:	**(5' x 10') ; (10' x 10')**
PRIVATE OFFICES:	**1 – 4**
MALE BUNKS:	**6 – 10**
FEMALE BUNKS:	**2 – 3**
MEETING ROOM:	**50 – 100 people**
PHYSICAL TRAINING:	**20' x 30'**
DAY ROOM:	**30' x 30'**
KITCHEN:	**(Central 20' x 30') ; (Commercial near Meeting Room, Residential near Day Room)**
MALE LOCKERS/SHOWERS:	**DRA recommends: 2 toilets, 2 urinals, 2 showers, 2 lavatories, 8-10 lockers**
FEMALE LOCKERS/SHOWERS:	**DRA recommends: 1 toilet, 1 shower, 2 lavatories, 2 lockers**
PARKING:	**40 – 55 spaces**



4. SITE EVALUATION

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SITE EVALUATION

The existing site located at 441 Boston Post Road (US Route # 1) consists of 2 acres of land. There are two curb cuts for ingress and egress of fire trucks as well as other traffic. A red blinking traffic warning light is located on the road in front of the Apparatus Bays. It is our understanding that the State DOT is discouraging the use of such traffic lights. There is one large paved parking area to the east of the existing two-story fire station. There are two sheds near the north property line. The area of unpaved surfaces is rather small.

The Fire Station site and two adjoining properties on the east side fronting on Boston Post Road, owned by the Oswegatchie Volunteer Fire Service Benefit Association, are in Zone NBPO. The adjoining properties on the north and the west sides are in Zone R-40. There are three small areas of inland wetlands on the northeast side of the property, which will be outside the area where new construction is intended. The footprint of the 100' Upland Boundary from the edge of Inland Wetlands on the neighboring property encroaches significantly into the northwest side of the site. No new buildings or additions will be allowed within this footprint. Building setback lines do not appear to pose any serious problem for the new development. However the 20' buffer between the site and the residential zones on the north and west sides posed challenges to the driveway and parking area design.

The scope of the Feasibility Study did not allow for a new survey. However, existing maps available from various sources provided information required for this phase. New site designs for both the Additions/Renovations as well as New Building were based on the information taken from these existing maps. Once the building footprint was finalized, we prepared several site design options. Working closely with DiCesare Bentley, our site engineer, we ran each site option through the litmus tests of zoning regulations, fire trucks maneuvering spaces, adequate parking and other common sense site design practices.

Several site layouts were developed and presented to the Committee explaining the pros and cons of each. Through refinements and fine tuning, two final site layouts emerged, one for the Additions/Renovations and the other one for the New Building that made the most sense and met applicable site design guidelines. In both designs, the apparatus bays are in new construction which shifts the location of the new curb cuts at Boston Post Road, although the total number of curb cuts remains the same. The sight lines on Boston Post Road from the new curb cuts have good visibility on both sides. These were presented to the Committee members who concurred with our design.

Clint Brown of DiCesare Bentley met twice with Planning Department staff members Dennis Goderre, Director, Mark Wujtewicz, Planner and Tom Lane, Zoning Enforcement Officer. The first meeting on 8/26 was held before site layouts were developed. The main purpose of this meeting was to inform them of our undertaking and solicit any particular issues that we should be aware of. The discussions revolved mostly around the permitting process and submission requirements. He was also able to get an initial indication of the basis for parking requirements.

Clint met with the same members of the Planning Department on 9/23/2014, presented the two schemes and discussed with them the specific requirements for buffers. He was informed that along site frontage, there is a 15' foot landscape strip requirement between the property line and parking, including access drives, which will require minor adjustments to the plans. The Fire Department currently leases a strip of land 5' wide from Alan H. Gardiner because 5' of the existing fire department driveway is located on Mr. Gardiner's property. Zoning Regulations require a 20' buffer from the property line. The new site layout is based on the understanding that during the next phase of the project the Fire Department will need to ask for a variance, which if not granted, will require redesign resulting in loss of 8-10 parking spaces. At the rear, a 20' buffer must also be provided even though currently there is none.

Clint was informed that parking spaces can be either 9'x20' or 10'x18'. With regard to parking requirements, they indicated that parking calculations do not need to be based on maximum occupancy permitted by Fire Code but rather can be based on a use plan. The number of parking spaces shown on the new site layouts meets the Fire Departments current and future needs. However, during the next phase when filing the zoning application, a seat/table plan that supports the reported number of seats must be provided with the application. The required number of parking spaces will be based on 1 space per 3 occupants, which will include seating capacity in the meeting room and normal fire department use.

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DiCESARE BENTLEY

ENGINEERS / SURVEYORS / PLANNERS

Memo

Clinton S. Brown II, PE AICP
Principal / Operations Manager

Michael J. Scanlon III, LS
Principal / Survey Manager

Paul Biscuti, PE
Civil Engineering Manager

Date: August 27, 2014 **Job Number:** 14-041

To: Anwar Hossain- DRA

From: Clinton Brown

Re: Oswegatchie Firehouse-Town Planning Meeting (08/26/14)

PC: File

Message: This memo will serve as our report of this meeting. In attendance were Dennis Goderre, Planning Director, Mark Wujtewicz, Planner and Tom Lane, Zoning Officer and me. I advise them that the effort at this time is on a feasibility study that would examine several building and site configurations so any comments would be appreciated and are as follows.

1. Front yard setback is confirmed at 25';
2. Use conforms to NPBO Zoning; original building is not conforming as to front yard setback;
3. Use assembly use to determine parking requirements (1 sp. per 3 occupants);
4. Project is subject to architectural design review (includes site items);
5. For stormwater; look at Niantic River Watershed Study (on line);
6. Modified Site plan Review per Sect 22 of Regulations and wetlands permit due to proximity of wetlands;
7. Status of all tanks and plan for future- above or below ground and types;
8. Flood zone – appears to be outside of but will confirm;
9. Within coastal boundary so will need a review unless exempted;
10. Side yard may be reduced but this does not appear warranted;
11. Generator location will be of interest.

These comments are fairly general in nature but at least they had the opportunity to advise of any items of interest.

I also had copies made of the 1984 and 1994 site plans and will scan and send them to you.

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5. EXISTING BUILDING / SYSTEMS EVALUATION

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EXISTING BUILDING / SYSTEMS EVALUATION

The existing Fire Station originally built in 1928 was added onto and renovated in 1960, 1976 and finally in 1980. The original 1928 two-story wood frame building has serious structural issues. It is being held in place by bracing and temporary shoring. The Fire Department vacated the building three years ago. It is our opinion that trying to salvage this building will not be in the best interests of the project.

The 1960 wing is a two-story wood framed structure added to the north side of the original building. The first floor contains the Day Room, Kitchen, Dispatch Room, Toilets and Lockers. The basement houses the Game Room, Lounge, Boiler Room, Storage and a stair leading directly to outside. Although this structure is still being used by the Fire Department, moving forward a building of this vintage will no longer meet the functional, structural or energy efficiency needs of a modern fire station. It is our opinion that spending money on this wing to bring this to current and future standards will not be a wise use of taxpayer dollars.

Another one-story addition for fire apparatus which faces the road was constructed in 1976. In 1980 two new apparatus bays were added on the north side along with new storage and generator rooms. The second floor of the 1980 construction included new bunk rooms, lockers and kitchen. A new meeting room on the second floor was also built over the 1976 wing at the same time.

Based on its more recent construction and because it is in better condition than the rest of the fire station, we will explore in detail the existing condition of the 1976-1980 wing. The evaluation we present below is based on demolishing the 1928/1960 wings and renovating the 1976/1980 wing.

Two-story fire stations of a comparable size are being phased out in favor of one-story stations across the State and the Nation. The response time from within the station to the fire apparatus in a two-story station will always be longer compared to a one story-station. Safely negotiating the stair by fire fighters adds valuable seconds that in a emergency could be a matter of life and death. This disadvantage will be there for the life of the station if the Renovations/Additions option is selected.

In order to make the Renovations/Additions comply with applicable codes, major upgrades will be required. Let's review these one by one.

A new second means of egress stair will be required to meet codes. The existing wood framed stair will require replacement with a new one to meet current floor loading and other building/fire code requirements. Furthermore, an elevator will be required to comply with 2010 ADA Standards for Accessible Design.

Fire Stations are classified as Building with "Importance Factor" IV which requires that seismic, snow and wind loading be increased by the designated factors which translates into the following for this location:

Seismic Factor	Multiply by 1.5
Basic Wind Factor	115 MPH x 1.2 = 132 MPH
3 Second Gust	120 MPH x 1.2 = 138 MPH
Snow Factor	30 PSF x 1.2 = 36 PSF

The exterior walls of the 1976/1980 wing are built with 2x6 wood studs. This type of wall construction in a two story high structure might squeeze by meeting the above requirements. However, knowing the existence of insect damage as evidenced by piles of wood shavings discovered periodically and noting daylight coming through the walls at some locations, the structural integrity cannot be fully evaluated without removing siding and sheathing. For the purpose of this study, we have included in the estimate the cost for new exterior walls.

The existing wood floor joists will not meet the code required loading for some of the uses that will be located on the renovated second floor. The low pitch rubber roof has only two small roof drains, a high roof curb and no secondary drains. This combination can best be described as an accident waiting to happen. We will recommend building a conventional pitched wood truss/sheathing/shingle roof over the existing roof.

In order to meet the current energy efficiency requirements, all existing exterior doors and windows would require replacement with new ones. Existing fiberglass batt insulation will require replacement with foamed-in insulation minimizing thermal bridging and gaps in the building envelope. In conclusion, other than the existing steel framing, concrete slab and sound portions of the wood wall/floor/roof framing, all other building components of the renovations to the 1976/1980 wing will need to be new to meet codes and energy standards.

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ISSUES OF IMMEDIATE CONCERN

1. The Second Floor has only one means of egress in violation of Fire Code.

2. The area of the Second Floor Meeting room is 830 sq. ft. Fire Code will view this room as capable of holding @ 15 sq. ft./person 55 people and @ 7 sq. ft./person 119 people. For occupancy over 50 in a room, the Fire Code requires two means of egress. Since egress through the 1928 wing will not be allowed due to dangerous structural conditions, the Meeting Room currently has only one means of egress which is a violation of Fire Code.

3. The one usable stair from the second floor is not protected by 1-Hr. rated construction and openings in violation of Fire Code.

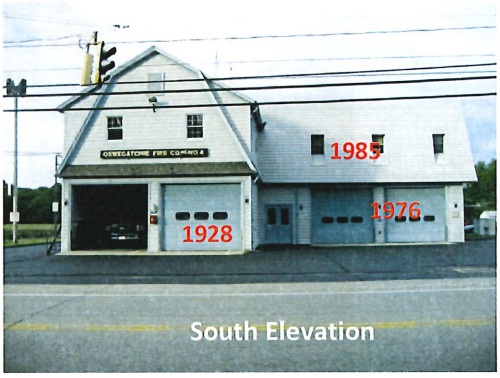
4. The Bunk Room, which Fire Code views as a sleeping room, requires "rescue and ventilation" windows. The two existing windows do not meet the requirements.

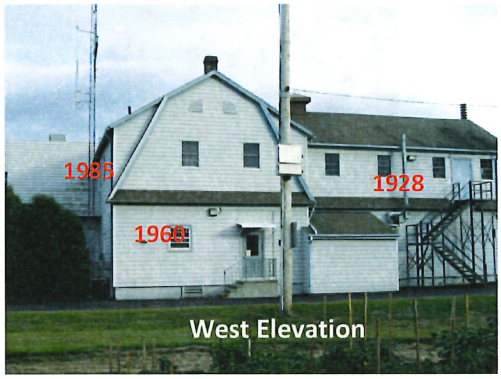
5. Wood decay, as evidenced by finding wood shavings on the floor, leads one to the possible conclusion that the wall framing might have been compromised. If the first floor exterior walls are compromised the safety of the second floor is very questionable.

6. One 2" roof drain and the surrounding foot high parapet without any scupper or secondary roof drain is an accident waiting to happen. Freezing conditions followed by rain are not uncommon in this climate. Any significant water buildup due to the blockage of the single drain could lead to roof collapse.

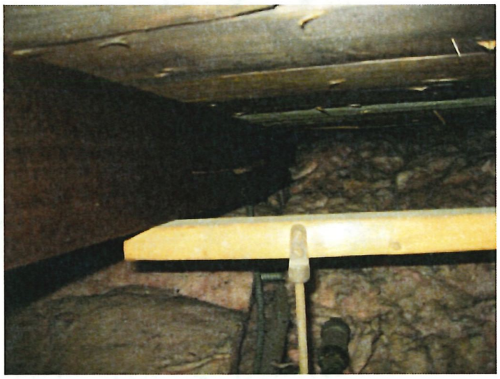
7. Since we did not design the shoring, only the Engineer of Record can say if the shifting conditions after three years have further compromised the structural integrity of the 1928 building. If the 1928 wing were to collapse, it might pull a portion of the second floors of the 1960 and 1985 wings.

ELEVATIONS





DAMAGED RAFTERS

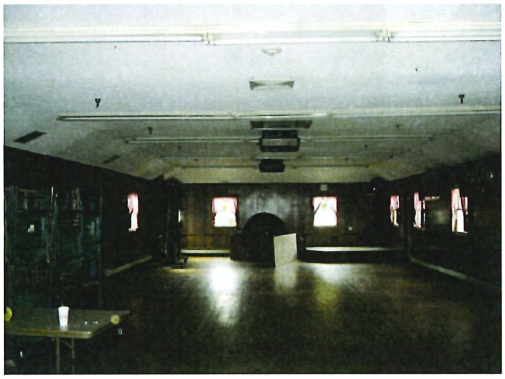


DAMAGED RAFTERS

EXHAUST FAN TO BE REMOVED

HVAC UNIT TO BE REMOVED

HALL



WIRING

SPRINKLER PIPING

DAY ROOM

DAY ROOM

WEST BAY

CEILING AT WEST BAY

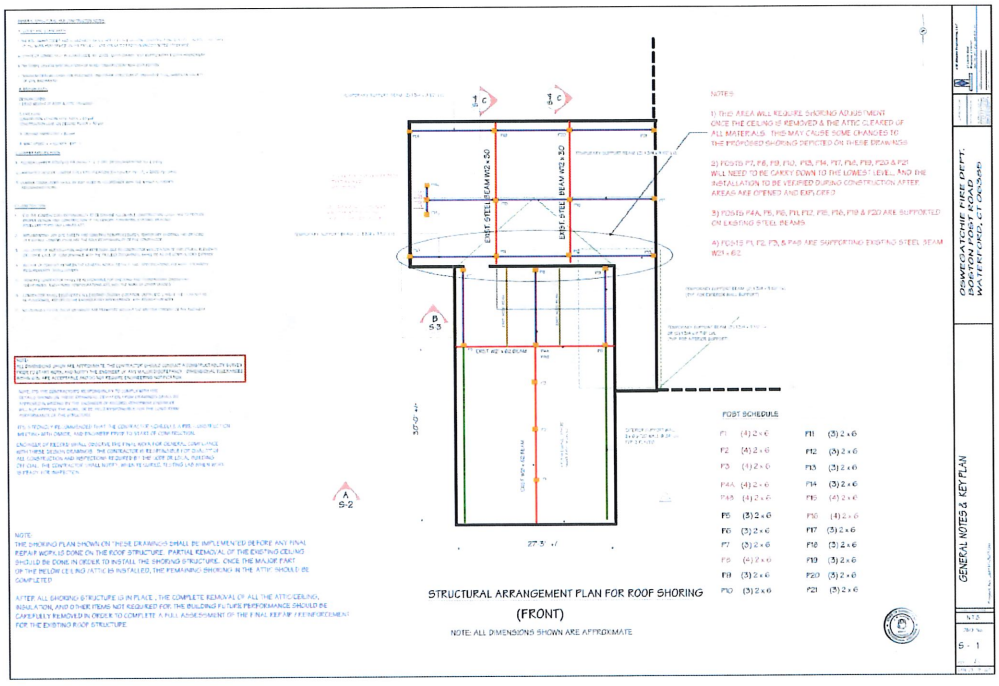
MISSING SILL PLATE

SHORING:

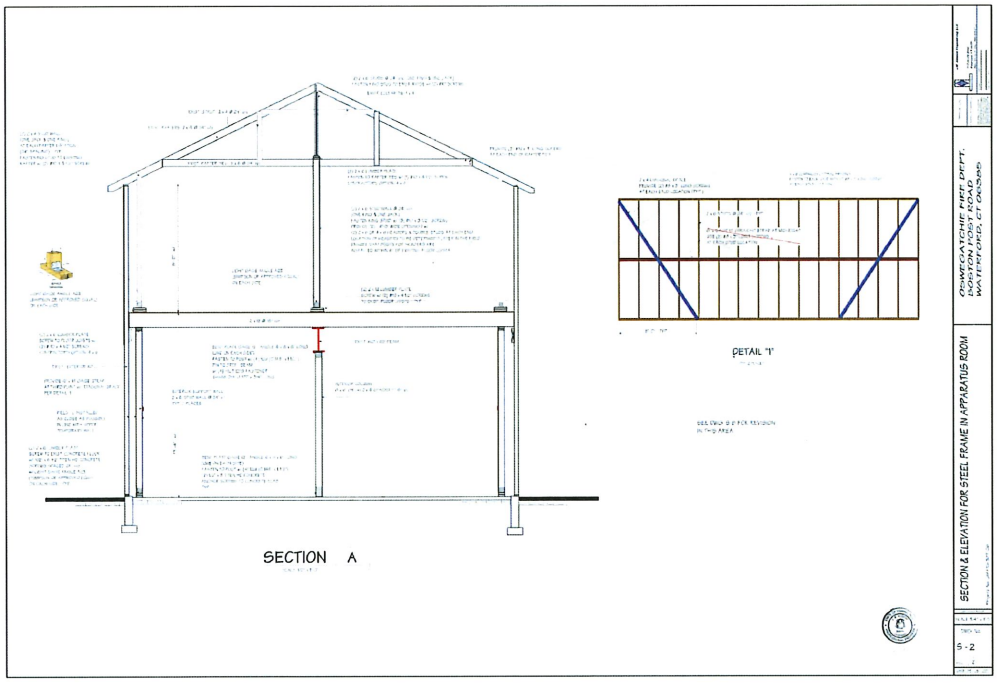
- Remove light fixtures
- Remove exhaust fans
- Remove sheetrock ceiling in the hall
- Remove insulation above hall ceiling
- Install shoring to the structure per the engineer's drawings

SHORING PLANS

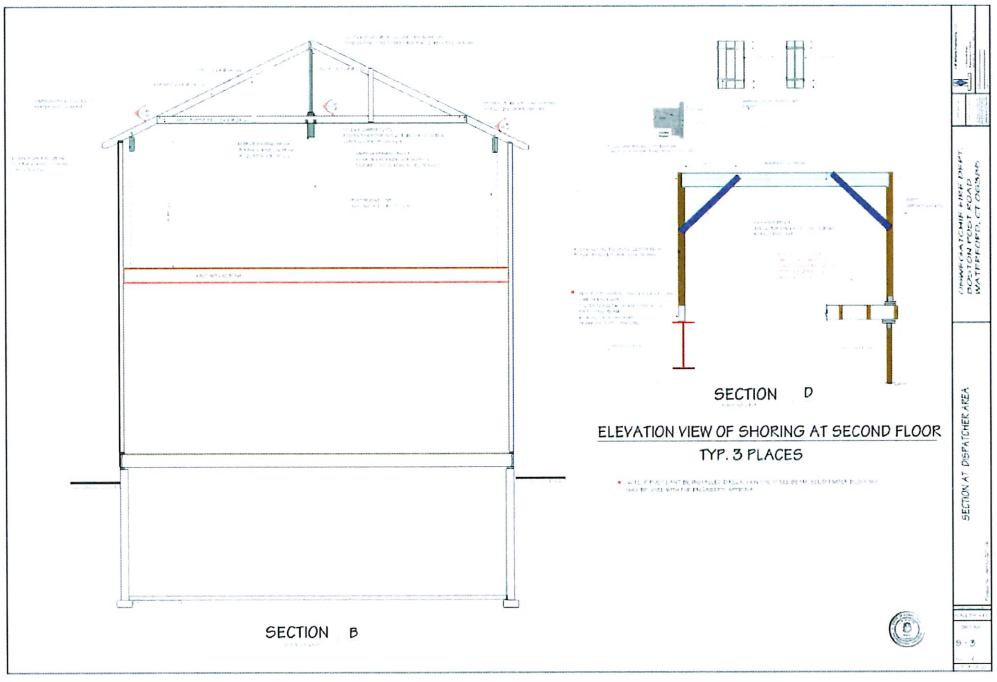
Drawing No. S-1: General Notes & Key Plan



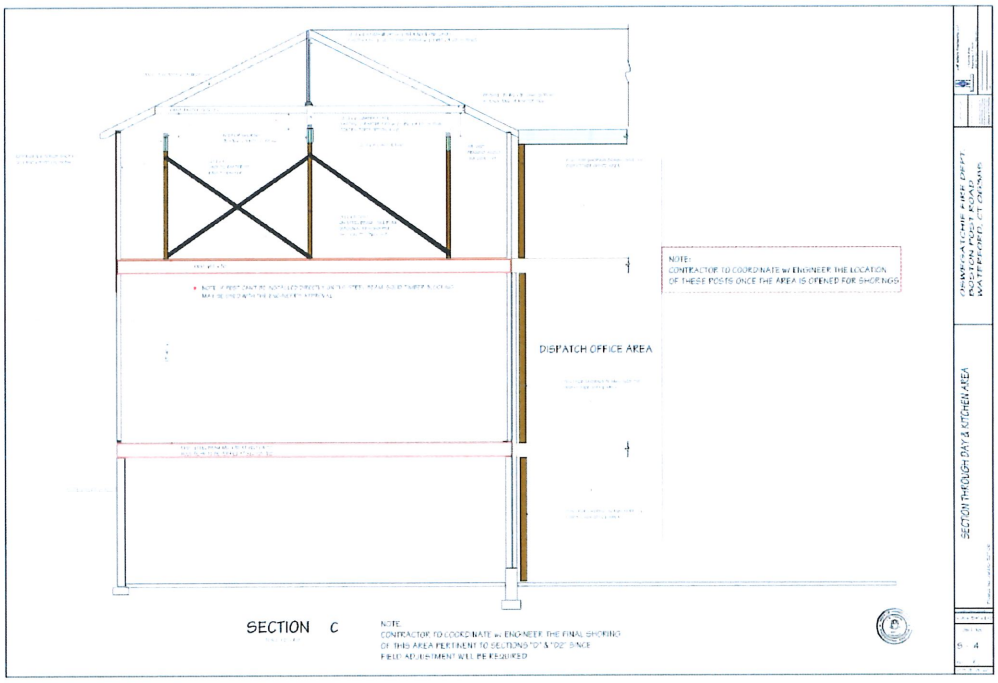
Drawing No. S-2: Section & Elevation for Steel Frame in Apparatus Room



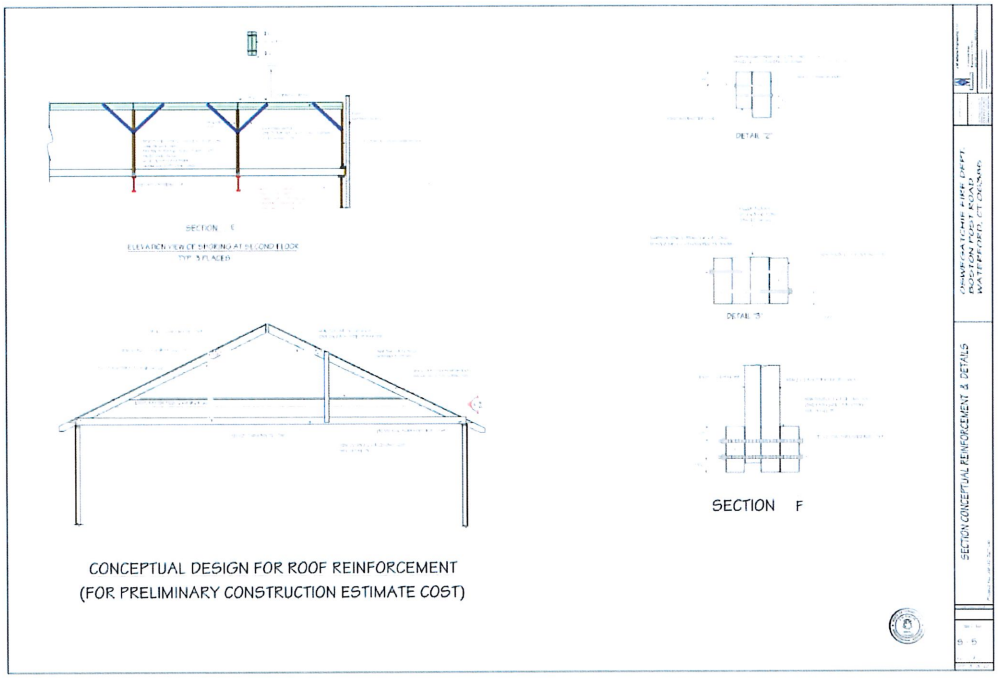
Drawing No. S-3: Section at Dispatcher Area



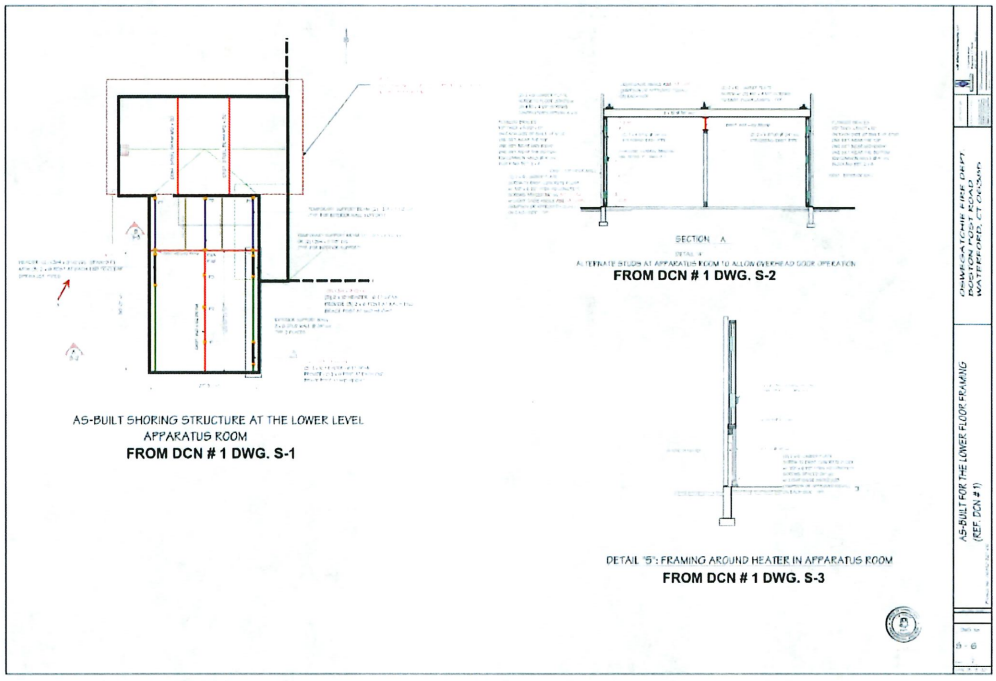
Drawing No. S-4: Section through Day & Kitchen Area



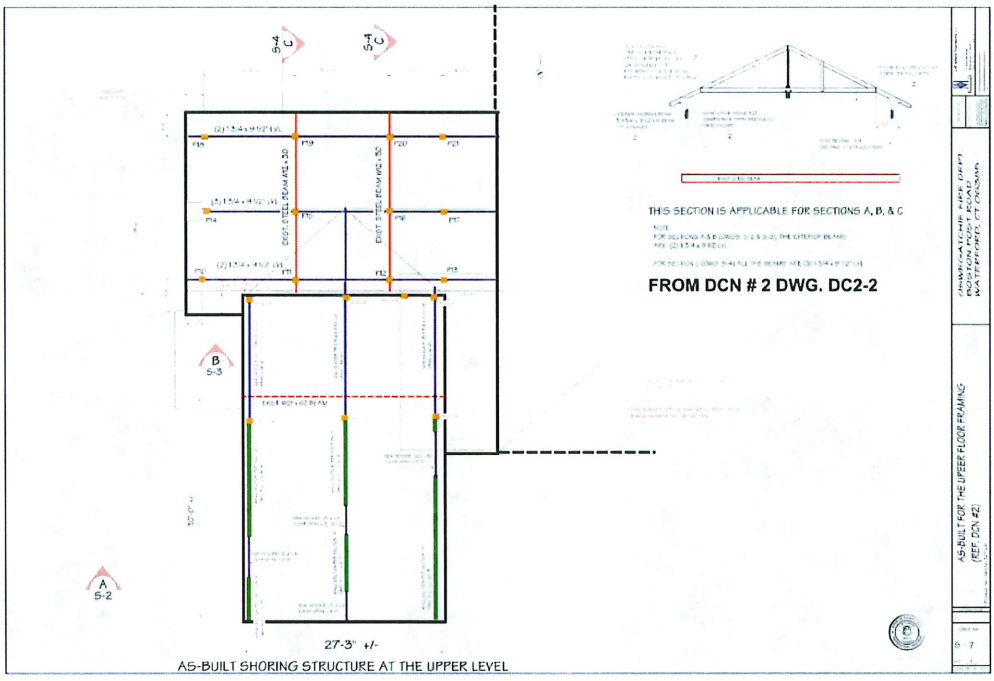
Drawing No. S-5: Section Conceptual Reinforcement & Details



Drawing No. S-6: As-Built for the Lower Floor Framing (Reference DCN #1)



Drawing No. S-7: As-Built for the Upper Floor Framing (Reference DCN #2)



SMALL APPARATUS BAY

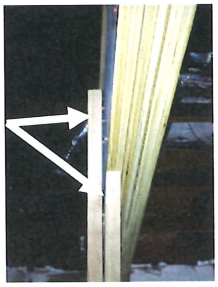
KITCHEN

KITCHEN

DAY ROOM

UPSTAIRS HALL

Signs that shoring is shifting



6. MEP SYSTEMS EXISTING CONDITIONS EVALUATION

Mechanical and Electrical Systems
Existing Conditions Report

October 7, 2014

OSWEGATCHIE FIRE STATION
441 BOSTON POST ROAD
WATERFORD, CT

Prepared for:

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CES PN 2014291.00

Plumbing, Fire Protection, HVAC and Electrical Existing Conditions Report

CES Project Number: 2014291.00

OVERVIEW:

The following describes the mechanical, electrical, plumbing and fire protection systems, currently installed in the existing Oswegatchie Fire House building located at 441 Boston Post Road, Waterford, CT.

APPLICABLE CODES AND STANDARDS:

- Connecticut State Building Code – 2005 CT Supplement, 2009 &2011 Amendments
- Connecticut State Fire Safety Code current edition
- International Existing Building Code - 2003
- International Mechanical Code - 2003
- International Plumbing Code – 2003
- National Electrical Code – 2011 (NFPA 70)
- ASHRAE 90.1 and International Energy Conservation Code - 2009

PLUMBING SYSTEMS:

Existing Plumbing Utilities

1. Domestic Water Service (Photo P-1): The existing building is currently served with a 2-inch domestic water service from the underground local public water system. The water service is approximately 30 years old.

    - Water heater (Photo P-2): Domestic hot water is produced by Triangle Tube Phase III model TR-60, 60 gallon indirect fired water heater which utilizes boiler hot water to heat domestic hot water. The water heater is at the end of its expected life.

    - Hot water distribution: Hot water is supplied to various sinks, showers and lavatories throughout the building. There is no master hot water tempering valve installed and there is no hot water recirculating system present. The existing system is at the end of its expected life and should be replaced with new hot water distribution system with a hot water recirculation system and a master tempering valve to prevent scalding temperature water from being distributed to fixtures.

    - Insulation: Insulation was noted to be missing on some of the hot and cold water piping throughout the building. The insulation that was seen on piping appears to be original to building construction and should be tested for asbestos and should be abated properly.

2. Propane Gas Service (Photo P-3): The existing building is currently served by a 50 gallon above ground propane tank. The tank supplies propane to the residential type range in the first floor kitchen and the commercial type range in the second floor kitchen. The tank is located against the north building wall towards the rear of the building.

3. Sanitary Service: The existing building's sanitary lines are currently gravity drained to City sewer. The existing buried sanitary piping should be video surveyed for cracks and to verify condition of piping.

- Existing floor drains in Apparatus Rooms should be video surveyed for blockages and to verify condition of piping.

- Basement Lounge (Photo P-4): There is an existing sump pump which serves the two bowl sink. The pump is a Myers model ED-25, ¼ hp, 120 volt, 8.0 amps. It is dated 01/1998 (16 years old) and is beyond its expected life. It is also the likely source of odors in the area.

- The existing sanitary and vent piping is observed to be a mix of cast iron, copper and PVC pipe.

- The dishwasher in the second floor kitchen drains to a grease trap located in the adjacent janitor's room. Grease trap should be cleaned on a regular schedule.

4. Roof Drainage (Photo P-5): The building's existing roof drains appeared to be only 2" size. There are portions of the roofs which are sagging and water is ponding. The roof areas have a parapet construction which could cause water to build-up if the drains became blocked.

    - The roof drainage should be redesigned to incorporate a secondary roof drainage system or scuppers through the parapet.

5. Plumbing Fixtures: The fixtures all appeared to be original. The toilets are flush tank type and the urinals are flush valve type. The lavatories vary throughout the building as well as the faucets on them. Many of the chrome faucets are badly tarnished.

    - The fixtures should be removed and replaced with low water consumption fixtures. The existing fixtures are outdated and are of the high water consumption type.

    - Accessible plumbing fixtures should be provided per ADA requirements.

    - Plumbing fixtures and chrome faucets are stained and tarnished. (Photo P-6)

FIRE PROTECTION SYSTEMS:

1. Existing Fire Protection Service (Photo FP-1): The existing building is currently served by a 6-inch fire protection service entering the building in the Apparatus Room on the North side of the building. The fire protection service transitions from 6-inch to single 4-inch fire protection riser. The sprinkler system is a dry pipe system. The service is equipped with an Ames model 2000SS double check valve backflow preventer and an air compressor to maintain air pressure in the piping system. Sprinklers and piping serving each floor appear to be in good working condition

2. Fire Department Connection: The fire department connection is located on the north exterior wall adjacent to the sprinkler riser.

3. Kitchen Exhaust Hood Ansul System (Photo FP-2): The kitchen exhaust hood is equipped with an Ansul R102 wet chemical extinguishing system. There is also a manual pull station adjacent to the door exiting the kitchen.

    - The existing Hall on the second floor where the roof structure is currently being reinforced has the sprinkler heads in the pendant position where the old

ceiling has been removed, and in the upright position at the pitched roof. The pendant heads will not operate in a fire since there is currently no ceiling to allow the heat to build up.

MECHANICAL SYSTEMS:

Existing Heating System

1. Boiler (Photo M-1): Hot water heating is provided by two Hydrotherm model MO-770A oil fired boilers rated at 606,000 btu/hr heating capacity, 527,000 btu/hr net IBR rating, and two Beckett Model "A" burners. Boilers are located in the basement boiler room. The boilers are original and have exceeded their expected life.

2. The boilers produce hot water which is pumped to serve baseboard perimeter radiation and unit heaters. The water is circulated via (5) five inline circulating pumps. The equipment has exceeded its expected life.

3. The fuel oil is stored in an outside underground 1000 gallon fuel oil storage tank located on the north side of the building.

Existing Air Conditioning System

1. The building is air conditioned via (2) two roof mounted packaged air conditioning units and (3) three split system air conditioning units.

    a. The second floor Meeting/Training Room and Corridor are served by a Trane model TSC090A3RO41L packaged rooftop unit, 7.5 ton capacity, 208 volt – 3 ph., 42.7 mca, 60 amp max fuse. The unit was manufactured in 01/2005 (9 years old).

    b. The second floor Bunk Room, Locker Room and Offices are served by a Trane model TSC0060A3RUA1K packaged rooftop unit, 5 ton capacity, 208 volt – 3 ph., 31.5 mca, 50 amp max fuse. The unit was manufactured in 01/2005 (9 years old).

    c. (Photo M-3) The second floor Hall is served by two split system air conditioners, 3 ton capacity each. Both systems are York model N2AHD14A06C air handler mounted above the ceiling and York model H2CB036S06A condensing unit mounted outside on grade. The units were manufactured on 03/1989 (25 years old). The units are beyond their expected lives.

    d. The basement Game Room and Lounge is served by a 3 ton capacity Tempstar model TCA036AKC4 condensing unit mounted outside on grade and an air handling unit installed in a crawl space in the basement. The crawl space is not easily accessible and raises the question of how this unit is serviced.

        - None of the air conditioning systems provide any outside air mechanical ventilation. Only natural ventilation is available thru operating windows.

        - Access to the roof and for maintenance of equipment must be provided by a permanent approved means in compliance with the International Mechanical Code. Catwalks are required for service access to equipment in attic spaces.

Existing Kitchen Exhaust Hood

1. Kitchen Hood (Photo M-2): The Kitchen is served by two stainless steel Type 1 grease exhaust hoods measuring 66" long x 54" deep x 21" high each. The hoods are mounted end to end. The hoods are compensating type with un-tempered make-up air introduced into the front portion of each hood.

    a. Exhaust fan is a roof mounted Centri-Master model PU200G upblast fan

    b. The make-up air fan is roof mounted. No name plate data was available. The fan housing was badly rusted.

        - The outlet of the kitchen hood exhaust fan is only 26" above the roof and does not meet the 40" distance required by the International Mechanical Code.

        - The exhaust fan is located less than the 10'-0" clearance to the make-up air intake which is a violation of the International Mechanical Code.

ELECTRICAL SYSTEMS

Existing Main Electrical Service and Distribution

1. The building electrical service consists of a 600 ampere, 208/120V, 3 phase, 4 wire service entrance that originates from a pad mounted utility transformer located adjacent to the building. The utility transformer has a simple radial primary feed originating from utility pole #2776 located directly in front of the property. The primary electric service runs from the riser pole to the utility transfomer extending approximately 100'-0" underground. The utility transformer is a 150 kva dry type and is situated on a concrete pad located adjacent to the building. The concrete pad is the smaller size pad that is typically utilized by Northeast Utilities (similar to #P013) for transformer sizes 75 - 300 kva. This pad will not be suitable for use with a larger transformer. The electric service equipment is located inside the building adjacent to the pad location on the main floor level with access only from inside the building. The meter location is on the outside of the building at the main switch location and has meter number #89-033-743. The secondary service lateral run is approximately 25'-0" in length. The electric service is satisfactory for the current building electrical load and any planned remodel of the current footprint. Any planned relocation of the existing unit would most likely necessitate its replacement by the utility company. Expansion of the current building footprint will require further evaluation.

2. The service entrance equipment consists of a wall mounted combination main disconnect switch / metering cubicle manufactured by General Electric (Photo E-1). The equipment is from the AV line and is identified with shop order #182-42178. The equipment has nameplate values as follows; 600 ampere, 480/277 volt, 3 phase, 4 wire with a short circuit interrupt rating of 35k AIC symmetrical. The metering sequence (hot or cold) could not be determined. The service equipment is contained within the Main Electric Room inside the building. The room is small and does not provide all of the appropriate service clearances required of a modern code compliant installation. A permanently installed vertically configured air compressor / air storage tank was installed directly in front of the main switch negating proper service clearance at that equipment (Photo E-5). The Main Electric Room contains the

Normal Main Distribution Panel NMDP, the Normal/Emergency Main Distribution Panel NEMDP, N/E sub-panel NELP11, and the main Fire Alarm Control Panel.

3. Normal power loads (non-generator backed) are fed from panel NMDP (Photo E-2) and consist of the following; (1) 7.5 ton rooftop single package hvac unit, (1) 5.0 ton rooftop single package hvac unit, (1) 5.0 HP air compressor, (1) 60 ampere 3 phase welding outlet, a load center panelboard located within an outbuilding located on-site and also the 400 ampere normal feed to the facility ATS/Standby Power System. Panel NMDP is a 600 ampere main lugs only General Electric Type CCB panel and has adequate space for inserting (5) additional circuit breaker distribution devices with maximum frame size of 150 amperes. Circuit breaker loads of 20, 30, 60 and 100 ampere could not be specifically identified and were not marked at the panel schedule.
4. There are no branch circuit panelboards fed directly from the normal power system within the building. All panelboards within the building are fed through the ATS/Standby Power System. One panelboard located in the outbuilding on site is fed from the normal power system.
5. The majority of distribution panelboards / equipment were installed in 1984. The equipment is serviceable with replacement parts available, albeit from third party suppliers as some components are obsolete. It is very feasible to reuse this equipment as part of any planned remodel. Branch circuit panelboards that are older Square D Type QO load centers were relocated in 1984 from the original building construction and should be phased out in any new renovation procedure and replaced with new equipment.

Existing Emergency Generation System

1. There is an existing 75.0kw/98.3 kva 208 volt 3phase, 4 wire diesel fired power generation plant existing within the building (Photo E-8). The unit is an Onan 75.0DYC-15R with serial number K840739886 denoting manufacture in 1984. The unit is nameplated at 260 rated load amps with connection at 120/208-3 phase, 4 wire. The unit has logged 1550 hours which approximates weekly exercise time over a 30 year life. The generator is connected to a single output circuit breaker rated at 400 ampere which in turn feeds a 400 ampere automatic transfer switch (ATS) both located within the generator room. This overcurrent protection size is not proper for the unit and should be effectively reduced to 350 ampere maximum. The generator is supported with a day tank located adjacent to the generator and is suitable for two hours of operation. The main supplement of fuel is provided by an underground fuel storage tank located outside the generator room.
2. The generator was observed operating through an exercise cycle. Excessive smoke/exhaust fumes on startup and the run process could be indicative of wet stacking conditions, whereby the genset is running with insufficient load to reach optimal operating temperature. The unit should be reviewed with a generator service company for implementing an annual load bank test of sufficient size to achieve proper operating temperature.
3. The generator provides power for all systems within the facility with the exception of those noted in the NMDP criteria listed above.
4. The installation predates the 1996 NEC revision which requires all emergency life safety loads to be fed through a separate transfer switch. A substantial renovation could require life safety and optional standby loads to be separated. Due to the lack of self illuminated exit signage and only partial coverage of emergency battery lighting within the building all existing lighting fed from the standby system is currently considered life safety lighting. A

renovation design would require the power distribution system to be upgraded with two transfer switches or necessitate the full implementation of emergency battery backed lighting and exit signage.

5. Optional Standby Power is distributed throughout the facility through the NEMDP normal/emergency main distribution panel (Photo E-3) and a series of sub-panels. The branch circuit panelboards are as follows:

   Panel NELP11 - Main Electric Room - feeding apparatus room lighting and equipment

   Panel NELP12 - Generator Room - feeding generator subsystems (Photo E-7)

   Panel NELP13 - Apparatus Room - feeding apparatus / operations room equipment

   Panel NELP21/22 - Second Floor Closet - feeding second floor kitchen, meeting, bunk areas (Photo E-4)

   Panel NELPB2 - Basement Electrical Closet - feeding basement misc lighting and power (Photo E-6)

   Panel NELPB4 - Basement Boiler Room - feeding boiler room equipment

Existing Telephone, Security, CCTV and Special Access and Distribution

1. The building is currently equipped with Telephone, CCTV and Security. The head end equipment for these services are dispersed throughout the facility.
2. Data distribution appears to be minimal with only a small local network.
3. The security system / access control stations are located throughout the building at various access doors with keypad entry. Systems appeared to be adequate and functioning.
4. CCTV cameras are dispersed throughout typically on the exterior for security measures and are monitored with a DVR recorder system.
5. Toilet rooms were not equipped with local call for aid devices.
6. The utility communication services used by the department over time have been installed by various serving utility companies and then abandoned in place at the overhead service drop. These services were installed from utility pole #2776 located at the northwest corner of the property. Abandoned wiring should be removed from the overhead service drop as part of any attempted remodel.
7. The main intercom station is a Zetron Fire Station Alerting System. (Photo E-9)

Existing Fire Alarm System

1. The building is served by a FireLite #MS9200 fire alarm control panel. The fire alarm control panel appears to be in good condition and complies with code. It is an addressable system converted from the former hard wired zoned system. The panel has a 198 point capacity for monitoring and control and the ability to connect four horn strobe output circuits and therefore is a satisfactory specification for current and future considerations.
2. Fire Alarm initiating devices included addressable single action manual pull stations, water flow and tamper switches, extinguishing hood monitoring as well as smoke and heat detectors exist throughout the building. A few exterior egress doors were not equipped with manual stations and should be retrofitted.
3. Notification Appliances throughout appeared to be code compliant. Bed vibrators or high output horn/strobe devices should be installed in the sleeping quarters.

Existing Lighting

1. Lighting within the Basement, First Floor and Second Floor common areas is mainly recessed mounted, lensed fluorescent fixtures with T-8 lamps. The light levels within the spaces appear to be lit adequately. There are some incandescent fixtures located throughout that have been retrofitted with compact fluorescent lamps and therefore perform poorly. The vast majority of fixtures were installed during the 1984s renovation project and require replacement or repair.
2. Lighting is typically controlled by switch and/or individual room occupancy sensors.
3. Lighting within the Apparatus Bays is a mixture of surface mounted lensed and bare 1'x4' fluorescent fixtures with T-8 lamps. Some recessed line voltage downlights retrofitted with compact fluorescent lamp exist throughout. The fixtures were in serviceable condition and provided adequate light levels. Wraparound and bare lamp fixtures are an effective inexpensive replacement but would not represent a preferred specification for this application.
4. Lighting on the exterior consists primarily of stanchion mounted metal halide floodlight fixtures on the building parapets for illumination of the surrounding grounds and parking area. Egress lighting at doorways appeared to be incandescent fixtures possibly outfitted with compact fluorescent lamps which do not perform well in extremely cold temperatures. Metal halide fixtures cannot be solely relied upon for emergency egress lighting as they require a cooldown and restrike period when transferring to generator power. All exterior lighting fixtures require evaluation for compliance with this important performance aspect.
5. Exit signs installed were not self illuminated but installed as exit sign plates illuminated by local area light fixtures. Size, contrast, and visibility issues exist with the performance of the existing system. Installing illuminated LED signage would be recommended.

Existing Second Floor Banquet Hall

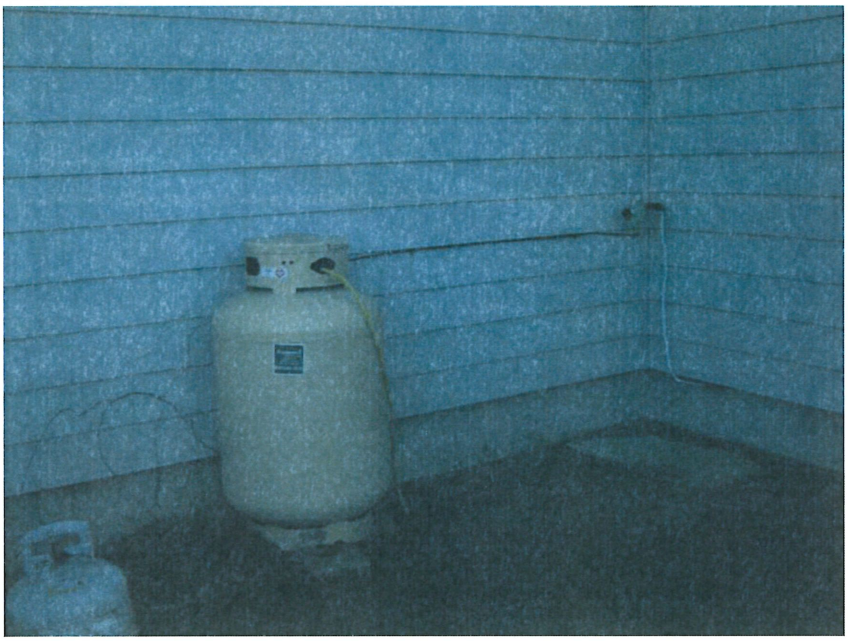
1. The second floor banquet hall has been partially demolished due to ongoing structural reinforcements of the peaked roof structures. This has left wiring systems that were previously concealed now exposed and no longer properly supported or terminated. Existing wiring systems should be made safe and/or removed where no longer required. (Photo E-11)

Plumbing Pictures

P-1: Domestic water service

P-2: Water Heater

P-3: Propane Tank



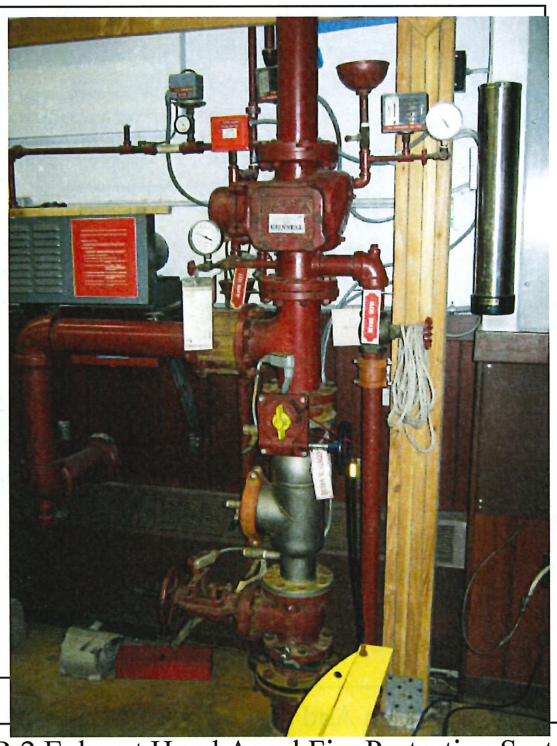
P-4: Sump Pump

P-5: Water ponding on roof

P-6: Old plumbing fixtures

Fire Protection Pictures

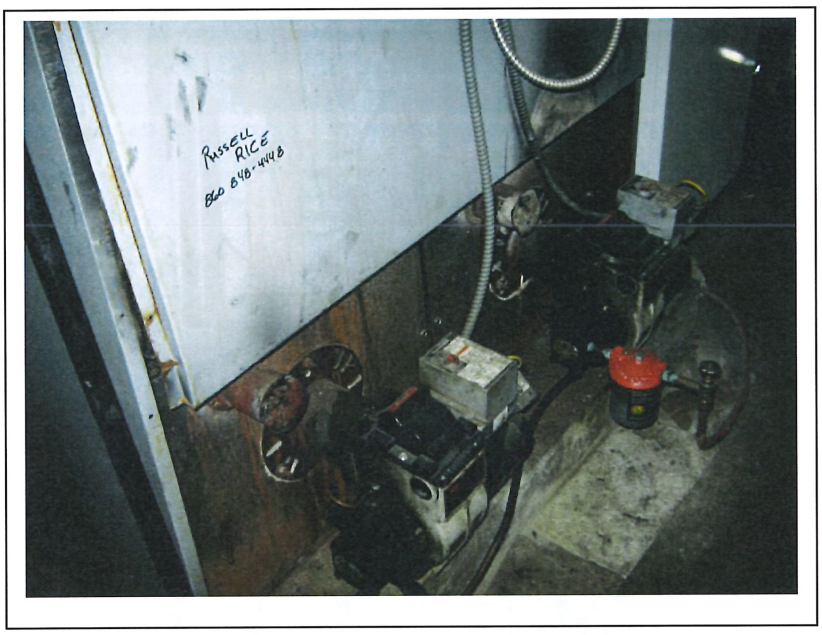
FP-1: Fire Service



FP-2 Exhaust Hood Ansul Fire Protection System

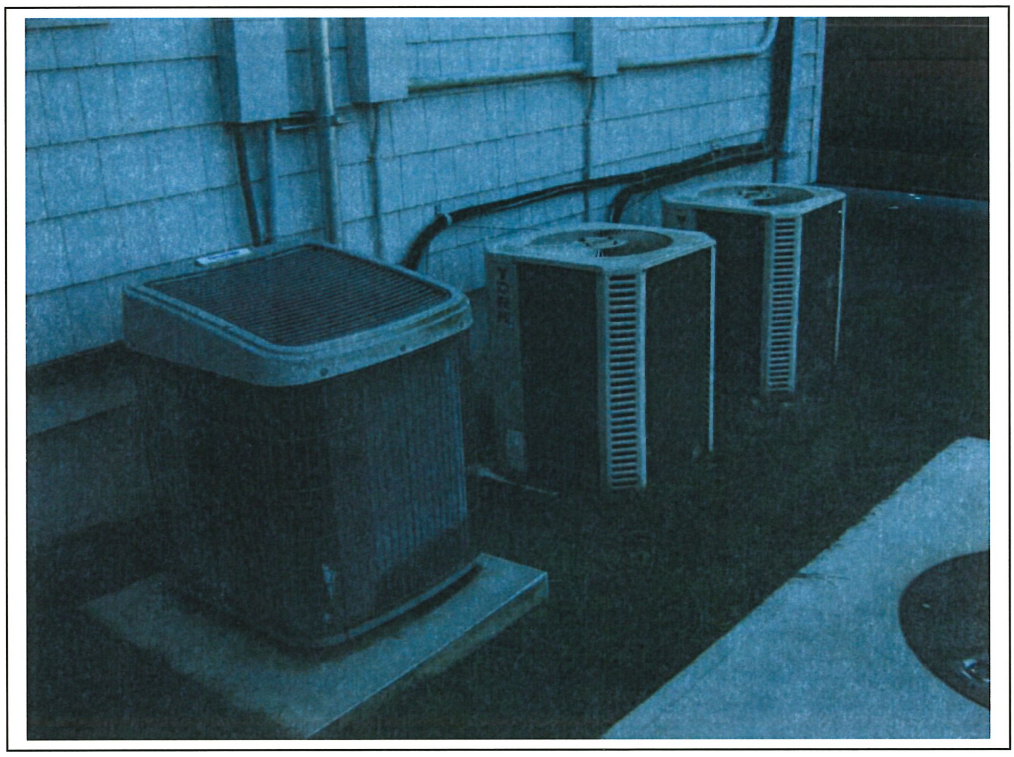
Mechanical Pictures

M-1: Boiler



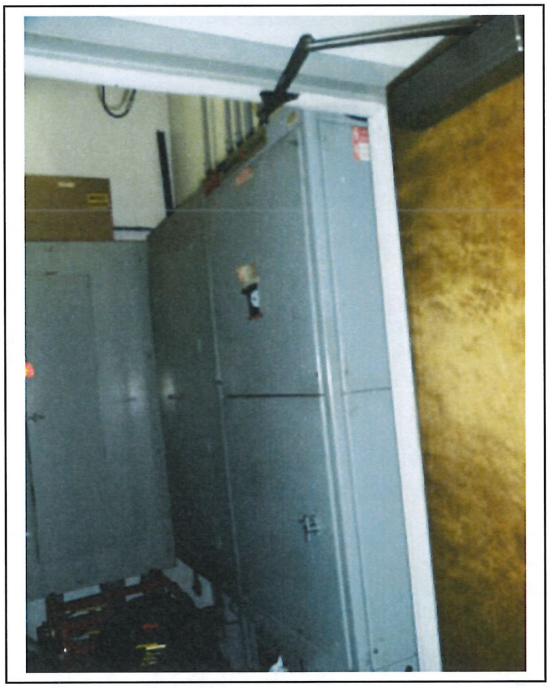
M-2: Exhaust fan And Make-up Air Fan on roof

M-3: Split System Air Conditioning Units



Electrical Pictures

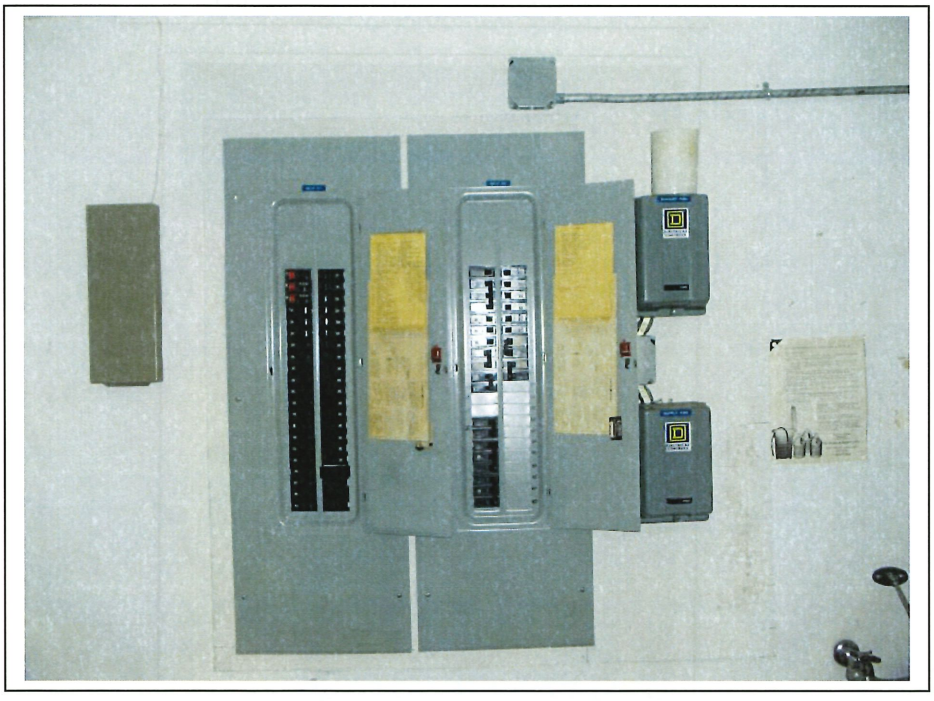
E-1: Electrical Service



E-2: Panelboard NMDP

E-3 Panelboard NEMDP

E-4: 2nd Floor Panels NEPL21/22

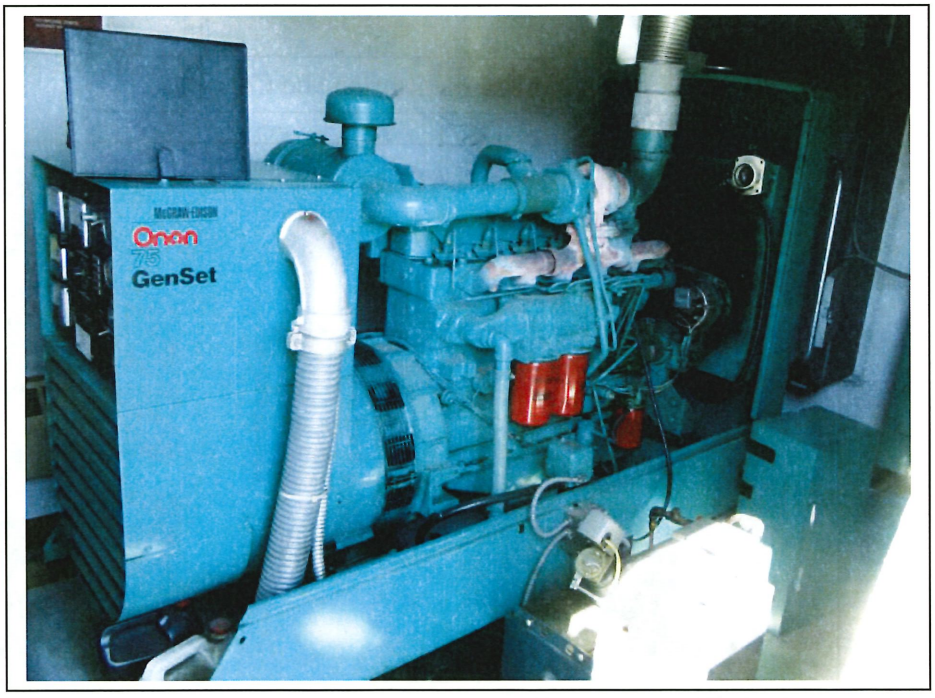


E-5: Air Comp at Main Disconnect

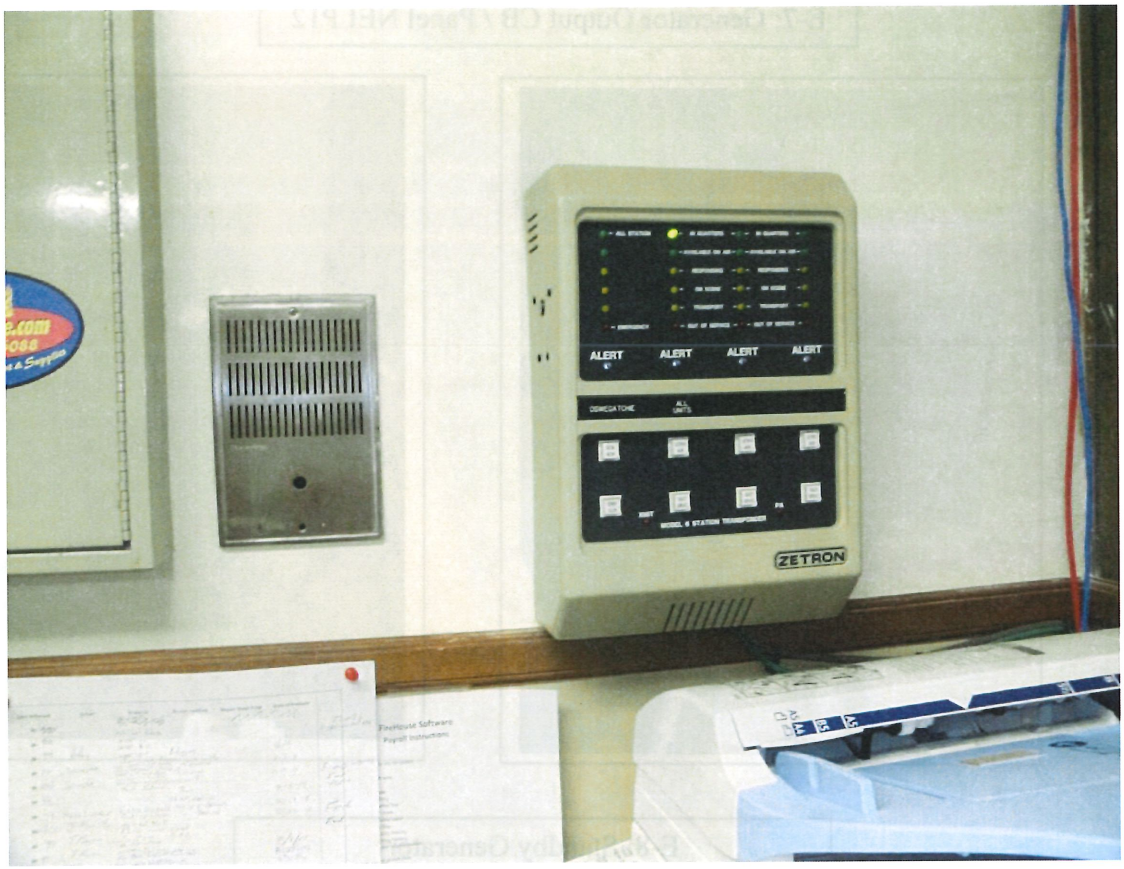
E-6: Basement Panelboard NEPB2

E-7: Generator Output CB / Panel NELP12

E-8: Standby Generator



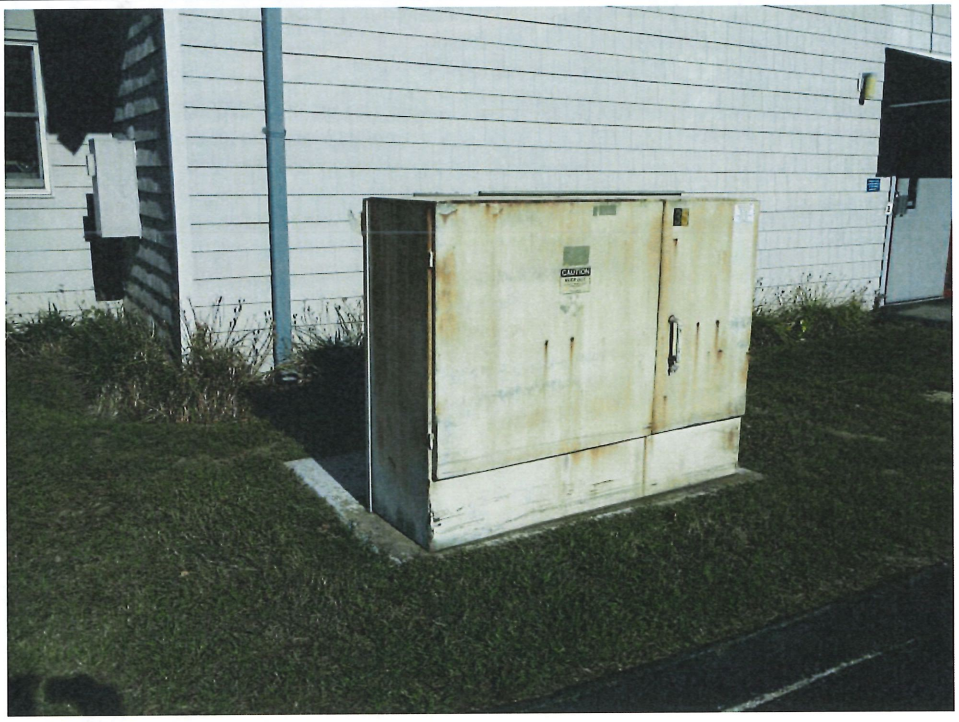
E-9: Intercom System



E-10: Misc Monitoring and Control

E-11: Abandoned Wiring

E-12: Electric Service Transformer



7. GREEN / SUSTAINABLE DESIGN

D•R•A

GREEN / SUSTAINABLE DESIGN

There are many terms to describe energy efficient building design. But they all point to one goal; the need to conserve the resources of our planet. Design professionals are not only paying serious attention to sustainable design but also concentrating on educating clients about the need to do so. It is a collaborative effort which can only succeed if designers, owners, builders, material suppliers and regulators are all pulling in the same direction.

Although we have been designing energy efficient buildings for many decades, we continue to seek the next higher level. We are now taking a "whole building design" approach that analyzes materials, systems and assemblies from many different angles. Our design strategies are in sync with LEED guidelines and High Performance Building strategies. We leave to the Owner the final decision to go through the expense of pursuing LEED Certification, and at what level – Certified, Silver, Gold or Platinum.

Although some might say that it is not easy being green, we say it is much easier than one might think. We have taken an approach to first incorporate "low tech" energy efficiency features in our design that are free or of negligible cost, such as building shape/orientation, storm water management, day-lighting, natural ventilations and recycled building materials, to name a few. Only then do we consider incorporating "medium tech" and "high tech" features into our design. Building automation systems, high efficiency fixtures/systems, geo-thermal and active solar features, considered out of reach a few years ago are fast becoming an integral part of our sustainable design.

We feel that by reducing energy demand, harvesting site features and maximizing efficiency of systems we have been able to stay in step with the times. We advocate that all buildings should strive for a high level of sustainability if we want our grandchildren to enjoy the same quality of life as we do.

LEED/GREEN/SUSTAINABLE DESIGN STRATEGIES:

1. Common Sense Strategies that Have Little or No Impact on Project Budget:

- Building Orientation on Site (New Construction Only)
- Building Shape (New Construction Only)
- Building Fenestration/Solar Control (Overhangs, Glass, Shading, etc.)
- Natural Ventilation (Weather Permitting)
- Day Lighting (Windows, Skylights, Light Tubes, Etc.)
- Pavement Materials
- Site/Roof Water Discharge Management
- Locally Manufactured Materials
- Construction Waste Management
- Recycled Building Materials
- Low VOC Materials

PAYBACK IS IMMEDIATE OR HAS A SHORT TIME SPAN

2. Strategies that Have Moderate Impact on Project Budget:

- Computer Modeling of Energy Performance
- Higher Than Code Required R-Value for Building Envelope
- High Performance Glazing
- Dual Flush Toilets
- High Efficiency Motors and HVAC System
- High Performance Lighting Fixtures (LED)
- Controls to Integrate Day Lighting with Artificial Lighting
- Building Automation System
- Heat Recovery

PAYBACK HAS A SHORT TO MODERATE TIME SPAN

3. High Tech. Strategies that Have Large Impact on Project Budget:

- Photovoltaic Panels
- Solar Hot Water System
- Geothermal System
- Wind Turbine

PAYBACK HAS A SHORT TO MODERATE TIME SPAN

SOME SAY IT IS NOT EASY BEING GREEN. WE SAY IT IS EASIER THAN YOU THINK

8. OUTLINE SPECIFICATIONS / ROOM FINISH SCHEDULE

D•R•A

OUTLINE SPECIFICATIONS: OSWEGATCHIE FIRE STATION

DIVISION 01 – GENERAL REQUIREMENTS

010000	GENERAL REQUIREMENTS/ GENERAL CONDITIONS	By General Contractor or CM based on the Front-End Documents provided by the City of Hartford
011000	SUMMARY	The work consists of: 1. Additions and renovations OR 2. New Building
012100	ALLOWANCES/CONTIGENCIES	1. New Electric Service, if Needed $ 2. New Telephone Service, if Needed $ 3. New Cable T.V. Service, if Needed $ 4. New Gas Service if Needed $
012200	UNIT PRICES	1. Poured in Place Conc. $/CY 2. Rock if Encountered $/CY 3. Structural Fill In Place $/CY 4. Gravel Fill in Place $/CY
012300	ADD ALTERNATES	1. TBD
012600	CONTRACT MODIFICATION PROCEDURES	Front-End Documents provided by the City of Hartford and AIA General Conditions
012900	PAYMENT PROCEDURES	Front-End Documents provided by the City of Hartford and AIA General Conditions
013100	PROJECT MANAGEMENT AND COORDINATION	Front-End Documents provided by the City of Hartford and AIA General Conditions
013300	SUBMITTAL PROCEDURES	Front-End Documents provided by the City of Hartford and AIA General Conditions
015000	TEMPORARY FACILITIES AND CONTROLS	Front-End Documents provided by the City of Hartford and AIA General Conditions
017329	CUTTING AND PATCHING	To accommodate new construction as shown
017419	CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL	By the Contractor or by CM
017700	CLOSEOUT PROCEDURES	By the Contractor or by CM CM to coordinate
017823	OPERATION AND MAINTENANCE DATA	By the Contractor or by CM
017839	PROJECT RECORD DOCUMENTS	By the Contractor or by CM
017900	DEMONSTRATION AND TRAINING	By the Contractor or by CM

DIVISION 02 – EXISTING CONDITIONS

024116	STRUCTURE DEMOLITION	Entire building down to the 5 feet below existing grade (new building only).

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OUTLINE SPECIFICATIONS: OSWEGATCHIE FIRE STATION

DIVISION 03 - CONCRETE

033000	CAST-IN PLACE CONCRETE	3,500 psi For Slabs 3,000 psi for Footings and Walls Vapor Retarder 0.01 perm after conditioning and Class "A" TREATMENT & ACCESSORIES 1. "Basis-of-Design Product: CP-500W as manufactured by Chemical Products Industries, Inc. 2. Joint sealer for exterior and interior concrete slabs shall be Concrete Joint SL Sealant as manufactured by Titebond. Install per manufacturer's recommendations. 3. Water-stop between new and existing concrete shall be PVC Retrofit systems in 6" and 9" profile depending on site conditions as manufactured by Greestreak Group, Inc., St. Louis, MO. Provide epoxy gel, stainless steel batten bars/anchor bolts. Install per manufacturer's recommendations. 4. Location: New elevator shaft pit.
	COLORED STAMPED CONCRETE	L&M Construction Chemicals, Inc. L. m. Scofield Company Location: Flagpole Area
033053	MISCELLANEOUS CAST-IN PLACE CONCRETE	3,500 psi 4,000 psi site concrete
	CONCRETE PATCH INTERIOR	ARDEX-SDP as manufactured by ARDEX Engineered Cements
	CONCRETE PATCH EXTERIOR	ARDEX-CP as manufactured by ARDEX Engineered Cements
	CONCRETE SUB-FLOOR PREP.	ARDEX Feather Finish
	CONCRETE COATING	ARDEX ARDICOAT PLUS for vertical or horizontal surfaces.

DIVISION 04 – MASONRY

042000	UNIT MASONRY	BRICKS:	ASTM C-216, Grade SW, Type FSB, 8000 psi Modular Locations: Exterior Walls
		CMU:	Light Weight 95-100 lbs/cu.ft. ASTM C-90, Light Weight, 1,900 psi as manufactured by Westbrook Locations: Corridor and inside of apparatus bays with epoxy emulsion coating
		DECORATIVE CMU:	ASTM C-90 Splitface with Dry-Block W. R. Grace, Light Weight, 105 lbs/cf, 3050 psi, as manufactured by Westbrook Locations: Exterior walls in lieu of brick
		MORTAR:	For Decorative CMU and Face Bricks Colored Pre-blended cement lime as manufactured by

OUTLINE SPECIFICATIONS: OSWEGATCHIE FIRE STATION			
			Lehigh
		MORTAR ADDITIVE:	Dry-Block
		CAVITY WALL INSUL:	Factory Cut 16"x96" Extruded Polystyrene Boards, Thickness As Shown
		REINFORCING:	Ties, Anchors, Hohmann & Barnard
		CAVITY DRAINAGE:	"TOTALFLASH" by Mortar Net USA, Ltd.
DIVISION 05 - METALS			
054000	COLD FORMED METAL FRAMING (CFMF)	Deflection L-600 Maximum Minimum 6" wide and 16 Gauge 16" O.C. Maximum Services of Structural Engineer registered to practice in CT by G.C. $2,000,000 Professional Liability Insurance	
055000	METAL FABRICATIONS	LOOSE LINTELS:	ASTM A-36/A-36M with 25% Recycled content, Exterior Galv., Interior Prime Painted, Min. 8" Bearing Both Sides
		METAL LADDERS:	Submit Shop Drawings
		SHIP'S LADDER	Model SL-18HD (18' high) Materials Flow and Conveyor Systems, Inc. 800-338-1382
		METAL BOLLARDS:	Sch 40 Steel Pipe
		SHIP'S LADDER	Aluminum Model ACL-201 by ACL Industries, Inc.
		METAL NOSING	Model 241-BF by Wooster Products, Inc.
055100	METAL STAIRS	Concrete Filled Steel Pan Stairs and Landings 1 ½" O.D. Steel Pipe Railing for Inside Application Aluminum Railings for Outside Application Series 500 by Superior Aluminum Products, Inc. or Welded System by Sterling Dula Arch. Products (new building only). Location: Replace existing with new.	
DIVISION 06 – WOOD, PLASTICS AND COMPOSITES			
061000	ROUGH CARPENTRY	Dimensional Lumber, Hem Fir (north), NLGA, Hem Fir, WCLIB or WWPA, Doug Fir or Kiln Dried Spruce	
061000	ROUGH CARPENTRY	Hem Fir Pressure Treated Wood. MCQ Micronized Copper Quaternary does not require barrier tape or stainless steel nails.	
061600	ROOF & WALL SHEATHING	Plywood or OSB A-C Plywood shall be Exposure 1 with Exterior Glue	
062000	FINISH CARPENTRY	Plastic Laminate Casework, Counter and Window Sills Make it single source responsibility for fabrication and installation, both	

OUTLINE SPECIFICATIONS: OSWEGATCHIE FIRE STATION		
		AWI QCP Certified. HPDL Laminate Type 107 (HGS) for Vertical and Horizontal Surfaces HPDL Laminate Type 350 (HGP) for radius edge and post forming <u>Fiberglass Columns:</u> Straight shaft Tuscan By Edon or equal Do not specify product by Melton Classics. Poor quality at Ellington. Specify min. wall thickness of columns.
DIVISION 07 – THERMAL AND MOISTURE PROTECTION		
071326	SELF ADHERED SHEET WATERPROOFING	WALLS: 60 Mil Bituthene By W. R. Grace with 1" Protection/Drainage Board "Perimate" by Dow Chemical Co. SLABS: Preprufe 300R By W. R. Grace LOCATION: Elevator Pit
072100	THERMAL INSULATION	Non-Urea Formaldehyde Fiberglass Batt Sound Insulation USG Therma-Fiber Creased Foundation Walls Extruded Polystyrene, ASTM C-578 Pin Type Batt Hangers: TACTOO By AGM Industries, Inc. Brockton, MA TACTOO GPA-72 Anchor Adhesive
	SOUND ATTENUATION BLANKET	SAFB 2.5 pcf density 1 ½" to 6" thick by Thermafiber
072700	AIR/VAPOR BARRIER LIQUID SPARY APPLIED Do not use vapor permeable.	Perm-A-Barrier Liquid By W.R. (Bloomfield Schools & Fire Station) ASTM E-2357 Grace or Barrideal by Carlisle (CBH) Specify tape, primer and adhesive.
073113	ASPHALT SHINGLES	ASTM D-3462 "Timberline Ultra HD" by GAF DeckArmor by GAF Cobra Snow Country Ridge Vent GAF "Golden Pledge" Warranty by GAF Underlayment Felt ASTM D-226 Type 1 Asphalt Saturated Organic Felt Self Adhered ASTM D-1970, 40-Mil, "Ice and Water Shield" by W.R. Grace Ridge Vent "Shingle Vent II" by Air Vent Inc.
075323	EPDM ROOFING	30-YEAR: ASTM D-4637, Type II, 90 Mil, Fully Adhered, Over Protection Board By Carlisle
076200	SHEET METAL FLASHING AND TRIM	Open Valleys & Step Flashing 16 oz Non-Lead Coated Copper Drip Edge, Gutters and Downspouts .032" Alum. Fabricate all shapes and forms with unpainted metal. Paint after fabrication, bending, grinding and welding is complete.
078413	PENETRATION FIRESTOPPING	3M to meet UL Requirements
079200	JOINT SEALANTS	Low Modulus Silicone Sealants: 1. SPECTRUM 1 BY TREMCO

OUTLINE SPECIFICATIONS: OSWEGATCHIE FIRE STATION		
		2. SCS 2000 SILPRUF BY GE 3. DOW CORNING 795 4. 890 BY PECORA
DIVISION 08 - OPENINGS		
081113	HOLLOW METAL DOORS AND FRAMES	16 ga galvanized exterior and 16 gauge primed interior Exterior: Remove all existing doors and frames and replace with new doors and frames for all new and existing openings.. Interior: Remove all existing doors and frames and provide new frames for all new and existing openings.
081416	FLUSH WOOD DOORS	Solid core 5-ply architectural factory finished, Weyerhauser Interior: All doors
083113	ACCESS DOORS AND FRAMES	UF-5000 by Acudor.
083326	OVERHEAD COILING COUNTER DOOR	Model 652 (Alum.), 651 (Stainless Steel) Overhead Door Company Provide 3-sided s.s. hood, s.s. motor shroud with removable covers, sensing edge
083613	SECTIONAL DOORS	WAYNE DALTON GLASS DOORS Full View Alum. (Anodized or Color) Sectional Door Model 452 with ½" Insul. Glass (Clear or Tinted)
084113	ALUM-FRMD. ENT. & STOREFRONTS	Kawneer Isoglaze 450T with 1" Insul. Glass Units Kawneer 1600 and EFCO 5600 "Thermally Improved" EFCO: System 5600 2 ½" w/ Duracast Fiberglass Pressure Plate Kawneer 1600 UT (Ultra Thermal) New Improved YKK 45XT Dual Thermal Barrier LOCATION: Vestibules only
084113	ALUMINUM DOORS WIDE STILE	EFCO D518 DuraStile available in 2", 2 ¼" and 2 ½" thickness.
085200	VINYL CLAD WOOD WINDOWS	Anderson Fixed, Casement and Awning
087100	DOOR HARDWARE	Match Existing or Carry an Allowance "Full Body" solid threshold by ZERO (suffix V3)
087100	DOOR HARDWARE	Hinges: 4 ½"x4 ½" five knuckles standard wt. or heavy wt. full mortise for doors 36" wide or less x 1 ¾" thick, Finish 630 Locks & Latch Sets: Sargent 8200 Series LW1L Design Finis Door Closer: Sargent 351 Series, Finish 689 Exit Devices: Sargent Door Stops & Holders: Sargent 590 Series, Finish 626 Electromagnetic Holders: Rixon 998 Series, Tri Voltage, Finish 689 Wall Stops: Rockwood 409 Series Finish 626 or 630 Floor Stops: Rockwood 440 or 442, Finish 626 or 630 Automatic Wall Holder: Ives WS45(X) Finish 626 or 630

OUTLINE SPECIFICATIONS: OSWEGATCHIE FIRE STATION

		Kick Plates: 18 Ga Aluminum Beveled Edges Finish 630 Flush Bolt: Pair Glynn Johnson FB30/40 Series, Fin. 626 Manual Flush Bolt: Rockwood 555/550, Finish 626 Weatherstripping: Pemko 303APKTST, Sweep 315CN, Meeting Stile 18061CP for pair doors Silencers: Rockwood 608 Finish: Generally St. Steel 630 or Brushed Chr. 626
088000	GLAZING	¼" laminated glass in Rated Doors and Where Required By Code 1" Insulated Tempered Unit at Exterior Glass Doors Fire Rated Glazing: 3/16" 20-Min. to 3-Hrs By Technical Glass Products (TPG); Specify Premium FireLite which polished on both sides; For economy specify Standard FireLite, non-polished Triple Silver Low E: MSVD Coated ¼" Solarban 70 XL Annealed+1/2" air space Black (SIL) by Oldcastle Triple Silver Low E: MSVD Coated ¼" Solarban 72 Starphire Solar Control by PPG transmits 11% more visible light than 70 XL and 25% better solar control than Solarban 60 Starphire. Should go on surface #2. Construction: One lite of uncoated Starphire Glass and one lite with triple-silver coating engineered exclusively for use on Starphire substrate as manufactured by PPG and fabricated by Oldcastle and other companies Translucent Glass: Satin Deco by Guardian Glass (Blue Hills) Sloped Glazing: 3/16" clear HS+.060 clear interlayer+1/4" Solarban XLT HS #4+1/2" Mill Air Space+3/16" clear HS+.060 clear interlayer+3/16" clear HS by Oldcastle (Laurel)
088300	MIRRORS	18"x36" at each lavatory
089000	LOUVERS AND VENTS	Aluminum fixed blade drainable louvers by Airolite or an approved equal

DIVISION 09 - FINISHES

092216	NON-STRUCTURAL FRAMING	Viper-Stud 0.02" thick as manufactured by Marino-Ware.
092900	GYPSUM BOARD/SHEATHING	DensArmor Plus High Performance Interior Panels meeting ASTM D-6329-98 for antimicrobial protection by Georgia Pacific with Fiberglass Taped Joints Tile Backer: Dense Shield by GP ½" Dens-Glass Gold by G-P Gypsum with Glass Mesh Joint Tape
093000	TILING	2"x2" unglazed ceramic mosaic floor tile by American Olean or an approved equal 12"x12" Cliff Point by DalTile Laticrete Thinset 317 with 333 Super Flexible Additive Laticrete SpectraLOCK PRO Premium Grout (Stain resistant)

OUTLINE SPECIFICATIONS: OSWEGATCHIE FIRE STATION		
095113	ACOUSTICAL PANEL CEILINGS	Armstrong World Industries or an approved equal: TILES: 1. Dune Fine Texture Beveled or Angled Tegular 2. Clean Room Mylar VL (Kitchen) SUSPENSION 1. Interlude XL Dimensional Tee (Fancy) 2. Prelude XL (Basic)
	MOISTURE TEST CONC. SLAB	ASTM F-1869 or F-2170. Three tests min. for 1000 SQ. FT. One additional test for addl. 1000 SQ. FT. or fraction thereof.
096513	RESILIENT BASE	4" High, Coils, 0.125" Thick, ASTM F 1861, Type TS Rubber Vulcanized Thermoset, Group 1 Solid Homogenous BY Johnsonite Magellan Adhesive for slabs with moisture
096513	TREADS & RISERS	RTR-RD Raised Round Texture Treads and Risers by Johnsonite OR Integral Treads and Risers
096500	RESILIENT FLOORING	Summary: Include moisture testing and mitigation. Standard Excelon by Armstrong and Essentials by Mannigton are comparably priced.
099100	PAINTING Specify Extra Materials	One coat primer with two coats of finish per Room Finish Schedule, PPG Manor Hall or an approved equal CMU Walls: One coat block filler: Sherwin Williams Kem Cati-Coat HS Epoxy 2 coats epoxy emul. Coating: Sherwin Williams Armor-Tile HS Polyester Epoxy Door Frames: One coat primer: Sherwin Williams Kem Kromic Universal Metal Primer 2 coats finish: Sherwin Williams Duration Home Interior Latex Satin
DIVISION 10 - SPECIALTIES		
101400	SIGNAGE	1. Exterior Signs 2. Lighted Signs 3. Cast Metal Letters 4. Plaque 5. Interior Panel Signs: Provide smooth sign panel surfaces constructed to remain flat under installed conditions within a tolerance of plus or minus 1/16 inch measured diagonally from corner to corner, complying with the following requirements: a. Laminated, Sandblasted Polymer: Raised graphics with Braille 1/32 inch above surface with contrasting colors as selected by Architect from manufacturer's full range and laminated to acrylic back. b. Edge Condition: Beveled. c. Corner Condition: Rounded to radius indicated.

OUTLINE SPECIFICATIONS: OSWEGATCHIE FIRE STATION

		d. Mounting: Unframed. Wall mounted with two-face tape and adhesive. e. Lettering Style: Gill Sans upper case or other san serif or simple serif letterforms. f. Color: As selected by Architect from manufacturer's full range. g. Tactile Characters: Characters and Grade 2 Braille raised 1/32 inch above surface with contrasting colors. h. Thickness: 1/8 inch. 6. Blank back-plate if mounted on clear glass 7. Additional Directional Signs 8. Accessible Building Sign at Main Entrance ***ADA compliant at all doors***
102113	TOILET COMPARTMENTS	Overhead braced and floor anchored baked enamel metal by Global or an approved equal High Density Polyethylene (HDPE) Texture "EX" by Scranton Products Series EX by Scranton Products
102800	TOILET ACCESSORIES	<u>Bobrick or an approved equal:</u> T.T. Holder: B-2888 Paper Towel Holder: B-262 Liquid Soap Dispenser: B-2112 Counter Mounted Soap Dis.: B-824 with 6V AC Adapter Swing Up Grab Bars: B-4998 Straight Grab Bars: B-490 (1 ¼" satin) Straight Grab Bars: B-6106 (1 ½" satin) Mirror Unit: B-165 Disposal Unit: B-43644 Coat Hooks B-2116 Baby Changing B-2210 (AWJ U944/U945H) Shower Curtain Rod B-6047 Shower Curtain 204-2 or 204-3 Shower Curtain Hooks 204-1 Towel Bar B-205 Shower Seat B-518 <u>World Dryer:</u> SMARTdri High Efficiency
104413	FIRE EXTINGUISHER CABINETS	Cameo Series by Larsen or an approved equal
105113	METAL LOCKERS	Shower Area: 12"x12"x72" Penco "All Welded" Gear Lockers: 20"x20"x74" Geargrid
107500	FLAGPOLES	Gearless self-locking direct drive winch with 6 tumbler cylinder lock and revolving non-fouling interior halyard bronze finish Model EC35 IH by Eder Flag, Oak Creek, WI.

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OUTLINE SPECIFICATIONS: OSWEGATCHIE FIRE STATION

DIVISION 11 - EQUIPMENT

114000	FOOD SERVICE EQUIPMENT	NFPA Complying Commercial Kitchen Hood Installed 2-Compartment Sink: Advanced Tabco 93-42-48-36R Faucet: Advanced Tabco K-461 Lever Waste: T&S Brass B-3940\ Pre-Rinse Unit: T&S Brass B-0133-B Pre-Rinse Accessory: T&S Brass B-0156 Disposer: InSinkErator SS-50 Dispose Control: InSinkErator MRS-6 Dishtable Sorting Shelf: Advanced Tabco DT-6R-48 Range: Vulcan Hart 60-SS-6B-24G-N Restaurant Hood: CaptiveAire 4824ND-2-PSF-F Electrical System: CaptiveAire 21111002 220V/!PH, W/ 1 Exhaust Fan, 1: Supply Fan, Exhaust in Fire Dishwasher: Whirlpool DU1055XTVS Hood Suppression: Ansul Refrigerator: Whirlpool GB2FHDXWS

DIVISION 12 - FURNISHINGS

102226	OPERABLE PARTION	Acousti-Seal 932 Operable Partition by Modernfold, Inc., manually operated paired flat panels, top supported with operable floor seals, STC-47.
124813	FLOOR MAT	DESIGNSTEP pattern DURATION as manufactured by Construction Specialties or an approved equal.

DIVISION 14 – CONVEYING EQUIPMENT

142100	ELEVATOR	2,000 lbs Machine-Room-Less EcoSpace Elevator by Kone Gen2 or Hydrofit by Otis

OUTLINE SPEC.OSWEGATCHIE.01.10-2014.docx

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ROOM FINISH SCHEDULE

ROOM NAMES	FLOOR	BASE	WALLS	CEILING	HT. IN FT.
Vestibules/Corridors	VCT	Rubber	EEC	Susp. Acous.	8'-0"
Stair	VCT	Rubber	EEC	Susp. Acous.	
Offices	VCT	Rubber	EEC	Susp. Acous.	8'-0"
Fitness Room	VCT	Rubber	EEC	Susp. Acous.	8'-0"
Toilet/Showers	Ceramic Tile	Ceramic Tile	EEC	Susp. Acous.	8'-0"
Bunk Rooms	VCT	Rubber	EEC	Susp. Acous.	8'-0"
Meeting/Day Rooms	VCT	Rubber	EEC	Susp. Acous.	8'-0"
Kitchen	Quarry Tile	Quarry Tile	EEC	Susp. Acous.	8'-0"
Storage Rooms	VCT	Rubber	EEC	Susp. Acous.	8'-0"
Watch Room	VCT	Rubber	EEC	Susp. Acous.	8'-0"
Decon Shower/Toilet	VCT	Rubber	EEC	Susp. Acous.	8'-0"
Apparatus Bays	Concrete	Glazed CMU	EEC	Gyp. Board	18'-0"
Adjoining Rooms	Concrete	Glazed CMU	EEC	Gyp. Board	8'-0"

9. DESIGN PROCESS SEQUENCE DRAWINGS & RENDERINGS

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OSWEGATCHIE FIRE STATION
WATERFORD, CT

LIST OF DRAWINGS — PAGES

DESIGN PROCESS SEQUENCE LEADING TO FINAL SCHEME

RENOVATIONS/ADDITIONS:

- SITE DESIGN PROCESS SEQUENCE DRAWINGS 1 – 4 — 1 - 2
- FLOOR PLAN DESIGN PROCESS SEQUENCE DRAWINGS A & B — 3 - 4

NEW BUILDING:

- SITE DESIGN PROCESS SEQUENCE DRAWINGS 1 – 6 — 5 - 7
- FLOOR PLAN DESIGN PROCESS SEQUENCE DRAWINGS A - D — 8 - 9

EXTERIOR DESIGN SCHEMES

RENOVATIONS/ADDITIONS:

- RENDERINGS – SCHEME A & B — 10 - 11

NEW BUILDING:

- RENDERINGS – SCHEMES 1 - 4 — 12 - 15

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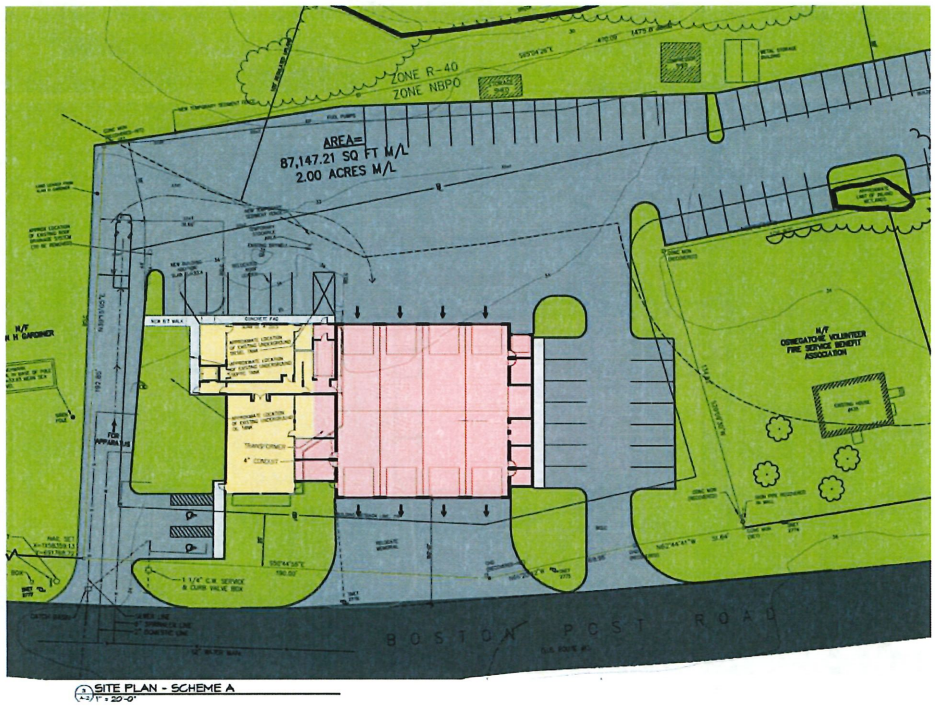
DESIGN SEQUENCE LEADING TO FINAL SCHEME: RENOVATIONS/ADDITIONS

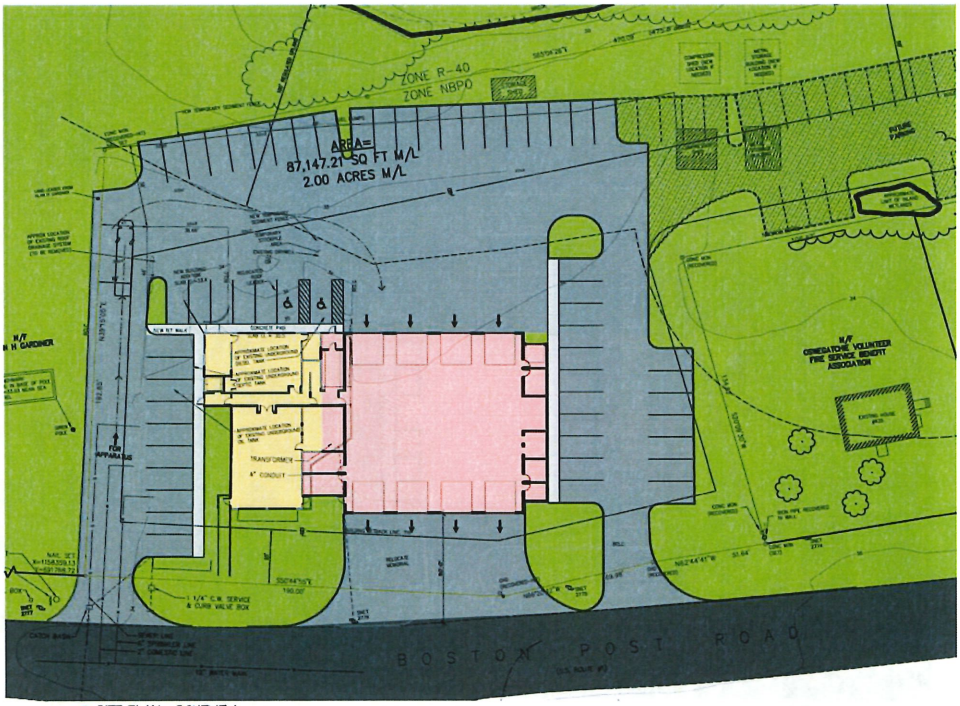
SITE DESIGN PROCESS SEQUENCE

1



SITE PLAN - SCHEME A
1" = 20'-0"

2



SITE PLAN - SCHEME A
1" = 20'-0"

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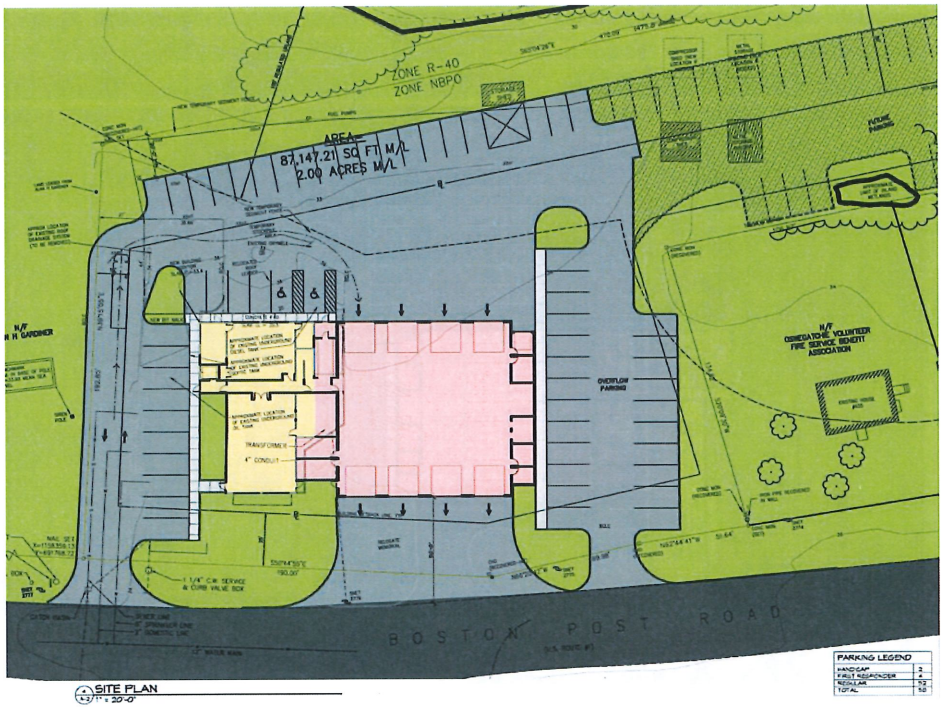
DESIGN SEQUENCE LEADING TO FINAL SCHEME: ADDITIONS/RENOVATIONS

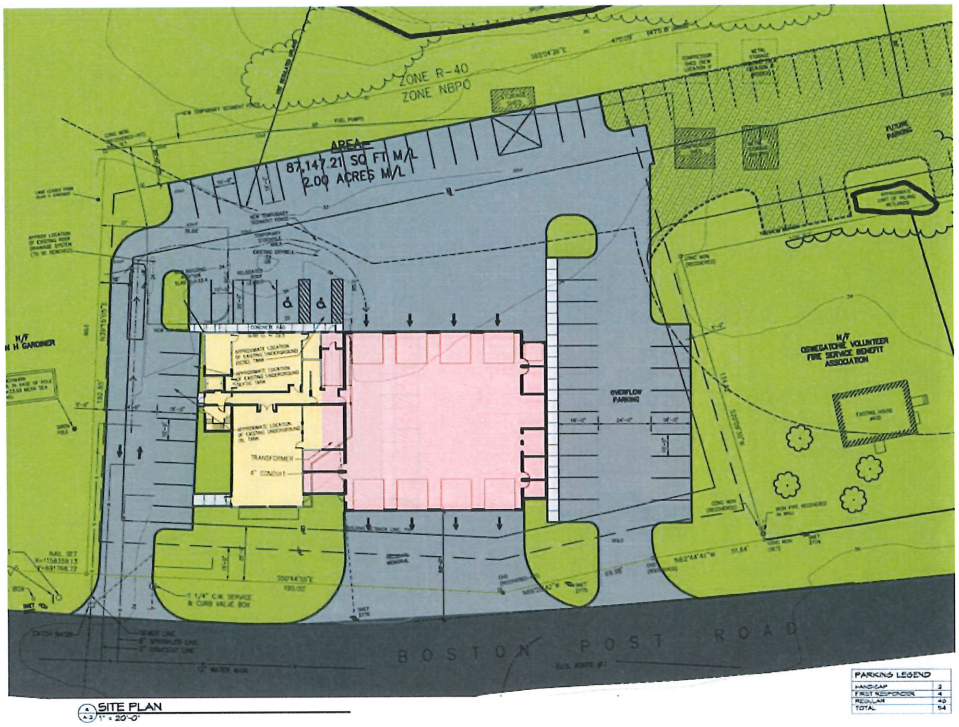
SITE DESIGN PROCESS SEQUENCE

3



SITE PLAN
1" = 20'-0"

4



SITE PLAN
1" = 20'-0"

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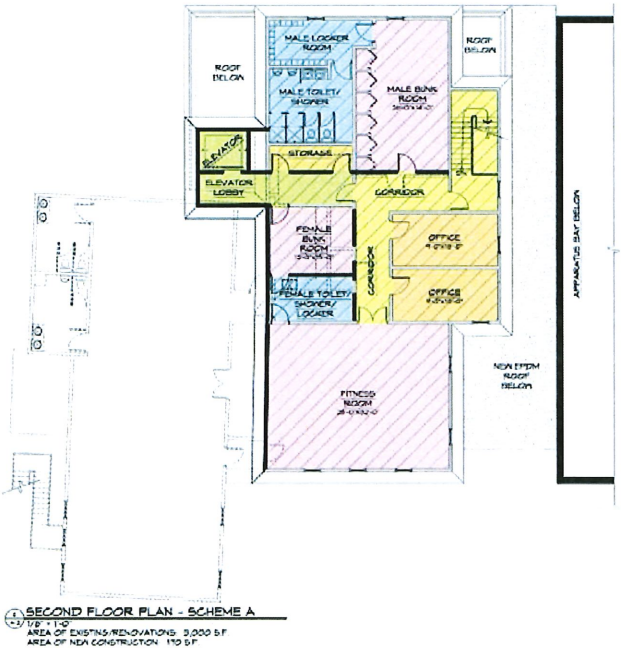
DESIGN SEQUENCE LEADING TO FINAL SCHEME: RENOVATIONS/ADDITIONS

FLOOR PLAN DESIGN PROCESS SEQUENCE

A

FIRST FLOOR PLAN - SCHEME A
AREA OF EXISTING/RENOVATIONS: 3,300 S.F.
AREA OF NEW CONSTRUCTION: 8,490 S.F.



SECOND FLOOR PLAN - SCHEME A
AREA OF EXISTING/RENOVATIONS: 3,000 S.F.
AREA OF NEW CONSTRUCTION: 190 S.F.

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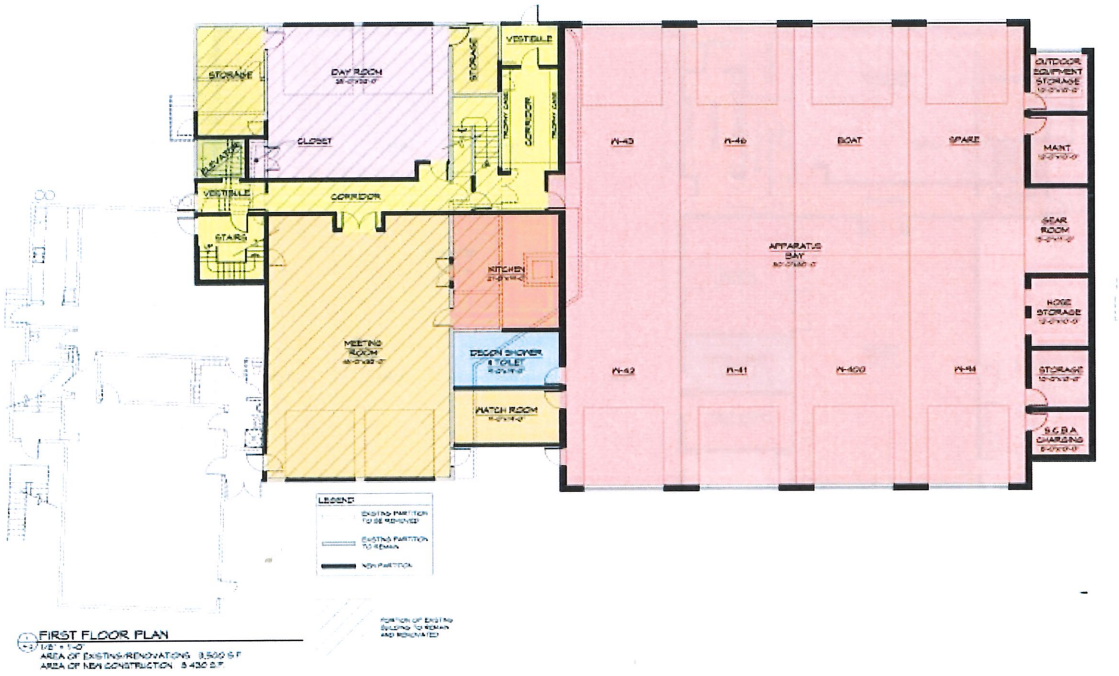
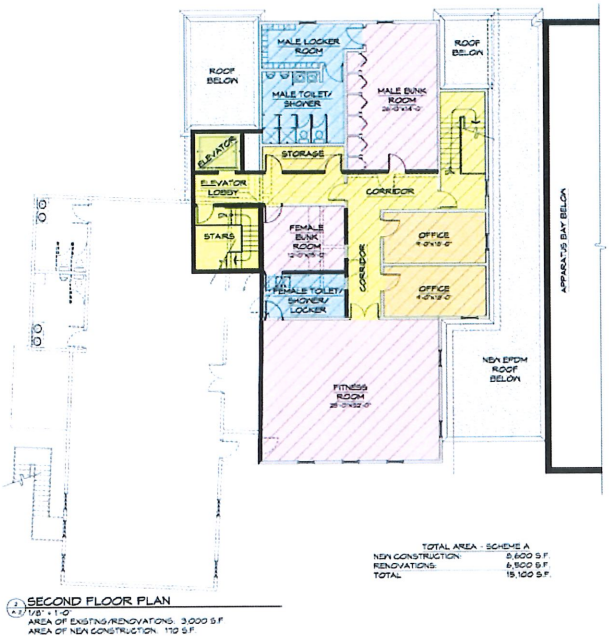
DESIGN SEQUENCE LEADING TO FINAL SCHEME: ADDITIONS/RENOVATIONS

FLOOR PLAN DESIGN PROCESS SEQUENCE

B

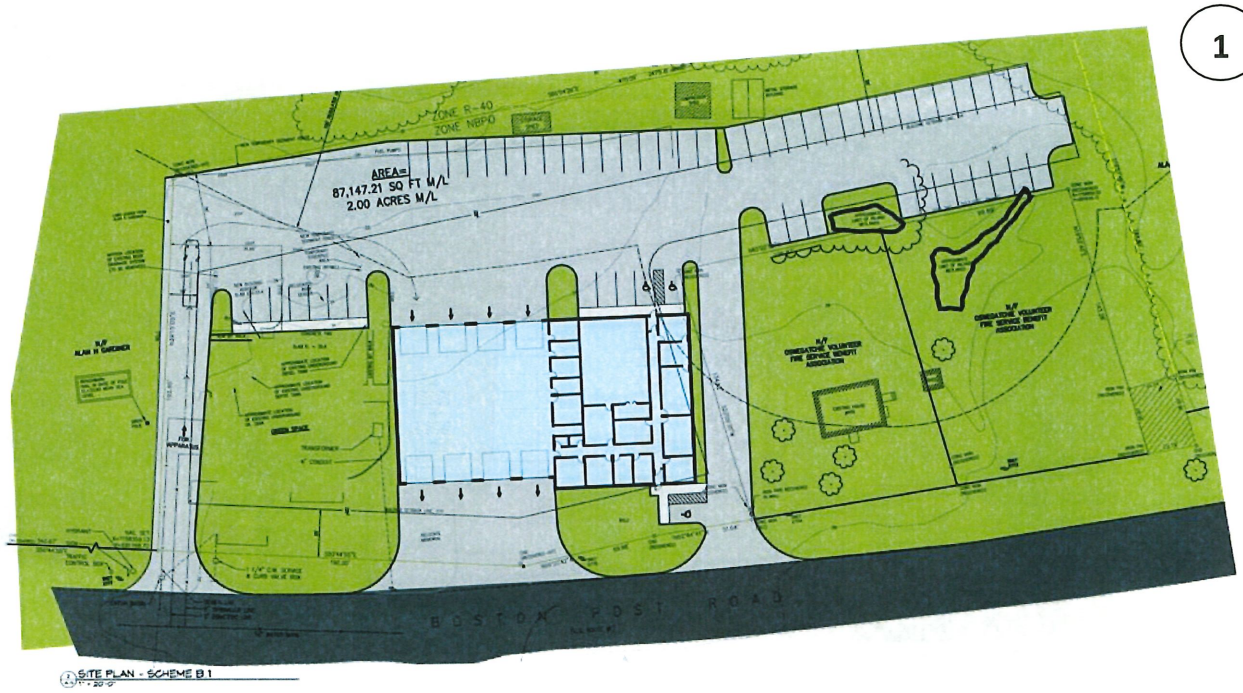




DESIGN SEQUENCE LEADING TO FINAL SCHEME: NEW BUILDING

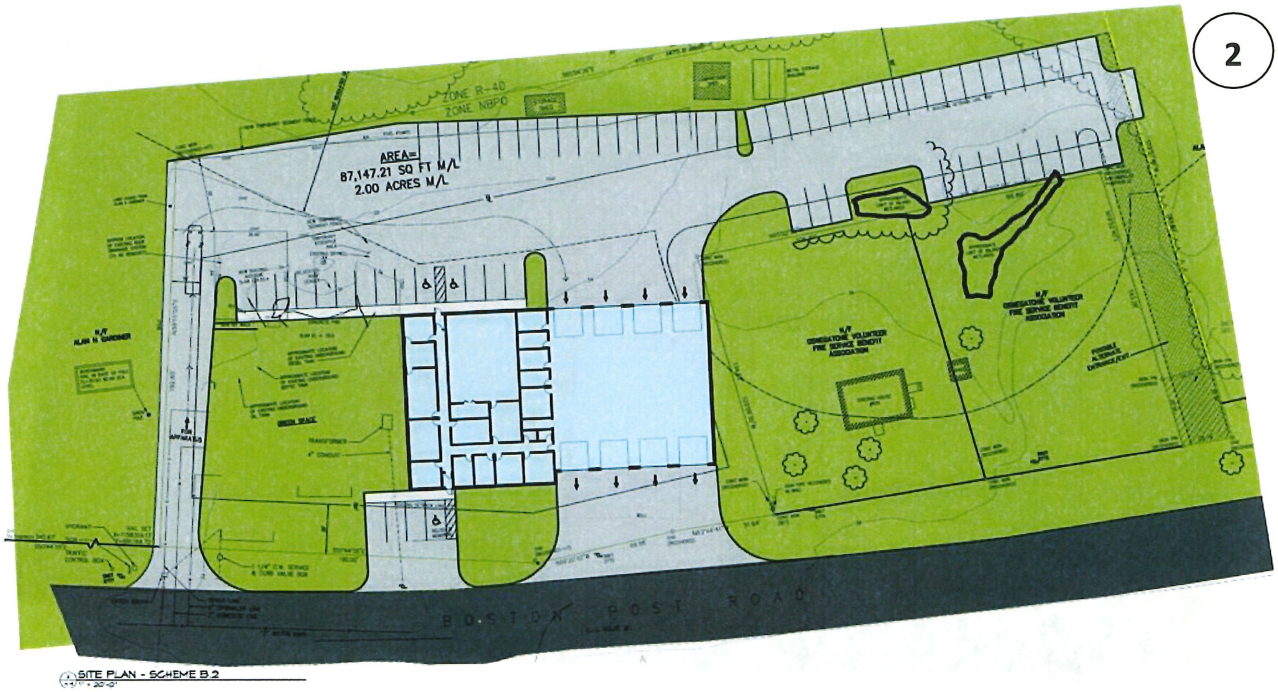
SITE DESIGN PROCESS SEQUENCE

1



1 SITE PLAN - SCHEME B.1
1" = 20'-0"

2



1 SITE PLAN - SCHEME B.2
1" = 20'-0"

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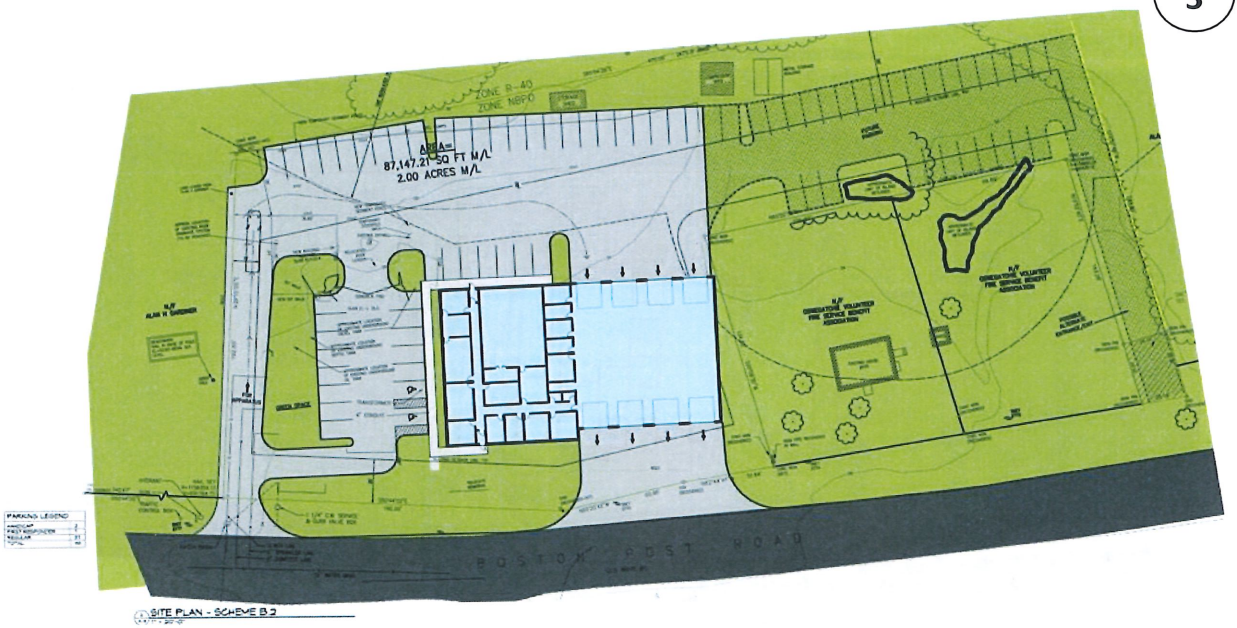
DESIGN SEQUENCE LEADING TO FINAL SCHEME: NEW BUILDING

SITE DESIGN PROCESS SEQUENCE

3



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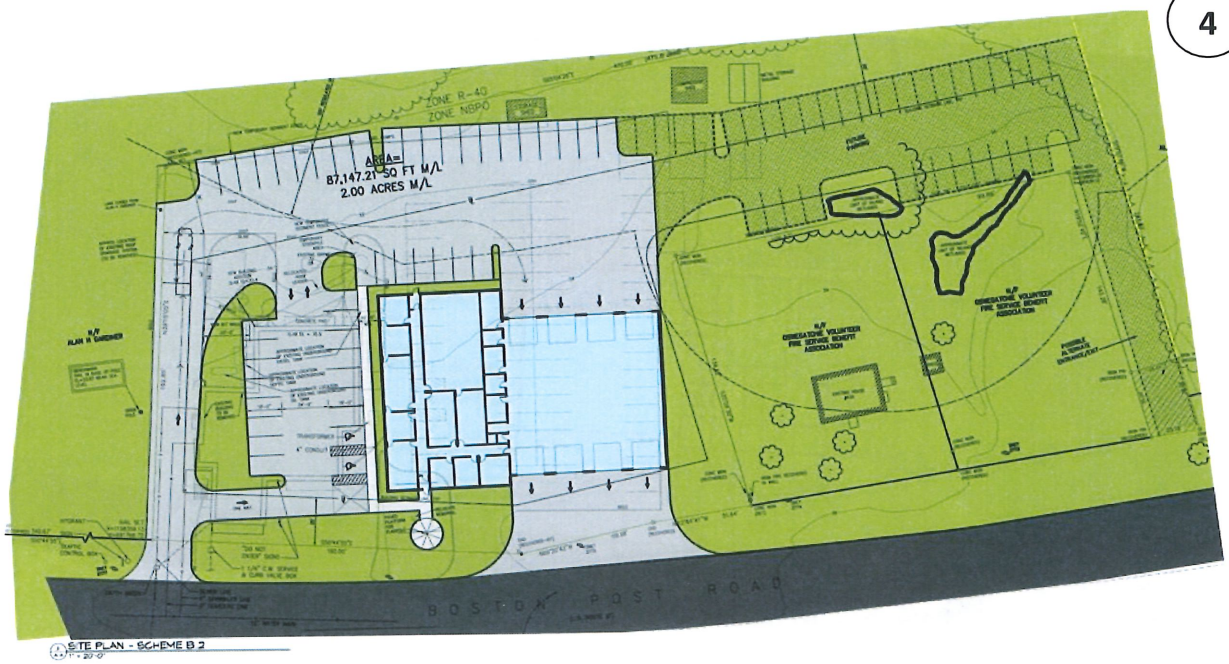
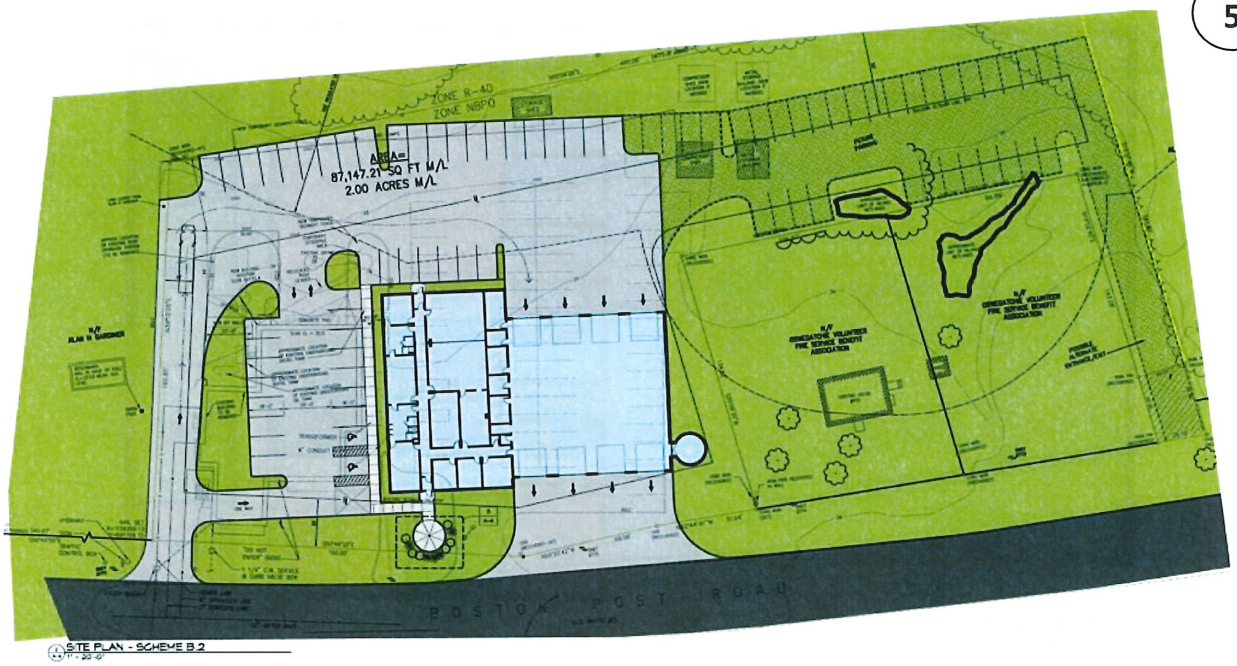


DESIGN SEQUENCE LEADING TO FINAL SCHEME: NEW BUILDING

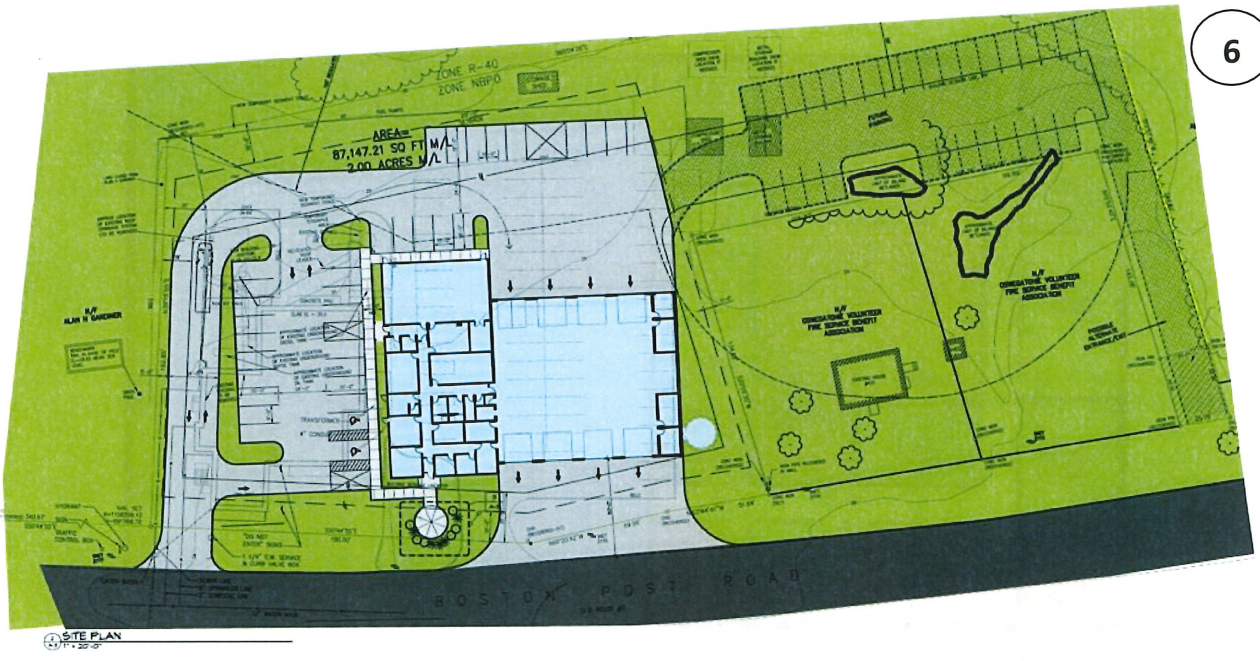
SITE DESIGN PROCESS SEQUENCE

5



SITE PLAN - SCHEME B.2

6



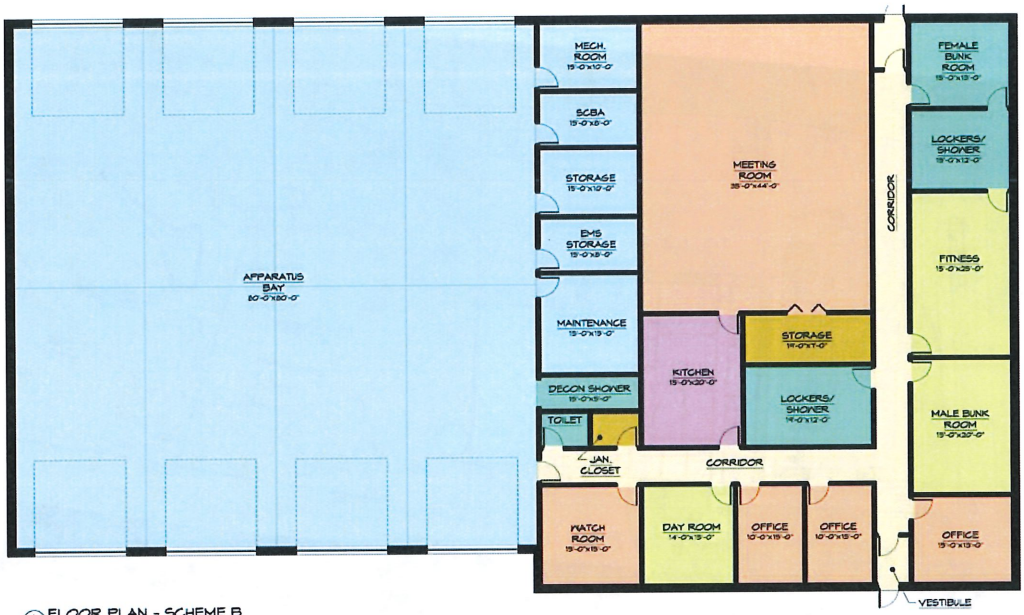
SITE PLAN

D•R•A

DESIGN SEQUENCE LEADING TO FINAL SCHEME: NEW BUILDING

FLOOR PLAN DESIGN PROCESS SEQUENCE

A



FLOOR PLAN - SCHEME B
1/8" = 1'-0"
AREA OF NEW CONSTRUCTION: 13,230 S.F.

B

FLOOR PLAN - SCHEME B.2
1/8" = 1'-0"
AREA OF NEW CONSTRUCTION: 13,230 S.F.

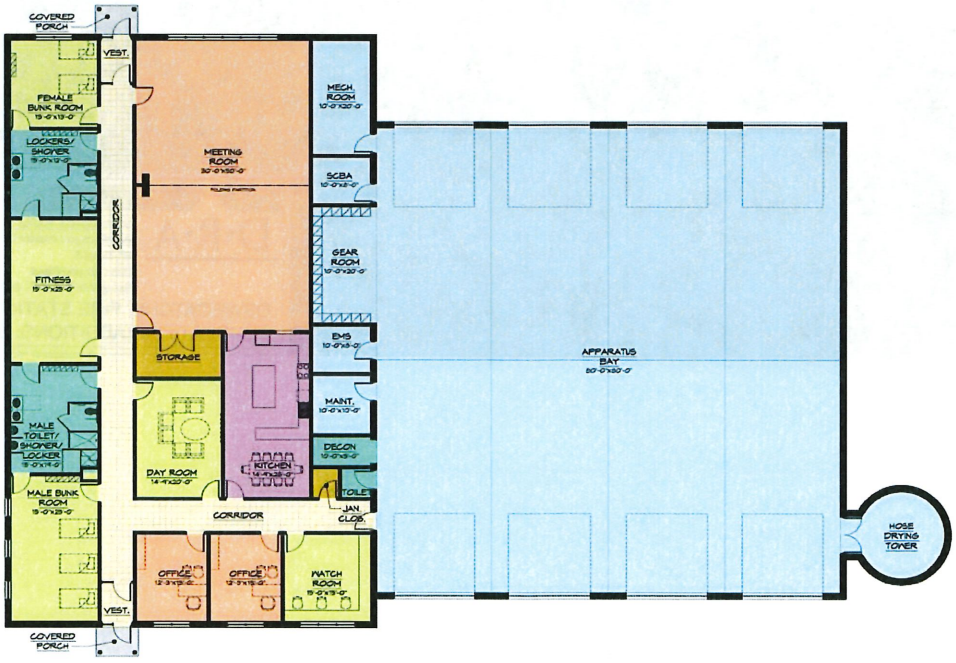
DESIGN SEQUENCE LEADING TO FINAL SCHEME: NEW BUILDING

FLOOR PLAN DESIGN PROCESS SEQUENCE

C

1 FLOOR PLAN - SCHEME B.2
1/8" = 1'-0"
AREA OF NEW CONSTRUCTION: 13,370 S.F.

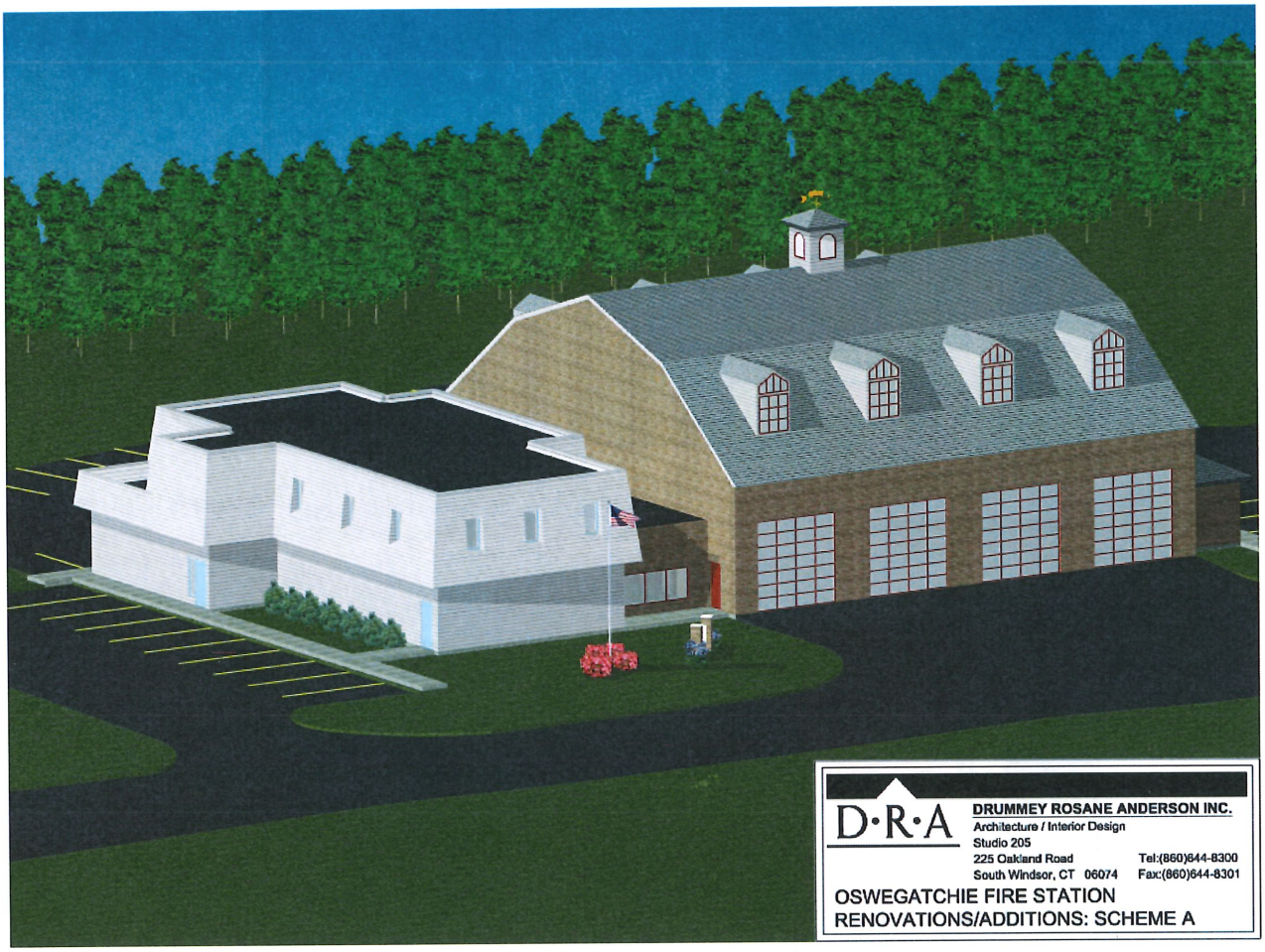
D



1 FLOOR PLAN
1/8" = 1'-0"
AREA OF NEW CONSTRUCTION: 13,370 S.F.

D·R·A

RENOVATIONS/ADDITIONS
RENDERING – SCHEME A



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RENOVATIONS/ADDITIONS
RENDERING – SCHEME B

NEW BUILDING
RENDERING – SCHEME 1

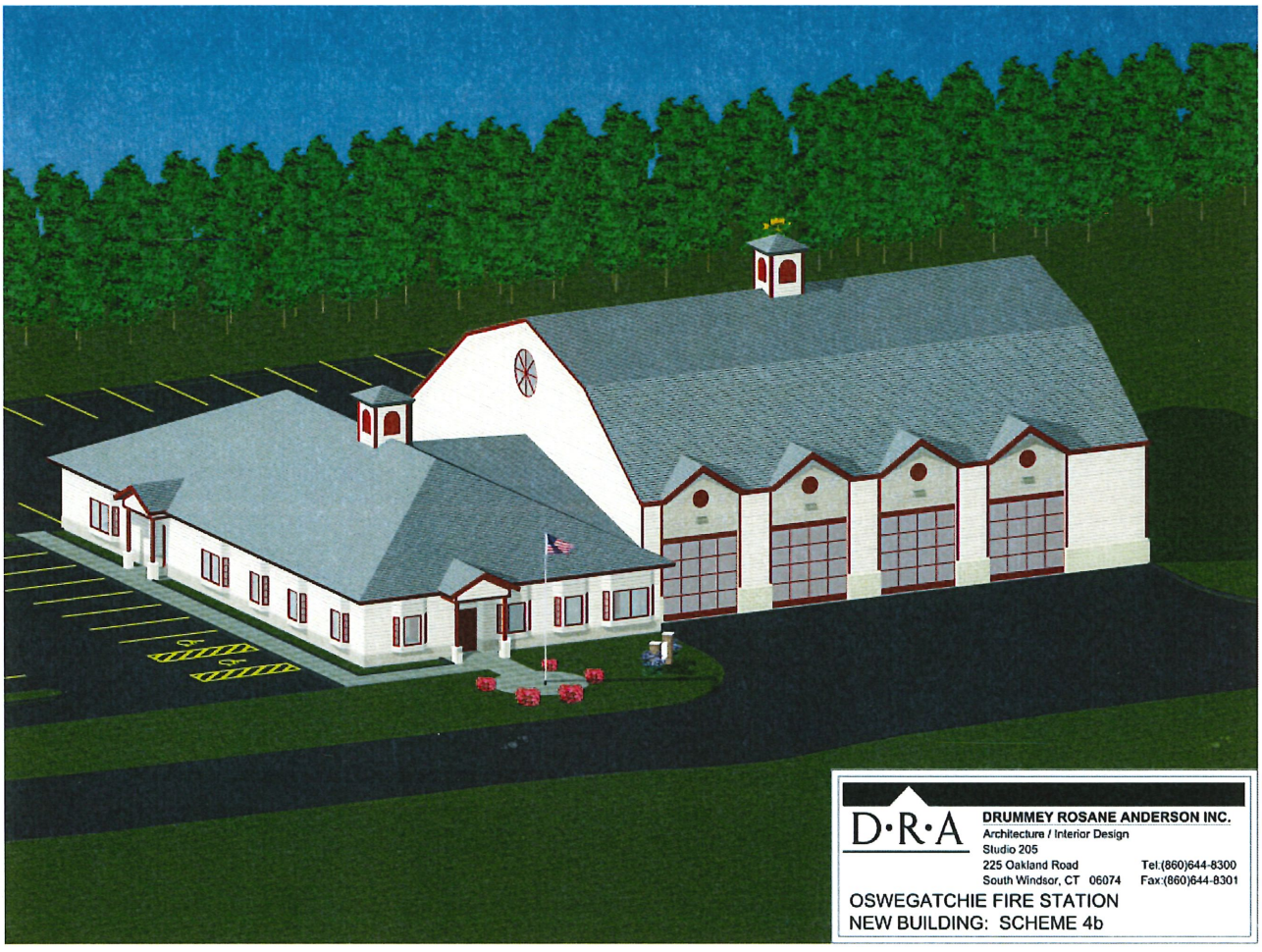
NEW BUILDING
RENDERING – SCHEME 2

D·R·A

NEW BUILDING
RENDERING – SCHEME 3

D·R·A

NEW BUILDING
RENDERING – SCHEME 4



10. STATEMENTS OF PROBABLE CONSTRUCTION COST

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STATEMENT OF PROBABLE CONSTRUCTION COST @ FEASIBILITY STUDY PHASE

It is always a challenge for the Design Professionals to establish a cost estimate during this phase due to the limited drawings and detailed technical information. However, we do understand that final construction cost must stay within the funds approved by the municipality. To improve the accuracy of our estimates based on Schematic Design, we use the following strategies:

1. Use the services of a professional cost estimating firm.
2. Have our major consultants prepare cost estimates for their portions of work.
3. Compare costs with similar projects that we have completed in the last three years.
4. Obtain current construction cost information about similar projects from Cost Reporting Services and verify if our costs are in line with the current trend.

Having followed this process on many similar situations, we have established a solid track record of accurate cost estimating.

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STATEMENT OF PROBABLE CONSTRUCTION COST: RENOVATIONS/ADDITIONS TO OSWEGATCHIE FIRE STATION (Renovations: 6,500 sq. ft.) + (Additions: 8,600 sq. ft.) = Total Area: 15,100 sq. ft.		
DIVISION	**DESCRIPTION**	**COST**
2	Selective Demolition	$124,000
3	Concrete	143,000
4	Masonry	230,000
5	Metals	312,000
6	Wood & Plastic	61,000
7	Moisture Protection	261,000
8	Openings	130,000
9	Finishes	281,000
10	Specialties	49,000
11	Equipment	60,000
12	Furnishings	21,000
14	Conveying Equipment	75,000
21	Fire Suppression	75,000
22	Plumbing	302,000
23	HVAC	604,000
26	Electrical	453,000
31-33	Site	520,000
	SUB TOTAL	$3,701,000
	GENERAL CONDITIONS, BONDS, OVERHEAD & PROFIT	740,000
	TOTAL ESTIMATED CONSTRUCTION COST	$4,441,000
	COST PER SQUARE FOOT	$294

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STATEMENT OF PROBABLE CONSTRUCTION COST:
NEW OSWEGATCHIE FIRE STATION
Area: 13,350 sq. ft.

DIVISION	DESCRIPTION	COST
2	Selective Demolition	$130,000
3	Concrete	247,000
4	Masonry	210,000
5	Metals	247,000
6	Wood & Plastic	284,000
7	Moisture Protection	113,000
8	Openings	130,000
9	Finishes	241,000
10	Specialties	49,000
11	Equipment	60,000
12	Furnishings	21,000
21	Fire Suppression	67,000
22	Plumbing	259,000
23	HVAC	570,000
26	Electrical	389,000
31-33	Site	495,000
	SUB TOTAL	$3,512,000
	GENERAL CONDITIONS, BONDS, OVERHEAD & PROFIT	760,000
	TOTAL ESTIMATED CONSTRUCTION COST	$4,272,000
	COST PER SQUARE FOOT	$320