

Consultant Report

Fire & Emergency Medical Services Protection Study

Prepared for:

Town of Whitestown, New York

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Date: September 11, 2008



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INTRODUCTION & SCOPE OF THE PROJECT

The firm of Fitch & Associates, LLC, was retained by the Town of Whitestown (“the Town”) to examine the manner in which fire protection services and Emergency Medical Services (EMS) are provided in the township, to assist the Town’s officials in developing appropriate levels of community expectations concerning these services, and in establishing appropriate and equitable levels of support for those services.

Since the study began, there has been extensive dialog between town officials and the project team. Many documents have been provided and analysis has been conducted. Members of the project team have met in person or by telephone with representatives of all of the stakeholder groups, and additional information about fire and EMS was gathered.

This report will review the current situation with regard to fire and EMS in the Town of Whitestown, and make recommendations to the Town Council for future consideration.



EXECUTIVE SUMMARY

The Town of Whitestown currently receives fire and EMS first response services from four village fire departments, and two private, non-profit fire departments located outside of the Town's borders. Each fire department is fully staffed by volunteers, and the village fire departments are well equipped.

The system by which emergency incidents in the Town are dispatched involves two dispatch centers, one of which receives the 911 call and broadcasts the incident to the responsible fire department (the "primary PSAP"). The other, operated by the Town of New Hartford, records individual apparatus response and provides other dispatch services. There is no single centralized fire or emergency response recordkeeping system, which rendered a complete analysis of emergency response performance impossible.

Each of the village fire departments is equipped for operation with complete independence from all of the others, despite their physical proximity. This results in our finding that there is excess heavy fire equipment within the Town and the villages, resulting in excessive cost. The number of class A pumpers within the Town is approximately one per 2,000 residents, while other jurisdictions including larger municipalities operate with one pumper per 7,000-14,000 residents. There are also four class A "quint" fire apparatus¹ (aerial ladder apparatus that also have organic pumping capability) in communities where buildings in excess of three stories are rare. The community, which currently has 10 pumpers and four ladders, could be adequately served with six to seven engines and two ladders.

Approximately seventy percent of all responses are for emergency medical services. Yet the number of personnel trained at the EMT or higher level is small, and several individuals acknowledged that at times it is difficult to get a single EMT available to respond to medical calls, and the focus of the officers and members with whom we met was clearly toward the fire suppression aspects of these organizations' responsibilities.

The Town finds itself in a challenging position. Under the current statutory scheme, the Town cannot simply start a town-operated fire department, which might otherwise be a financially viable option. However, there are several options available to the Town to decrease its expenditures for fire and EMS services, increase its ability to account for expenditure of taxpayer dollars for fire and EMS services, or improve the level of service provided to citizens of the Town. These options are detailed in the body of the report.

¹ By contrast, an "aerial ladder" or "ladder truck" does not carry water or hose, and depends on a separate pumping engine to supply its master stream device with water.



ACKNOWLEDGEMENTS

We would like to acknowledge the assistance and support of the following individuals and organizations for the time they shared with the project team, for their candor in addressing difficult issues, and for the time spent gathering the documents necessary for this study.

TOWN OF WHITESTOWN

Hon. Charles Gibbs, Town Supervisor
Hon. Kevin Barry, Town Councilman
William P. Schmitt, Esq., Town Attorney

VILLAGE OF WHITESBORO

Hon Margaret Stephenson, Village Trustee
Pete Sobel, Fire Chief

VILLAGE OF NEW YORK MILLS

Hon. John Bialek, Village Trustee (and firefighter)
Bob Glenn, Fire Chief

VILLAGE OF YORKVILLE

Joe Morasco, Fire Chief

VILLAGE OF ORISKANY

Jeffrey J. Midlam, Fire Chief
Jeffrey S. Burkhart, Assistant Fire Chief

CLARK'S MILL VOLUNTEER FIRE DEPARTMENT

Dan Verminsky, Fire Chief

STANWIX HEIGHTS VOLUNTEER FIRE DEPARTMENT

Steve Snow, Fire Chief

COUNTY OF ONEIDA

Frederic A. VanNamee, Director of Emergency Services

CENTRAL ONEIDA COUNTY VOLUNTEER AMBULANCE CORPS

Steve Dziura, EMT-P, Director of Operations



DESCRIPTION OF FIRE PROTECTION & EMERGENCY MEDICAL SERVICES IN THE TOWN OF WHITESTOWN

Overview of Emergency Response Operations

Emergency telephone calls are received by the Oneida County Emergency Services and Communications Center (hereafter “the 911 center”). The 911 center receives all 911 calls made using cellular telephone anywhere in the county, as well as calls made using landline telephones from everywhere except the City of Utica, which operates its own Public Safety Answering Point (PSAP). The 911 center provides medical pre-arrival instructions and basic dispatching services². Because of the limitations on service available from the 911 center, the fire companies also utilize the services of the Town of New Hartford “Central” Communications, which provides additional dispatch services not available from the 911 center.³

Fire and EMS first response services of varying levels are provided to the Town by six separate entities. Four of these entities are volunteer fire companies⁴ owned and operated by the villages that lie entirely or in part within the Town’s borders (New York Mills, Yorkville, Whitesboro, and Oriskany). Two of these entities are independently funded not-for-profit volunteer fire companies that are not a department or a function of any municipal corporation.

Each of these fire companies operates from a single station, which is located centrally within the village or unincorporated community that it serves. The Stanwix Heights company actually lies within the municipal limits of the City of Rome.

Emergency response operations are conducted within “response districts” as shown on the map at Attachment A. The lines of these districts were set many years ago using a methodology that none of those interviewed could describe, and the lines have not changed

² Upon receipt of a 911 call and determining the nature of the call, the 911 center activates radio tones for the appropriate fire company based on the location of the alarm and announces the location and nature of the alarm. The center records the time of the call, and the time the call is concluded, but does not track the individual unit time marks (time en route to the call, time of arrival, time of departure, and time back in service). All dispatching is district-based (rather than apparatus based).

³ The Town of New Hartford “Central” Communications Center re-transmits each alarm to the home alerting receivers of the fire company members, records individual apparatus time marks, provides evening alerting system tests, and makes announcements of individual fire company non-emergency activities on the request of appropriate officers.

⁴ For clarity, the term fire “company” will be used to describe all of the fire service organizations. Typically, a fire service organization that is an element of a municipal corporation is termed a “department” (which may then be broken in to individual companies), while a free-standing fire service provider utilizes different nomenclature. However, this differentiation does not appear to be consistently followed in these communities.



since that time. Within the district, each fire company operates as an isolated entity, and other companies are called only as “mutual aid” responders after all of the primary company’s resources are exhausted.

Each fire company is well equipped for both fire and EMS service delivery. There is an abundance of the highest quality response apparatus, fire suppression and emergency medical equipment, personal protective equipment, and communications equipment. This will be described in greater detail later in this report.

Incident command is predicated on the district of the response. Several chiefs indicated their belief that there would be “troubles” if an officer from one fire company were to assert command authority in another response district. The fire departments do not appear to acknowledge that response districts are arbitrary lines on a map, rather than something that creates jurisdiction.

Emergency medical transportation is provided to the Town by a variety of entities. Kunkel’s Ambulance Service, a private for profit organization based in Utica, serves parts of the township. The Central Oneida County Volunteer Ambulance Corps⁵, based in Clark’s Mill, serves other portions of the township. Neither of these organizations receives funding from either the Town or the villages for the services they provide.

Volunteer Fire Companies

Village of New York Mills Fire Department

The Village of New York Mills Fire Department, founded in 1931, operates three class A pumping engines, one of which is a fully-equipped rescue truck, one class A quint, and several light vehicles used for command, EMS, light rescue and utility purposes. NYMFD reports 59 active members, of which 18 are qualified as “interior firefighters” consistent with New York State standard. The population of the village was 3,191 at the 2000 census. The NYMFD responded to 372 incidents in calendar year 2006, of which 229 calls were EMS, 6 involved fire, and the balance involved service, false, and other unfounded calls. The fire department occupies a spacious facility owned by the village, with adequate space for apparatus, training, administrative and social functions. The fire department meeting room, currently undergoing renovation, is used by community organizations for a variety of social functions.

⁵ Despite it’s name, COCVAC relies heavily on paid EMS personnel for delivery of both advanced and basic life support services.



Village of Yorkville

The Village of Yorkville, population 2,675, is served by the Yorkville Volunteer Fire Department, which operates two class A pumpers, one class A quint, one 4x4 advanced life support rescue, one 2001 heavy rescue, and two light response vehicles. The department reports 64 active members, of whom 29 are certified as interior firefighters, seven are certified as EMTs, and 2 are certified as paramedics. This department responded to 365 calls in 2007, of which 245 involved requests for EMS. Of the 16 calls that were fire-related, two were room and contents fires, one was a car fire, and the rest were minor (grass, mulch, dumpster, etc.). The balance were false alarms, water problems, and miscellaneous service and good intent calls. The YFD relies heavily on the response of on-duty village employees to assure a daytime response. The village's appropriation for the fire department was \$73,000 in FY 2007-2008.

The fire department did not report any major concerns or issues. There was some frustration expressed over the annual discord between the Town and the village over funding for fire service, and the imposition of accountability requirements by the Town (e.g., the requirement to report expenditures of over \$10,000 to the Town, with which the fire department has not complied).

Village of Oriskany

The Village of Oriskany, population 1,495 is served by the Oriskany Independent Fire & Hose Company, a private not-for-profit corporation that operates from a village-owned facility using village-owned equipment. OIF&H serves the largest geographic area of the Town. It operates two class A pumpers, one class A quint, an EMS sport utility vehicle, two EMS bicycles, and a semi-rigid hull inflatable boat. The village's fire department budget (FYE 7/31/2007) was \$244,892, of which \$108,249 was the village appropriation, \$86,643 was paid by the Town of Whitestown, and \$50,000 came from a grant from New York State. This amount was supplemented by approximately \$10,000 in private fund-raising.

This organization believes that its strengths are its EMS program and its fire prevention program, which was recognized by the State of New York last year. Like the other departments, it perceives its biggest obstacle is compliance with externally imposed training and safety mandates while relying on a volunteer workforce. It also reports struggling with daytime response, when most members of the organization are at work. OIF&H responded to 385 alarms in 2007, of which one was a working fire. The majority of responses were requests for EMS.



Village of Whitesboro

The Village of Whitesboro, population 3943, is served by the Whitesboro Fire Department. WFD reports 60 active members, of which 30 are certified for interior firefighting and 18 are certified EMT-B or above. The department operates two class A pumpers, 1 class A quint, 2 EMS response vehicles (SUV), and 4 light vehicles. An additional class A pumper is on order. The department, which is comfortable with its level of staffing (it requires the presence of four members to roll a heavy apparatus and two members to roll a light apparatus), is concerned about recruiting and retention, as well as compliance with externally imposed safety and training mandates. WFD enjoys state of the art equipment. The department's annual operating budget is \$326,700 (FY 2008), of which \$269,700 comes from tax contributions, \$40,000 from private fundraising, and \$17,000 from grants and other sources. Many members of the WFD have "take home" automatic external defibrillators (AEDs) to assure prompt response of this resource in case of cardiac arrest.

Stanwix Heights Volunteer Fire Department

The Stanwix Heights Volunteer Fire Department serves a small corner of northwestern Whitestown as a subcontractor of the Village of Oriskany. It is an independent, not-for-profit corporation that lies within the municipal limits of the City of Rome. SHVFD ran 150 calls in 2007, of which 70% were EMS calls. Approximately 20 of those calls were in Whitestown. The department reports 33 active members, of which 13 are interior firefighters. It operates two class A pumpers, one of which is beyond its useful service life, one 2,800 water tender, a light EMS vehicle, and is the custodian and operator of the MidState EMS Council's Multiple Casualty Incident trailer. The department's annual operating budget for 2006 was \$42,650, was made up of municipal contracts (City of Rome, Town of Westmoreland, and Whitestown) totaling \$13,000, with the balance coming from private fund-raising efforts including BINGO, dinners, and hall rental.

Clark's Mill Volunteer Fire Department

The Clark's Mill Volunteer Fire Department, located in the Town of Kirkland, serves a portion of southeastern Whitestown as a subcontractor of the Village of New York Mills. It is a privately funded not-for-profit corporation. CMVFD reports a roster of 37 firefighters, of which 22 are qualified for interior firefighting. The department operations one class A pumper, one 2,000 gallon water tender, and one 1500 gallon class A pumper/tender purchased using a \$285,000 grant from the federal Assistance to Firefighters Act grant program), as well as one medium-duty rescue truck and one light EMS/command vehicle.



Issues Identified During the Study

The primary issue of contention identified during this study was that of fire department funding, by the Town Council, the villages' Boards of Trustees, and the fire departments.

Within the Town, the four fire departments are located in, and owned by, the individual villages. Accordingly, each village contains an allocation for the fire department in its annual budget. The amount budgeted by each village for FY 2007-2008 is set forth in the following table.

Table 1.

Unit of Government	Land Area (sq. mi.)	Population	2008 Village Budget for Fire Dept.
Village of Oriskany	0.8	1495	\$48,000
Village of New York Mills	1.1	3191	\$90,550
Village of Yorkville	0.7	2675	\$78,750
Village of Whitesboro	1.1	3943	\$217,650

Each fire department, similarly, prepares its own operating budget, which may include funds not derived from the village (examples include state and federal grants, as well as funds raised from private sources). The next table adds the fire department budget to the information provided in Table 1.

Table 2.

Unit of Government	Land Area (sq. mi.)	Population	2008 Village Budget for Fire Dept.	Fire Department Operating Budget
Village of Oriskany	0.8	1495	\$48,000	\$193,725
Village of New York Mills	1.1	3191	\$90,550	\$365,282
Village of Yorkville	0.7	2675	\$78,750	\$274,128
Village of Whitesboro	1.1	3943	\$217,650	\$436,217

Finally, each village, individually or collectively (under the auspices of the Council of Villages) negotiates a contracted rate with the Town for the provision of fire and emergency services. The Table 3 adds the amount of the Town's appropriation to each village to the previously provided information.



Table 3.

Unit of Government	Land Area (sq. mi.)	Population	2008 Village Budget for Fire Dept.	Fire Department Operating Budget	2008 Town Payment to Village for Fire Service
Village of Oriskany	0.8	1,495	\$48,000	\$193,725	\$79,093
Village of New York Mills	1.1	3,191	\$90,550	\$365,282	\$109,572
Village of Yorkville	0.7	2,675	\$78,750	\$274,128	\$57,179
Village of Whitesboro	1.1	3,943	\$217,650	\$436,217	\$151,397

The final three tables in this series set forth an analysis of spending for fire and emergency services by each village. Table 4 examines the tax dollars spend per capita (from both the Town and the villages) by each jurisdiction.

It is important to note that this project did not include a forensic audit of individual village and fire department receipts and expenditures. The data presented in this study is derived from a variety of sources provided to the consultants by the individual villages, the township, and the fire departments. It is of interest, and merits further exploration by the town, that in some circumstances the town payment to a village exceeds the reported village budget for fire and EMS services.

Table 4.

Unit of Government	Land Area (sq. mi.)	Population	FD Budget	2008 Village Budget for Fire Dept.	2008 Town Payment to Village for Fire Service	Total Tax Dollars for Fire Service	Tax Dollars Per Capita
Village of Oriskany	0.8	1,495	\$193,725	\$48,000	\$79,093	\$127,093	\$32.10
Village of New York Mills	1.1	3,191	\$365,282	\$90,550	\$109,572	\$200,122	\$28.38
Village of Yorkville	0.7	2,675	\$274,128	\$78,750	\$57,179	\$135,929	\$29.36
Village of Whitesboro	1.1	3,943	\$436,217	\$217,650	\$151,397	\$369,047	\$55.19
Town of Whitestown (outside villages) (n. 1)	23.5	7,331			\$418,405	\$418,405	\$57.08

Note 1 – includes payments to subcontracted fire companies.

Note 2 – New York Mills data do not account for the portion of the village's population that lives in New Hartford Township. The data available did not enable us to apportion either revenues or expenditures attributed this multi-jurisdictional situation.

This table illustrates great discrepancies in the tax dollars spent for fire protection on a per capita basis. It appears that the township's taxpayers are spending more, per capita, for fire and EMS protection than are the taxpayers of the villages. Again, additional examination should be afforded to allocation of indirect and overhead costs, etc., that address why the town would pay more to a village for fire service than the village ultimately appropriates for fire service.



Table 5 examines the relationship between the proportion of incidents in the Town (versus the individual villages) for each fire department and compares that percentage with the percentage of the fire department budget paid by the Town's contract.

Table 5.

Unit of Government	FD Budget	2008 Village Budget for Fire Dept.	2008 Town Payment to Village for Fire Service	T+V Tax Dollars for Fire Service	Percent of FD calls in Town	Percent of FD Budget Paid by Town
Village of Oriskany	\$193,725	\$48,000	\$79,093	\$127,093.00	41.75%	40.83%
Village of New York Mills	\$365,282	\$90,550	\$109,572	\$200,122.00	36.52%	30.00%
Village of Yorkville	\$274,128	\$78,750	\$57,179	\$135,929.00	22.28%	20.86%
Village of Whitesboro	\$436,217	\$217,650	\$151,397	\$369,047.00	34.63%	34.71%

It does not appear that the Town is paying disproportionately on a per-incident basis for fire protection services. However, this element of the analysis assumes that all dollars paid by the town to the villages under the fire protection agreements are actually used toward fire protection services. This does not appear to be the case, but it is a helpful comparison. In at least two cases, it appears that the town pays more to the village for fire protection than the village actually appropriates for fire protection. Moreover, this does not suggest that the fire department budgets serving as a basis for this comparison are reasonable for the needs of the community.

Table 6 examines the same question from the perspective of the villages' payments on a per-incident basis.

Table 6.

Unit of Government	FD Budget	2008 Village Budget for Fire Dept.	2008 Town Payment to Village for Fire Service	Total Tax Dollars for Fire Service	Percent of FD Calls in Village	Percent of T+V Budget Paid by Village
Village of Oriskany	\$193,725	\$48,000	\$79,093	\$127,093.00	59.17%	24.78%
Village of New York Mills	\$365,282	\$90,550	\$109,572	\$200,122.00	70.00%	24.79%
Village of Yorkville	\$274,128	\$78,750	\$57,179	\$135,929.00	79.14%	28.73%
Village of Whitesboro	\$436,217	\$217,650	\$151,397	\$369,047.00	65.29%	49.89%

This table suggests that the taxpayers of the township, using tax dollars, pay a disproportionately high share of the fire department budgets on a per-incident basis. The same caveats apply here as apply for table 5. This suggests to us, again without the benefit of an audit that follows the flow of money, that the villages, but not the Town, are the beneficiaries of the independent fund-raising efforts of the fire departments, which are not restricted to the village corporate limits. It also suggests that the fire departments may



retain as revenue funds resulting from disposal of apparatus, etc., which were purchased using municipal contributions.

Dispatch and Radio Communications

The dispatch system was described earlier. The involvement of two PSAPs in nearly every incident is problematic and could, under certain circumstances, have dire consequences. It is possible that, during the hand-off of information between PSAPs, information will be lost or communicated incorrectly, resulting in delayed or inappropriate response. In addition, the separate radio systems maintained and utilized by various jurisdictions were acknowledged by many system participants to impede emergency operations.

In the event of a substantial incident (the discussion scenario involved a bus-truck accident on the New York State Thruway), it was agreed that it was not possible for each responder on the scene to communicate with other responders without using multiple radios and multiple dispatch center intermediaries. Law enforcement, fire, and EMS entities utilize different radio bands without common operating frequencies. If a state trooper at the east end of the incident needed to communicate with the incident commander at the center of the incident, he would have to call his dispatch center, which would in turn call the Oneida County dispatch center, which would relay the message to the IC, with the return message traveling a reverse pathway. This method of communication has been dangerous and has been documented to be so in numerous studies and reports since the terrorist attacks on the World Trade Center on September 11, 2001.

In addition, the lack of a common, full-service dispatching center makes the collection, aggregation, and analysis of operational data nearly impossible. Public accountability for emergency services demand that data about emergency performance, including response performance, be regularly collected, analyzed, and reported. Data collected in multiple systems, in multiple formats, and touched by multiple hands can not meet the necessary standards of accuracy and trustworthiness to fulfill these important functions.

Response Zones & Apparatus Dispatching

Within the Town, response zones exist that were drawn many years ago using a methodology that was not recorded and that can not be recalled. These zones have not been updated even though the transportation network in the villages and the Town have undergone numerous changes. As a result, the closest emergency response units are not always dispatched to calls for service.

Moreover, the fire company designated as “primary” for a particular area operates in isolation. Upon receipt of an alarm, the fire company will respond using its own apparatus



until it depletes either its personnel or its apparatus, after which it will call for “mutual aid.” Response personnel typically respond from home or work, which adds several minutes to the time required for each vehicle to respond. Since the second-out and later apparatus respond only after sufficient personnel have responded to staff the first apparatus, the time required to assemble sufficient vehicles and staff to fight a working fire is unnecessarily extended.⁶

Finally, the areas served by the “out of town” fire departments do not reflect the response of closest forces. The Clark’s Mill VFD is closer to some areas served by New York Mills, and the Stanwix Heights VFD is closer to a substantial area in the north-western corner of the town than is the Oriskany fire station.

Not Enough EMS Trained Members

At least 64% of the emergency calls in the Town of Whitestown, including those in the villages, are for emergency medical care. An additional percentage involves response to motor vehicle crashes, which often involve only the provision of EMS to victims. Yet, less than 25% of the fire company members serving the township hold EMT certification (the range is 10% - 40%).

Limited Numbers of Firefighters Qualified for Interior Firefighting Operations

Interior firefighting, including searching for and rescuing victims inside burning buildings, is the core competency of America’s fire service. Each of the fire companies boast impressive rosters of active members. However, an examination of the qualifications of those members reveals that only approximately 40% of the 305 reported active members are qualified for interior firefighting. While the resulting number (133 qualified interior firefighters) sounds large, recent job-task analyses of the requirements for safe fireground operations for a single-family residence prescribe the presence of 13-17 qualified firefighters to conduct safe firefighting operations (the requirements are greater for operations at commercial or industrial facilities). The assembly of 17 or more fully qualified structural firefighters during certain hours of the day could pose a challenge for all of the fire companies serving Whitestown. A second alarm of any sort during a working structural fire department could find the Town or the villages without any capability for response.

⁶ The gathering of sufficient personnel and equipment to safely conduct operations is known as “concentration” of resources, which having units properly placed to provide timely arrival of the first vehicle is called “distribution” of resources. The planning of station locations and apparatus deployment should be conducted so as to achieve optimal distribution and concentration given available resources.



Private Vehicle Response & Clearing of Alarms

During the site visit, a practice was raised that causes some concern. A report of a fire alarm was received at the dispatch center. Before any fire apparatus responded, a member of the fire department arrived at the scene, investigated the incident, declared the incident to be a false alarm, and cancelled the response of any fire apparatus.

This practice presents a number of concerns. First, given limited volunteer resources, members responding directly to the scene are not available to drive or ride on emergency apparatus. This could lead to a situation where firefighters are on the scene without the tools and equipment to perform as needed.

Second, that single member responding could make a mistake. Without the presence of additional responding members to assure that determinations are correct, a condition could be missed or an error made that results in loss of life or property. A firefighter arriving on the scene without proper back-up might try to attempt a rescue that could cost the life of both the firefighter and the entrapped person. Within the career fire service, every effort is made to assure that apparatus respond with sufficient personnel to comply with the “two-in, two-out” standard prescribed by the standards of the Occupational Health and Safety Administration and other authorities. The volunteer fire service should take every possible measure to assure similar compliance.

Third, this practice causes the production of operational data that is incomplete and distorted. This particular incident showed a response time of less than one minute and a total incident duration of under four minutes, all without a single piece of fire apparatus responding and without sufficient firefighters having responded to the station to staff a single apparatus. While such data may result in the reporting of very quick emergency responses, it will not accurately reflect the performance of the fire company.



ANALYSIS AND GEO-ANALYSIS OF INCIDENT RESPONSES IN THE TOWN OF WHITESTOWN

Emergency Response Inventory

Data for calendar year 2007 was obtained from the Oneida County 911 center computer-aided dispatch (CAD) system. This system provides a limited data set (discussed above) but is believed to accurately record the existence and nature of all emergency calls occurring in the township and the villages during the specified time frame. Calls were classified at the 911 center using the CAD “call type” field, which were then grouped in to “fire and miscellaneous” calls, EMS calls, and motor vehicle collision (MVC) calls (which may involve the need for both fire services and EMS). The specific nature or severity of the EMS call was not provided.

Table 7. Calls by Response Category

Agency	EMS calls	Fire calls	MVC	Total Calls	EMS percent (max)	EMS percent (min)
Clarks Mill FD	11	4	6	21	80.95%	52.38%
New York Mills FD	397	127	64	588	78.40%	67.52%
Oriskany FD	218	103	30	351	70.66%	62.11%
StanwixHts FD	3	7	3	13	46.15%	23.08%
Whitesboro FD	387	179	46	612	70.75%	63.24%
Yorkville FD	193	74	27	294	74.83%	65.65%
Total	1209	494	176	1879	73.71%	64.34%

Table 8. EMS Calls - 2007

Agency	Town	Village-Other	Total
Clarks Mill FD	11		11
New York Mills FD	145	252	397
Oriskany FD	91	127	218
StanwixHts FD	3		3
Whitesboro FD	134	253	387
Yorkville FD	43	150	193
Grand Total	427	782	1209



Table 9. Fire & Miscellaneous Calls - 2007

Agency	Town	Village-Other	Total
Clarks Mill FD	4		4
New York Mills FD	46	81	127
Oriskany FD	49	54	103
Stanwix Hts. FD	7		7
Whitesboro FD	42	137	179
Yorkville FD	22	52	74
Grand Total	170	324	494

Further breakdown of calls classified as “fire” reveal the following breakdown between alarm system activations, fires, and service calls (pumping flooded basements, attending to trees down, etc.).

Table 10. Breakdown of “Fire” Calls - 2007

Agency	Alarm	Fire	Service	Grand Total
Clarks Mill FD		1	3	4
New York Mills FD	25	8	47	80
Oriskany FD	45	9	48	102
Stanwix Hts. FD		1	6	7
Whitesboro FD	55	20	104	179
Yorkville FD	17	13	44	74
Grand Total	142	52	252	446

Further drill-down revealed that of those calls classified as actually involving fire, only 20 were classified as structure-related fires (the rest involving cars, grass, trash, etc.). Based on our conversations with fire chiefs, fire company members, and town officials, it appears that the number 20 may even be over-stated, as each fire company reported responding to at most two working structure fires in the last year.

Of the following motor vehicle collisions, 98 were reported to involve some level of personal injury. The balance involved non-injury response activities (clean up of leaking fuel, etc.).

Table 11. Motor Vehicle Collision Calls - 2007

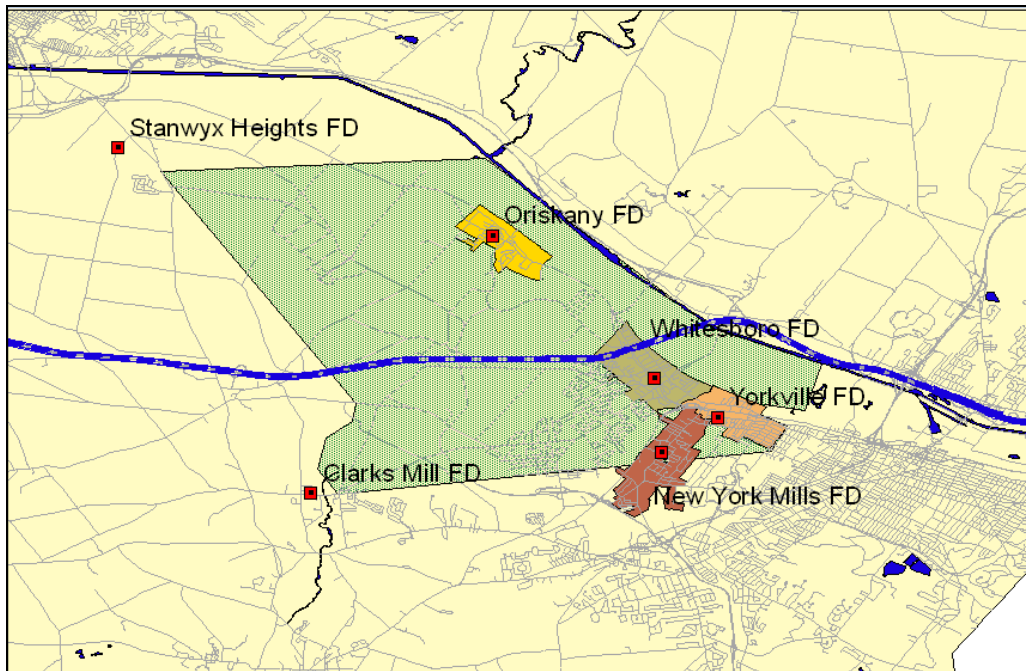
Agency	Town	Village-Other	Total
Clarks Mill FD	6		6
New York Mills FD	21	43	64
Oriskany FD	24	6	30
StanwixHts FD	3		3
Whitesboro FD	17	29	46
Yorkville FD	5	22	27
Grand Total	76	100	176

Due to the limitations in available data and the operational practices described above, it was not possible to perform an analysis of response performance of the entire system.

Geographic Analysis

Figure 1 below reflects the boundaries of the Town, the villages, and the location of the fire stations relevant to this report.^{7 8}

Figure 1.



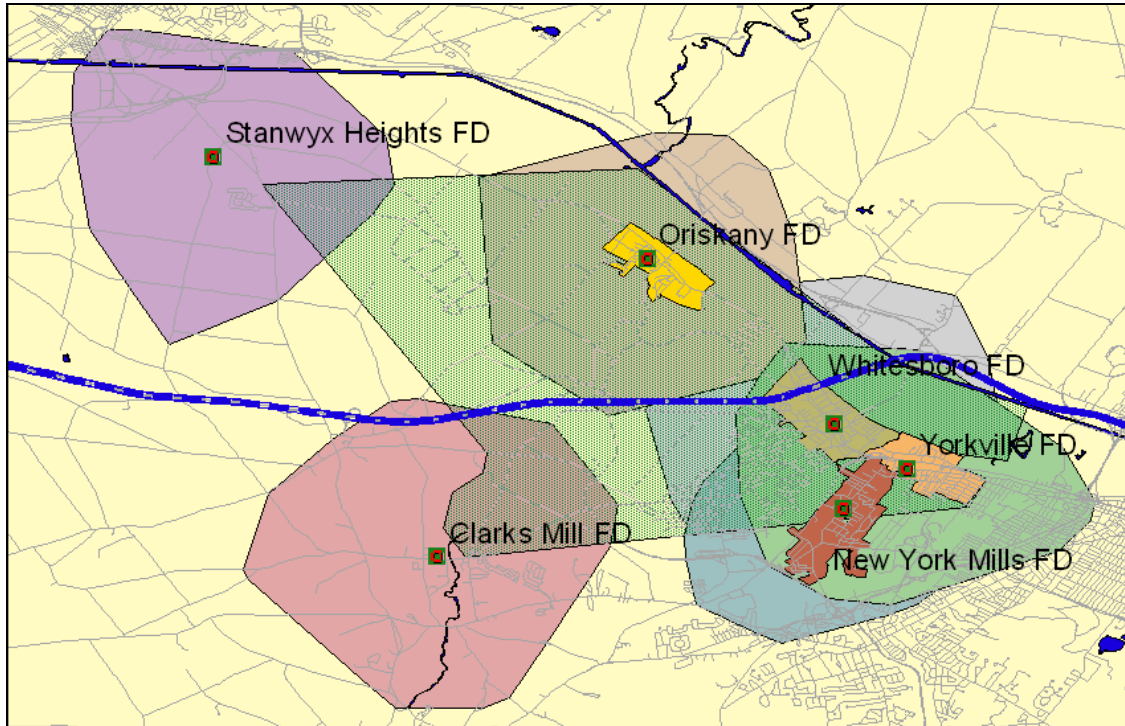
⁷ Boundaries Source – TeleAtlas Corp., 2008

⁸ It was not possible to obtain the precise borders of the township in a format that was compatible with this GIS analysis. The eastern boundary is approximated by the waterway. The discrepancies are not believed to be relevant to this analysis.

Location and Coverage of Fire Stations

Figure 2 depicts a 2.33 mile coverage zone around each fire station. This zone was established using 35 mph as the average driving speed of heavy fire apparatus, and a desired four-minute travel time (this does not include the time necessary for the processing of the call at the 911 center, the transmission of the alarm, or the time for firefighters to respond from home, put on protective equipment, and depart the station).

Figure 2

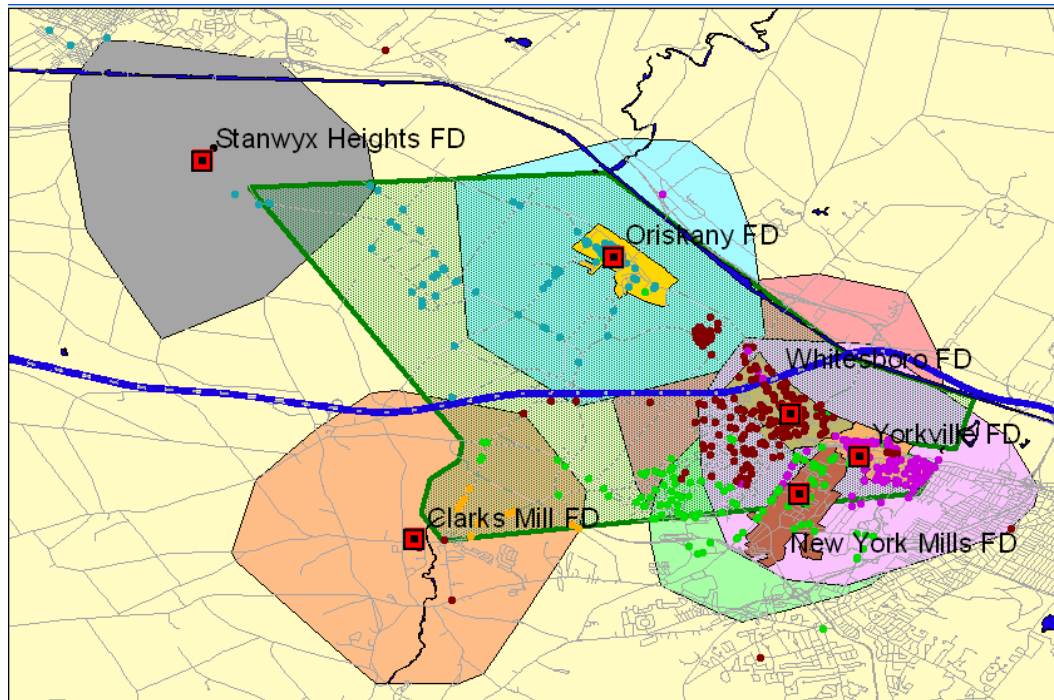


Location of Calls

Figure 3 depicts the location of those calls that could be geo-coded to the map⁹, as well as the identity of the fire company that responded to the call (the color of the dots depicting the calls corresponds to the color of the fire company coverage area – green for New York Mills, orange for Clarks Mill, blue for Oriskany, red for Whitesboro, purple for Yorkville, and grey for Stanwix Heights).

⁹ Data received from the 911 center were geo-coded using ArcView 3.3b, a product of the Environmental Systems Research Institute. Because of the frequent use of “common place names” in lieu of regular addresses, and the fact that the CAD system captures latitude and longitude only on calls originating via cellular telephone, only 78.8% of the calls could be geo-coded. For purpose of this analysis, we will assume that those incidents that could not be geo-coded are randomly distributed throughout the town.

Figure 3



Discussion of Geographic Analysis – What the Map Data Indicates

From the perspective of the elected official, providing fire protection and EMS is an ever-changing exercise of politics, economics, and decision science. Rarely, if ever, is there a clean slate on which sound decisions can be made based on data alone. Citizens are often reluctant to pay for infrequently used services except when they, or members of their family, require those services. Where communities have relied for a period of time on volunteers to meet their fire and EMS needs, those volunteers become invested in their fire companies, their equipment, and the camaraderie and social activities associated with their calling. Often, decisions in volunteer service organizations are made with due regard for the interests of the members, but without due regard for the interests of the citizens being served. One of the challenges facing elected officials in communities served by volunteers is that of keeping the service organizations focused on doing what is best for the taxpaying citizen, who is the ultimate customer of both the body politic and the volunteer service organization. There is no single right answer, and no consultant can provide a magic pill that will solve all of the problems and answer all of the questions. What we hope to provide is sufficient credible information so that responsible elected officials can make informed decisions that will satisfy both the citizens and the volunteers who serve them.

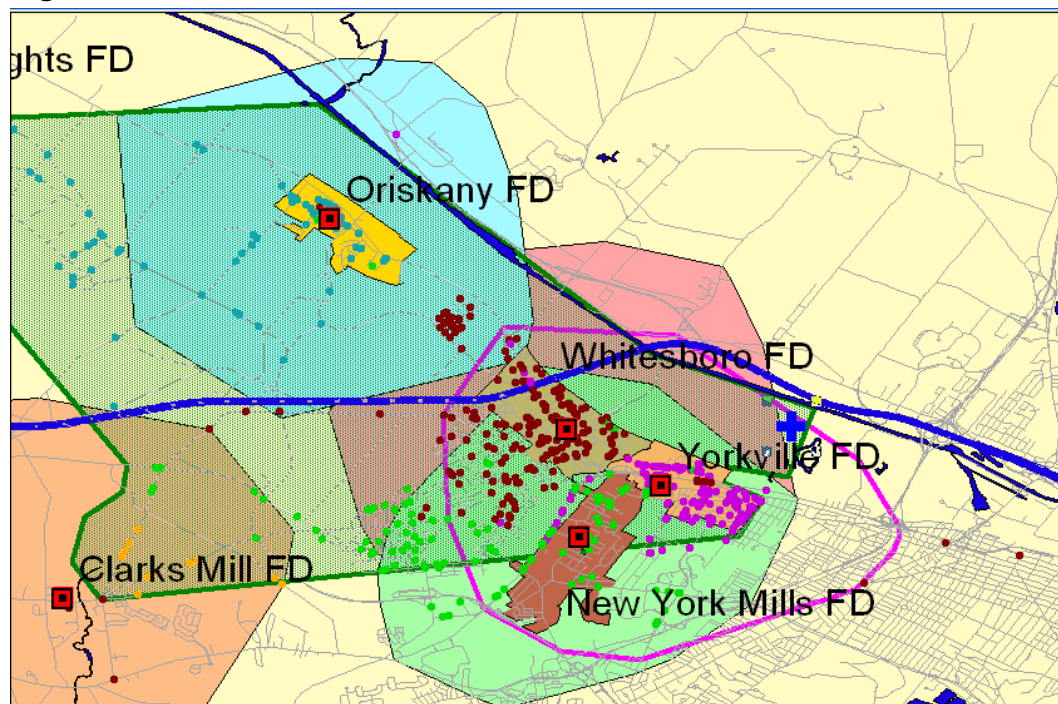
The maps first indicate that the southeast corner of the township, including three of the villages, is the area where fire protection resources are the densest. The four-minute coverage areas of three of the fire companies (Whitesboro, Yorkville, and New York Mills)

overlap significantly. At the same time, there are areas in the northwestern and southeastern portions of the township that are not within the four-minute coverage areas of any fire station.

Second, the maps indicates that the individual fire companies rarely respond outside of their natural coverage areas. Where they do, it is often in an area that could be better served by another fire company (in the case of calls run from the Oriskany fire station that are closer to the Stanwix Heights fire station, and calls run from the New York Mills fire station to areas that are closer to the Clark's Mill fire station).

In an effort to further clarify the overlap of the three village fire companies in the southeastern aspect of the Town, an additional map was created (Figure 4).

Figure 4



This map focuses on the southeastern portion of the Town, and places the four-minute coverage area of the Yorkville fire station (purple outline) over the all of the calls in the area, as well as over the service areas of the Whitesboro and New York Mills fire stations. This map illustrates two important points. First, that the areas of discrete coverage provided by the Yorkville fire station lie well outside of the Town's borders. Second, there are no calls outside of a four-minute response coverage area if the Yorkville fire station were eliminated from the Town's emergency response coverage mix, including the Village of Yorkville's 0.7 square mile area. Third, there is but a tiny area of the Town (depicted by the blue cross) where the elimination of coverage from the Yorkville fire station would leave a



portion of the Town that presently lies within a four-minute coverage zone outside of a future 4-minute coverage zone. There were no calls in that area in 2007, and there do not appear to be any paved roads in the area.



DISCUSSION & FINDINGS

Both the state of New York generally, and the Town and villages specifically, are grappling with how to provide efficient services in overlapping jurisdictions. Village, town, city and county lines, drawn from horseback over the years, have become etched in stone. This has resulted in a governmental structure that includes over 4,200 governmental entities. These entities are overlapping and multi-layered in nature, that causes “public services to be excessively expensive and provided in a manner that is inefficient and reduces the competitiveness of New York’s localities and the job and business opportunities for New Yorkers.”¹⁰

Municipal corporations in New York State have fairly broad powers to adopt local laws. However, unlike many “home rule” states, there is no constitutional curb on the powers of the state to direct the affairs of municipalities.¹¹ Of particular relevance, towns (unlike villages and cities) can not directly establish a fire department. Under current law, towns must create either a fire protection district and contract with another municipality or a private fire department, OR create a fire district with a separate elected board of fire commissioners. The New York State Commission on Local Government Efficiency and Competitiveness has made recommendations that include (a) allowing towns to directly provide fire protection services through a town-run fire department and (b) require greater accountability and transparency in contracts for fire protection services.

In 2007, the Center for Governmental Research completed a detailed study of law enforcement services in the Town and the villages, and concluded that services could be provided at the same level with a 14% reduction in cost, or a higher level of service at the current cost. Yet, our discussions with individuals during the course of this study, including elected officials and others including several sworn law enforcement officers, indicated little interest in the study or its findings. No actions have been taken based on this study. It was made clear that “local identity and control” of law enforcement services appear to be factors for which the citizens are willing to pay more. During the course of this study, individuals (admittedly part of or closely aligned with existing fire companies) indicated their belief that the citizens shared a similar sentiment with regard to fire services.

We find that the Town is in an interesting position. Fire protection is a public service generally expected by the citizens, and is not sold as a commodity. However, whether or

¹⁰ (Governor’s Executive Order #11, creating the New York State Commission on Local Government Efficiency and Competitiveness). The commission’s report was released in April 2008 (http://www.nyslocalgov.org/pdf/LGEC_Final_Report.pdf?pagemode=bookmarks=pagemode=bookmarks) (hereafter the “commission report”).

¹¹ The opposite of home rule is known as “Dillon’s Rule,” which provides that a municipality has no powers save those expressly granted by the state.



not the villages would ever exercise the option, the Town presently finds itself in a totally dependent position. It can either pay whatever the villages demand, or it can provide the service itself. Conversely, the villages can decline to negotiate the cost of providing service, and discontinue providing services to the Town. Doing so, however, would put a substantial hole in the budget of each village. This is a classic situation in which sound business negotiations, rather than political posturing, are called for.

Moreover, the decisions that need to be made cannot be made solely based on financial data. Each of these fire companies has a long and proud tradition of service to its community. Members are heavily invested, not only in serving as volunteer firefighters, but in the organizational and social aspects of the fire companies.

In addition, the village trustees we interviewed expressed unwavering support for their fire departments. They stated that, although citizens were concerned about tax rates generally, they did not see the fire department as a place where economy should be considered.

A review of emergency response data indicate that a vast majority of emergency responses in the Town are for the provision of emergency medical services. Yet a large portion of the dollars expended for fire and EMS protection by the Town and villages (estimated at 80% or more of fire department expenditures) pertains to fire protection. And the data provided about fires obscures the true nature of the fire problem, or lack thereof, in the township. When pressed, few of the people interviewed could recall the last time that there occurred a significant structure fire within the Town's borders. Finally, the number of members of the fire department certified at the EMT level or higher constitutes an insignificant portion of the roster.

Based on our interviews, written data and documents provided to us, and our professional expertise and experience, we offer the following findings:

- I. There is excess fire apparatus capacity in the Town of Whitestown (including the villages within the borders of the township).

Between the four fire companies located within the Town, there are 14 class A pumping apparatus (10 engines and four ladders). Across the nation, a "full first alarm" fire assignment, as would be dispatched to a reported structure fire, consists of three engine companies, one ladder company, one rescue company¹², and a chief officer. Given the population, area, fire hazards, and incident volume within the Town (including the villages), we believe that seven properly located engines (six in service and one reserve) would be more than adequate to meet the fire suppression needs of the community. Similarly, two properly positioned ladder trucks are

¹² Some agencies substitute a 4th engine for a rescue company, depending on local resources and preferences.



sufficient to meet any likely need for aerial rescue or master stream activity. This is not to suggest that individual fire companies should be required to sell off existing apparatus. It does, however, suggest that the Town is paying an excessive cost for fire protection that could be adjusted to account for excess apparatus purchased at the discretion of the villages. Between two and three million dollars of excess heavy apparatus currently exist in inventory. Within the Town as a whole, there is one class A pumper per 2,000 residents, while the City of Rochester has one pumper per 12,417 residents (commission report, fire protection section, page not numbered). The City of Utica protects an area of 16.3 square miles, with a population of approximately 60,000 and in excess of 11,000 responses per year, with eight engines (including reserves) and three ladder trucks (one engine per 7,500 residents). The Brighton Volunteer Fire Company, one of four fire companies serving the Town of Tonawanda, New York, protects approximately 50,000 people with five engines, one ladder, and one heavy rescue (1:10,000).

- II. The closest emergency units are not necessarily those dispatched to calls. This is due in part to the fact that response is guided by response district lines drawn many years ago, and in part due to the status of the Stanwix Heights and Clark's Mill fire companies as sub-contractors of the villages of Oriskany and New York Mills.

- III. The Town is paying excessive amounts for fire protection.
 - A. As discussed in Section I above, the Town is contributing to the expense of procuring, operating, and maintaining too many heavy fire apparatus.

 - B. A review of financial documents, plus discussion with fire chiefs and at least one village trustee, reveals that the Town may be paying an excessive amount for each apparatus. Town payments are based on village budgets for fire service. In some cases, it appears that these budgets include depreciation expense, payment of bond obligations for bonds used to buy apparatus, and funding reserve funds to pay for apparatus acquired in the future. There are three particular issues:
 - i. Is it appropriate for the Town to make payments both toward payment of depreciation expenses and for bond amortization, while also contributing to a vehicle replacement fund (reserve) fund?
 - ii. Is it appropriate for the Town to make payments toward the funding of village reserve funds for vehicle replacement, when in at least one village it was acknowledged that sometimes the village itself does not fund the reserve fund?



- iii. Should the Town assist in funding apparatus purchases but not become the beneficiary when apparatus are sold?
- C. There is little accountability to the Town for the amounts it spends for fire protection.

The documents made available to the consulting team do not permit us to relate the amounts paid by the Town to the villages for fire service to particular items of expense. Moreover, the Town is not provided complete, detailed periodic reports about the services it receives. It is generally accepted within the emergency services that jurisdictions providing service under contract provide agreed-upon reports about incident volume, response performance, ambulance transport, volume of fire loss, and other important metrics to the governing board of the contracting jurisdiction.

Beginning with this contract year, the Town attempted to gain a modicum of financial accountability by requiring, in contract, that it be notified of expenditures by the villages, for fire protection, when an expenditure of greater than \$10,000 was made. The Town reports no such notifications, and several fire company representatives openly asserted their defiance of this requirement. However, even with compliance, this requirement provides no control over excess fire department spending.

- D. Payments to the Village of Yorkville do not result in necessary additional fire protection for the citizens of the Town of Whitestown.

This point captures the discussion of map in Figure 4 above. Responses provided by the Yorkville Fire Department into the Town numbered 43, and these generally appear to be closer to the New York Mills fire station than they are to the Yorkville fire station.

- E. The number of personnel certified at the EMT level or higher may not be adequate to assure prompt medical first response services throughout the Town.

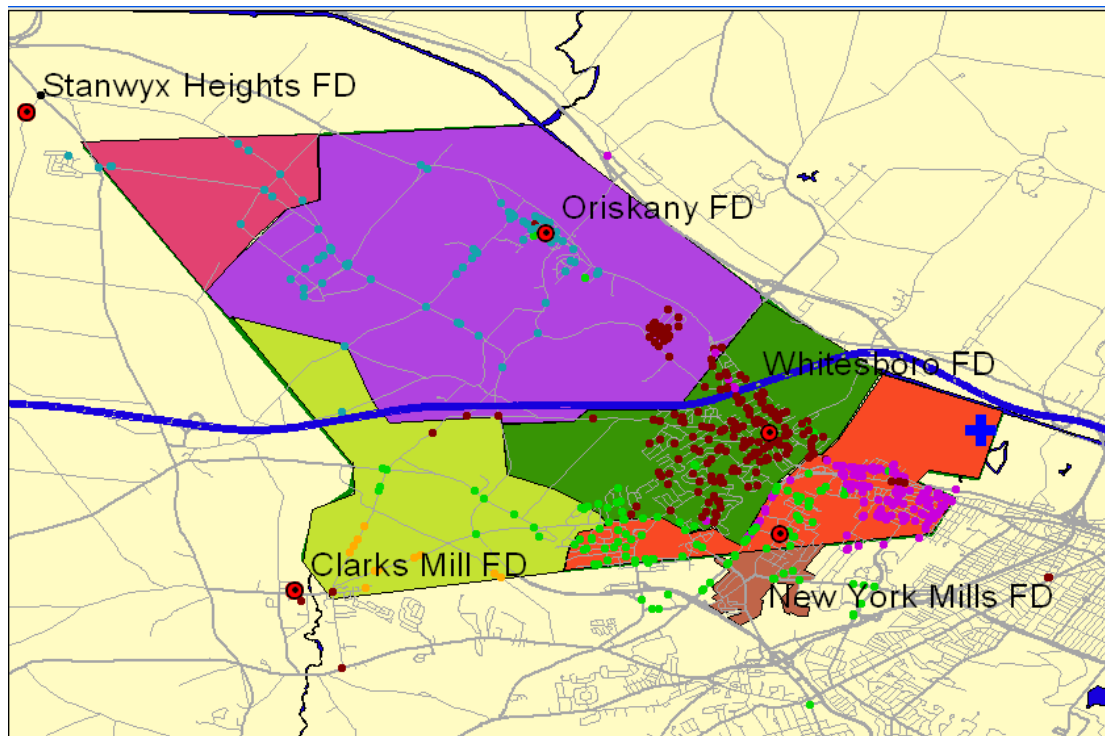


RECOMMENDATIONS & OPTIONS

- I. The following recommendations should be implemented regardless of the funding alternatives selected by the Town.
 1. Regardless of the number or identity of response organizations, require all agencies conducting emergency operations in the Town to become compliant with the National Incident Management System and the associated Incident Command System. Reinforce the principles that district and rank do not dictate the identity of the incident commander at any particular incident. Establish the authority of all fire officers in the Town to command incidents anywhere in the Town regardless of response district, in accordance with NIMS/ICS principles.
 2. Work with Oneida County and other relevant jurisdictions to establish a single, full-service PSAP/dispatch center that provides all necessary call-taking, data collection, dispatching, and related services.
 3. Work with Oneida County and other relevant jurisdictions to establish a consolidated, county-wide radio system such that responders from all agencies involved in emergency response (including non-traditional responders such as public works, utility, and public health responders) can communicate reliably with each other using a single portable radio.
 4. Regardless of the number or identity of response organizations, require the reliable collection and submission of incident response data from all entities (including fire, EMS first response, and ambulance service) in a uniform and complete format to the Town of Whitestown on a periodic basis.
 5. Regardless of the number or identity of response organizations, utilize professional response zone development software (Fireview™ or similar) to draw response districts that provide for response of the closest fire department to all alarms in the Town of Whitestown.

Figure 5 provides an approximation of what closest-station response zones would look like, omitting the duplicate coverage provided by the Yorkville fire station. This drawing, based on street network analysis accomplished using Network Analyst® from the Environmental Systems Research Institute, measured overlapping coverages of the street network regardless of the speed limit. Use of Fireview™ or a similar product, with accurate street impedance data underlying the analysis, would likely provide a slightly different view.

Figure 5



6. Regardless of the number or identity of response organizations, provide by contract for the response of the closest fire department to all alarms in the Town of Whitestown, and for periodic (annual or biennial) re-drawing of response districts to account for changes in the transportation network. Expand the response areas of the Clark's Mill Volunteer Fire Company and the Stanwix Heights Volunteer Fire Company in accordance with map #5; contract directly with these two fire companies.

II. The following options for funding are available for consideration by the township:

- A. Discontinue funding of the village fire departments and establish a Town of Whitestown Fire Department to serve areas of the town that are outside the villages. As noted above, this is not currently within the statutory ability of the Town. However, the Town could provide facilities, equipment, and facilitation for the formation of a new volunteer fire company with which it could then contract.

The amount that the Town is currently spending for fire protection, using appropriate financing options, could easily support the construction of a central fire station, a substation in the northern aspect of the Town, and the



procurement of one class A pumper, one class A quint, and necessary light vehicles.

However, there is no guarantee that town residents would serve as volunteer firefighters/EMTs. This option would take the Town out of the present, totally dependent position in which it finds itself.

- B. Build one or two appropriately located facilities and contract via competitive bid with one of the existing fire company to provide equipment and personnel to provide fire protection in the township. This option would provide some competitive incentive for the existing organizations to effectively utilize resources, and would provide the Town the opportunity to (i) negotiate and deal with a single accountable entity and (ii) establish a single fire district with a simplified tax structure.
- C. Continue funding the village and private fire departments as providers, but adjust the amount of funding by a calculated amount that offsets the unnecessary level of equipment (particularly apparatus, but including dual PPE - turnout ensembles – issued to members of several departments). Given the existence of approximately \$3,000,000 in excess heavy fire apparatus (3 engines @ \$500,000 each) and 2 ladders @ \$750,000 each). Merely accounting for the depreciation of excess apparatus costs could reduce depreciation expenses paid by the villages and the town by \$150,000 per year.
- D. Adjust the focus and amount of fire protection contracts to exclude EMS responses. There are at least three available options for assuring adequate EMS response within the Town:
 - i. Train town police officers as EMTs and utilize those police officers as first responders on medical emergencies. This option is utilized in the Town of Tonawanda, New York, where in addition to utilizing patrol officers as first responders, the police department also operates a paramedic-staffed ambulance for the benefit of its citizens. The Town of Tonawanda Paramedics work on a "tiered" response system where the paramedics provide first aid and advanced life support care in conjunction with Police Officers in the Town of Tonawanda or first aid responders from the Village of Kenmore Fire Department. Patient transport is done by commercial ambulance service with advanced medical care provided by the Town of Tonawanda Paramedics when needed. See <http://www.tonawanda.ny.us/ttpd/pages/paramedics.htm>.



- ii. Contract with an existing local EMS provider to staff a medical first response unit (a "fly car" or paramedic quick response vehicle) stationed in the Town on a 24 x 7 basis.
 - iii. Contract with an existing local provider to station an ambulance in the Town, with the understanding that the provider would "back fill" the Town with a similarly-capable ambulance unit when the locally-stationed unit is dispatched. Inasmuch as the likelihood of two concurrent EMS calls in the Town is less than one percent (e.g., such occurs only 3.5 times in one year), the risk of delayed response is minimal. Combined with police first response services, this option has the potential for actually improving services within the Town.
- E. Discontinue the contractual relationship for fire protection between the Town of Whitestown and the Village of Yorkville.

As discussed above, the removal of the Yorkville fire station from the response mix will have little if any negative impact on fire responses in the Town. This could result in the Town saving \$57,179 per year.

- F. Establish the fire tax rate at a level deemed appropriate by the Town Council, and remit all dollars generated thereby to the organization(s) providing fire and EMS services within the town. If more than one organization provides services, apportion the amount based on the annually adjusted first due area of the respective provider.

In summary, there are a variety of options available to the Town to reduce the amount expended for fire and emergency medical services. While optimizing the service availability to the larger community, each should be considered with due regards for operational, clinical and financial implications.



ATTACHMENT A

**Town of Whitestown, New York
Fire & EMS Protection Study**

