PLANNING COMMITTEE & FINANCE COMMITTEE
MONDAY, FEBRUARY 9, 2026 6:00 PM
COUNCIL CHAMBERS
HURLEY BUILDING, 205 SALTONSTALL STREET
VIRTUAL: https://us06web.zoom.us/j/84662898580
LIVE STREAM: https://fingerlakestv.org/live/

Finance Committee: Michael Mills, Chair
Donna Cator
Guy Turchetti
Gwen Van Laeken

1. Center for Public Safety Management (CPSM) Fire-EMS-911 Services Assessment

CPSM was commissioned to complete an assessment of the City's Fire Department, EMS ground transport provider (Canandaigua Emergency Squad) and the Ontario County Emergency Communications Center (911 Center). CPSM presented their findings at the October 6, 2025 Planning Committee. Additional information was requested by the Committee on volunteer regional partners, the number of EMS calls involving the City's Fire Department and CES, along with other staffing options. Representatives will be in attendance, virtually, to present their updated report findings. The updated report can be found here: https://www.canandaiguanewyork.gov/DocumentCenter/View/1275/2025-CPSM-Fire-EMS-911-Services-Assessment-PDF
The City Manager/Director of Public Safety will provide an overview of the next steps.

2. Sewer Rent and Water Rate Penalty Change Analysis

At the January 26th City Council meeting, Councilmember Squires inquired about changing the penalty rate for non-payment or late payment of the sewer rent. The City Manager requested to have time for City Staff to prepare an analysis and a recommendation if changes were desired by the City Council. An analysis and recommendation will be presented at the meeting.

3. Standardization of City Fire Hydrants

The City has over four hundred (400) fire hydrants. They serve as important connection points to both the water distribution system to facilitate firefighting operations and as preventative maintenance points for the entire distribution system. In an effort to simplify corrective maintenance as well as reduce cost by streamlining purchasing, DPW recommends establishing Kennedy Valve hydrants as the citywide standard for fire hydrant inventory. DPW currently maintains and services the hydrants. There is a preference to work on the Kennedy hydrants as they are robust, easy to maintain, and have a wide availability for replacement parts. DPW aims to replace ten to fifteen hydrants annually and in doing so, the Department prefers to transition to Kennedy hydrants as the City standard.

Planning Committee: Guy Turchetti, Chair
Donna Cator
Michael Mills
Gwen Van Laeken

1. **Comprehensive Plan Implementation Discussion- Standing Item**

The Planning Committee has committed to discussing various goals outlined in the City's 2025 Update of the Comprehensive Plan. Councilmember Mills has expressed a strong desire to discuss the South Main Street and Eastern Boulevard focus areas. Interest in a form-based code has been expressed. Attached to the agenda is a copy of the updated Comprehensive Plan and existing Architectural Standards.

CENTER FOR PUBLIC SAFETY MANAGEMENT, LLC

Fire-EMS-911Services Assessment

Canandaigua, NY

Canandaigua Fire Department

Canandaigua Emergency Squad

Ontario County 911 Center

CPSM®

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International City/County Management Association (ICMA)

The International City/County Management Association (ICMA) is a 111-year-old, non-profit professional association of local government administrators and managers, with approximately 13,000 members located in 32 countries.

Since its inception in 1914, ICMA has been dedicated to assisting local governments and their managers in providing services to their citizens in an efficient and effective manner. ICMA advances the knowledge of local government best practices with its website, www.icma.org, publications, research, professional development, and membership.

Center for Public Safety Management

The ICMA Center for Public Safety Management (ICMA/CPSM) was launched by ICMA to provide support to local governments in the areas of law enforcement, fire, Emergency Medical Services (EMS), emergency management, and 911-Communication Centers. CPSM also represents local governments at the federal level and has been involved in numerous projects with the Department of Justice and the Department of Homeland Security. Further, CPSM provides training and research for ICMA members and represents ICMA in its dealings with public safety professional associations such as CALEA, PERF, IACP, IAFC, PSHRA, DOJ, BJA, COPS, and NFPA.

In 2014 as part of a restructuring at ICMA, CPSM spun out of ICMA as a separate company and is now the exclusive provider of public safety technical assistance for ICMA. The *Center for Public Safety Management, LLC,* maintains the same team of individuals performing the same level of service that it had as an ICMA internal program.

As an organization, CPSM has more than 15 years of experience performing fire, EMS, law enforcement, and 911 Communication Center agencies nationwide using our unique methodology of aligning our comprehensive workload and response analysis with industry standards and best practices, and our client's issues and challenges. Our overall experience includes more than 500 such public safety studies in 46 states and provinces and 450+ communities ranging in population size from 269 (Bald Head, NC) to 4.4 million (Maricopa County, AZ).

The CPSM project teams offer years of practitioner, first line supervisory, middle management, and senior leadership experience in the fire, rescue, EMS, emergency management, law enforcement, and 911-Center disciplines; and a record of research, academic, teaching and training. Our team comprises true industry subject matter experts, not research assistants, interns, or generic management consultants.

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Center for Public Safety Management, LLC

www.cpsm.us

CENTER FOR PUBLIC SAFETY MANAGEMENT PROJECT CONTRIBUTORS

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CONTENTS

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SECTION 1. INTRODUCTION

The City of Canandaigua contracted with the Center for Public Safety Management, LLC (CPSM) to complete an assessment of the City's fire department (Canandaigua Fire Department-CFD), EMS ground transport provider (Canandaigua Emergency Squad-CES), and the Ontario County Emergency Communications Center (911 Center).

The service demands and challenges generated by the community are numerous for the fire department, EMS agency, and 911 Center and include fire protection; EMS first response; EMS ground transport, technical rescue; law enforcement and associated components (demands on the 911 Center); severe weather; density challenges; transportation emergencies; water/ice emergencies; and other non-emergency responses typical of urban/suburban fire, EMS and law enforcement agencies (the demand on the 911 Center along with fire and EMS).

The purpose of a Fire, EMS, and 911 Center Assessment is to provide an analysis that includes:

- Analysis of community risk and the impact the risk has on the community and fire and EMS agencies.
- Assessment of baseline emergency response performance to include the 911 Center.
- Analysis of and determination of staffing that aligns with department workload, available staff, community risk, and external forces such as available mutual aid and assembling an Effective Response Force.
- Evaluation of Fire, EMS, and 911 Center workload.
- Measurement of service delivery performance.
- The provision of planning considerations and recommendations for current and future resource needs.

A significant component of this report is the completion of a fire department organizational and infrastructure analysis that includes training and education of fire department members; community risk reduction programs; an assessment of the current fleet; facility assessment; and deployment of operational resources. The organizational analysis and recommendations are focused on organizational improvement and sustainability.

Another significant component of the analysis is the risk profile of the community, which contemplates many factors that cause, create, facilitate, extend, and enhance risk in and to a community. The risk profile is an important component of this report as it links directly to staffing and deployment of fire and EMS resources in the community.

The greatest current building risk by number in Canandaigua is a low-moderate hazard risk, which is single family dwellings of predominantly wood frame construction. Additionally, Canandaigua does have high-risk/vulnerable population risks (nursing/assisted living facilities), schools and multifamily residential structures, as well as mixed use occupancies and commercial buildings. Although the demographic and building risks in Canandaigua pose a low-medium risk in totality, a single call involving a vulnerable population, or an elevated risk (Fire or EMS) poses a higher risk to that particular response.

Our report includes comprehensive operational data and GIS analyses for fire, EMS and the 911 Center. The data and GIS analysis performed for this project provides technical support to recommendations and deployment strategies based on call demand, call type and station workload, resiliency, current and projected resource needs, and response times.

Throughout our analysis, and more specifically when analyzing the operational deployment of fire and EMS resources, CPSM utilized three national benchmarks: the *Insurance Services Office - Public Protection Classification* (ISO-PPC) rating system, NFPA 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments.* 2020 edition, and NFPA 1225: *Standard for Emergency Service Dispatching,* 2022 edition. Both are important national benchmarks. Although the ISO-PPC rating system and NFPA 1710 are primarily focused on fire protection, it is important to understand they are independent of one another.

The Canandaigua Fire Protection Service Area (City and Town of Canandaigua) has achieved a Class 04/4X rating. It is important to understand that the PPC is not just a fire department classification, but a compilation of community services that include the fire department, the emergency communications systems, and the water supply system. Together, these components are evaluated to determine the community's ability to combat building fires.

An ISO rating of 04/4X is a split classification issued by the Insurance Services Office (ISO) to evaluate a community's fire protection capabilities. The **"**04**"** represents the rating applied to properties within the defined service area that are within five miles of a fire station and have access to recognized fire protection resources, such as fire hydrants and adequate water supply. This applies to the city. The **"**4X**"** applies to properties located beyond 1,000 feet of a fire hydrant but still within five road miles of a recognized fire station. This applies to areas in the town. While both ratings indicate a generally good level of fire protection, the "4X" reflects the reduced water supply availability, which can impact firefighting effectiveness.

NFPA 1710 outlines the organization and deployment of operations career fire and rescue organizations. This standard serves as a benchmark to measure staffing and deployment of resources to certain building types and emergencies. Specific components of NFPA 1710 that are germane to staffing and deployment of resources include the assembling of an Effective Response Force (staffing to perform Critical Tasks on the fireground) for certain building risks, and response times focused on assembling staff for building fires and EMS first response.

There is important discussion in the report about Critical Tasks. Critical tasks are those activities that must be conducted on time and preferably simultaneously by responders at emergency incidents to control the situation and minimize/stop loss (property and life-safety). Critical tasking for fire and EMS operations is the minimum number of personnel needed to perform the tasks required to effectively control and mitigate a fire, EMS, or other emergencies. To be effective, Critical Tasking must assign enough personnel so that all identified functions can be performed simultaneously. The specific number of people required to perform all the critical tasks associated with an identified risk or incident type is referred to as an *Effective Response Force* (ERF).

Other significant components of this report are an analysis of the current deployment of resources for fire and EMS; a comprehensive review of EMS dispatching; review of the current ISO Public Protection Classification report; current staffing levels and patterns; fire and EMS resiliency (ability to handle more than one incident); critical tasking elements for building fire and EMS incident responses and assembling an Effective Response Force; mutual aid; and analysis of the potential to implement a Mobile Integrated Health program in the fire and EMS agencies, as well as a Nurse Navigation component in the 911 Center to enhance the EMS system.

Based upon CPSM's detailed assessment of the fire department, EMS agency, and 911 Center, it is our conclusion that these agencies, overall, provide quality fire, EMS, and emergency communications services. All staff are professional and dedicated to the mission of their agencies. This was apparent during our discussions with all agencies.

This report also contains a series of observations, considerations, and recommendations intended to help the fire department, EMS agency, and the 911 Center deliver services more efficiently and effectively. Recommendations and considerations for continuous improvement of services are presented here. CPSM recognizes there may be recommendations and considerations that may need to be budgeted, or for which processes must be developed prior to implementation.

Key points identified in the report, and to which recommendations align with include:

- The CFD as a single responding agency, is unable to assemble an Effective Response Force on its own for any type of structure fire, other than a shed or other small outbuilding. For any fire involving single-family dwellings, strip mall/commercial buildings, and apartment building fires, the CFD, as a single responding agency, cannot assemble an Effective Response Force without a robust response from mutual aid companies, which is allowed under the NFPA 1710 standard.
- The EMS system (CES and CFD) has sufficient capabilities to assemble an Effective Response Force for EMS calls when units are available (based on call demand and EMS unit availability [resiliency]), and when calls occur during off-peak hours.
- Overall 90th percentile CFD turnout time was 2.1 minutes for both the City and the Town. For EMS calls the time was 2.3 minutes in both locations, more than double the NFPA recommended benchmark. For fire calls the time was 1.6 minutes for the City and 1.8 minutes in the Town.

  These times are well above the NFPA 1710 benchmark standard of 60 seconds for EMS calls, and 80 seconds for fire calls, 90 percent of the time. This situation is inadequate and needs to be addressed.

- CES response time (turnout and travel time) can be improved by reducing turnout time. For responses in the City, CES on average takes over 2 minutes for turnout to a call and at the 90th percentile this increases to over 3.5+ minutes. Efficient turnout times are key to reducing overall EMS response times. Further, on average, travel times are 4.5 minutes and at the 90th percentile they are just over 7 minutes. This is consistent with the travel time bleeds from the City CES station, but also indicates, as most of the city is covered in 240 seconds, that units responding to the City also come from outside of the City.
- Career firefighter training in New York state is regulated by the New York State Department of Homeland Security and Emergency Services whose Standard 426.7 requires a minimum of 101hours of training to be completed annually. This includes both classroom instruction and hands-on training. CPSM assesses that the CFD meets, and in fact exceeds these requirements.
- The City of Canandaigua and CFD should continue to work to formalize, in writing, its mutual aid agreements with surrounding fire departments. CPSM assesses that these agreements should stipulate the minimum training standards required for personnel who may respond to the city to assist. Finally, the agreements should also stipulate that the ranking officer of each entity must certify in writing on an annual basis that his/her personnel comply with the standards.
- The CFD has a modern fire and support vehicle fleet with two new replacement apparatus ordered for delivery over the next five years.
- Overall, both the current CFD stations maintain adequacy as fire stations for continued service to the City and Town.

- Through interviews with CES and in review of provided information, CES has a well-established internal operational structure, including vehicle deployment plans, clinical credentialing, response data, and continuing education. CES currently staffs three ambulances with ALS coverage as their core deployment and can, through per-diem and volunteer members, upstaff with surge if per-diem and volunteers are available. CES is licensed by the New York State Department of Health. Medical direction is aligned with the Finger Lakes Regional EMS Council and coordinated by Dr. Glick, who also oversees CFD's clinical protocols.
- Clinical oversight, while unified under Dr. Glick as designated Medical Director lacks effective implementation of collaborative quality assurance, collaborative training, and standardized protocols between CES and CFD. This shortfall is inconsistent with recommendations from the National Association of EMS Physicians (NAEMSP, 2020) advocating robust quality improvement programs and structured continuing education.
- Overall, the CES EMS system is challenged regarding resiliency in terms of workload, interfacility transfers, and hospital transport times. EMS resiliency is significantly impacted due to transport times. As outlined herein, on average, over the three-year analysis period, 70% percent of EMS calls resulted in a transport with transport times averaging 64 minutes per transport. An additional impact on EMS resiliency is the number of units staffed on a daily basis, which is typically three overall (there is a potential for adding additional units with volunteer and per-diem staff). Overall, over the three-year analysis period, CES responded to 20,389 calls of which 30% were interfacility transfers (53% of City of Canandaigua calls). ***CPSM assesses when you couple dual EMS roles (911 and interfacility) with extended transport times, there will be resiliency impacts on the EMS system, particularly during the peak call time periods of the day (which in the City-interfacility and 911 EMS calls tend to peak at the same times).***
- There are vulnerabilities in the EMS system as it applies to the City of Canandaigua, and include:
  - CES is the primary EMS transport agency serving the City, managing both 911 and interfacility calls. CES uses the same pool of EMS units for both emergency 911 response and interfacility transfers. This dual-role configuration contributes to ambulance resiliency issues, particularly during peak hours, reducing resiliency and increasing 911 response time variability.

    This creates a single point of failure without redundancy or contractual performance protections for the City. CES historically averaged five calls per day in the City and just under six interfacility calls per day. In 2024, 47 percent of City calls overlapped with one or more calls (included 911 and interfacility calls). As demand increases, response times will be affected, especially without guaranteed additional surge resources.
  - With interfacility transport comprising over 42 percent of deployed time over the three-year deployment hour analysis, 911 readiness is often compromised due to extended out-of-service unit intervals for hospital-based trips.
  - Despite shared medical direction, there are no joint operational protocols, training and education, operational readiness discussions/drills, shared QA/QI processes, or integrated dispatch analytics. As a result, no systemwide process exists to evaluate care delivery across both agencies and ensure continuous improvement.
  - The City and CES have not engaged in a formal agreement regarding performance benchmarks for response times or any level of effort regarding expected number of

available ambulances staffed at the Advanced Life Support or Basic Life Support level. The City is exposed if CES experiences staffing or resource instability.

- CES collects robust internal performance data but does not regularly share these metrics with the CFD or the City in a structured format. Without standardized data sharing, system performance cannot be consistently evaluated. This limits system visibility into system performance, risk patterns, and resource utilization.

- The EMS system is prime for enhancements to include Mobile Integrated Health for improving overall health and reducing the burden on emergency services, and a Nurse Navigation program in the 911 Center, which is an emerging practice designed to improve patient care while reducing demand on EMS resources.
- The 911 Center is at times a busy emergency communications center. CPSM makes this assessment based on the collective workload as reviewed herein.
  - Key workload points include:
    - In total, the 911 Center averages:
      - ✓ 402 incoming calls/day (911 and non-emergency) over the two-year period for an average of 17 incoming calls per hour.
      - ✓ 303 calls dispatched per day (all public safety disciplines), or on average,13 calls an hour over the two-year period.
      - ✓ On average for the two-year period, the 911 Center completes 231 law enforcement information request per day, or on average 10 per hour.
- Continued growth in the City and Town is planned for and is occurring, which is positive in both cases. That said, population and related growth impacts must be included in any strategic planning the CFD and CES conducts. Increases in development, particularly densification created by multi-family/multi-story development, will likely increase call demand, fire code inspections, fire investigations, fire code complaints, and will impact the current deployment model (apparatus type, staffing, deployment locations) of the CFD.
- The greatest amount of building risk in the City is of a low hazard (single family dwellings-predominately wood frame construction). As of 2023, 2,508 residential structures were reported to have partial or full basements. Canandaigua does have a number of high and medium risk/vulnerable population risks (nursing/assisted living/medical facilities), educational facilities/institutional facilities and multifamily residential structures (apartments/townhomes). All of these building risks present the CFD with life-safety concerns.
- The demographics in Canandaigua overall pose a moderate risk in totality. While not a high risk, a single call involving a vulnerable population (fire or EMS) poses a higher risk on that particular response. Through pre-fire planning and response district knowledge of residential and other structures housing a vulnerable population as identified above, the Canandaigua Fire Department will have the necessary situational awareness and be better prepared to mitigate the emergency once on the scene of the incident.

End of Introduction

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RECOMMENDATIONS

Recommendations are listed here in the order they appear in the report.

Fire Services

1. ***CPSM recommends*** that the CFD Fire Chief and command staff take a proactive role in strengthening relationships with surrounding automatic and mutual-aid partners, particularly the VA Medical Center Fire Department through regular meet-and-greet sessions, Chiefs' meetings, networking opportunities, joint training (including multi-company and multi-jurisdictional exercises), and the development of standardized operational procedures and guidelines.

2. ***CPSM recommends*** that the City of Canandaigua should explore and potentially seek out opportunities for more regional and/or shared services collaborations where the CFD would provide the foundation for a more robust regional emergency services delivery system in Ontario County. ***CPSM further recommends*** that the City and Town of Canandaigua enter into discussions regarding the possible formation of the Canandaigua Area Regional Fire Department, or perhaps Finger Lakes Regional Fire Department, which would provide fire protection services to the entire city and town through a single entity. If additional partners, which already rely heavily on the city for assistance are interested, they should be included as well.

3. ***CPSM recommends*** that the CFD should work with the Ontario County 9-1-1 Center leadership to identify and attempt to correct the reasons for the extended dispatch times shown in the study year data.

4. ***CPSM recommends*** that the CFD should work to identify potential causes and aggressively take whatever steps are necessary to significantly improve turnout times, for both fire and EMS incidents. This will serve to reduce and improve overall response times to emergency incidents. Implementing this recommendation may require collaboration with the Ontario County 9-1-1 Center leadership to ensure that unit responding times are captured and recorded accurately.

5. ***CPSM recommends*** that as a part of any strategic planning, and as travel time is affected by demand and workload on each station, road network, and traffic congestion, the Town of Canandaigua adopt a 6-minute (360 second) travel time benchmark measured at the 90th percentile as a performance benchmark. This is a more realistic performance benchmark as 90%+ of the CFD's Town coverage area appears to be within this benchmark.

6. ***CPSM recommends*** that the CFD should build at least a portion of its training regimens and tactical strategies around the exterior or transitional attack for when the fire scenario and the number of available units/responding personnel warrants this approach.

7. ***CPSM recommends*** that in acknowledgement of the fact that the CFD operates in a minimal staffing mode and recognizing the potential for rapid fire spread, particularly in the more densely developed areas of the city, the CFD should equip all its apparatus with the appropriate appliances and hose and develop standardized tactical operations that will enable arriving crews to quickly deploy high-volume fire flows of 1,200 to 1,500 gallons per minute (if the water supply will permit this), utilizing multiple hose lines, appliances, and master stream devices. This flow should be able to be developed within four to five minutes after the arrival of an apparatus staffed with three personnel.

8. As a planning objective ***CPSM recommends*** that over the mid-to-long-term fiscal planning years, the City enhance CFD staffing levels as outlined here in order to achieve the staffing levels recommended in this report. CPSM defines mid-term as three to five years and long-term as six to ten years.
    - Mid Term – Hire one additional firefighter (one total position) and reassign current floater firefighters to platoons to increase maximum shift staffing to five personnel while maintaining minimum staffing of four on duty 24/7.
    - Mid Term – Add one additional firefighter per shift (four total positions) and increase minimum on-duty staffing to five personnel at all times. The maximum shift staffing would be six personnel.
    - Mid Term – Add one additional firefighter per shift (four total positions) and increase minimum on-duty staffing to six personnel at all times. This will allow the city to staff two fire suppression units 24/7 with a minimum of three personnel each. The maximum shift staffing would be seven personnel.
    - Long Term – Add one additional firefighter per shift (four total positions) and increase minimum on-duty staffing to seven personnel at all times. This is the minimum level of staffing that CPSM recommends that the City of Canandaigua should seek to achieve. The maximum shift staffing would be eight personnel.
        - To facilitate implementation of a Level 2 Intermediate command level officer the Captains should be designated a shift commander who would respond in a command vehicle to incidents.
        - Create the position of Lieutenant – two per shift - (eight total positions but no additional personnel required) to provide an officer on each fire suppression unit.
    - Long Term – Add one additional firefighter per shift (four total positions) and increase minimum on-duty staffing to eight personnel at all times. The maximum shift staffing would be nine personnel.
    - Long Term – Add one additional firefighter per shift (four total positions) and increase minimum on-duty staffing to nine personnel at all times. This is the preferred level of staffing that CPSM recommends that the City of Canandaigua should seek to achieve. The maximum shift staffing would be ten personnel.

The table below provides a recommended staffing matrix for CFD staffing levels between the current four personnel, the recommended minimum staffing of seven, and optimal of nine minimum staff per shift as outlined in the report.

MINIMUM ON DUTY STAFFING LEVEL	STATION 1 STAFFING	UNIT(S) STAFFED	STATION 2 STAFFING	UNIT(S) STAFFED	Term
4 Personnel	2	Truck 281 w/ 2	2	Engine 211 w/ 2	Current
5 Personnel	3	Truck 281 w/ 3	2	Engine 211 w/ 2	Mid
6 Personnel	3	Truck 281 w/ 3	3	Engine 211 w/ 3	Mid
7 Personnel	4	Truck 281 w/ 3 Shift Commander w/ 1*	3	Engine 211 w/ 3	Long
8 Personnel	4	Truck 281 w/ 4	4	Engine 211 w/ 3 Shift Commander w/ 1*	Long
9 Personnel	5	Truck 281 w/ 4 Shift Commander w/ 1*	4	Engine 211 w/ 4	Long

*** Captain or Battalion Chief as shift commander in command vehicle (enhanced discussion below).**

9. ***CPSM further recommends*** that the City of Canandaigua pursue federal grant opportunities, specifically the FEMA Staffing for Adequate Fire and Emergency Response (SAFER) program, to offset the financial impacts associated with increasing firefighter staffing levels. The SAFER grant is designed to help local jurisdictions improve their staffing models by providing funding for the hiring of additional personnel, thereby enhancing operational capacity, and improving response capabilities. By actively seeking this funding, the City can reduce the immediate budgetary burden of additional staffing while working toward a more sustainable long-term staffing model that ensures reliable fire and emergency services for the community.

10. As an operational objective to increase the number of personnel and resources responding immediately to any reported incident in a structure, ***CPSM recommends*** that the CFD have the VA Hospital FD dispatched simultaneously. This will provide an initial "Tactical Box" response of:

- 2 engines.
- 1 ladder truck.
- 1 command officer.

11. The above recommendation notwithstanding, as an operational gap-objective to further increase the number of personnel and resources responding to any possible or confirmed working fire incident in a structure, ***CPSM recommends*** that the CFD have a "Full Box" assignment dispatched consisting of:

    - 4 engines.
    - 2 ladders/quints.
    - 1 rescue truck.
    - 1 EMS unit.
    - 2 command/chief officers.

    Depending upon whether the fire suppression units are staffed with two, three, or four personnel this response provides an initial response force beyond what the CFD can assemble currently.

12. As a planning objective ***CPSM recommends*** that the CFD should develop task books for firefighter, future Lieutenants, and Captain. For ranks other than probationary firefighter, all personnel aspiring for promotion to a higher rank should successfully complete all elements of that rank's task book to be eligible to participate in the formal promotional testing process.
13. As a planning objective ***CPSM recommends*** that the CFD continue to enhance its officer development program by, to the extent possible, encourages officers to seek additional training and certifications such as:

    - Fire Instructor II and III
    - Fire Officer II and III
    - IMS Levels I-300 and I-400
    - NFA Command and Control for Company Level Officers.
    - NFA Command and Control of Incident Operations.
    - NFA Command and Control of Fire Department Operations at Target Hazards.
    - Incident Safety Officer.

14. As a planning objective ***CPSM recommends*** that the CFD should develop a plan including providing appropriate funding to provide all personnel with mandatory, off-duty, high-intensity training on various subjects, including periodic live fire training on at least a semi-annual basis, with quarterly being preferred.
15. As a planning objective ***CPSM recommends*** that the CFD should institute written and practical skills testing and proficiency evaluations (non-punitive) as part of the department's comprehensive fire training program.
16. As a planning objective ***CPSM recommends*** that the CFD should make a concerted effort to send as many officers as possible to the National Fire Academy (NFA). This should include the Municipal Training Officer (or future dedicated Training Officer) for various training-related classes, and the Deputy Chief/Fire Marshal (if the city funds and fills that position) for fire

prevention and community risk reduction classes. Any officers who meet the admissions criteria should be encouraged to enroll in the Academy's Executive Fire Officer Program.

17. As a planning objective ***CPSM recommends*** that The CFD should look for opportunities to provide periodic joint training between the department and various agencies that provide automatic/mutual aid to the city, particularly the VA Hospital FD. This should include training in the evening and on weekends particularly with mutual aid partners. Consideration should also be given to hosting large-scale exercises to test and evaluate regional interoperability.

18. As a planning objective ***CPSM recommends*** that the City and CFD consider the creation of a full-time training officer position within the department at the rank of Captain. The City should explore the possibility of creating this position as a joint endeavor or through a shared services agreement with either Ontario County and/or surrounding municipalities. Under this scenario the CFD Training Officer would be responsible for assisting with providing training to various fire departments surrounding the City to assist with ensuring they have properly trained personnel not only for their own communities but also when they respond to Canandaigua. ***CPSM further recommends*** that this position be filled in either Year 2 or Year 3 of the six-year staffing plan discussed earlier in this section.

19. ***CPSM recommends*** that the CFD Fire Prevention Bureau identify and group all the occupancies within the City and Town into their appropriate risk classification. They should further attempt to adopt a formal inspection schedule following the requirements of the FCNYS and the recommendations contained with NFPA 1730.

20. ***CPSM recommends*** that the CFD initiate an "in service" inspection program utilizing on duty career personnel to assist with performing various inspection duties including for permits.

21. ***CPSM recommends*** that the CFD review the fee structure to make sure it reflects the actual cost of providing the services including plans reviews. We further recommend that the City consider an annual escalator fee that takes effect at the beginning of each calendar year.

22. ***CPSM recommends*** that with the establishment of the Deputy Fire Chief position, the City of Canandaigua should delineate the position as a clear number two position in the fire department and to provide the Chief with another confidential management position to assist him with leading the department. This position should be an executive management position that is exempt from the firefighters' collective bargaining unit.

23. ***CPSM recommends*** that the CFD should include in any strategic planning a focus on Community Risk Reduction that includes the expansion of public life safety education staff and programs; a comprehensive fire prevention code enforcement plan that ensures the completion of required annualized inspections, and which details the remaining occupancy types and a schedule identifying inspection of these occupancies as outlined in NFPA 1730; and the expansion of fire code enforcement staff that matches the growth and demand of inspectable properties and plans review. This is also an area where the City and CFD may want to explore the possibility of entering into a shared services agreement with neighboring towns in a way that would be mutually beneficial.

24. ***CPSM recommends*** the City and CFD should continue to include vehicle replacements in all capital budgeting and strategic planning the department conducts, planning objectives focused on:

- Following the NFPA 1901 standard for fleet replacement: Apparatus should not remain on the frontline greater than fifteen years. Planning for replacement should be advanced up to 48 months due to current delivery times of fire apparatus manufacturers.
- Following the NFPA 1901 standard for fleet replacement: Placing apparatus out of service once the apparatus reaches the 25-year age ceiling.
- Planning the routine periodic replacement of command, staff, and utility vehicles and including them in the capital budget as appropriate.

25. ***CPSM recommends*** the City and CFD should, as part of any strategic planning process, especially if additional staffing is incrementally added as recommended in this report, include as planning objectives and provide capital funding focused on modifications for increased and better space utilization at both Station 1 and Station 2.

EMS System

CPSM recommends the City should work with Canandaigua Emergency Squad to:

26. Develop a comprehensive deployment plan that prioritizes 911 coverage first and aligns interfacility transport around available CES unit capacity or with a dedicated interfacility transport unit.
27. Establish performance zones within CES's service footprint to track coverage gaps and balance geographic demands with the necessary number of ambulances.
28. Establish routine reporting of CES performance data to CFD and City leadership for transparency and accountability.
29. Create a formal plan for communicating to the CFD low-unit or no-unit availability during high-demand periods. This plan should include communication to CFD about surge staffing to manage the high demand.
30. Facilitate system governance workshops to bring CES and CFD together with hospital stakeholders, and the Medical Director to establish joint goals and performance strategies.
31. Create a shared communications protocol to ensure seamless coordination during overlapping incidents, high-acuity responses, and major events.
32. Formalize a Quality Improvement/Quality Assurance agreement between CES and the City of Canandaigua, initiating a robust joint agency (CFD and CES) clinical quality improvement program.
33. Formally define service expectations through a service-level agreement that establishes minimum response time benchmarks, staffing requirements, and transport priorities.
34. Expand CES and CFD EMS community risk reduction programs in support of regional public health priorities. Explore a CES community paramedicine or mobile integrated healthcare program development and implementation.

911 Center

35. ***CPSM recommends*** that the City work collaboratively with the 911 Center to improve call-taking performance for Fire and EMS incidents, with a specific focus on aligning the processing of the highest-priority calls with the benchmarks outlined in NFPA 1225. Achieving these benchmarks is critical, as every second saved in call processing contributes directly to reducing overall response times and improving outcomes for time-sensitive emergencies.

36. ***CPSM recommends*** that the City work with Canandaigua Emergency Squad, the Medical Director, and the 911 Center and explore the implementation of a Nurse Navigation program within the 911 Center as a strategy to improve system efficiency, enhance patient care, and preserve EMS resources for high-acuity emergencies. If implemented, this program can guide patients to the most appropriate care pathway, whether that is referral to a primary care provider, urgent care, telehealth consultation, or safe self-care at home.

    CPSM further recommends if implemented, the Nurse Navigation program should align closely with the goals of a potential Mobile Integrated Health/Community Paramedicine initiative. Together, these efforts would create a more comprehensive and integrated approach to patient care, supporting more efficient use of EMS resources, reducing healthcare system strain, and improving outcomes by connecting individuals with the right care, at the right time, in the right setting. CPSM recommends the City pursue partnerships with regional healthcare providers, hospitals, and Canandaigua Emergency Squad to design and implement this initiative.

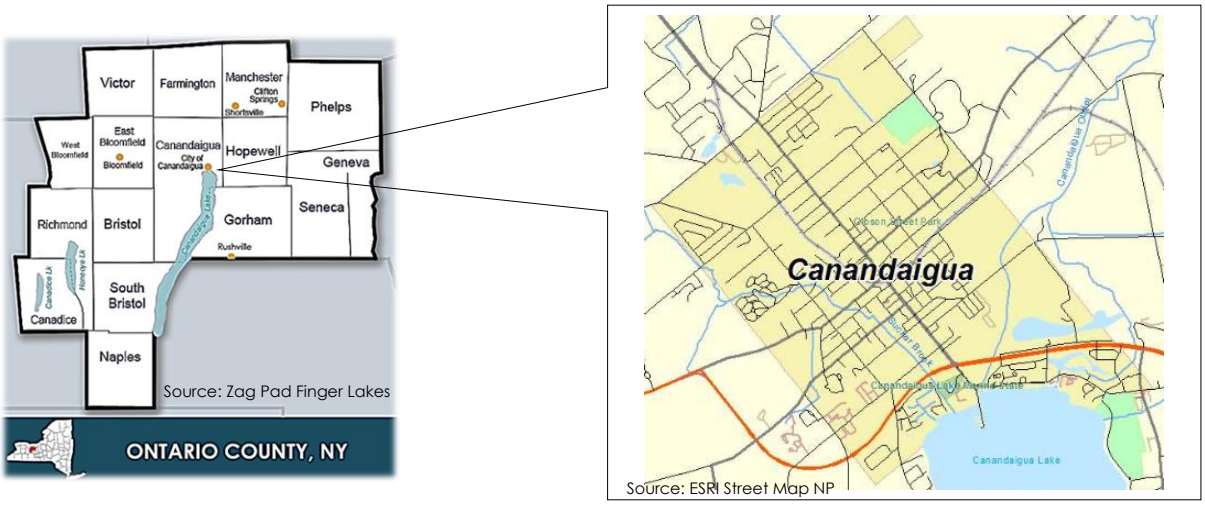
End of Recommendations

§§§

SECTION 2. COMMUNITY CHARACTERISTICS

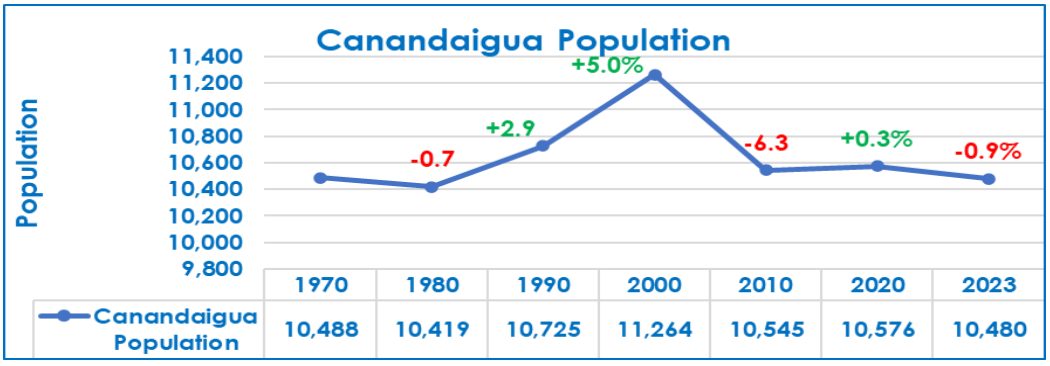
City of Canandaigua

The City of Canandaigua is located in Ontario County, in the west central part of New York, an area known as the Finger Lakes Region. Located on the northern edge of Canandaigua Lake, it is the largest city in Ontario County and serves as the county seat. Canandaigua was originally incorporated as a village in 1815, then as a city in 1913.



According to the United States Census Bureau, the city covers an area of 4.83 square miles[1] and has a mix of commercial, industrial, residential, and recreation areas. The 2020 population was 10,576, an increase of 0.3% over the 2010 population of 10,545.[2] With a population density of 2,319.30 people per square mile the city is classified as an urban community.[3] The city's population has not fluctuated significantly since 1970 increasing in three decades and decreasing in two others. The estimated 2023 population declined 0.9% from 2020.[4]

Figure 1: Canandaigua Population Fluctuation: 1970 – 2023



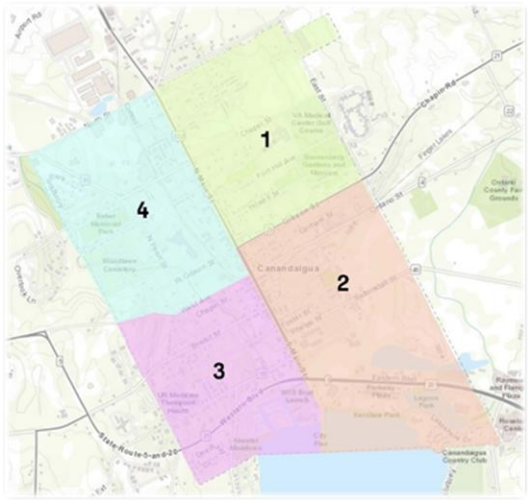
1. https://www.census.gov/quickfacts/fact/table/canandaiguacitynewyork,US/PST045224
2. Ibid
3. Ibid
4. Ibid

The city is situated 24 miles southeast of Rochester, 68 miles west of Syracuse, and 93 miles east of Buffalo. Canandaigua is part of the Greater Rochester area and is Rochester's southernmost suburb. It is surrounded by the Town of Canandaigua, which is a separate municipality.

In Canandaigua's walkable downtown and surrounding areas, one can find several museums (Granger Homestead and Carriage Museum, Sonnenberg Mansion and Gardens, The New York Wine & Culinary Center, and 116 Gorham Street), restaurants, and other businesses and events. Kershaw Beach at the north end of Canandaigua Lake is open to the public. Canandaigua Lake State Marine Park is also located in the city and offers multiple boat ramps for access to Canandaigua Lake. Canandaigua hosts several festivals and large events throughout the year that bring large numbers of visitors to the city.

Governance and Finance

Figure 2: Canandaigua City Council Wards



Canandaigua operates under a council-manager form of government. The legislative body is the City Council, composed of a mayor and eight council members, who are elected to staggered four-year terms. Four of the members are elected by ward while the other four and the Mayor are elected at large. The Mayor presides at meetings of the City Council and is the chief elected head of the city government but has no administrative or executive duties. The city is represented on the Ontario County Board of Supervisors by two supervisors, each one representing approximately half of the city.

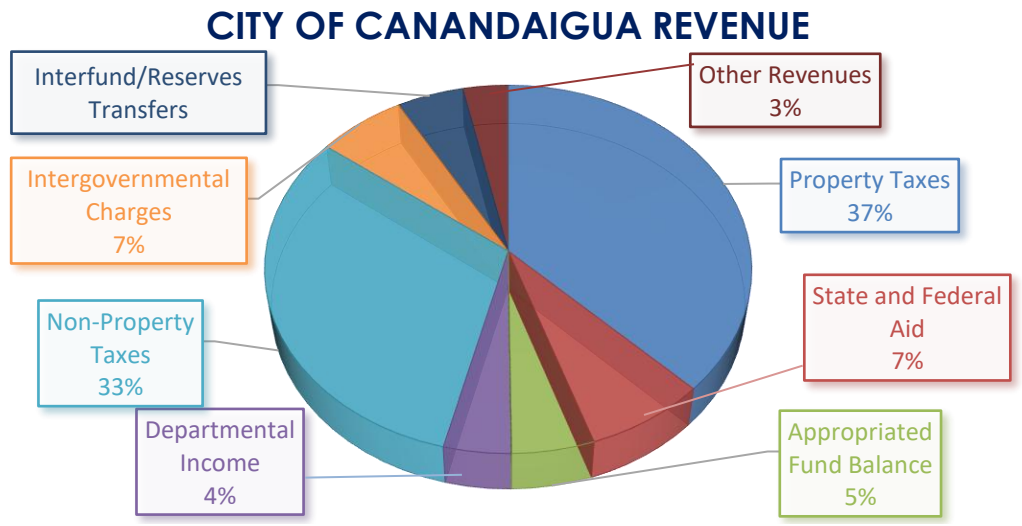
The City Manager is the chief executive officer, chief financial officer, chief administrative officer,, chief personnel officer, and Director of Public Safety. He is responsible for the day-to-day operation of all city departments and provides support services to the City Council. The City Council appoints the City Manager, who is responsible for the implementation of policies established by the council and the general administration of city operations.

Canandaigua operates under a traditional organizational chart. The City Manager reports directly to the council, with major functional areas and departments reporting directly to the Manager.

Chapter 9, subsection 9.7 of the City of Canandaigua Charter (amended 11/7/2017) establishes a Fire Bureau within the Department of Public Safety. The charter states that "The Fire Bureau shall include the paid firefighters, as well as the members of the volunteer fire companies." Subsection 9.8 establishes that the head of the Fire Bureau shall be the Fire Chief, who shall be appointed by the Director of Public Safety (currently the City Manager is fulfilling this role) with City Council approval. Subsection 9.9 delineates the powers and duties of the fire chief.

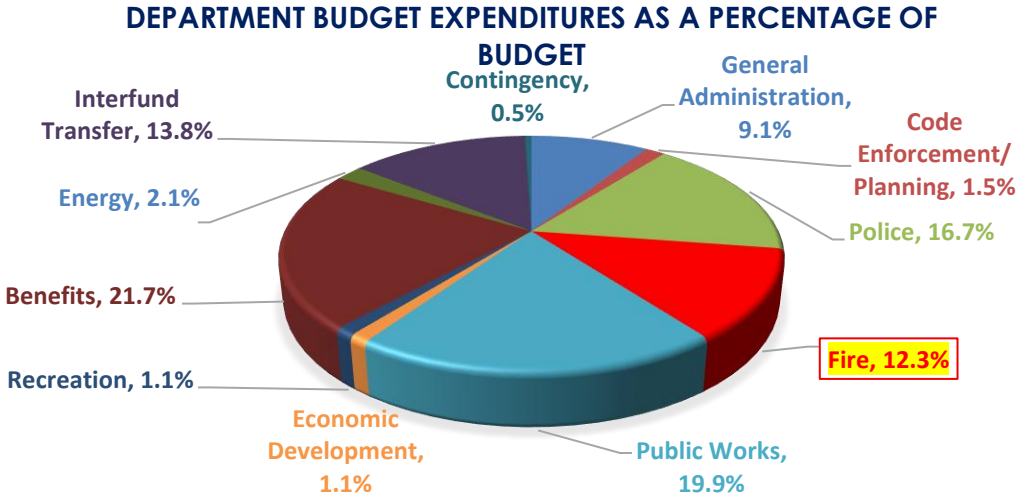
The Finance Director manages all budget, accounting, payroll, and accounts payable for the city and reports directly to the City Manager. The City of Canandaigua General Fund is used to account for all resources and expenditures not specifically accounted for in other funds such as the Water and Sewer Enterprise Funds which are special revenue funds. The FY 2025 budget was adopted with authorized total general fund expenditures of $21,499,548 which was about $742,203 more than the 2024 budget, an increase of 3.58% increase over the 2024 budget.[5]

Figure 3: City of Canandaigua Funding



In the current 2025 budget, $2,644,428 is allocated for the fire department, an increase of $321,958 (13.86%) over the 2024 budget.[6] The Fire Department accounts for **12.3%** percent of the general fund expenditures; however, this does not include employee health benefits and capital fund contributions associated with fire department operations..

Figure 4: City of Canandaigua Spending Allocations



5. City of Canandaigua 2025 Budget
6. ibid

Town of Canandaigua

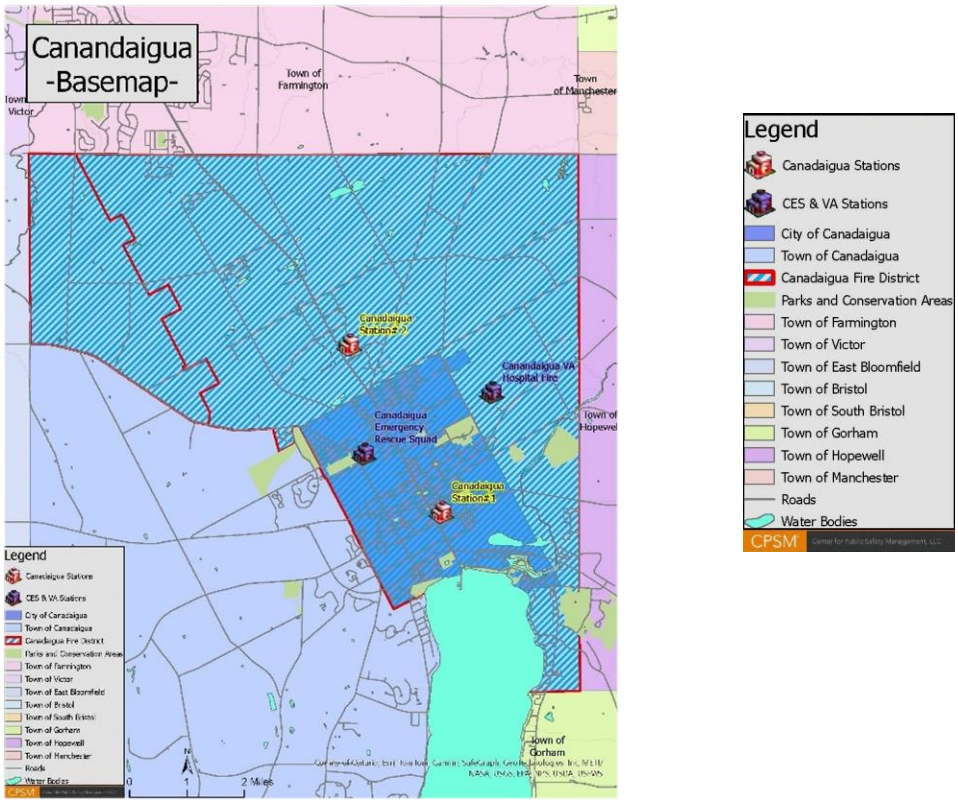
The Town of Canandaigua surrounds the City of Canandaigua. It is located on the north, east, and west shores of Canandaigua Lake. It covers an area of 62.5 square miles and had a 2020 census population of 11,109 which was a 10.9 percent increase from the 2010 census. With a population density of just 195.6 people per square mile overall the town is considered rural in nature. However, there are areas, particularly adjacent to the city that are much more suburban in nature. Community growth is projected to continue for the near future. The increase in residential housing will include both single and multi-family occupancies.

The Town of Canandaigua operates under the Town Board-Town Manager form of government. The Town Board, which is the legislative body, is comprised of four Council members and a Supervisor, all of whom are elected at large. The Town Supervisor is the administrative head of the town government and presides over the meetings of the Town Board. The Town Manager is the chief administrative officer of the town and is responsible for day-to-day operations of the town government and coordinates the development and implementation of local policies and directives by the Town Board.

The Town of Canandaigua also operates under a traditional organizational chart. The Town Manager reports directly to the Town Board with the majority of functional areas and departments reporting directly to the manager.

The Town of Canandaigua does not have its own fire department. Instead, the town created the Canandaigua Fire Protection district and contracts the City of Canandaigua and Chesire Volunteer Fire Department to provide fire protection services to the town.

Figure 5: Canandaigua Fire Department District

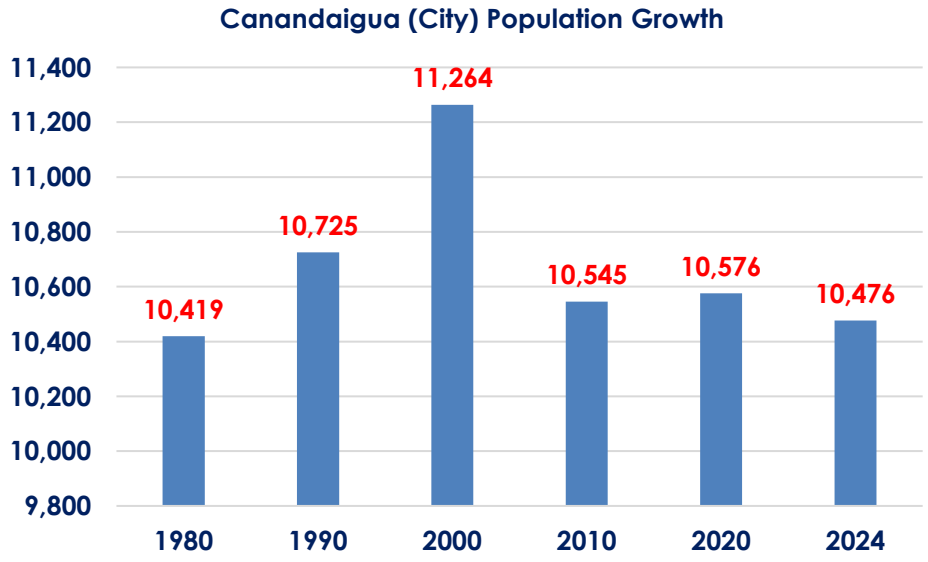


Population and Growth

The U.S. Census Bureau indicates the population of Canandaigua, NY in 2024 was 10,476. This is a negligible decrease in population since the 2010 census of 10,545 and the 2020 census of 10,576. The city has 4.56 square miles of land mass. The population density is 2,297 per square mile.

The population of Canandaigua saw the largest increase occurring between 1980 and 2000, experiencing an 8.1% increase. This was followed by a 6.4% decrease in the decennial censuses between 2000 and 2010. Since the 2010 census, the population has remained relatively unchanged with an average of 10,532.

Figure 6: Canandaigua Population Growth: 1980-2024[7]



Town of Canandaigua Population

The City of Canandaigua provides fire protection services to the Town of Canandaigua in the areas located north, east, and south of the city along the eastern shore of Canandaigua Lake through a Fire Protection Agreement.

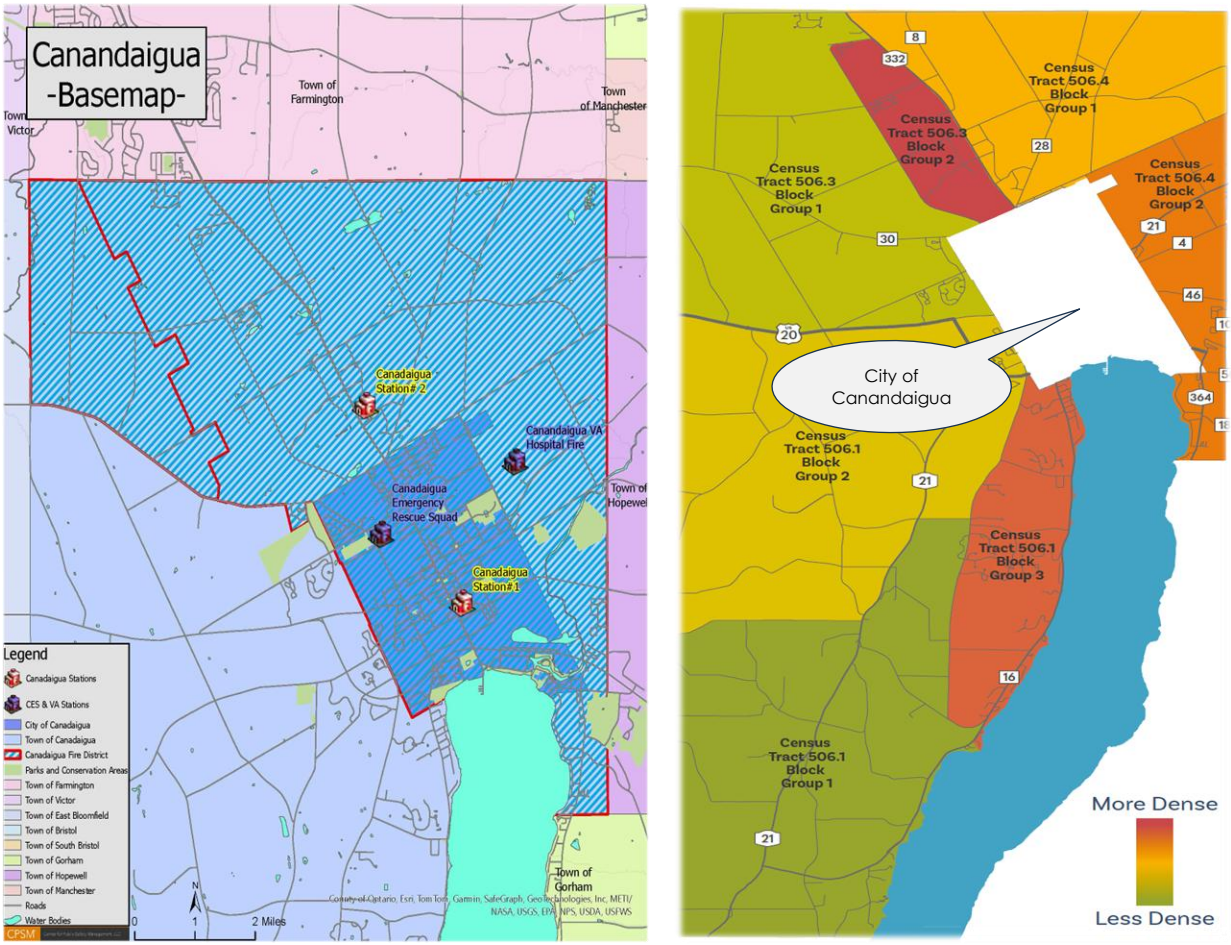
The City of Canandaigua Fire Department (CFD) covers about 31 of the towns 57 square miles and protects about 9,600 of the town's population of 11,478, (U. S. Census American Community Survey 2024 estimate). Various methods of estimating population growth predict the town's 2030 population could reach anywhere from 12,401 to 15,606. While predicting future population is difficult at best, the Town of Canandaigua has been the 2nd fastest growing municipality in Ontario County over the past four decades. Demand for housing in the Town is expected to remain high, ensuring continued growth into the future. This growth will continue to impact the

7. Population for 1980, 1990, and 2000, (New York State Office of the State Comptroller, Division of Local Government Services and Economic Development, Population Trends in New York State's Cities). Population for 2010 and 2020, and 2024 (U.S. Census Bureau, 2024 Population QuickFacts: Canandaigua City, NY).

ability of the Canandaigua Fire Department to provide safe and effective emergency response services to the Town.

Based upon an analysis of data provided to CPSM from the Ontario County 9-1-1 Center's computer-aided dispatch (CAD) system, along with National Fire Incident Reporting System (NFIRS) records provided by the CFD, emergency responses to the Town of Canandaigua accounted for 26.1% of the Canandaigua Fire Department's total annual call volume of 2,460 calls between January 1, 2024, and December 31. 2024. As the town's population continues to increase there will be an impact on the Canandaigua Fire Department's ability to provide effective coverage. CFD covers a portion of Census Tracts 506.3 Block Group 1, (north of N. Bloomfield Rd, Route 30), all of Track 506.3 Block Group 2, Tract 506.4 Block Group 1 and 506.4 Block Group 2.

Figure 7: CFD Fire Response Area and Town Population Density



In terms of fire and EMS risk, the age and socio-economic profiles of the population can have an impact on the number of requests for fire and EMS services. Evaluation of the number of seniors and children by fire management zones can provide insight into trends in service delivery and quantitate the probability of future service requests. In a 2021 National Fire Protection

Association (NFPA) report on residential fires, the following key findings were identified for the period 2015-2019:[8]

- Males were more likely to be killed or injured in home fires than females and accounted for larger percentages of victims (57 percent of the deaths and 55 percent of the injuries).
- The largest number of deaths (20 percent) in a single age group was among people ages 55 to 64.
- 48 percent of the victims of fatal home fires were between the ages of 25 and 64, and three of every five (62 percent) of the non-fatally injured were between the ages of 25 and 64.
- Slightly over one-third (37 percent) of the fatalities were age 65 or older; only 17 percent of the non-fatally injured were in that age group.
- Children under the age of 15 accounted for 11 percent of the home fire fatalities and 9 percent of the injuries. Children under the age of 5 accounted for 5 percent of the deaths and 4 percent of the injuries.
- Adults of all ages had higher rates of non-fatal fire injuries than children.
- Smoking materials were the leading cause of home fire deaths overall (23 percent) with cooking ranking a close second (20 percent).
- The highest percentage of fire fatalities occurred while the person was asleep or physically disabled and not in the area of fire origin, key factors to vulnerable populations.

In the City of Canandaigua, the following age and socioeconomic factors are considered herein when assessing and determining risk for fire and EMS preparedness and response:[9]

- Children under the age of five represent 3.9 percent of the population.
- People under the age of 18 represent 15.9 percent of the population.
- People over the age of 65 represent 23.2 percent of the population.
- Female persons represent 53.1 percent of the population.
- There are 2.04 people per household in Canandaigua, (2019-2023).
- The median household income (2023 dollars), 2019-2023 was $63,268.
- People living in poverty make up 9.4 percent of the population.

Black or African American alone represents 1.1 percent of the population. The remaining percentage of population by race includes White alone (not Hispanic or Latino) at 85.5 percent, Asian alone at 0.4 percent, two or more races at 7.3 percent, and Hispanic or Latino at 8.7 percent.

CPSM assesses the demographics in Canandaigua overall pose a moderate risk in totality. While not a high risk, a single call involving a vulnerable population (fire or EMS) poses a higher risk on that particular response. Through pre-fire planning and response district knowledge of residential and other structures housing a vulnerable population as identified above, the Canandaigua Fire Department will have the necessary situational awareness and be better prepared to mitigate the emergency once on the scene of the incident.

8. Marty Ahrens, "Home Fire Victims by Age and Gender," Quincy, MA: NFPA, 2021.
9. U.S. Census Bureau QuickFacts: Canandaigua City, NY.

Community Planning

The City of Canandaigua completed a review and update to the Comprehensive Plan in 2025. Information from this plan, the Downtown Revitalization Initiative DRI Round 5 Application, the Waterfront Active Transportation Plan and the Town of Canandaigua 2021 Comprehensive Plan Update are utilized when discussing planned future growth and what effect that may have on the delivery of fire and EMS services.

Table 1: New Housing Starts: 2015-2024

NEW HOUSING STARTS: 2015-2024			
	Detached	Attached Or Apts.	TOTAL
2015	6	0	6
2016	11	0	11
2017	10	135	145
2018	6	0	6
2019	8	0	8
2020	9	0	9
2021	22	16	38
2022	9	25	34
2023	1	0	1
2024			
Totals	82	176	258

The City's population is expected to remain relatively level for the immediate future as the City develops/redevelops available land for housing, commercial, industrial, technology and other land use. The Town's population growth and development will also have an impact on future fire and EMS services.

The housing stock in the City of Canandaigua is relatively old with nearly half the units constructed before 1939 and hundreds of 19th Century homes. There was a later wave of residential construction in the late 1960s and early 1970s. Four major subdivisions were approved in the city during the 1990s resulting in more than 300 building lots, with nearly half of these being townhouse projects. Between 2015 and 2024 there have been 258 new dwelling units built in the city: a rate of 4.6% growth over 10 years. The large majority of the new housing in this period was either attached dwellings or apartments. The Pinnacle North Project accounted for the 135-apartment unit starts in 2017.

Residential districts are largely built out, with the exception of a portion northeast of the City that has been subdivided but undeveloped. This leaves few opportunities for new single-family development, with the exception of infill, replacement of derelict properties, or development of property with environmental or physical constraints concerns (floodplain, brownfield, land locked).

The next two figures illustrate the City Zoning and Land use in the City of Canandaigua.

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Figure 8: City of Canandaigua Zoning and Historic District

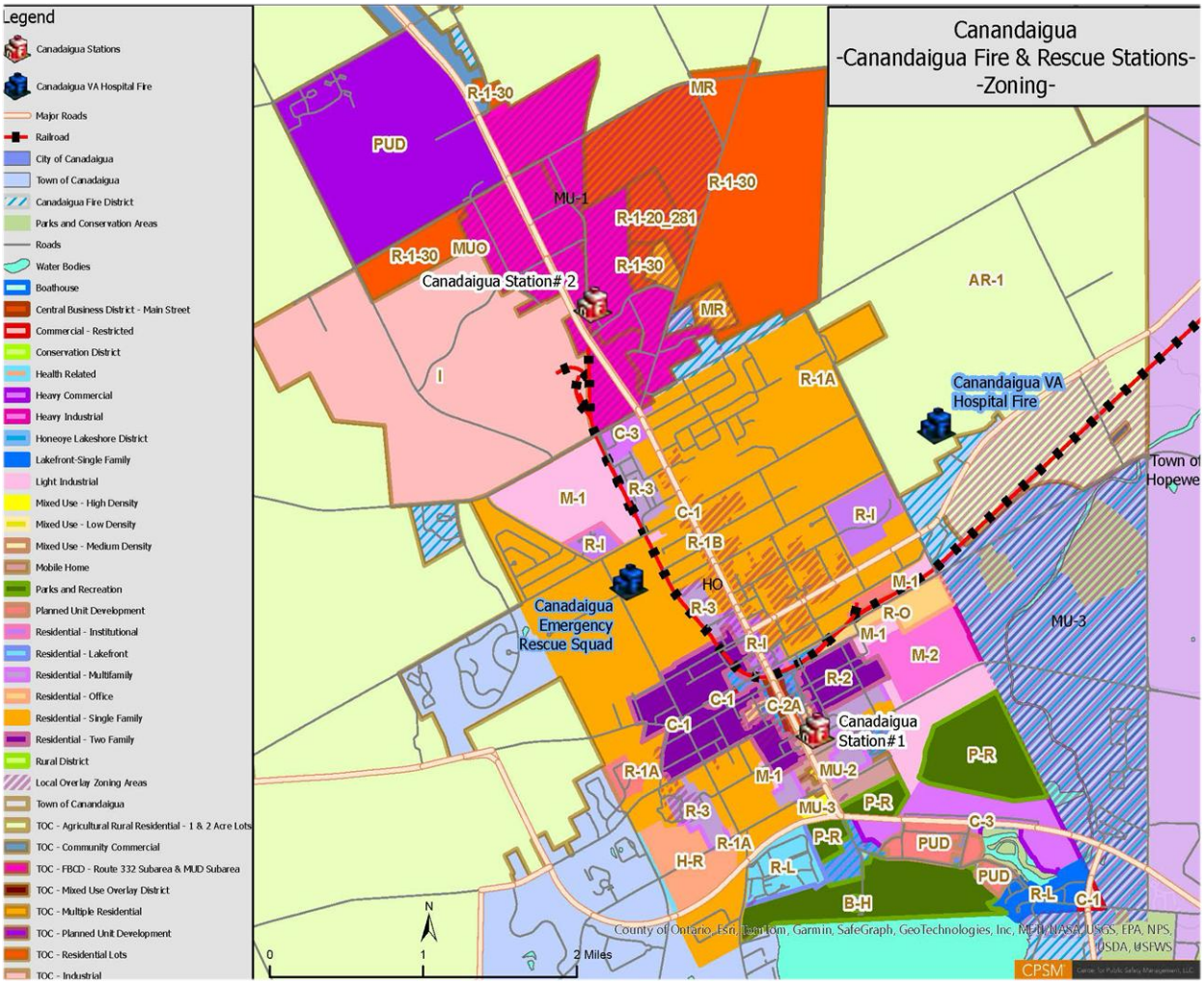

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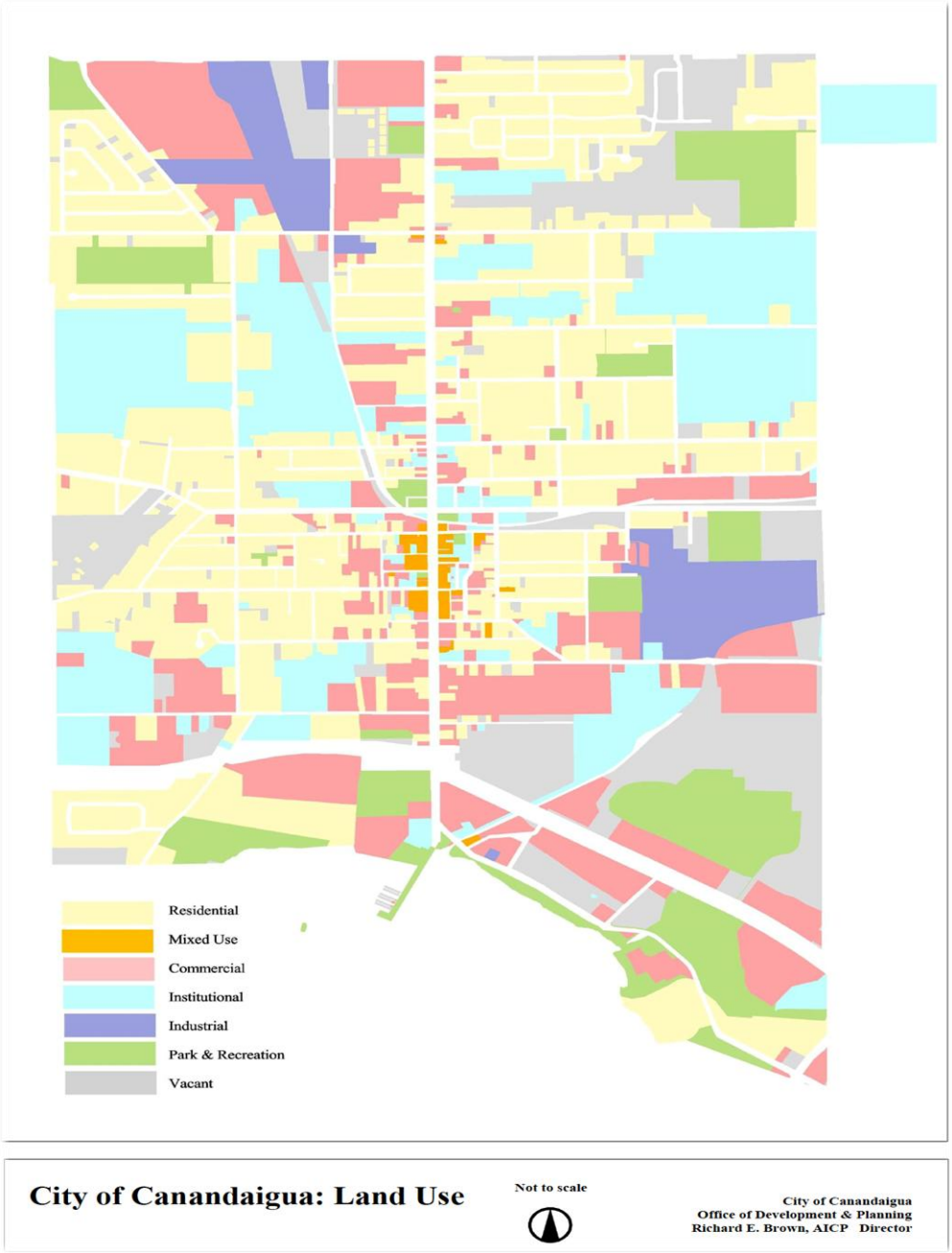
Figure 9: City of Canandaigua Land Use[10]



As indicated in the map above, much of the city is residential land use with a blending of large, mixed-use area concentrated in the downtown corridor and along Western/Eastern Blvd. and Lakeshore Dr. and local commercial along primary roads and concentrated transitional land use areas in all areas of the city. The city's industrial land is primarily limited to two large districts. An industrial district in Ward IV, in the northwest quadrant, covers approximately 150 acres and includes Canandaigua Winery and Ajay Glass. In Ward II, in the southeast quadrant of the city, is

10. Ibid, 13.

an industrial district that covers approximately 250 acres. This area is made up of a number of older manufacturing businesses and structures largely underutilized.

Focus Areas for Future Development

The next figure illustrates the 7 Focus Areas identified by the City of Canandaigua for future development across the city.

Figure 10: Seven City Focus Areas[11]

11. Ibid, 48.

Downtown: Since the 1780's, downtown Canandaigua has been the commercial and civic center of a much larger community. There are approximately 80 storefronts Downtown. The majority of businesses are small, "homegrown" businesses. Current zoning does not permit offices on the first floor of downtown structures; therefore, the mix of uses must be "vertical," with offices limited to the upper floors.

- The Goal is to invigorate downtown's role as a cultural, economic, and social center of the greater community and promote downtown as a safe, inviting, and vital area for community activity.

South Main Street: Defined as the portion off Main Street south of the Downtown district (Antis Street on the west and Saltonstall Stret on the east) and extends to the south to NYS Routes 5 & 20. Unfortunately, south Main Street is not as well preserved as the Downtown District. Due to poor re-zoning decisions numerous homes were demolished to make way for simple commercial structures. In 2003, the majority of South Main Street was rezoned to encourage mixed use development.

- The Goal is to encourage development of South Main Street as a high-density mixed-use neighborhood that includes taxpayer style structures along Main Street along and high-density residential units in the surrounding area that links downtown to the lakefront.

Lakeshore: Lakeshore consists of the properties along Lakeshore Drive from the intersection of South Main Street to East Lake Road (County Road 364). The Lakeshore District extends approximately half the length north along both Booth Street and Muar Street towards NYS Routes 5 & 20. This District includes more than 175 acres including 50 acres of public parks. This district includes two Planned Unit Developments, (PUDs). The first PUD is Rosepark, 110-acre, mixed-use section that includes two townhouse developments, Wegmans and the U.S. Post Office, Lagoon Park, and the recently completed Hotel Canandaigua. The second PUD is Pinnacle North, a 34-acre, mixed-use project with a first phase including 135 dwellings and 30,000 square feet of commercial space. Phase one has been completed. However, phase two of the project has stalled and there are no clear plans for further development. The reconstructed and rebranded "Lake House Canandaigua" opened in 2020.

Hotel Canandaigua

Pinnacle North

Lake House at Canandaigua

- The Goal is to promote the Lakeshore as a balanced, mixed-use area focusing on year-around public access to Canandaigua Lake with a streetscape design that is pedestrian friendly and has open areas with courtyards, patios, and alleyways.

Eastern Boulevard: The "Eastern Boulevard" area consists of about 25 properties located along one mile of Easter Boulevard bounded by South Main Street on the west and the city-town boundary to the east. The roadway was constructed in the 1950's and since its inception, it has functioned as a commercial corridor, providing a location for auto-oriented commerce. Currently Eastern Boulevard includes about 500,000 square feet of retail space including Parkway Plaza, Wegmans Food Market, and the Canandaigua Town Centre. And nine restaurants. In 1992, the U.S. Post Office relocated from its downtown location to Eastern Boulevard. This area includes the 56-acre Roseland Water Park and Roseland Wake Park.

- The Goal is to continue to provide a location for auto-oriented commerce that would be less appropriate in the historic districts of the city. Allow higher-density residential along with increased provision for multi-model use and to improve the overall appearance of the district.

Northeast Quadrant: The area referred to as the "Northeast Quadrant" consists of approximately 240-acres, mostly north of Chapel Street and east of Moore Street. About half of the land in this area remains undeveloped. It includes two unbuilt subdivisions. It also includes Northeast Park and the former VA Golf Course. There is a large, protected wetland central to the district.

Table 2: Northeast Quadrant Land Distribution

Property	Acreage
Developed residential land	80
Northeast Park	40
"Covington Place" Subdivision (58 lots)	30
"Grand Meadows East" Subdivision (66 lots: un-built)	20
"Parkwood" Subdivision (20 lots: un-built)	10
VA Golf Course	40
Wetlands	20
TOTAL	**240**

- The Goal is to complete this area as a medium-density residential district with the characteristics of a traditional Canandaigua neighborhood.

Southeast Quadrant: The area referred to as the "Southeast Quadrant" consists of approximately 230 acres, mostly south of Ontario Street, north of Saltonstall Street, and east of Jefferson Avenue. This area includes a mix of high-density housing and older industrial properties, as well as Jefferson Memorial Park. There are over 200 dwelling units, apartments, townhomes, and the Canandaigua Mobile Home Park. There are three large, vacant properties that comprise more than 75 acres, although the easternmost of this is hindered by wetlands and the flood plain of the Canandaigua Lake Outlet. These properties are zoned for heavy industrial and manufacturing operations.

- The Goal is to develop this area as a mixed-use district with a blend of high-density residential properties adjacent to Jefferson Park.

Health Care District: The "Health Care District" is primarily centered around F.F. Thompson Hospital, a part of the University of Rochester Medicine, along with a wide variety of medical specialty disciplines connected with Thompson or in private practice. There is also a 24-hour continuing care center and private group living home in close proximity. The area is bordered by multiple apartments, townhomes, and single-family residences, which cater to health-related staff, as well as the wider community.

- The Goal is to continue to develop the area as a more unified healthcare campus.

Transformative Projects[12]

The projects illustrated below represent projects the City has identified with the help of community stakeholders and private sector investors. These projects are implementable in the near term and represent an opportunity to reshape the economic future of downtown and the region.

Figure 11: City Public-Private Development Projects

PRIVATE PROJECTS

1. Historic Post Office
2. Labelon Project
3. Elks Lodge Boutique Hotel
4. Studio 113 Co-Workspace
5. 267 Main Street
6. Lakeshore Drive Development

PUBLIC PROJECTS

7. Main Street Parking Deck
8. S. Main Street Bicycle Facilities
9. Routes 5 and 20 Improvements
10. Canal Greenway
11. City Pier Roundabout
12. City Pier Improvements
13. Lakefront Ped/Bike Improvements
14. Lakeshore Drive Sidepath
15. Small Project Grant Fund (area-wide)
16. Branding + Wayfinding (area-wide)

12. City of Canandaigua Downtown Revitalization Initiative Round 5 Application, 36.

New developments that are worth mentioning include 243 to 299 Gorham Street (former Lisk Manufacturing Site) and Waterchase Planned Unit Development (PUD).

Waterchase PUD

The former Lisk Manufacturing Company located at 243 to 299 Gorham Street is a two-phase PUD. Phase 1 is complete and involved redeveloping the western portion of the former industrial complex into 88 apartment units and 64,000 square feet of commercial and light industrial space. Phase 2 is proposed to redevelop the eastern portion into 42 apartment units and 4,700 square feet of commercial and light industrial space. Phase 2 is approved with no projected start date.

The Waterchase Planned Unit Development is an 85-Lot single-family home subdivision located east of Stewart Place and south of North Road near the Canandaigua Academy. The development is divided into three phases. The project was recently approved by the city council with a possible start date in the Fall of 2025.

Further potential impacts on the CFD service delivery include a proposed large housing project, The Uptown Landing, in the Town of Canandaigua. The project, a decade-long plan, includes a diverse mix of residential and commercial properties, totaling more than 600 housing units and new retail space. Uptown Landing is slated for development on Parkside Drive and Fire Hall Road, encompassing approximately 100 acres. The plan includes 224 apartments units spread across three-story buildings, 91 mixed-use units within a four-story residential/commercial building, 88+/- for-sale townhouses, 222+/- single-family homes, and 5,000 square feet of commercial and retail space.[13]

CPSM assesses overall, continued growth in the City and Town is planned for and is occurring, which is positive in both cases. That said, population and related growth impacts must be included in any strategic planning the CFD conducts. Increases in development, particularly densification created by multi-family/multi-story development, will likely increase call demand, fire code inspections, fire investigations, fire code complaints, and will impact the current deployment model (apparatus type, staffing, deployment locations) of the CFD.

Building and Target Hazard Factors

Building and target hazards are defined as significant hazards that can stretch fire department response capability - a plausible scenario in which a fire department could quickly become overwhelmed and for which additional resources would be needed to mitigate the incident.

The purpose of evaluating community risk is to evaluate the community as a whole, and regarding buildings, it will review all buildings and the risks associated with each property and then classifying the property as either a high-, medium-, or low-hazard depending on factors such as the life and building content hazard and the potential fire response force (equipment and staffing) required to mitigate an emergency in the specific property. According to the NFPA *Fire Protection Handbook*, these hazards are defined as:

13. Town of Canandaigua web page, http://www.townofcanandaigua.org/page.asp?id=272, accessed May 23, 2025.

- High-hazard occupancies: Schools, hospitals, nursing homes, explosives plants, refineries, high-rise buildings, and other high life-hazard (vulnerable population) or large fire-potential occupancies.
- Medium-hazard occupancies: Apartments (including townhomes, condos, residential over commercial), single-family housing units with basements, offices, and mercantile and industrial occupancies not normally requiring extensive rescue by firefighting forces.
- Low-hazard occupancies: One-, two-, or three-family dwellings and scattered small business and industrial occupancies.[14]
- The City of Canandaigua has the following building types:
- Single family housing units: 2,491 detached/attached (predominate building risk and primarily wood frame construction).
- Multi-family housing units: 952, (townhomes, duplexes), (varying number of vertical floors and primarily wood frame construction).
- Multi-family housing units (apartment building units - garden style,): 1,280, (varying number of vertical floors and primarily wood frame construction).[15]
- Mobile Home Parks**:** City - 1 (all ages), 108 spaces. Town – 4 (all ages), 166 spaces.
- Senior independent living apartments: 3; one is a 6-story structure.
- Taxpayer type structures: 82, (retail first floor, office/apartment on upper floors), (varying number of vertical floors and primarily wood frame construction).
- Hospital: 1, 113 bed.
- Skilled nursing homes: 3, (varying square footage, with a mix of construction materials).
- Manufacturing/industrial structures: 11, (varying square footage with a mix of construction materials).
- Warehouse/storage: 27, (varying square footage with a mix of construction materials).
- Business/office/commercial: 150, (varying square footage with a mix of construction materials).
- Government: 14, (varying square footage with a mix of construction materials).
- Health and social services: 10, (varying square footage with a mix of construction materials).
- Retail: 25, (shopping centers, grocery stores, strip malls), (varying square footage with a mix of construction materials).
- Educational and day-care facilities: 7, (one primary/elementary school, one middle school, one high school, one academic and career center, two child care/Pre-K, one private school).
- Historical Mansions: 2, (varying square footage with a mix of construction materials).
- Religious and civic:11, (varying number of buildings on site).
- Leisure/Entertainment: 12, (Public Assembly with varying square footage with a mix of construction materials).

14. Cote, Grant, Hall & Solomon, eds., *Fire Protection Handbook* (Quincy, MA: National Fire Protection Association, 2008), 12.
15. City of Canandaigua Comprehensive Plan 2025 Update, Final Draft, 26.

- There are no high-rise buildings currently: (vertical elevation of 75 feet or more). There are at least 1-6 story, 2-5 story and 30 buildings 3-stories and/or greater than 35 feet in height. Many of these buildings date to the latter part of the 19th and early 20th century. These type structures and areas can contribute to rapid fire spread from building to building. These structures pose a special risk in an emergency. Fire on higher floors may require the use of ladder trucks to provide elevated streams for firefighting or to rescue victims trapped on higher floors.
- Large concert venue: Constellation Brands – Marvin Sands Performing Arts Center (CMAC) located on the campus of the Finger Lankes Community College in Hopewell. The venue is in the Hopewell Volunteer Fire Department District. CFD is first due with Hopewell and covers the large on-site parking lots. This venue has a seating capacity of 15,000 people. Many concert goers pass through and stay over in Canandaigua during these events.
- Special Events: There are numerous special events that take place during the year within the City which bring in 7-8,000 people. Many are centered around the lake and increase the demand for EMS and water rescue standbys.

In terms of identifying target hazards, consideration must be given to the activities that take place (public assembly, life safety vulnerability, manufacturing, processing, etc.), the number and types of occupants (elderly, youth, handicapped etc.), and other specific aspects related to the construction of the structure.

The City of Canandaigua has a variety of target hazards that meet an established hazard class:

- High Hazard
  - Commercial building/occupancies that include assisted living/nursing facilities.
  - Residential facilities for senior/assisted living.
  - Public and private educational and day care facilities.
  - Facilities classified as high hazards due to processes/hazardous materials use.
- Medium Hazard
  - Mult-family dwelling buildings.
  - Large footprint commercial and industrial/manufacturing buildings/facilities.
  - Medical facilities.
  - Businesses/Occupancies classified as Public Assembly.
  - Shopping centers/retail suites/strip malls.
  - Single family residential over 3,000 square feet, particularly those built with light frame construction, with or without a basement.

CPSM assesses the greatest amount of building risk in the City of Canandaigua is of a low hazard (single family dwellings-predominately wood frame construction). As of 2023, 2,508 residential structures were reported to have partial or full basements. Canandaigua does have a number of high and medium risk/vulnerable population risks (nursing/assisted living/medical facilities), educational facilities/institutional facilities and multifamily residential structures (apartments/townhomes). All of these building risks present the CFD with life-safety concerns.

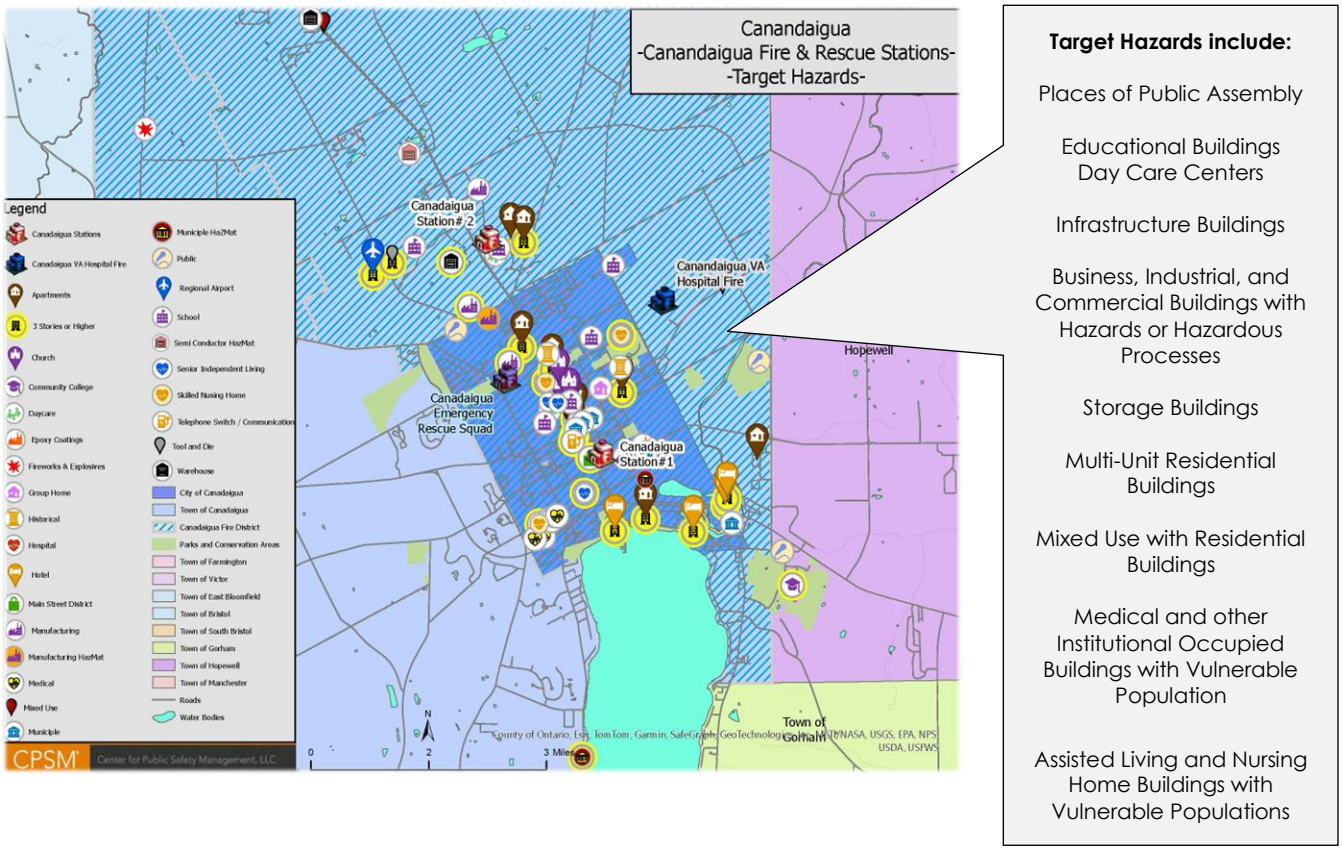
The industrial and mercantile building risk, and large footprint commercial buildings associated with these large foot print buildings, while a lower life safety risk, is generally a higher hazard risk

based on processes, storage, and overall occupancy type. They also present a greater life safety risk to firefighters due to the large open spaces and long hose stretches necessary to reach a potential fire.

In some cases, close proximity of wood-frame residential buildings (greatest percent of construction materials for residential buildings) means a greater chance for fire to spread to exposed buildings.

Additionally, mixed-use (residential over commercial) present mid-rise challenges for fire suppression efforts regarding access and the ability to quickly deploy sufficient resources to manage the multiple critical tasks required to mitigate the emergency.

Figure 12: CFD Target Hazards



Historical Property Loss Review

Fire loss is an estimation of the total loss from a fire to the structure and contents in terms of replacement. Fire loss includes contents damaged by fire, smoke, water, and overhaul. Fire loss does not include indirect loss, such as business interruption.

In a 2022 report published by the National Fire Protection Association on trends and patterns of U. S. fire losses, it was determined that home fires still cause the majority of all civilian fire deaths, civilian injuries, and property loss due to fire.

Key findings from this report include:[16]

- Public fire departments in the U.S. responded to 1,504,500 fires in 2022, a 11.2 percent increase from the previous year.
- 522,500 fires occurred in structures (35 percent of the reported fires). Of these fires, 382,500 occurred in residential structures and 80,000 occurred in apartments or multifamily structures.
- 2,760 civilian fire deaths occurred in residential fires, and 470 deaths occurred in apartments or multifamily structures.
- Home fires were responsible for 10,320 civilian injuries.
- An estimated $18.07 billion in direct property damage occurred as a result of fire in 2022.

The following table shows overall fire loss in Canandaigua in terms of dollars for the year as assessed and estimated by the CFD. This information should be reviewed regularly and included in discussions with response times to actual fire incidents, company level training, effectiveness on the fire ground, and effectiveness of incident command. Property loss information should also be included in any strategic planning discussions regarding response times, training, incident command, staffing, and deployment of resources.

Table 3: Historical Property and Content Loss in Canandaigua[17]

2022	2023	2024
$110,175	$158,000	$251,250

It is important to note that although the City of Canandaigua has a relatively low annual fire loss, the city does have a moderate level of risk that must be considered as part of any planning process and objectives. In addition, it may be a testament to the aggressiveness of the CFD and its personnel in quickly getting fire incidents under control even with their limited staffing. It is ultimately the unenviable task of the city's governing body to determine the level of risk they are willing to assume for their constituents, or conversely, the level of protection they can afford to provide.

ISO-PPC Analysis

The Insurance Service Office (ISO) is a national, not-for-profit organization that collects and evaluates information from communities across the United States regarding their capabilities to combat building fires. ISO conducts field evaluations in an effort to rate communities and their relative ability to provide fire protection and mitigate fire risk. This evaluation allows ISO to determine and publish a Public Protection Classification (PPC®) rating of Class 1/1X to Class 9 (Class 10 are areas with no fire protection).

A Class 1 (highest classification/lowest numerical score (1/1x) and represents an exemplary community fire suppression program outlined below. In contrast, a Class 9 score indicates that the community's fire suppression program does not meet ISO's minimum criteria. It is important to understand that the PPC is not just a fire department classification, but a compilation of community services that include the fire department, the emergency communications center, and the community's water supply system operator. The lower classification makes the

16. Fire Loss in the United States During 2022, National Fire Protection Association.
17. Based on CFD reporting – reflects estimates from NFIRS fire reports.

community more attractive from an insurance risk perspective as insurance costs are generally reduced for businesses and homeowners. A community's PPC grade depends on:

- Emergency Communications: A maximum of 10 points of a community's overall score is based on how well the fire department receives and dispatches fire alarms. ISO field representatives evaluate:
  - The emergency reporting system.
  - The communications center, including the number of telecommunicators.
  - Computer-aided dispatch (CAD) facilities.
  - The dispatch circuits and how the center notifies firefighters about the location of the emergency.
- Fire Department: A maximum of 50 points on the overall score is based on the fire department. ISO representatives review the fire companies throughout the area and checks that the fire department tests its pumps regularly and inventories each engine and ladder company's equipment according to NFPA 1901 ISO also reviews the fire company records to determine factors such as:
  - Number of fire company personnel available for immediate response to fires and how they deployed.
  - Type and extent of training provided to fire company personnel.
  - Number of people who participate in training.
  - Firefighter response to emergencies
  - Maintenance and testing of the fire department's equipment.
- Water Supply: A maximum of 40 points of the overall score is based on the community's water supply. This part of the survey focuses on whether the community has sufficient water supply for fire suppression beyond daily maximum consumption. ISO surveys all components of the water supply system and reviews fire hydrant inspections and frequency of flow testing.
- Community Risk Reduction: The Community Risk Reduction section of the FSRS offers a maximum of 5.5 points, resulting in 105.5 total points available in the FSRS. The inclusion of this section for "extra points" allows recognition for those communities that employ effective fire prevention practices, without unduly affecting those who have not yet adopted such measures. The addition of Community Risk Reduction gives incentives to those communities who strive proactively to reduce fire severity through a structured program of fire prevention activities. The areas of community risk reduction evaluated in this section include:
  - Fire prevention.
  - Fire safety education.
  - Fire investigation.

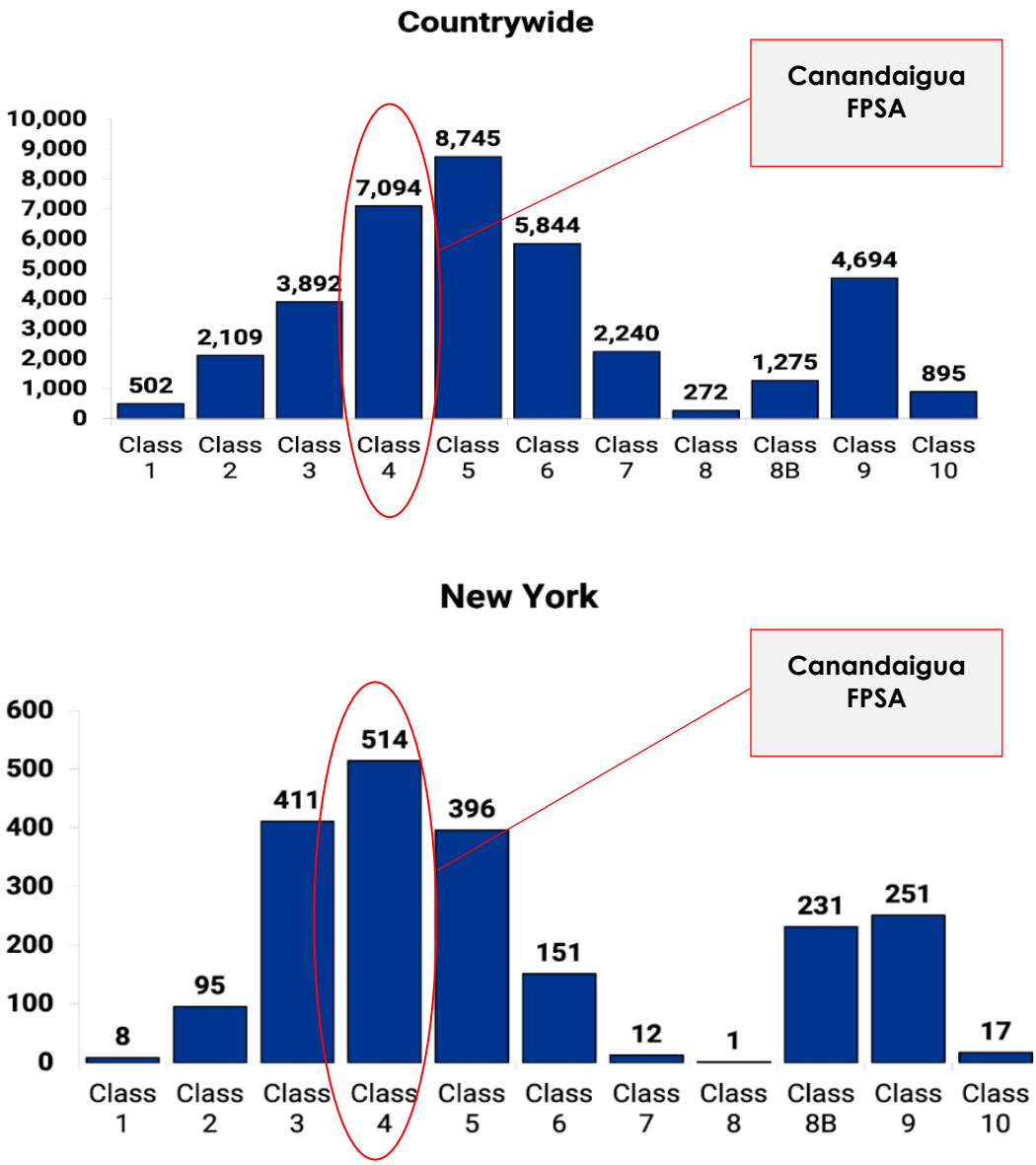
Many communities view achieving a Class 1 (or a low ISO rating overall) as an accolade. Therefore, when it is possible, maintaining a favorable rating or lowering an ISO score is often included in a community's strategic plan.

The most recent ISO evaluation of the Canandaigua Fire Protection Service Area (FPSA) was conducted in 2016. At that time, the overall community PPC rating yielded **64.55** out of **105.5,**

which earned a credit rating class of **4/4x** rating.[18] This is a very satisfactory score (and class) which the communities and CFD should be proud of. However, it does also highlight multiple areas for potential improvement. However, it should be noted that the CFD is a much different department today than it was in 2016.

The FPSA includes the City and Town of Canandaigua.

Figure 13: ISO PPC Ratings – Countrywide and New York State



The table below is a summary of the 2016 ISO rating.

18. ISO 2016 Report (2016)

Table 4: Canandaigua FPSA ISO Earned Credit Overview

FSRS Component	Credit Available	Earned Credit 2016
414. Credit for Emergency Reporting	3	2.85
422. Credit for Telecommunicators	4	2.58
4.32. Credit for Dispatch Circuits	3	3.00
440. Credit for Emergency Communications	**10**	**8.43**
513. Credit for Engine Companies	6	5.81
523. Credit for Reserve Pumpers	.5	0.00
532. Credit for Pump Capacity	3	3.0
549. Credit for Ladder Service	4	3.86
553. Credit for Reserve Ladder and Service Trucks	.5	0.12
561. Credit for Deployment Analysis	10	5.88
571. Credit for Company Personnel	15	2.59
581. Credit for Training	9	4.05
730. Credit for Operational Considerations	2	2
590. Credit for Fire Department	**50**	**27.31**
616. Credit for Supply System	30	23.57
621. Credit for Fire Hydrants	3	2.71
631. Credit for Inspection and Flow Testing	7	0.32
640. Credit for Water Supply	**40**	**26.60**
Divergence	**---**	**-2.38**
1050. Community Risk Reduction	**5.50**	**4.59**
Total Credit	**105.50**	**64.55**

Analysis of the table above tells us that the Emergency Commutations system is strong based upon ISO's criterion. This is not to suggest that there are no challenges. It merely indicates that from ISO's perspective the emergency communications system is in the upper percentile based on awarded credits. The Community Risk Reduction credits are positive as well. Overall, the Fire Department credits have room for improvement, earning just 27.31 out of a possible 50 points. Areas that have the most need for improvement include Credit for Deployment Analysis, Credit for Company Personnel, and Credit for Training.

More specifically:

- The Credit for Deployment Analysis section measures the number of fire units staffed at ISO or NFPA standards that are available to respond to incidents within the FPSA. Additionally, ISO provides credits for the percentage of the built upon community within specified response distances of pumpers (1.5 miles), and ladder trucks (2.5 miles). As an alternative, a fire protection area may use the results of a systemic performance evaluation; an evaluation analyzing CAD history to demonstrate that, with its current deployment of companies, the fire department meets the time constraints for initial arriving engine and initial full-alarm assignment as specified by NFPA 1710.
    - **The CFD would need to add staffing to existing resources and increase the use of automatic aid – both personnel and apparatus - that can respond immediately to increase their points in this section.** These units would need to meet the response area and time frames specified also.

- The section on Credit for Company Personnel simply looks at the department's staffing practices based upon averages. It also includes automatic aid companies and on-call or volunteer personnel, who fall within a 5-road mile status or response times as recommended by NFPA standards.
    - **To receive additional points in this area CFD will need to increase staffing.** This is particularly true with the demise of the volunteer fire companies in the city.

- Credit for Training provides credit for training facilities and their use, training (general), company training at fire stations, training and certification of fire officers, driver/operator, hazardous materials, and recruit training, and building familiarization and pre- incident planning inspections. CFD received full points for their new and existing driver and operator training. Like many fire departments, the CFD has struggled with keeping up with ISO training standards – approximately 20 hours per member/per month.

The ISO training related points are shown in the following table.

Table 5: City of Canandaigua ISO Training Earned Credit Overview

FSRS Component (9 Total Points)	Credit Available	Earned Credit 2016
Facilities and Use	35	13.30
Company Training	25	7.64
Classes for Officers	12	9.00
New Driver and Operator Training	5.0	5.0
Existing Driver and Operator Training	5.0	5.0
Training in Hazardous Materials	1.0	0.67
Recruit Training	5.0	2.88
Pre-fire Planning Inspections	12	1.51
Total Credit	**100**	**45.00**

For the CFD to achieve more points in this section better tracking of training hours would be required. A better assessment of training types would also need to be reviewed to ensure all ISO components are met. Fire Department personnel would also need more time available to conduct pre-fire planning inspections.

The City received just 0.32 points out of seven possible for fire hydrant inspection and flow testing. To receive full credit for hydrant inspections, inspections must be conducted annually. This is where the city received the small amount of credit earned for the section. No credit was awarded for hydrant flow testing. Flow testing should be completed every five years to obtain maximum credit. The Chief informed CPSM that the water districts have not been evaluated since 2005. He believes that since major system upgrades and improvements have been completed in the intervening 20 years, there will be a significant increase in the points earned in that component of the rating matrix.

The current ISO report is nine - almost 10 years old. This is a long time between evaluations. The Chief informed CPSM that he did speak to ISO earlier in 2025 regarding the City and CFD receiving an up-to-date evaluation in the coming months. While not yet scheduled, this is something the department is planning for. With the new leadership since 2016, increased staffing, and improvements to the water distribution system, the next PPC rating should indicate significant improvement.

CPSM assesses that there are multiple recommendations made throughout this report that if implemented should further improve the City of Canandaigua and the CFD's ISO rating. CPSM believes that with potential enhancements to staffing, deployment, and training by the CFD, and hydrant inspection and testing by the city, earning an ISO Class 3 (or even possibly a Class 2) rating is very achievable for Canandaigua.

Community Risk Profile

Environmental Risks

Ontario County is prone to large amounts of snow that can result in flooding events. While flooding is a well-known risk, Ontario County is susceptible to a wide range of natural hazards, including but not limited to thunderstorms, flooding, extreme cold, hail, ice storms, heat, winter storms, drought, heavy snow, and strong wind. These life-threatening hazards can destroy property, disrupt the economy, and lower the overall quality of life for individuals.

The City of Canandaigua has identified its community risk through a multi-jurisdictional perspective through the Ontario County Hazard Mitigation Action Plan Update 2024 (HMAP).[19] The plan outlines the potential natural and human-caused hazards that pose a threat to the citizens, resources, and property in the city.

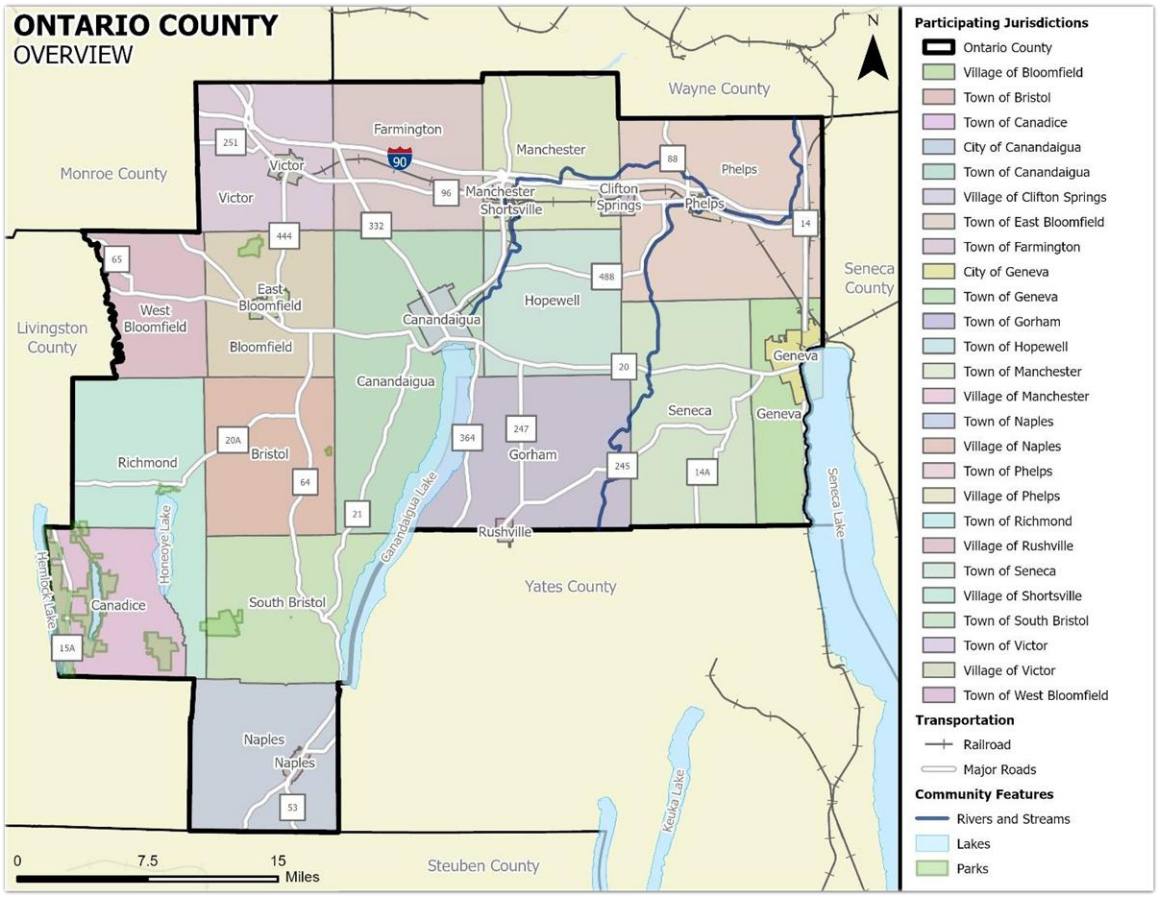
The Plan consists of 26 jurisdictions. Ontario County encompasses a land area of 663 square miles, of which 644.5 square miles is land, and 18.5 square miles of water. The county is home to 112,000 residents, (2020 U.S. Census) making it the 26th most populous county in the State of New York. The following jurisdictions within Ontario County are covered in the risk assessment analysis of the Plan Update**. *Direct information from this plan is included throughout this section of the CPSM report.***

19. Ontario County Hazard Mitigation Action Plan Update 2024

Figure 14: Ontario County, NY Hazard Mitigation Action Plan Participating Jurisdictions[20]

PARTICIPATING JURISDICTIONS		
Ontario County	Town of Bristol	Village of Bloomfield
Town of Canadice	City of Canandaigua	Town of Canandaigua
Village of Clifton Springs	Town of East Bloomfield	Town of Farmington
City of Geneva	Town of Geneva	Town of Gorham
Town of Hopewell	Town of Manchester	Village of Manchester
Town of Naples	Village of Naples	Town of Phelps
Village of Phelps	Town of Richmond	Village of Rushville
Town of Seneca	Village of Shortsville	Town of South Bristol
Town of Victor	Village of Victor	Town of West Bloomfield

Figure 15: Ontario County Planning Area[21]



20. Ontario County Hazard Mitigation Action Plan Update 2024, Section 3, 4.
21. Ibid.

This plan demonstrates the county's commitment to reduce risks to lives and property from natural and human-caused hazards. The planning process involved a variety of individuals and committees representing local municipalities, county, state, federal, non-government organizations, and county residents.

Ontario County and the participating jurisdictions reviewed the full range of natural hazards suggested under FEMA planning guidance and assessed the hazards identified in the 2018 Ontario County Multi-Jurisdictional All-Hazard Mitigation Plan and the 2019 New York State Hazard Mitigation Plan to determine a list of hazards that have a reasonable risk of occurring in the planning area. The assessment was developed from historical data events, further examining the probability of occurrence, impact (population, property, and economy), adaptive capacity, and changing future conditions (climate change). Ontario County and the participating jurisdictions identified 13 natural hazards and six human-caused hazards that were identified as significant.

In general, there are five main categories of hazards: atmospheric, geologic, hydrologic, technological, and human-caused. Atmospheric hazards are events or incidents associated with weather generated phenomenon. Atmospheric hazards that have been identified as significant for Ontario County include tornadoes, snowstorms, ice storms, extreme heat, extreme cold, and thunderstorm related hazards including wind, hail, and lightning.

Geologic hazards are events or incidents associated with the earth's crust. The geologic hazards identified as significant consist of earthquakes and landslides. The only geologic hazard that has been identified as significant for the county is landslide.

Hydrologic hazards are events or incidents associated with water related damage and account for over 75 percent of Federal disaster declarations in the United States. The hydrologic hazards identified as significant for the county are drought and flood.

Technological hazards refer to the origins of incidents that can arise from human activities, such as the construction and maintenance of dams. They are distinct from natural hazards primarily because they originate from human activity. The risks presented by natural hazards may be increased or decreased as a result of human activity, however they are not inherently human induced.

Human-caused hazards are events or incidents caused by human intent, human error, or as a result of failed systems. These hazards can be caused or exacerbated by either accidental or intentional human actions that result in the loss of life or property. Human-caused hazards identified as significant for the county are fire, infestation, hazardous materials, terrorism, and utility failure, and water supply contamination. For the Risk Assessment, the wildfire hazard was considered "other," since this hazard is not considered atmospheric, geologic, hydrologic, technological nor human-caused.

Disaster Declaration History

Federal and state declarations may be granted when the severity and magnitude of an event surpasses the ability of the local government to respond and recover.

Between 2000 and 2024, Ontario County has been designated in nine federal major disaster declarations, and three federal emergency declarations.

Figure 16: Summary of Federal Emergency Declarations, 2000-2023[22]

DISASTER #	DECLARATION DATE	DECLARATION TITLE	HAZARD	TYPE ASSISTANCE
EM-3155	10/112000	Virus Threat	Biological	Public
DR-1391	9/11/2001	Terrorist Attack	Fire	Public
DR-1467	5/12/2003	Ice Storm	Severe Ice Storm	Individual and Public
EM-3186	8/23/2003	Power Outage	Infrastructure	Public
DR-1486	8/29/2003	Severe Storms, Tornadoes, and Flooding	Severe Storm	Individual and Public
DR-1534	8/3/2004	Severe Storms and Flooding	Severe Storm	Public
EM-3262	9/30/2005	Hurricane Katrina Evacuation	Hurricane	Public
DISASTER #	**DECLARATION DATE**	**DECLARATION TITLE**	**HAZARD**	**TYPE ASSISTANCE**
DR-1993	6/10/2011	Severe Storms, Flooding, Tornadoes, and Straight-Line Winds	Flood	Public
EM-3351	10/28/2012	Hurricane Sandy	Hurricane	Public
DR-4180	7/8/2014	Severe Storms and Flooding	Severe Storm	Public
EM-3434	3/13/2020	COVID-19	Biological	Public
DR-4480	3/20/2020	COVID-19 Pandemic	Biological	Individual and Public
DR-4723	8/22/2023	Severe Storms and Flooding	Severe Storm	Public
DR-4825	9/24/2024	Remnants of Tropical Storm Debby	Tropical Storm	Public

The four general parameters that are described for each hazard in the Risk Assessment include frequency of return, approximate annualized losses, a description of general vulnerability, and a statement of the hazard's impact.

Figure 17: Frequency of Return Statements

PROBABILITY	DESCRIPTION
Highly Likely	Event is probable in the next year.
Likely	Event is probable in the next three years.
Occasional	Event is probable in the next five years.
Unlikely	Event is probable in the next ten years.

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22. Source: https://www.fema.gov/data-visualization/disaster-declarations-states-and-counties.

Figure 18: Impact Statements

Potential Severity	Description
Substantial	Multiple deaths. Complete shutdown of facilities for 30 days or more. More than 50 percent of property destroyed or with major damage.
Major	Injuries and illnesses resulting in permanent disability. Complete shutdown of critical facilities between one and four weeks. More than 25 percent of property destroyed or with major damage.
Minor	Injuries and illnesses do not result in permanent disability. Complete shutdown of critical facilities for up to one week. More than 10 percent of property destroyed or with major damage.
Limited	Injuries and illnesses are treatable with first aid. Shutdown of critical facilities and services for 24 hours or less. Less than 10 percent of property is destroyed or with major damage.

The following table shows the frequency of occurrence, potential severity and the Planning Team's self-assessment for hazard ranking, based on local knowledge of past hazard events and impacts for each of the identified hazards.

Figure 19: Hazard Risk Ranking[23]

HAZARD	FREQUENCY OF OCCURENCE	POTENTIAL SEVERITY	RANKING
NATURAL HAZARDS			
Extreme Cold	Highly Likely	Limited	Moderate
Flood	Highly Likely	Major	Moderate
Ice Storm	Occasional	Limited	Moderate
Snowstorm	Highly likely	Limited	Moderate
Wind	Highly likely	Substantial	Moderate
Dam Failure	Unlikely	Limited	Low
Drought	Highly Likely	Limited	Low
Extreme Heat	Highly likely	Limited	Low
Hail	Highly likely	Limited	Low
Landslide	Unlikely	Limited	Low
Lightning	Highly likely	Major	Low
Tornado	Occasional	Limited	Low
Wildfire	Highly Likely	Limited	Low
HUMAN-CAUSED HAZARDS			
Fire	Highly Likely	Substantial	Low
Hazardous Materials	Occasional	Major	Low
Infestation	Highly Likely	Limited	Low
Terrorism	Unlikely	Substantial	Low
Utility Failure	Highly likely	Minor	Low
Water Supply Contamination	Likely	Major	Low

23. Ontario County Hazard Mitigation Action Plan Update 2024, Section 4, 10.

Next, the environmental hazards identified in the plan that have the potential of affecting Ontario County are further defined:

Extreme Cold: Extreme cold refers to temperatures that are significantly lower than what is normal for a particular region or season. Extreme cold may also result in a freeze, which occurs when the temperature drops below 32°F for a significant period of time.

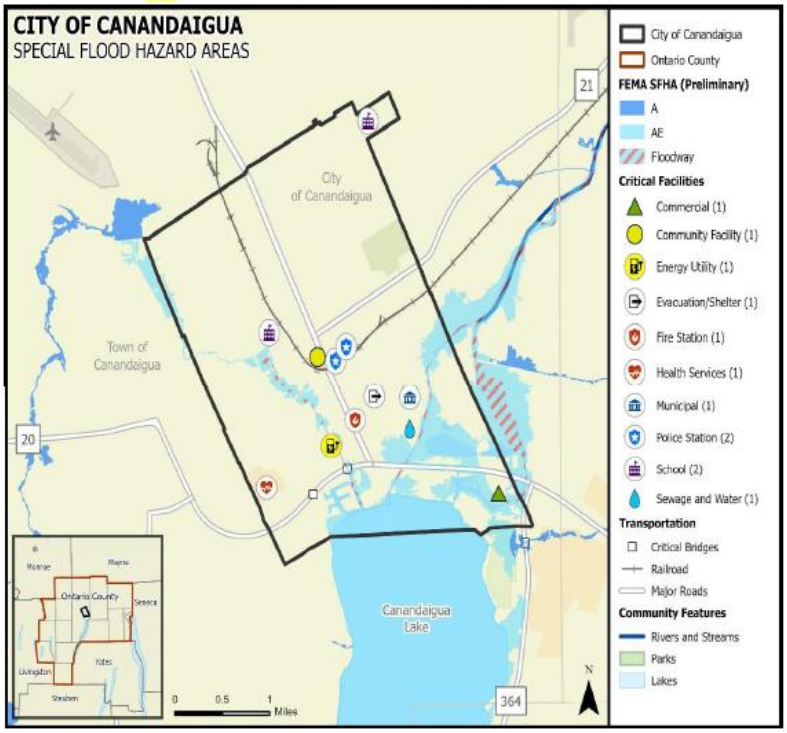
Extreme cold events are not confined to specific geographic boundaries. Therefore, the entire Ontario County planning area may be impacted. According to the National Centers for Environmental Information (NCEI) Storm Events Database, the coldest reported wind chill temperatures in the Ontario County planning area range from -25°F and – 30°F. It is expected that the planning area will experience a similar extent in the future.

Between 1996 and 2023, 28 extreme cold events occurred in the Ontario County planning area. Significant events occurred in Ontario County on January 30, 2019, February 13, 2016, and May 9-11, 2010. According to historical records, the City of Canandaigua is expected to experience approximately one to two extreme cold events every year. This frequency supports a "Highly Likely" probability of future events.

Extreme cold can be very dangerous and may cause fatalities, especially for people experiencing homelessness or for those who live below the poverty level and the elderly. The impact of extreme cold damages on the Ontario County planning area, can be considered "Limited" severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

Flood: Floods generally result from excessive precipitation. Ontario County is subject to Inland or riverine flooding which is a result of excessive precipitation levels and water runoff volumes within the watershed of a stream or river.

Figure 20: Flood Zones in the City Canandaigua



Inland or riverine flooding is overbank flooding of rivers and streams, typically resulting from large-scale weather systems that generate prolonged rainfall over a wide geographic area; thus, it is a naturally occurring and inevitable event.

Flooding is one of the more severe hazards facing Ontario County and the planning area.

The location of estimated flood zones for the City of Canandaigua, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA are illustrated next.

Zones A, AE, and Floodways are high risk flood zones and represent Special Flood Hazard

Areas (SFHA). SFHAs represent the areas subject to inundation by the 100-year flood event. Structures located within the SFHA have a 26 percent chance of flooding during the life of a standard 30-year mortgage.

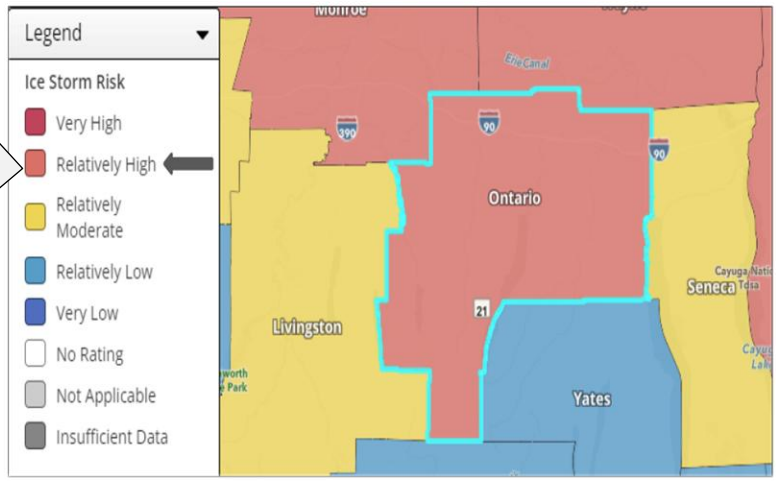
According to the NCEI database, 72 recorded flood events affected the planning areas from January 1996 to August 2023. Of these events, 23 directly impacted the City/Town of Canandaigua. Significant Events within the planning area occurred on January 19, 1996 (DR-1095), August 5, 2003, May 20, 2004, April 2, 2005, April 26, 2011, and July 9, 2023 (DR-4723). According to Ontario County historical records, the City of Canandaigua can expect to experience approximately one to two flood events every year. This frequency supports a "Highly Likely" probability of future events.

The historical impact for flood for the entire planning area is considered "Limited, meaning facilities and services would be shut down for less than one week, and less than 10 percent of property destroyed or with major damage. However, with a historical injury recorded and the significant increase in property damages experienced in recent flood events, impact for flood for the Ontario County planning area is considered "Major," meaning injuries or illnesses may result in permanent disability, a complete shutdown of facilities for two weeks or more and more than 25 percent of property destroyed or with major damage.

Ice Storm: An ice storm is when rain freezes on surface contact with significantly ice accumulations of 0.25 inches or greater. Ice accumulations on roads can greatly impact travel. Bridges and overpasses are particularly dangerous because they freeze before other surfaces. Heavy accumulations of ice can bring down trees and topple utility poles, causing power outages and disrupting critical facility operations.

Figure 21: Ontario County Ice Storm Risk, National Risk Index, December 2023[24]

In the National Risk Index, a Risk Index score for ice storm and rating represent a community's relative risk for ice storms when compared to the rest of the United States. Ontario County has a "relatively high" ice storm risk score. This means the planning area can expect a higher level of building and population loss each year due to ice storm when compared to the rest of the nation.



All of Ontario County is exposed to an ice storm hazard and could potentially be impacted. Based on historical occurrences, the planning area can anticipate future "extreme" level events. The NCEI database shows there have been four significant events in Ontario County between 1996 and 2023, occurring on January 31, 2002, November 17, 2002, April 5, 2003 (DR-1467), and April 14, 2018. Ontario County has an approximately 15 percent chance of

24. Ontario County Hazard Mitigation Action Plan Update 2024, Section 11: Ice Storm, 2.

experiencing an ice storm in any given year. The probability of a future storm event is considered "Occasional," with an ice storm probable in the next five years.

Ice storms impact travel and road conditions. They also break tree limbs and bring down power lines due to ice accumulation which can leave residents and businesses without power and posing a threat to human health and safety. Based on historic loss and damages, the impact of ice storm damage on the planning area can be considered "Limited" severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

Snowstorm. A snowstorm occurs when precipitation falls as snow. In the winter, most precipitation forms as snow within the clouds because temperatures at the top of the storm are cold enough to make snowflakes. If temperatures remain at or below 32°F between the clouds and the ground, the precipitation will fall as snow. NCEI reporting categories include blizzard, heavy snow, winter storm, and lake effect snow.

There have been 64 recorded snowstorm events in the Ontario County planning area between 1996 and 2023. Significant snowstorms occurred in the planning area on March 16, 2004, and March 13, 2017, with snowfalls ranging from 10 to 20 inches and 14 to 21 inches, respectively. According to historical records for the Ontario County planning area, the City of Canandaigua can expect to experience a snowstorm event approximately once every year. This frequency supports a "Highly Likely" probability of future events.

Snowstorms have the ability to immobilize an entire region, stranding commuters, closing airports and roadways, closing schools and businesses, and disrupting emergency and medical services. Heavy snow can lead to roof collapse, down trees and power lines resulting in power outages. Based on historic loss and damages, the impact of snowstorm damages in the Ontario County planning area, can be considered "Limited" severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

Wind: Wind is the horizontal motion of the air past a given point, beginning with differences in air pressures. Pressure that is higher at one place than another sets up a force pushing from the high toward the low pressure: the greater the difference in pressures, the stronger the force. There are several types of damaging winds. The most common is the straight-line wind which defines any thunderstorm wind that is not associated with rotation and is used to differentiate from tornado related winds. Other common types of winds include the downburst and the derecho.

Dangerous and damaging wind events can develop in any geographic location and commonly occur with thunderstorm events. On average the planning area experiences 3 to 4 wind events every year. Since 1956, 268 known wind events occurred in Ontario County, 26 of which occurred in the City of Canandaigua. Peak recorded winds have been 65 mph in these 26 events. Three injuries occurred in Canandaigua in a wind event on June 22, 1996. Of these 268 events, five were significant, occurring in June 1996, September 1998, (DR-1244), July 2006, June 2014, and January 2018. According to historical records for Ontario County, the City of Canandaigua can expect to experience a wind event every year. This frequency supports a "Highly Likely" probability of future events.

Manufactured homes and older structures may be more susceptible to damage during significant wind events. Structural impacts of wind events experienced in the City of Canandaigua would be considered "Limited," with less than 10 percent of property destroyed,

and critical facilities shut down for less than 24-hours. However, with three injuries recorded, the impact is considered "Major" with multiple injuries possible depending on the event severity.

Drought: Drought is a period of time without substantial rainfall that persists from one year to the next. A secondary hazard to drought is wildfire because dying vegetation serves as a prime ignition source. Droughts occur, on average, every two to three years throughout Ontario County and are considered a normal condition.

Between January 2000 and November 2023, the planning area spent 325 weeks (26%) in some level of drought ranging from abnormally dry to extreme drought. A total of 14 historical drought periods impacting Ontario County occurred between January 2000 and November 2023. During this period, the most significant drought occurred between July and November 2016, resulting in extreme drought conditions. *According to historical records for Ontario County, The City of Canandaigua can expect to experience a drought event approximately once every one to two years. This frequency supports a "Highly Likely" probability of future events.*

Drought impacts result in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands.

Extreme Heat: Extreme heat is a prolonged period of excessively high temperatures and exceptionally humid conditions. Extreme heat is a leading cause of death among hazardous weather events in the United States according to the National Weather Service. Extreme heat can impact all of Ontario County.

Due to its geography and humid summers, the Ontario County planning area can expect varying degrees of extreme heat each summer season. Depending on the heat index, conditions can range from caution to extreme danger. In August 2001 Ontario County experienced extreme heat conditions resulting in an all-time high temperature in the county and the City of Canandaigua reported a temperature of 101°F. According to Ontario County historical records, the City of Canandaigua can expect an extreme heat event approximately once every year. This frequency supports a "Highly Likely," probability of future events.

Vulnerable population includes the elderly, children under 5, the homeless population, and those living below the poverty level. Extreme high temperatures can have significant secondary impacts, leading to droughts, water shortages, increased fire danger, and prompt excessive demands for energy. The potential impact of extreme heat for the entire county can be considered "Limited."

Hail: Hail is precipitation in the form of round masses and irregular lumps consisting of layers of ice and compact snow. Hail is formed inside of thunderstorm updrafts and can be particularly damaging to the built environment and infrastructure. Hail falls when the thunderstorm's updraft can no longer support the weight of the ice. The stronger the updraft, the larger the hailstone can grow, and the greater the potential for loss or damage.[25]

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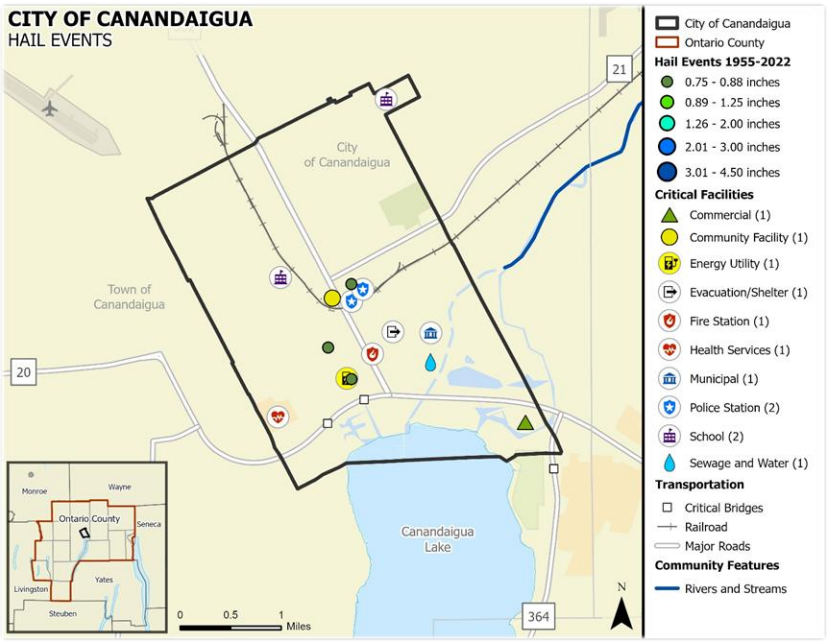
25. National Oceanic and Atmospheric Administration, National Severe Storms Laboratory, Severe Weather 101.

Figure 22: Ontario County Historical Hail Events, 1956 - 2023[26]



Hailstorms are an extension of severe thunderstorms. Therefore, all of Ontario County is equally at risk to the hazard of hail.

A total of 4 hail events impacted the City of Canandaigua from January 1956 to August 2023.

A total of 46 historical hail events have occurred in Ontario County between 1956 and 2023. Of these, three significant events occurred on April 18, 2004, June 16, 2008, and May 21, 2013, each producing 1-to-2-inch hailstones and causing crop and structural damage. Based on historical records, the City of Canandaigua can expect a hail event approximately every one to two years. This frequency supports a "Highly Likely" probability of future events.

Based on historic loss and damages, the impact of hail damages on the City of Canandaigua can be considered "Limited" severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

Lightning: Lightning is a discharge of electrical energy resulting from the buildup of positive and negative charges within a thunderstorm, creating a "bolt" when the buildup on charges becomes strong enough. The flash of light usually occurs within the clouds or between the clouds and the ground. The entire planning area is uniformly exposed to the threat of lighting. Ontario County is in a region of the country that is marginally susceptible to a lightning strike.

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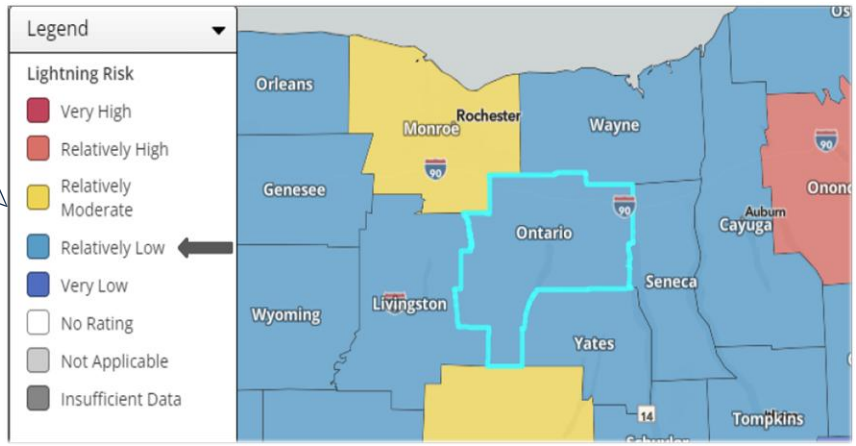
26. Ontario County Hazard Mitigation Action Plan Update 2024, Annex E: City of Canandaigua, 15.

Figure 23: Ontario County Lightning Risk, National Risk Index, November 2023[27]

FEMA's National Risk Index includes an analysis of the planning area's expected annual loss and the community's factor which incorporates social vulnerability as well as community resilience to determine the lightning risk for the area, compared to the rest of the United States. Ontario County is located in an area where the extent is classified as relatively low.



According to the NCEI, there have been only five recorded events for the Ontario County planning area since January 1996. Two of those five events occurred in the City of Canandaigua on August 25, 2011, and May 29, 2016, resulting in a combined total of $75.8K property damage. Based on historical records, the probability of occurrence for future lightning events in the City of Canandaigua is considered "Highly Likely," or an event probable in the next year.

Historical losses and damages as a result of lightning events can be considered "Limited" with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed.

Wildfire: A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind events, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. Wildfires are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor. Three conditions determine how wildfires will grow and spread, including fuel, weather, and topography.

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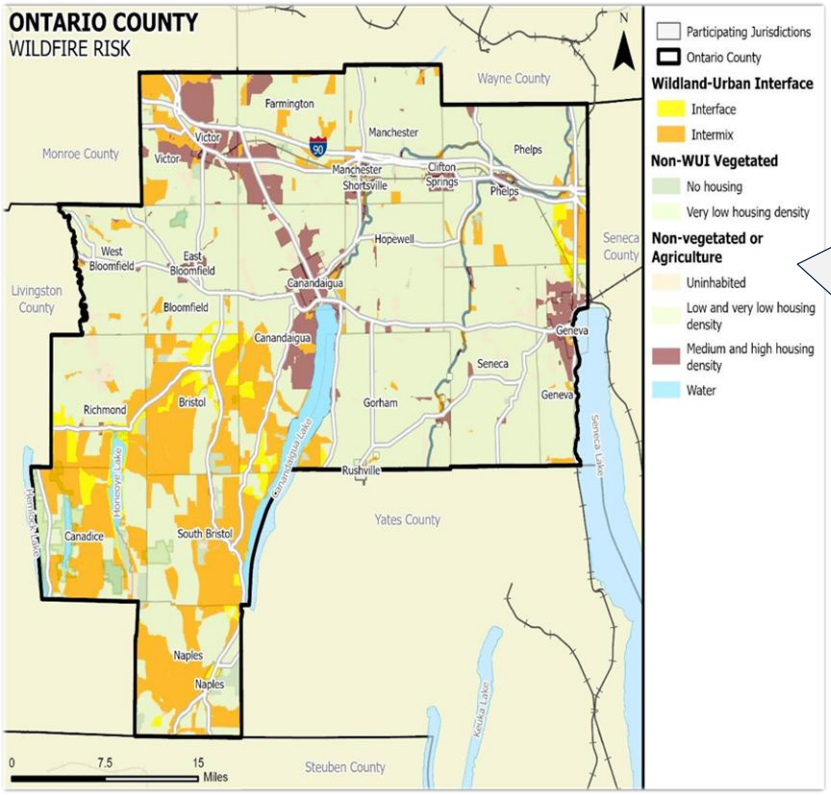
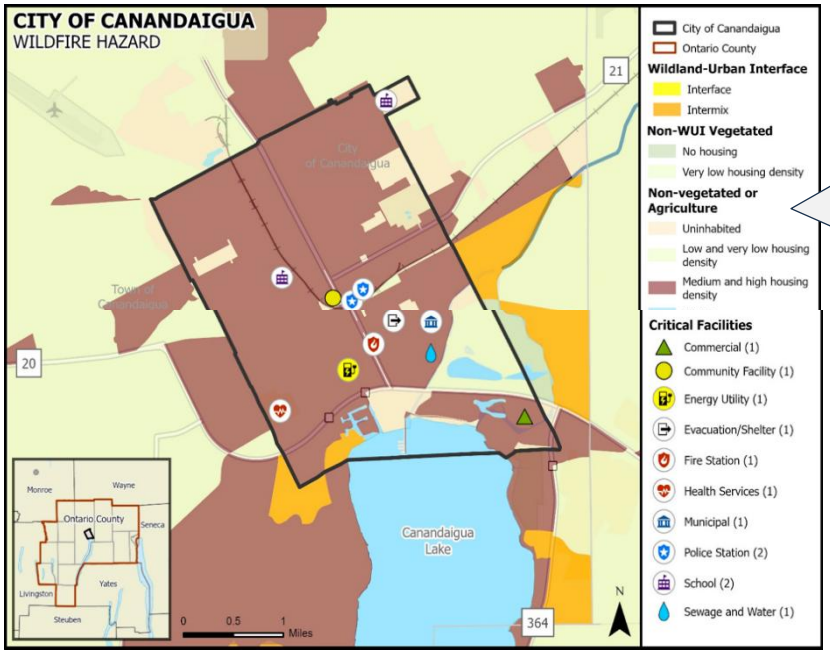
27. Ontario County Hazard Mitigation Action Plan Update 2024, Section 13: Lightning, 2.

Figure 24: Wildland Urban Interface Map - Ontario County[28]



- The threat to people and property is greater in the fringe areas where developed areas meet open grasslands, such as the Wildland Urban Interface (WUI).
- The entire planning area is susceptible to wildfires. The most heavily forested and most vulnerable municipalities are in the southwestern portion of the County.
- The Town of Canandaigua is among the towns that have significant amounts of forested land.

Figure 25: City of Canandaigua Wildland - Urban Interface Map[29]



For the City of Canandaigua, the impact from a wildfire event can be considered *"Limited,"* meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less that 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

28. Ibid., Section 16: Wildfire, 2.
29. Ontario County Hazard Mitigation Action Plan Update 2024, Annex E: City of Canandaigua, 25.

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Since 2008, the single largest fire has only been 40 acres. With 1,553 events in a 19-year period, a wildfire event within the Ontario County is "Highly Likely", meaning an event is probable within the next year.

Wildfire events can result in diminished air quality and pose a potential health risk. The elderly or those with compromised respiratory systems may be more vulnerable to the effects of wildfires.

Fire: A fire involves the burning of buildings and infrastructure within an urban or developed area. These fires can be contained to a single structure or spread across multiple buildings and properties. Most fires are human caused, but can be caused by defective equipment, aging, or outdated electrical equipment. Natural disasters and other hazards may cause fires, such as lightning strikes. Fires occur in all developed areas of Ontario County.

The extent of the damage caused by a fire varies significantly and is dependent on several factors including fuel type, the size and intensity of the fire, the type of buildings impacted, and local fire suppression capabilities. Fire can range in size from small and contained, causing minor damage up to conflagrations engulfing entire communities. The extent of a fire ranges from minor to severe, and Ontario County can experience all levels of severity.

From 2013 – 2023, Ontario County experienced 2,739 structural fires resulting in 35 civilian injuries and 11 civilian fatalities. Fire service personnel have reported an additional 24 injuries. Based on historical data, fire events are "Highly Likely" meaning an event is probable within the next year.

The structural impact of fires in the planning area is considered "Limited" with less than ten percent of the property destroyed and critical facilities shut down for 24-hour or less. However, due to the number of reported fatalities, the impact of fires in Ontario County is considered "Substantial" with the possibility of multiple fatalities depending on the size of the event.

Hazardous Materials: Hazardous materials are materials or substances which, because of their chemical, physical, or biological nature, pose a potential risk to life, health, property, or the environment if they are released. A hazardous material (HAZMAT) incident involves a substance outside normal safe containment in sufficient concentration to pose a threat to life, property, or the environment. Hazards can occur during production, storage, transportation, use, or disposal. All major highways, railroads, and the surrounding areas are at risk of a HAZMAT incident.

A total of 561 spill incidents have been reported in Ontario County between 2018 and 2023. This includes spills of all types of 1liter or more. The frequency of these events indicates a significant level of risk for the planning area. Given the amount of traffic through the planning area and its large network of transportation, it is probable that an incident will occur in any given year. The frequency of occurrence for typical hazardous material incidents is considered "Highly Likely." The frequency of occurrence for more significant hazardous material incidents is considered "Occasional," meaning an event is probable in the next five years for Ontario County. The impact of hazardous materials incidents in Ontario County is considered "Major" with the possibility of complete shutdown of critical facilities for at least two weeks.

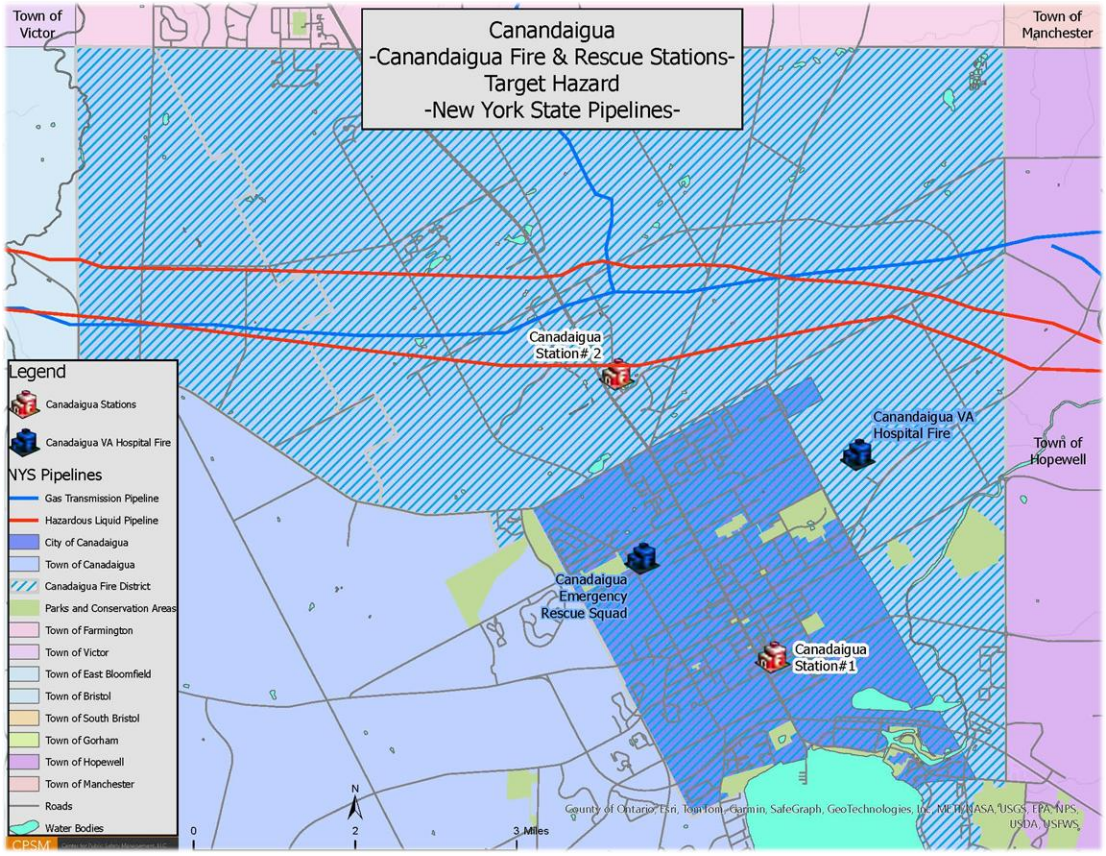
Pipeline Failure: Although not identified as a specific hazard in the Plan, another hazard within the Canandaigua fire response area that bears mentioning is the potential for a pipeline failure.

A gas transmission pipeline operated by Honeoye Storage Corporation runs east and west through the Town of Canandaigua. The line enters the town limits just north of N. Road/Shutts

Road and runs west, exiting the town just north of N. Bloomfield Road. This line also branches off and runs south to Buffalo Street and turns southwest, exiting the town at Fisher Hill Road. Another line branches off the main line in the vicinity of Fire Hall Road and Emerson Road, runs north, and exits the town near the KOA Holiday Campground.

Two hazardous liquid pipelines run east and west, parallel to one another and enter through the Town of Canandaigua also. The lines enter the town limits just north of Chapin Road and cross N. Main St. near Emerson Road. The lines continue west, passing north of Canandaigua Airport and exiting on the west side of town near Brace Road.

Figure 26: Gas Transmission and Hazardous Liquid Pipelines[30]



Terrorism: Terrorism is defined in the Code of Federal Regulations as "The unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objective. High-risk targets for acts of terrorism include military and civilian government facilities, international airports, large cities, and high-profile landmarks. Large public gatherings, water and food supplies and utilities area common targets as well.

There have been no reports of terrorism in Ontario County. Based on historical data, it is "*Unlikely*" for a terrorist event to occur in the planning area in the next five years. Terrorist events can have a "*Substantial*" severity of impact. They can cause multiple deaths, completely shut

30. National Pipeline Mapping Service, https://www.npms.phmsa.dot.gov/, accessed May 27, 2025.

down facilities for 30 days or more, and cause more than 50 percent of affected properties to be destroyed or suffer major damage.

Utility Failure: A utility failure is the disruption in the services necessary for the operation of critical facilities and services. This includes power outages, water system failures, fuel shortages, and internet or communication failures. The extent and severity of a utility outage are determined by the cause or disruption, location, duration, and weather.

During a flooding event on July 10, 2023, in the City of Canandaigua, both natural gas and electrical services were turned off by the local utilities to prevent unsafe conditions. Strong wind events caused power outages on December 23, 2022, March 8, 2022, December 11, 2021, March 26, 2021, November 2, 2020, and February 24, 2019, across Ontario County.

Utility failures occur frequently, and it is "*Highly Likely*" that an event will occur in the future meaning that a utility failure is probable within the next year. Utility failure typically can have a "Minor" level of impact meaning more than 10 percent of property may be impacted at one time and critical facilities may be affected for more than one week at a time.

Water Supply Contamination: Water supply contamination occurs when harmful substances, often chemicals or microorganisms, pollute water sources which make the water unusable for drinking, cooking, cleaning, swimming, and other activities. Common sources of water contamination include industry and agriculture, human and animal waste, treatment and distribution, and natural sources as cited by the Environmental Protection Agency.
Water supply contamination can occur anywhere within Ontario County, within freshwater sources, private wells, and in water treatment facilities. There are no reports of illness or fatalities due to water contamination in the planning area. The City of Canandaigua experienced water contamination events on July 26, 2012, July 13, 2023, and November 3, 2023.

It is "*Likely*" that a water contamination event will occur in the planning area, meaning the event is probable in the next three years. The greatest impact of unsafe and contaminated water is on human health. The impacts of a contaminated water supply could be "*Major*" because it can result in multiple injuries or illnesses that lead to permanent disability.

Transportation Risks

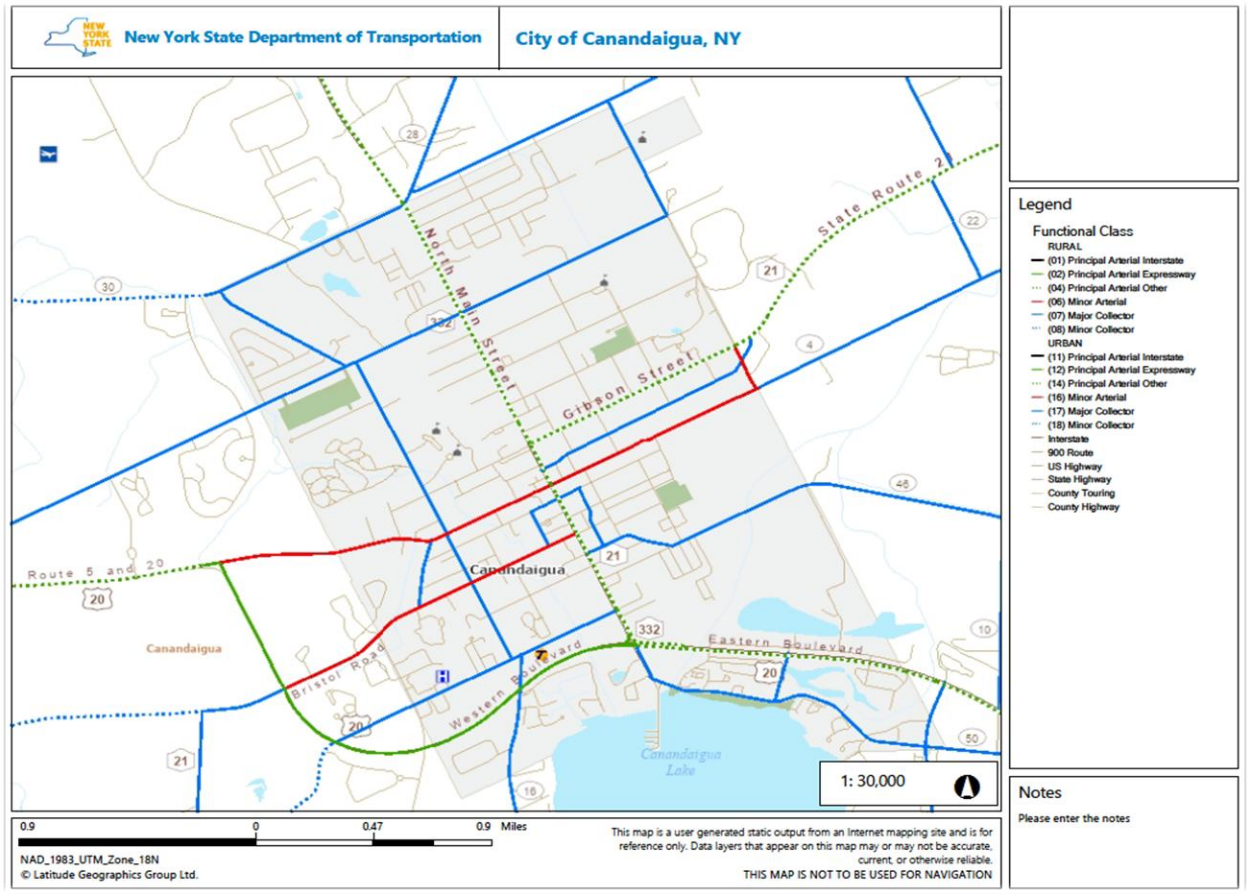
The City of Canandaigua transportation infrastructure consists of roads, trails, freight rail, flight, marine, and non-motorized trails.

Roads

The regional and local roadway system serving the City of Canandaigua is a hierarchal system of highways and local streets developed to provide regional traffic movement and local access.

The City of Canandaigua road network is a traditional urban grid with a strong north-south axis along Main Street (NYS Rt 332), that divides the city into equal halves. Pearl Street provides a secondary north-south collector on the city's west side. There is no clear north-south collector on the city's east side. East-west collectors include Buffalo Street and Chapel Street, Gibson Street and West Gibson Street, Bristol Street, and Parrish Street. Eastern and Western Boulevard (NYS Routes 5 & 20), a limited access highway, divides the city from its lakefront.

Figure 27: Canandaigua Road Network Map



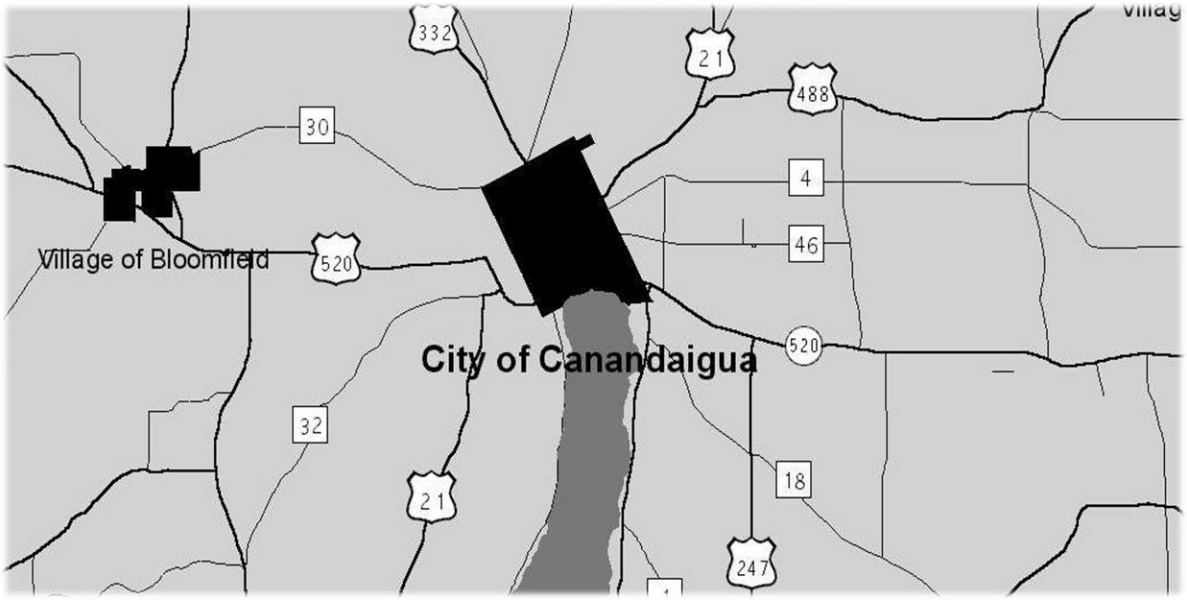
The road network map shows the National Functional Classification (NFC) of the City of Canandaigua roads. The NFC is a federal classification system for all public highways, roads, and streets. Roads are classified first as rural or urban dependent, based on their location within or outside the federal aid urban/rural boundary. All the roads and streets within the City of Canandaigua are designated as urban. The basic classifications for the functional system for urban areas serving Canandaigua are:

- Urban Principal Arterials - Generally carry traffic long distances, through travel movements between cities and provide access to important traffic generators, such as airports or regional shopping centers.
  - Principal Arterials within Canandaigua include Main Street/Route 332 and Western/Eastern Blvd. Routes 5/20, and Gibson St.
- Urban Minor Arterials - Interconnect with and augments the urban principal arterial system and provides service to trips of moderate length. Ideally, they should not penetrate identifiable neighborhoods.
  - Minor Arterials include West Avenue/Ontario Street and Bristol Road.
- Urban Collectors - Classified as major and minor, provides both land access service and traffic circulation within residential neighborhoods, commercial and industrial areas.

- An urban collector may penetrate residential neighborhoods, distributing trips from arterials through the area to the ultimate destination. The collector street also collects traffic from local streets in residential neighborhoods and channels it into the arterial system.
- In the central business district, as in other areas of like development and traffic density, the collector system may include the street grid which forms a logical entity for traffic circulation.
- Pearl, St., North St., Buffalo St./Chapel St., Gorham St., Salstonstall St., Parrish St. and Lakeshore Dr. are all Major Collector Streets.

- Urban Local Streets – These provide access to the higher order systems while offering the lowest level of mobility.

Figure 28: Ontario County Road Network[31]



The Ontario County road network radiates outward from the city and therefore funnels the majority of regional trips through the City of Canandaigua. While the city's growth has been fairly stable for decades, the more dynamic development in the surrounding communities has resulted in a higher daily rate of tractor frailer and other truck traffic, both as destination and pass-thru traffic since there is no bypass highway to take traffic around the city.

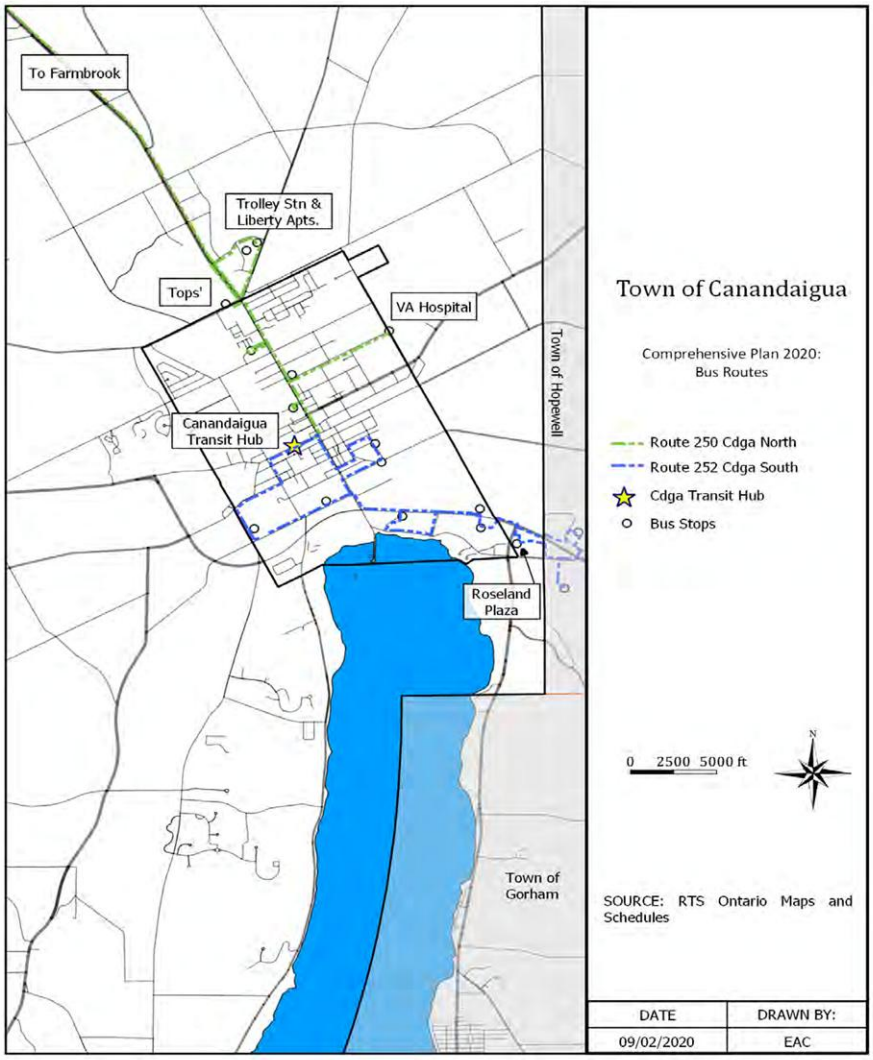
Bus and Rail Transit

The Rochester-Genesee Regional Transportation Authority (RGRTA) oversees the Regional Transit Service (RTS) and provides public transportation service to eight counties in upstate New York, including Ontario County. Access to public transportation is provided by two bus routes along the Canandaigua Waterfront corridor – Route 252 and Route 250.

31. City of Canandaigua Comprehensive Plan, 2025 Update – Final Draft, 21.

- Route 250 North serves the Town of Canandaigua off the 332 corridor and travels through downtown Canandaigua along South Main Street and connects to Thompson Hospital by Parrish Street.
- Route 252 travels along South Mainn Street and a portion of Lakeshore Drive and connects to the Canandaigua Hub and Ontario County Complex.

Figure 29: Canandaigua Transit Routes[32]



Freight Rail

Freight rail service to Canandaigua is provided by the Finger Lakes Railway (FGLK), a privately owned Class III, short line railroad. This railway terminates at Pactiv Corporation and services the Pactiv Corporation and the Canandaigua Wine Company.

32. Town of Canandaigua 2021 Comprehensive Plan Update, 64.

Pactiv utilizes approximately 250,000 gallons of Isopentane a day. Isopentane is highly flammable. The facility normally receives two 30,000-gallon tank cars two times per week. They also receive Polypropylene by rail car. This chemical is moderately flammable.

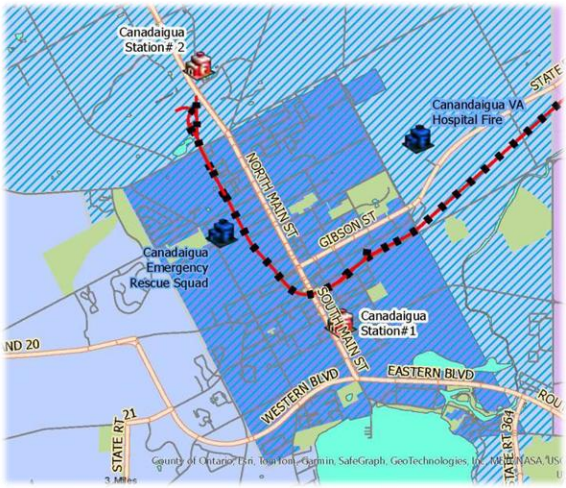
Canandaigua Wine receives Ethyl Alcohol in 30,000-gallon tank cars. These deliveries normally also occur twice per week and average one to three cars per delivery.

Fires involving the potential commodities passing through Canandaigua can produce vapors, smoke and other products of combustion risks that may be hazardous to health. Hazardous materials (existing or waste) themselves present hazards to health risks if being transported and involved in a rail accident.

There is currently no passenger rail service in Canandaigua. Finger Lakes Railway does run excursion trips from Canandaigua on a seasonal basis.

The railway enters the city on the east side, crossing East St. near Ontario St. It continues west, crossing S. Main St., and West St. then turns northward continuing on to the north end of the city where it terminates at the Pactiv Corporation.

Figure 30: Rail Line and Street/Rail Crossings



There are nine railway crossings through the Canandaigua city limits. There are two additional crossings in the Town. Eight of these are at grade vehicle/railroad crossings with gates, two are elevated trestles and one is an at grade vehicle/ railroad crossing controlled by traffic lights. These crossings, particularly those in the downtown area can restrict and impede normal traffic flow.

CPSM assesses that these crossings may hamper emergency vehicle traffic, extending response travel times and creates the potential for train-motor vehicle crashes and/or rail-pedestrian crashes. The two elevated trestles have restrictive clearances, further contributing to emergency vehicle response delays.

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Figure 31: Downtown Railroad Crossings

Greig Ter. Trestle clearance: 9'-6" west bound (one way street).

West Ave. at Atwater Park. Trestle clearance: 10'-6" east bound, 12'-3" west bound.

S. Main St. – RR Crossing is traffic light controlled.

Ontario St. at the Ontario Pathways Trail.

Canandaigua Airport [33]

Canandaigua Airport is a public use airport situated outside of the city limits on Brickyard Road, immediately east of the Town of Canandaigua's Uptown Corridor. The airport supports flight operations 24 hours a day, featuring a 5,500-foot runway, which accommodates aircraft up to and including business jets.

Over 60 aircraft are based at the Canandaigua Airport. The airport is utilized for recreational flying, flight training, and stop-overs for utility helicopters, military aeronautical training, charter flights, and medical transportation.

It also serves as Company headquarters and communications central for Mercy Flight Central air ambulance service.

Marine/Boating

Being a waterfront community there is a demand for recreational boating by residents and visitors alike. Many people who reside on the lake and visit the limited commercial areas along the lakefront or visit friends and family at other waterfront locations.

Active Transportation

Figure 32: City of Canandaigua Trails Plan[34]

The Canandaigua City Council adopted a Complete Streets Policy in 2013 (Resolution 2013-46) as a guiding principle for the improvement of the city's transportation infrastructure. Complete Streets is an approach to planning, designing, and building streets that enables safe access and meets the transportation needs of all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.

A recommendation of the comprehensive plan is to "Expand a citywide network of bicycle trails and pedestrian pathways that link neighborhoods to activity centers in the city, as well as a regional system that links to other communities." [35]

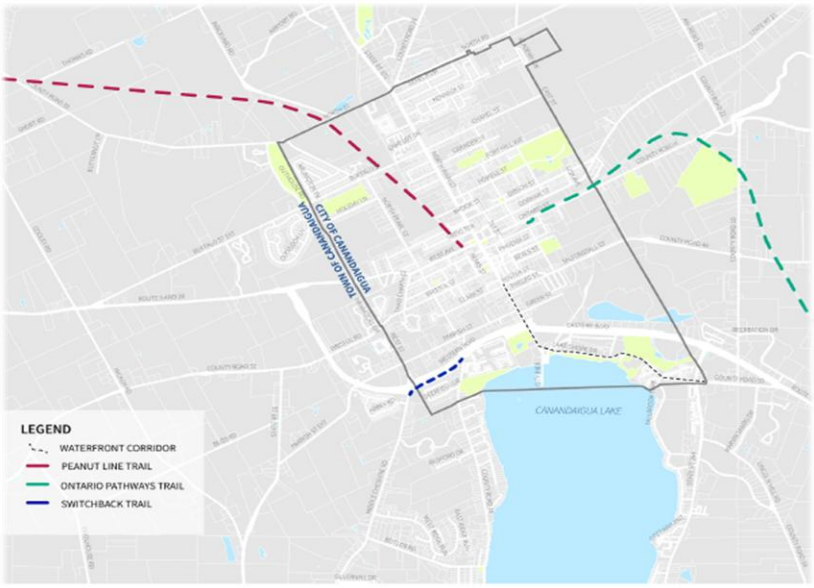
There are approximately 3.4 miles of sidewalks along the Canandaigua Waterfront corridor. This area does not provide designated on-road bike facilities at this time.

33. Ibid, 69.
34. City of Canandaigua Comprehensive Plan, 2025 Update – Final Draft, 23.
35. Ibid, 22.

Figure 33: Kershaw Park and Lagoon Park Trails[36]

There are two primary trail networks in proximity to the corridor located in Kershaw Park and Lagoon Park. These networks provide approximately 1.4 miles of off-road trails. Trails in Kershaw Park are considered "lakefront walkway;" multi-modal use (bicycle and pedestrian users) regularly occurs. In Lagoon Park, trail width variations do not support pedestrian and bicycle use along the entire trail system, although users do use it as a shared use path.[37]

Figure 34: Switchback, Peanut Line, & Ontario Path Trails[38]



Three additional trails serve the City and Town of Canandaigua: the Switchback Trail, the Peanut Line Trail, and the Ontario Pathways Trail.

Switchback Trail: The Switchback Trail is a gravel trail connecting Middle Cheshire Road in the Town of Canandaigua to West Lake Road in the City of Canandaigua. The trail runs parallel to the southern side of Western Boulevard.

Peanut Line Trail: The Peanut Line Trail begins in the Town of Canandaigua and travels through the City from County Road 30 to Cooley Road. The trail connects the northwest portions of the Town through the City to the Ontario Pathways Trail.

Ontario Pathways Trail: The Ontario Pathways 'Trail provides 25 miles of non-motorized multi-use paths and 1.7 miles of hiking trails in the City and Town of Canandaigua. This trail is privately owned by a non-profit organization called Ontario Pathways Inc. and is open year-round for public use. The Ontario Pathways Trail is accessible to the Peanut Line Trail at North Main Street in the City of Canandaigua.

36. City of Canandaigua Waterfront Active Transportation Plan, September 2021, 52.
37. Ibid, 53.
38. Ibid, 36.

EV Charging Stations

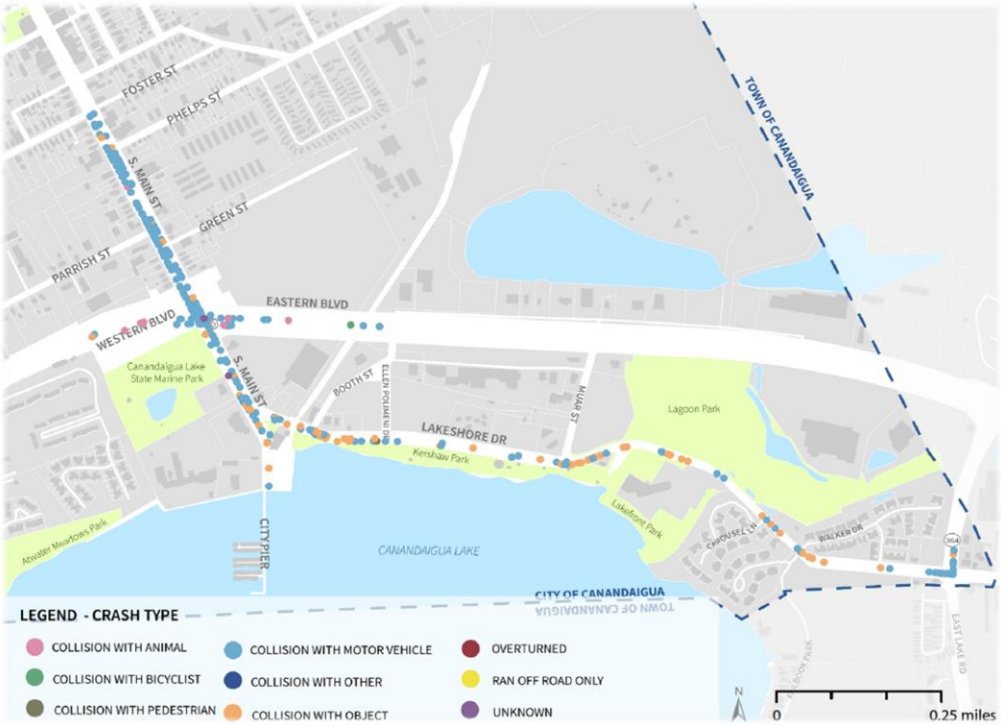
In 2017, the City installed a two-port electric vehicle charging stations downtown to support alternative fuel vehicles. In 2023 and 2024, the city purchased ten zero emission vehicles for municipal use and installed four all-solar chargers in municipal parking lots. Collectively, there are 23 public and private EV charging locations throughout the City and Town of Canandaigua.

Traffic Collision Data

The downtown corridor runs along South Main Street and Lakeshore Drive. The corridor begins at Foster Street and extends through the intersection of Route 5 and 20 to Lakeshore Drive and ends at East Lake Road (Route 364).

Traffic collisions along the corridor were analyzed from 2005 through 2019. During the 15-year period a total of 961 crashes were recorded along the corridor. The majority of crashes involved motor vehicles (773 crashes, 80.44%). There were 124 (12.90%) fixed object crashes, 26 (2.71%) crashes involving an animal, 18 (1.87%) crashes involving a bicyclist, and 10 (1.04%) crashes involving a pedestrian.

Figure 35: Traffic Collisions - Type of Crash[39]



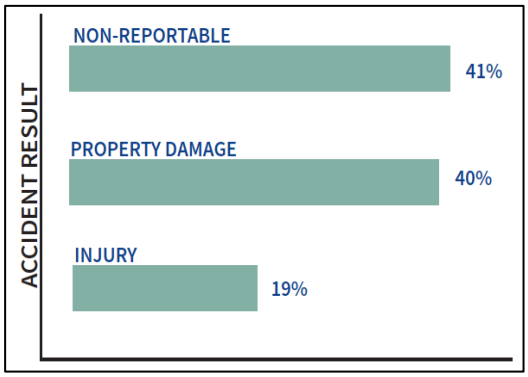
A total of 300 crashes occurred at the intersection of South Main Street and Rutes 5 and 20 during this 15-year period. The prevailing crash type was rear end collisions, accounting for 49.33% or 148 crashes. The predominance of rear end collisions is not atypical of an urban, signalized intersection with multiple lanes. The average crash rate, expressed in crashes per

39. Ibid, 49.

Million Entering Vehicles (MEV) was calculated as 1.39 crashes per MEV. This rate is more than six times the average crash rate reported by New York State DOT for similar intersections.

Traffic Collisions – Result of Crash[40]

The map shows the results of traffic collisions that occurred along the corridor between 2005 and 2019. According to data, there were no fatal crashes recorded. Of the 961 crashes, a total of 180 (19%) crashes resulted in injury, 386 (40%) crashes resulted in property damage only, and 384 (41%) crashes were non-reportable.



Key Takeaways

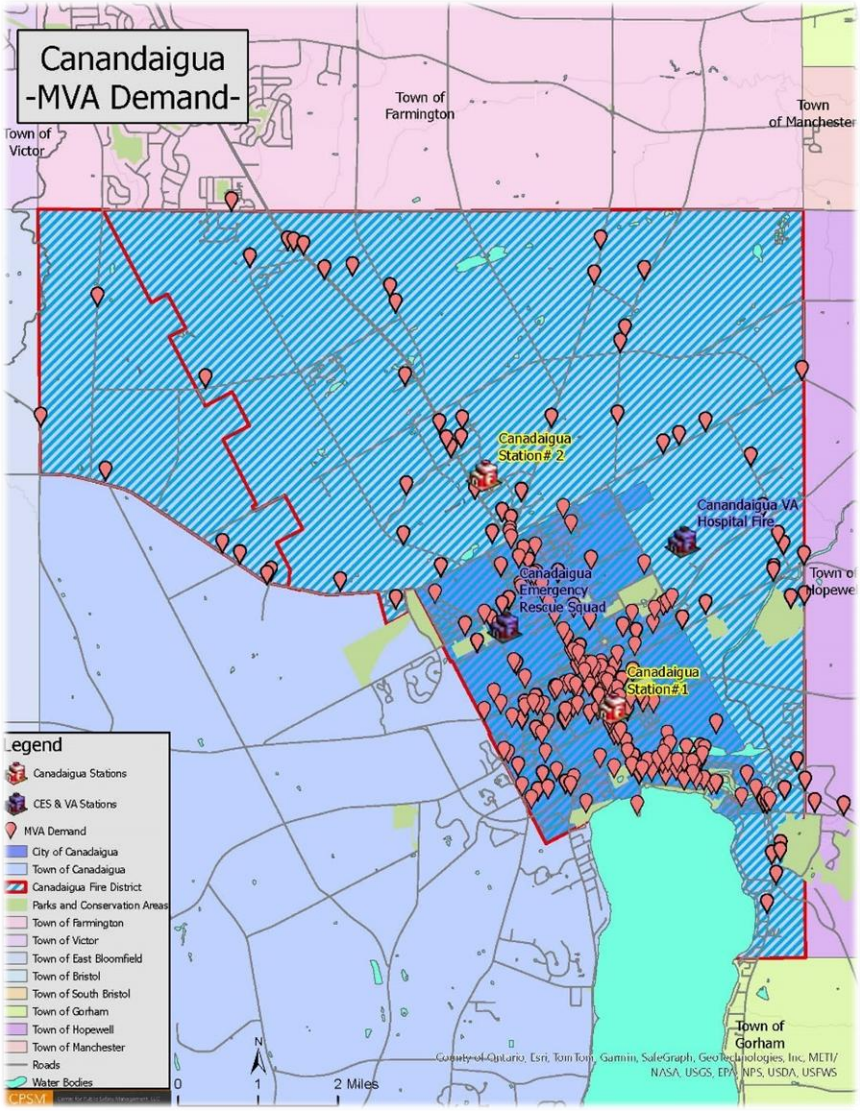
Over the last 15 years, there have been a number of traffic crashes along the corridor. The majority of accidents occurred along the northern portions of the corridor from Foster Street to the Routes 5 & 20 intersection. Improved delineation and appropriate traffic calming features coupled with targeted pedestrian and bicycle accommodations have the potential to enhance the safety for multi-modal users.

Figure 36: Traffic Collisions - Crash Results

40. Ibid, 50.

The following figure shows the location of motor vehicle crashes that resulted in a response by the CFD during the data study year.

Figure 37: Traffic Collisions with CFD Response



CPSM assesses that the road and transportation network In Canandaigua poses moderate risks for a vehicular accident, some at medium to greater than medium speeds, as well as vehicular-versus-pedestrian-bicycle risks. There are additional transportation risks since tractor-trailers and other commercial vehicles traverse the roadways of Canandaigua to deliver mixed commodities to business locations.

Fires or releases of products involving these commodities can produce vapors, smoke and other products of combustion that may be hazardous to health. Additionally, there is risk of a mass casualty incident involving mass-transit buses either on specific bus routes/roads in the City or utilizing the road network for stops in jurisdictions external to Canandaigua.

Utilities

Water and Wastewater [41]

All residents of the City of Canandaigua receive their water from the Canandaigua Lake Water Treatment Plant located on the west side of Canandaigua Lake in the Town of Canandaigua. The treatment plant makes use of a conventional treatment system which uses coagulation, sedimentation, and filtration to clean its water. The plant treats an average of 4.25 million gallons of water a day and supplies water to approximately 42,000 people. The City's water distribution system consists of 56 miles of water lines, 365 fire hydrants and approximately 500 gate valves. Distribution pressures range from 60 to 130 psi.

Solid Waste

The City of Canandaigua provides solid waste collection service to residential properties. In addition to regular garbage and rubbish, plastic, metal, glass, and paper products are recycled through curbside pick-up. City residents and property owners may utilize the Town of Canandaigua transfer facility to dispose of bulk refuse and electronics not collected at curbside. Ontario County offers several hazardous waste/special collection events throughout the year.

Energy Utilities

The City of Canandaigua is served by New York State Electric & Gas (NYSEG) for gas service to all businesses and residences. NYSEG serves 271,900 natural gas customers in its entire service area, which includes more than 40% of upstate New York.[42]

The City of Canandaigua is supplied with electricity by a combination of providers: Gateway Community Power (GCP) and Rochester Gas and Electric (RG&E). GCP is a Community Choice Aggregation (CCA). CCA enables municipalities to join together to aggregate the buying power of residents and provides access to renewable electricity. CCA 100% Renewable Supply is the default service for residential and small-commercial electricity customers. Customers may switch to a 50% renewable supply or opt out of the CCA altogether and receive electric supply from RG&E. RG&E serves approximately 388,700 electricity customers in a nine-county region, including Ontario County, centered on the City of Rochester.[43]

The City of Canandaigua operates two solar array farms. One is located on County Road 46 and produces 3,200 kilowatt-hours (kWh) annually. The second is located on County Road 10 near County Road 46 intersection and produces 2,132 kilowatt-hours (kWh) annually. Collective, the two farms produce enough power to supply 94% of all City facilities.[44]

Three Axis Risk Analysis

A comprehensive risk assessment is a critical aspect of assessing and creating a deployment analysis to meet the community's risk and can assist the CFD in quantifying the risks that it faces. Once those risks are known and understood, the department is better equipped to determine if the current response resources are sufficiently staffed, equipped, trained, and positioned.

41. City of Canandaigua web page, https://www.canandaiguanewyork.gov/253/Public-Works, accessed 17 May 2025.
42 . New York State Electric & Gas web page, https://www.nyseg.com/ourcompany/whoweare/ service area, accessed 18 May 2025.
43. City of Canandaigua web page, https://www.canandaiguanewyork.gov/342/Community-Choice-Aggregation, accessed 18 May 2025.
44. RER Energy Group web page, 29 January 2017, accessed 18 May 2025.

Risk is often categorized in three ways: the probability the event will occur in the community, the impact on the fire department, and the consequence of the event on the community. The following three tables look at the probability of the event occurring, which ranges from unlikely to frequent; consequence to the community, which is categorized as ranging from insignificant to catastrophic; and the impact to the organization, which ranges from insignificant to catastrophic.

Figure 38: Event Probability

Probability	Chance of Occurrence	Description	Risk Score
Unlikely	2%-25%	Event may occur only in exceptional circumstances.	**2**
Possible	26%-50%	Event could occur at some time and/or no recorded incidents. Little opportunity, reason, or means to occur.	**4**
Probable	51%-75%	Event should occur at some time and/or few, infrequent, random recorded incidents, or little anecdotal evidence. Some opportunity, reason, or means to occur; may occur.	**6**
Highly Probable	76%-90%	Event will probably occur and/or regular recorded incidents and strong anecdotal evidence. Considerable opportunity, means, reason to occur.	**8**
Frequent	90%-100%	Event is expected to occur. High level of recorded incidents and/or very strong anecdotal evidence.	**10**

Figure 39: Impact on CFD

Impact	Impact Categories	Description	Risk Score
Insignificant	Personnel and Resources	One apparatus out of service for a period not to exceed one hour.	**2**
Minor	Personnel and Resources	More than one but not more than two apparatus out of service for a period not to exceed one hour.	**4**
Moderate	Personnel and Resources	More than 50 percent of available resources committed to incident for over 30 minutes.	**6**
Significant	Personnel and Resources	More than 75 percent of available resources committed to an incident for over 30 minutes.	**8**
Catastrophic	Personnel, Resources, and Facilities	More than 90 percent of available resources committed to an incident for more than two hours or event which limits the ability of resources to respond.	**10**

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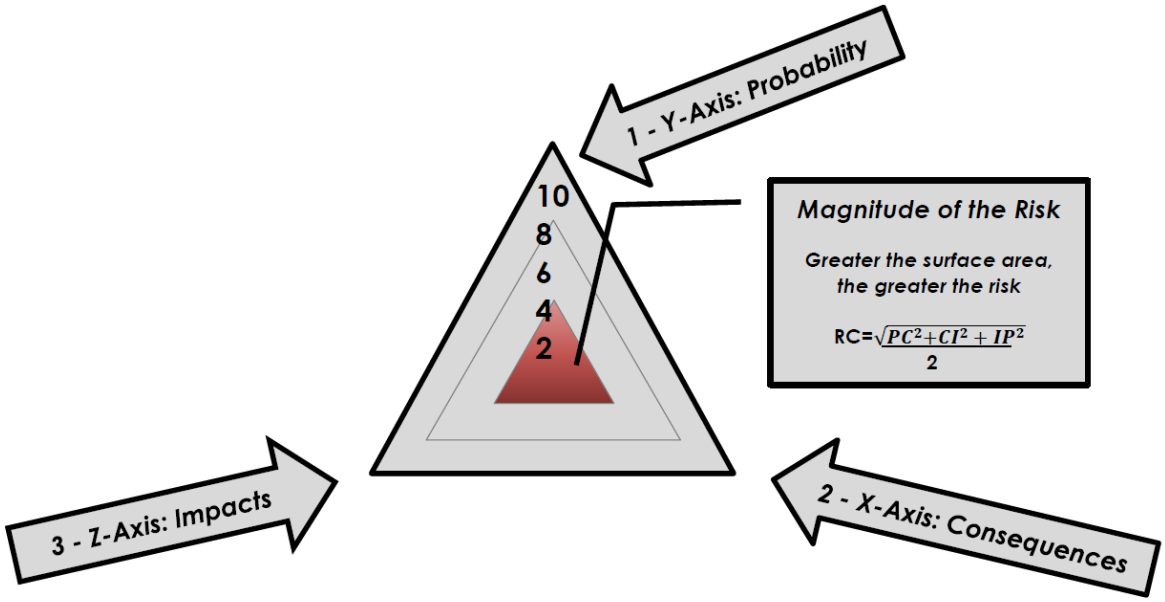
Figure 40: Consequence to Community Matrix

Impact	Consequence Categories	Description	Risk Score
Insignificant	Life Safety	1 or 2 people affected, minor injuries, minor property damage, and no environmental impact.	**2**
Minor	Life Safety Economic and Infrastructure Environmental	■ Small number of people affected, no fatalities, and small number of minor injuries with first aid treatment. Minor displacement of people for <6 hours and minor personal support required. ■ Minor localized disruption to community services or infrastructure for <6 hours. Minor impact on environment with no lasting effects.	**4**
Moderate	Life Safety Economic and Infrastructure Environmental	■ Limited number of people affected (11 to 25), no fatalities, but some hospitalization and medical treatment required. Localized displacement of small number of people for 6 to 24 hours. Personal support satisfied through local arrangements. Localized damage is rectified by routine arrangements. ■ Normal community functioning with some inconvenience. Some impact on environment with short-term effects or small impact on environment with long-term effects.	**6**
Significant	Life Safety Economic and Infrastructure Environmental	■ Significant number of people (>25) in affected area impacted with multiple fatalities, multiple serious or extensive injuries, and significant hospitalization. ■ Large numbers of people displaced for 6 to 24 hours or possibly beyond. External resources required for personal support. Significant damage that requires external resources. Community only partially functioning, some services unavailable. Significant impact on environment with medium- to long-term effects.	**8**
Catastrophic	Life Safety Economic and Infrastructure Environmental	■ Very large number of people in affected area(s) impacted with significant numbers of fatalities, large number of people requiring hospitalization; serious injuries with long-term effects. General and wide-spread displacement for prolonged duration; extensive personal support required. Extensive damage to properties in affected area requiring major demolition. ■ Serious damage to infrastructure. Significant disruption to, or loss of, key services for prolonged period. ■ Community unable to function without significant support. ■ Significant long-term impact on environment and/or permanent damage.	**10**

Prior risk analysis has only evaluated two factors of risk: probability and consequence. Contemporary risk analysis considers the impact of each risk to the organization, thus creating a three-axis approach to evaluating risk as depicted in the following figure. A contemporary risk analysis now includes probability, consequences to the community and impact on the organization, in this case the CFD. In this analysis, information presented and reviewed in this section (Community Risk Profile) has been considered. Risk is categorized as *Low*, *Moderate*, *High*, or *Special*.

Figure 41: Three-Axis Risk Calculation (RC)



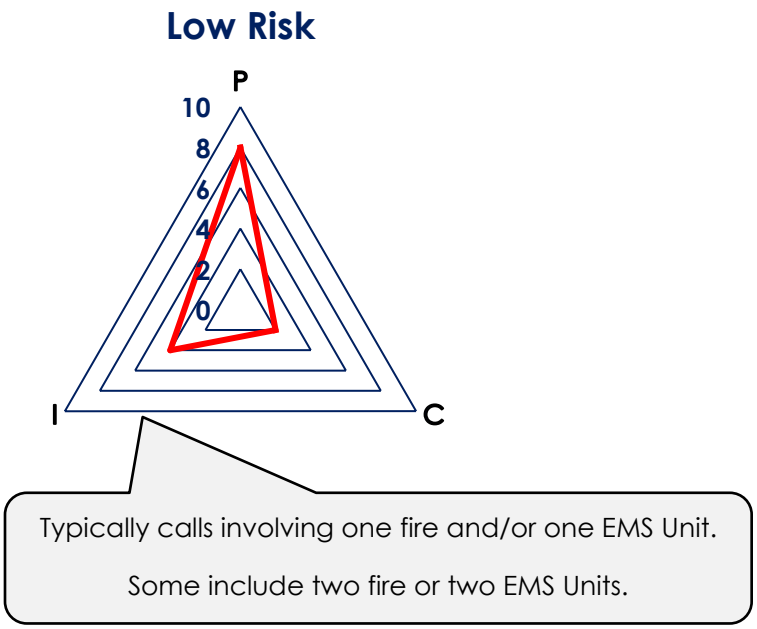
The following factors/hazards were identified and considered:

- **Demographic factors** such as age, socio-economic, vulnerability.
- **Natural hazards** such as flooding, snow and ice events, wind events, summer storms.
- **Manufactured hazards** such as transportation risks (road and rail) and target hazards.
- **Structural/building risks**.
- **Fire and EMS incident numbers and density**.
- **Resiliency.**

The assessment of each factor and hazard as listed below took into consideration the likelihood of the event, the impact on the city itself, and the impact on SHFD's ability to deliver emergency services, which includes CFD's resiliency and mutual aid capabilities as well. The list is not all-inclusive but includes categories that are most common or that may present to the city and the CFD.

Low Risk

- Automatic fire/false alarms.
- Low-acuity BLS EMS Incidents.
- Low-risk environmental event.
- Motor vehicle accident (MVA)-no entrapment, 1-2 patients, low hazards.
- Good intent/hazard/public service fire incidents with no life-safety exposure.
- Outside fires such as grass, rubbish, dumpster, vehicle with no structural/life-safety exposure.



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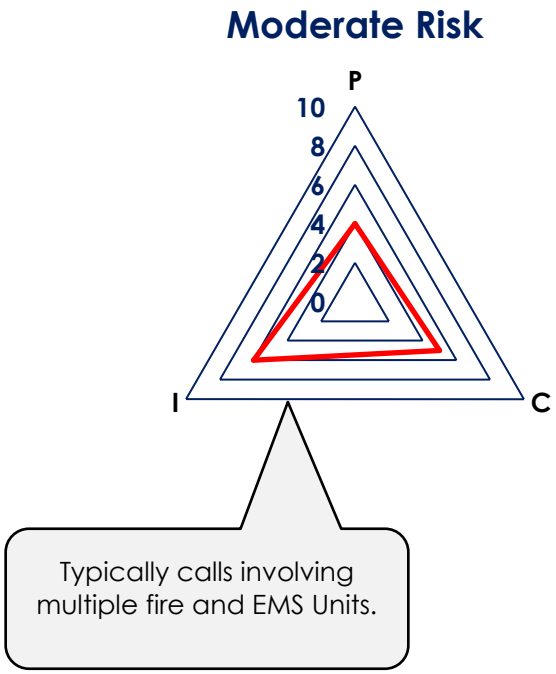
Moderate Risk

- Fire incidents in a single-family dwelling where fire and smoke or smoke is visible, indicating a working fire.
- Suspicious substance investigation involving multiple fire companies and law enforcement agencies.
- ALS EMS incident.
- MVA with entrapment of passengers.
- Grass/brush fire with structural endangerment/exposure.
- Low-angle rescue involving ropes and rope rescue equipment and resources.
- Surface water rescue.
- Good intent/hazard/public service fire incidents with life-safety exposure.
- Rail or road transportation event with no release of product or fire, and no threat to life safety.



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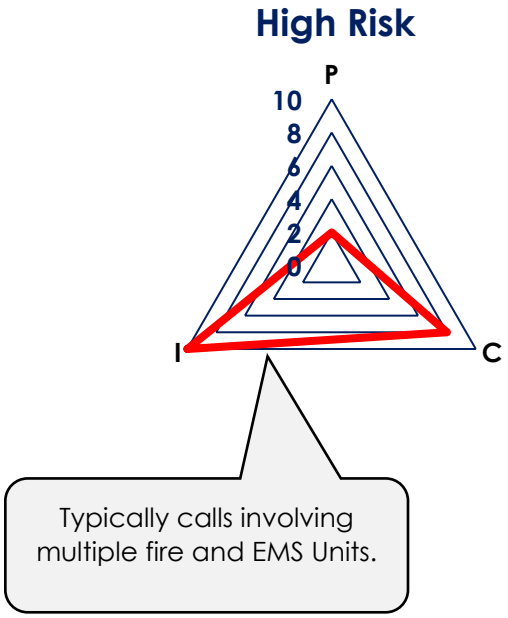
High Risk

- Working fire in a target hazard.
- Cardiac arrest.
- Ice Rescue.
- Mass casualty incident of more than 10 patients but fewer than 25 patients.
- Confined space rescue.
- Structural collapse involving life-safety exposure.
- High-angle rescue involving ropes and rope rescue equipment.
- Trench rescue.
- Suspicious substance incident with multiple injuries.
- Wildland fire burning through extensive acreage and threatening/consuming structures and property.
- Industrial leaks of hazardous materials that cause exposure to people or threatens life safety.
- Weather events that create widespread flooding, heavy snow or ice, heavy winds, building damage, and/or life-safety exposure.



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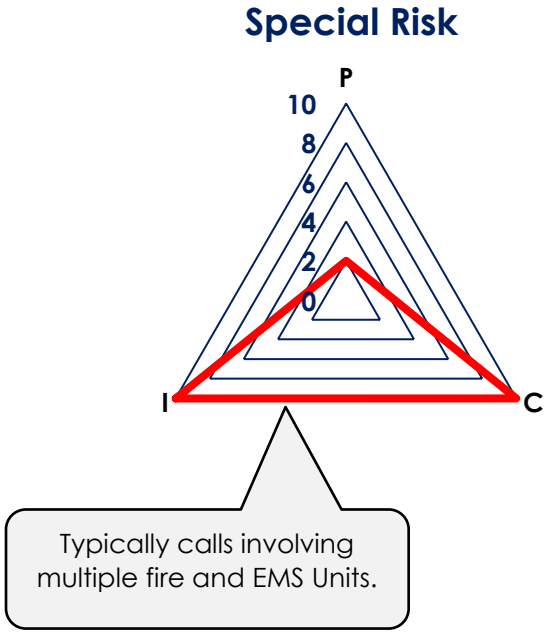
Special Risk

- Working fire in a structure of more than three floors.
- Fire at an industrial building or complex with hazardous materials.
- Fire in an occupied targeted hazard with special life-safety risks such as age, medical condition, or other identified vulnerabilities.
- Mass casualty incident of more than 25 patients.
- Transportation incident that causes life-safety exposure or threatens life safety through the release of hazardous smoke or materials and evacuation of residential and business occupancies.
- Explosion in a building that causes exposure to persons or threatens life safety or outside of a building that creates exposure to occupied buildings or threatens life safety.
- Massive estuary flooding, fire in an occupied public assembly or medical institution, high-impact environmental event, pandemic.
- Mass gathering with threat of fire and threat to life safety or other civil unrest, weapons of mass destruction release.



End of Section

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SECTION 3. FIRE SERVICES WORKLOAD AND DEMAND ANALYSIS

CFD Workload and Demand

An indication of the community's fire risk is the type and number of fire related, non-fire related, EMS, technical rescue, and hazard incidents the fire department responds to. Statistically, fires are more likely to occur in residential structures and are more likely due to human causes. Historical CPSM statistics tell us that EMS calls for service typically involve one patient whose symptoms are such that the capabilities of the initial arriving unit(s) can manage the call. A mass casualty incident may occur in Canandaigua or the surrounding area, and the impact on the city would likely be overwhelming, most likely triggering the need for extensive mutual aid.

Technical Rescue incidents in Canandaigua will typically involve vehicle extrication. Depending on building type and height, these incident types may also involve elevator emergencies. Due to routine infrastructure work (traffic and utility) and potential growth, there is also the potential for trench and/or structural collapse, and rope rescue (moderate risk). The city's industrial occupancies present the potential for various types of complex technical rescue incidents involving confined spaces and/or machinery. There are numerous potential occupancies, including agricultural operations that present similar risks. Finally, the lake presents numerous potential marine hazards and operation potential.

Hazardous Materials or hazard calls for service may include transportation accidents with leaks/spills/release of hazardous materials on roadways (moderate risk), or on the railroad (low risk). Canandaigua has multiple fixed sites that store/use hazardous materials. Should a significant incident occur, the CFD will require the response of regional specialized teams to assist with mitigating the hazard.

As with fire risks, an indication of the community's pre-hospital emergency medical risk is the type and number of EMS calls to which the fire department responds whether as the primary EMS service provider, or in a first responder or support role.

Based upon an analysis of data provided to CPSM from the Ontario County 9-1-1 Center's computer-aided dispatch (CAD) system, along with National Fire Incident Reporting System (NFIRS) records provided by the CFD, between January 1, 2024, and December 31, 2024, CFD responded to 2,460 incidents, an average of 6.7 per day. This includes 1,353 (55.0 percent) EMS/MVC related incidents, 981 (39.9 percent) fire incidents, and 54 mutual aid responses (2.2 percent). With the CFD responding with the Canandaigua Emergency Squad to incidents that meet advanced life support (ALS/ life threat) criterion, the 1,353 EMS related responses (55.0 percent) comprise the highest percentage of incidents to which the department responded. Of the total incidents:

- 58 were actual fires (5.9 percent of fire calls/2.3 percent of all calls).
- 38 were building fires (3.9 percent of fire incidents/1.5 percent of overall incidents).
- 150 were technical rescue incidents (15.3 percent of fire incidents/6.1 percent of overall incidents). **NOTE:** Most of these "incidents" were confined space entry standbys.

The following table and figures show the number of calls that the CFD responded to by call type, average calls per day, and the percentage of calls that fall into each call type category.

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Table 6: CFD Calls by Type, Calls Per Day, and Percentage of Calls – 2024

Call Type	Total Calls	Calls per Day	Percent Calls
Breathing difficulty	241	0.7	9.8
Cardiac and stroke	238	0.7	9.7
Fall and injury	133	0.4	5.4
Illness and other	338	0.9	13.7
MVA	144	0.4	5.9
Overdose and psychiatric	42	0.1	1.7
Seizure and unconsciousness	217	0.6	8.8
EMS Subtotal	**1,353**	**3.7**	**55.0**
False alarm	259	0.7	10.5
Good intent	86	0.2	3.5
Hazard	164	0.4	6.7
Outside fire	20	0.1	0.8
Public service	264	0.7	10.7
Structure fire	38	0.1	1.5
Technical rescue	150	0.4	6.1
Fire Subtotal	**981**	**2.7**	**39.9**
Canceled	72	0.2	2.9
Mutual aid*	54	0.1	2.2
Total	**2,460**	**6.7**	**100.0**

Note: *Calls outside the City or Town of Canandaigua were labeled mutual aid. Out of 54 mutual aid calls, 11 were canceled.

Table Analysis

The CFD responded to 6.7 calls per day in 2024.

EMS calls for the year totaled 1,353 (55.0 percent of all calls), an average of 3.7 calls per day.

Breathing difficulty calls made up 17.8 percent of EMS calls, and average of 0.7 calls per day: while cardiac and stroke calls also made-up 17.8 percent of EMS calls, an average of 0.7 calls per day.

Fire calls for the year totaled 981 (39.9 percent of all calls), an average of 2.7 calls per day..

Structure and outside calls combined made up 5.9 percent of fire calls, an average of 0.2 calls per day, or one call every seven days.

Structure fires for the year totaled 38 (3.9 percent of fire calls).

Figure 42: CFD Incidents by Type and Number - 2024

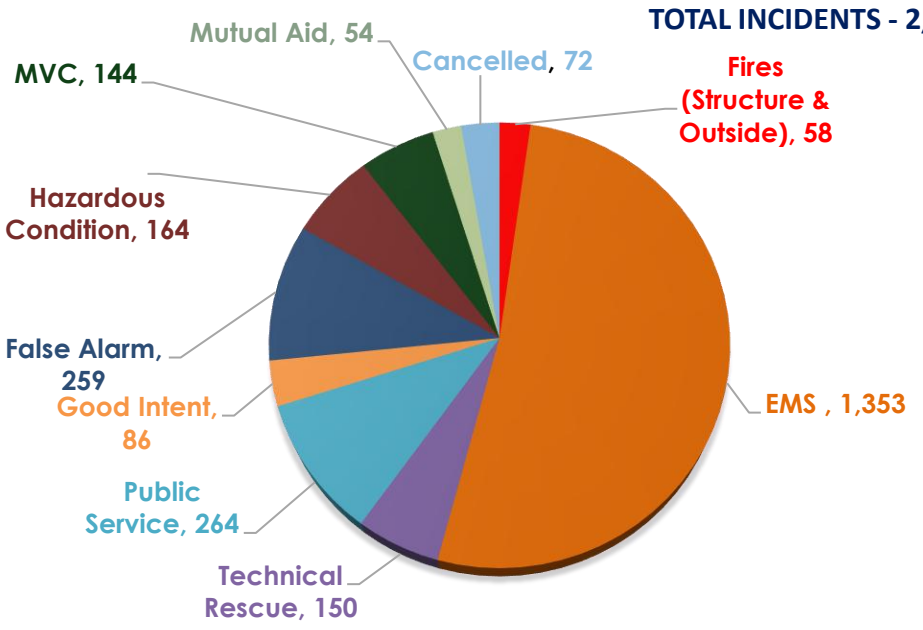

Figure 43: Total CFD Incidents by Type and Percentage - 2024

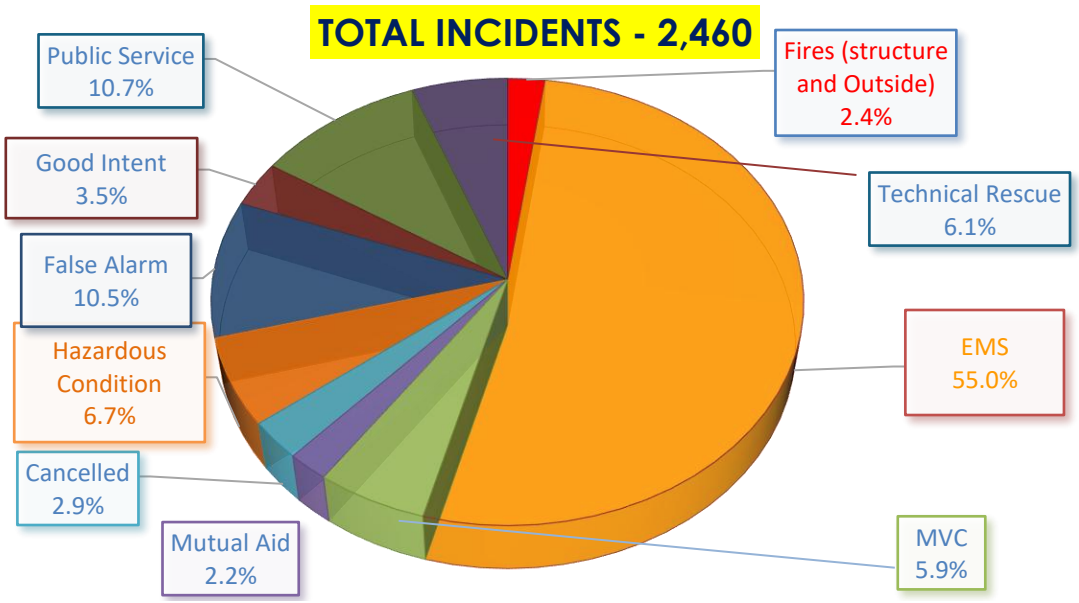

Figure 44: CFD EMS Calls by Type and Percentage - 2024

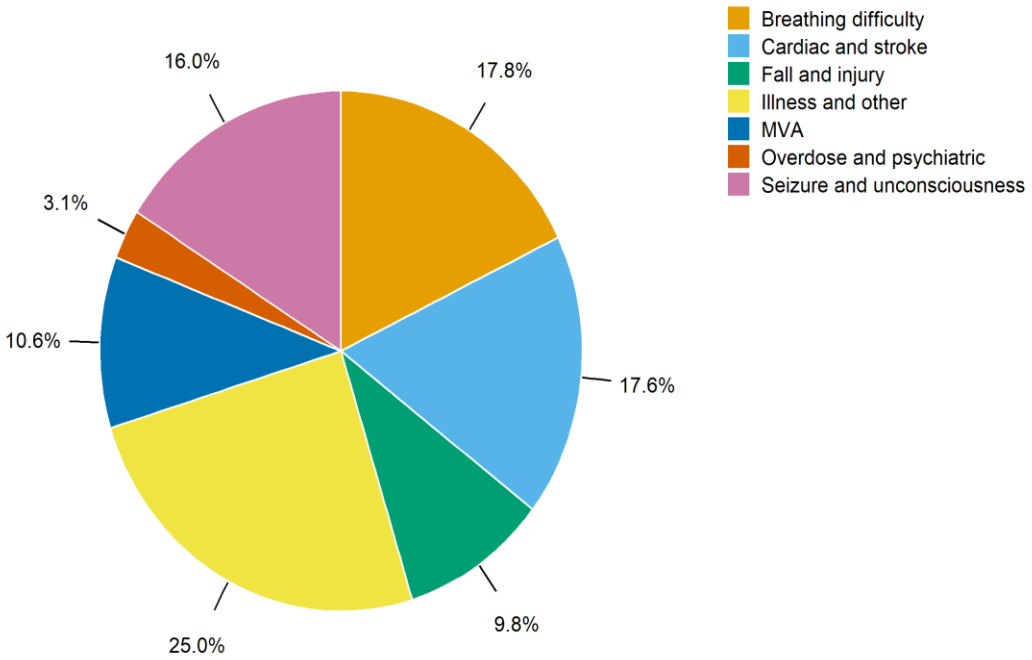

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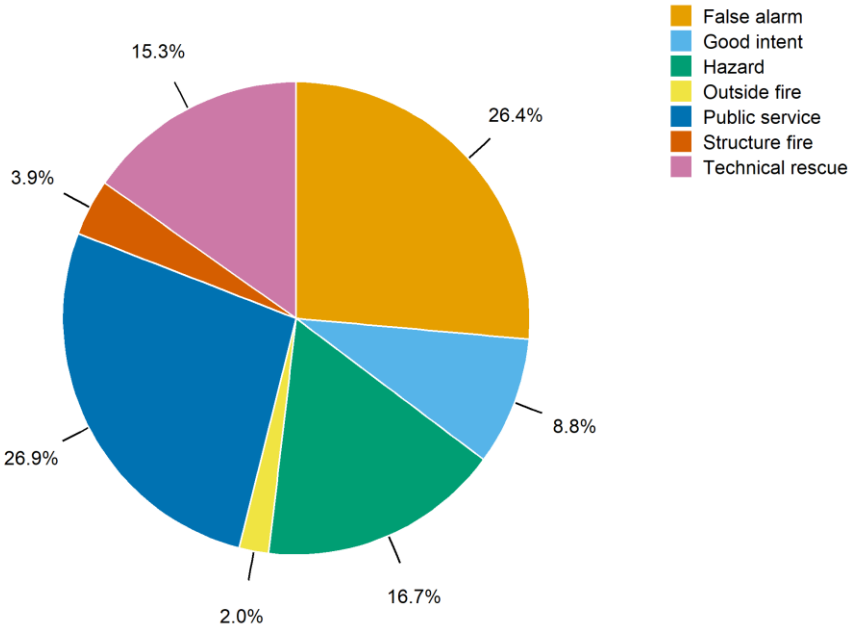
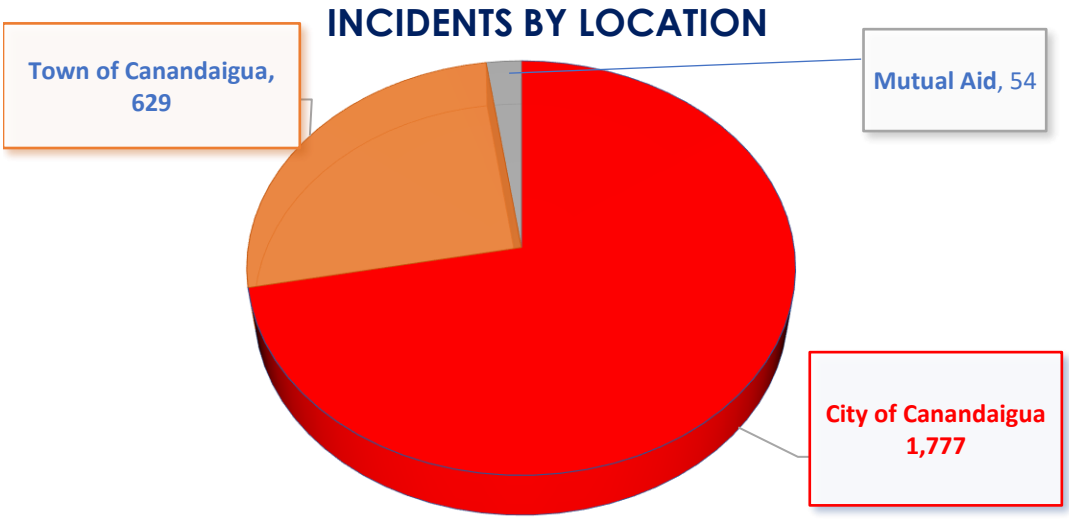
Figure 45: CFD Fire Calls by Type and Percentage - 2024



Between January 1, 2024, and December 31, 2024, the Canandaigua City Fire Department (CFD) responded to 2,460 calls, of which, 1,777 calls, 629 calls, and 54 calls occurred in the City of Canandaigua, the Town of Canandaigua, and other neighboring communities (for mutual aid), respectively.

The next figure shows the information on call types by location.

Figure 46: CFD Incidents by Location 2024



The next table breaks down the workload of the CFD by fire district where the calls occurred. In both the data report, and this report, CPSM analyzes calls and runs. A call is an emergency

service request or incident. A run is a dispatch of a unit (i.e., a unit responding to a call). Thus, a call may include multiple runs (every unit responding gets credit). **We use runs as an important data point because this illustrates the true workload of Fire and EMS agencies.**

Table 7: Annual Workload by Location

Location	Calls	Percent Calls	Runs	Runs Per Day	Minutes Per Run	Annual Hours	Percent Work	Minutes Per Day
Canandaigua City	1,777	72.3	2,454	6.7	41.5	1,696.5	74.2	278.1
Canandaigua Town	629	25.6	929	2.5	31.8	491.6	21.5	80.6
CFD Area Subtotal	**2,406**	**97.9**	**3,383**	**9.2**	**38.8**	**2,188.1**	**95.7**	**358.7**
Bristol Fire	3	0.1	5	0.0	179.5	15.0	0.7	2.5
Cheshire Fire	2	0.1	3	0.0	83.2	4.2	0.2	0.7
Clifton Springs Fire	1	0.0	2	0.0	118.8	4.0	0.2	0.6
Crystal Beach Fire	9	0.4	14	0.0	30.0	7.0	0.3	1.1
Farmington Fire	25	1.0	50	0.1	53.5	44.6	2.0	7.3
Hopewell Fire	7	0.3	12	0.0	71.6	14.3	0.6	2.4
Middlesex Fire	1	0.0	1	0.0	82.0	1.4	0.1	0.2
Naples Fire	3	0.1	4	0.0	105.3	7.0	0.3	1.2
VAMC Fire	2	0.1	3	0.0	4.9	0.2	0.0	0.0
White Spring Fire	1	0.0	1	0.0	3.8	0.1	0.0	0.0
Mutual Aid Area Subtotal	**54**	**2.2**	**95**	**0.3**	**61.7**	**97.7**	**4.3**	**16.0**
Total	**2,460**	**100.0**	**3,478**	**9.5**	**39.4**	**2,285.8**	**100.0**	**374.7**

The information in these tables tells us:

- The CFD responded to 54 mutual aid calls (2.3% of all calls) and there was a total of 95 runs (more than 1 unit responding on the call). This includes16 runs for canceled calls.
- Mutual aid calls averaged 61.7 minutes in duration and accounted for 4.3% of CFD workload.

The following table provides further detail on the workload associated with structure and outside fire calls, also broken down by fire district. This table includes structure fires in Canandaigua as well that would have generated an automatic aid response.

Table 8: Structure and Outside Fire Runs and Workload by Location

Location	Structure Fire		Outside Fire		Deployed Hours	Percent Work
	Runs	Minutes per Run	Runs	Minutes per Run		
Canandaigua City	57	76.0	13	27.8	78.3	44.9
Canandaigua Town	32	51.8	28	57.6	54.5	31.6
CFD Area Subtotal	**89**	**67.3**	**41**	**48.1**	**132.8**	**76.6**
Bristol Fire	4	188.0	0	NA	12.5	7.2
Cheshire Fire	2	124.0	0	NA	4.1	2.4
Farmington Fire	16	89.4	0	NA	23.8	13.8
Mutual Aid Area Subtotal	**22**	**110.5**	**0**	**NA**	**40.5**	**23.4**
Total	**111**	**75.9**	**41**	**48.1**	**173.3**	**100.0**

Overall, the data analysis tells us that by location:

City of Canandaigua

There were 2,454 runs (68 runs for canceled calls) or 6.7 runs per day.

The total deployed time was 1,696.5 hours or 278.1 minutes per day for all units combined.

Town of Canandaigua

There were 929 runs (40 runs for canceled calls) or 2.5 runs per day.

The total deployed time was 491.6 hours or 80.6 minutes per day for all units combined.

Automatic and Mutual Aid

There were 95 runs (16 runs for canceled calls) or 0.3 runs per day.

The total deployed time was 97.7 hours or 16.0 minutes per day for all units combined.

It is useful to look at geographic demand for fire and EMS operations particularly with regard to response time analysis and future planning. Additionally, understanding population density and its relationship to demand is important, particularly when considering how to close response gaps in higher demand areas and in the planning future or long-term deployment strategies. Higher population centers will typically have increased demand and will require increased fire and EMS resources. ***Density corresponds with demand.***

The following figures illustrate the location of fire and EMS related calls, and the density of those calls throughout the CFD response district.

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Figure 47: Fire Related Call Demand

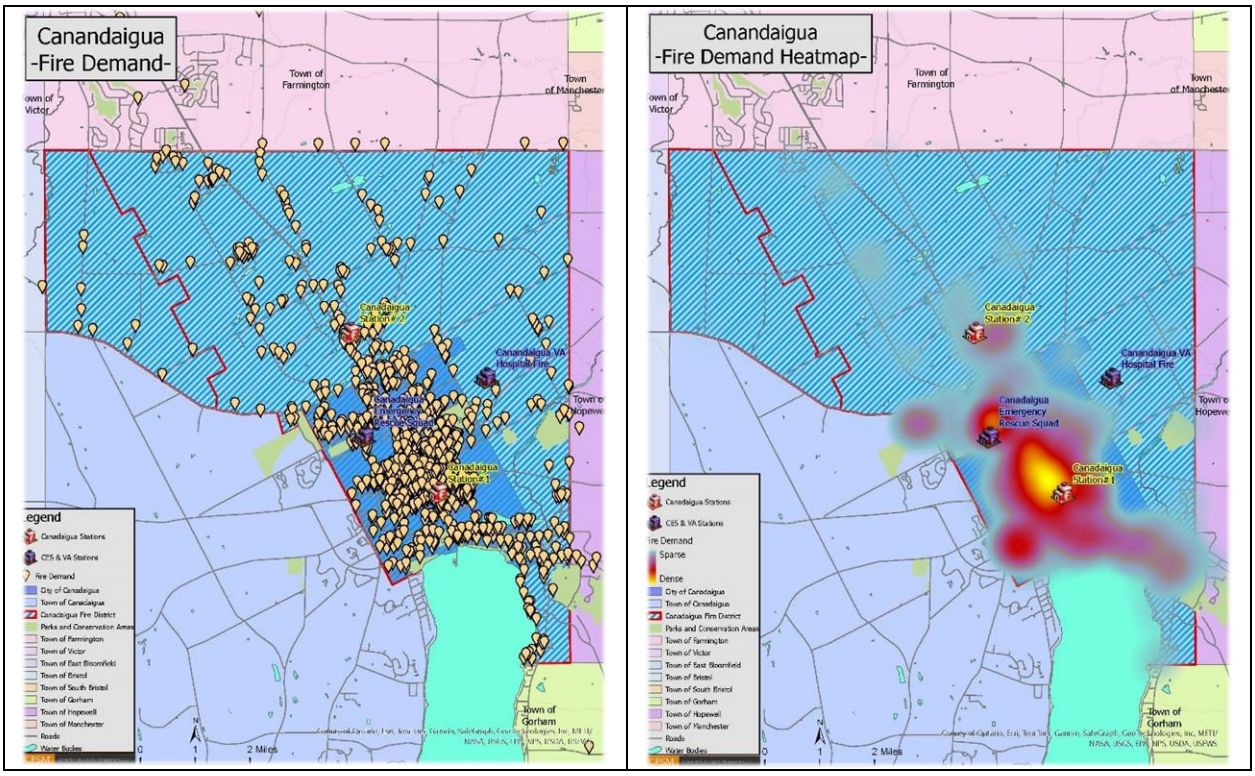
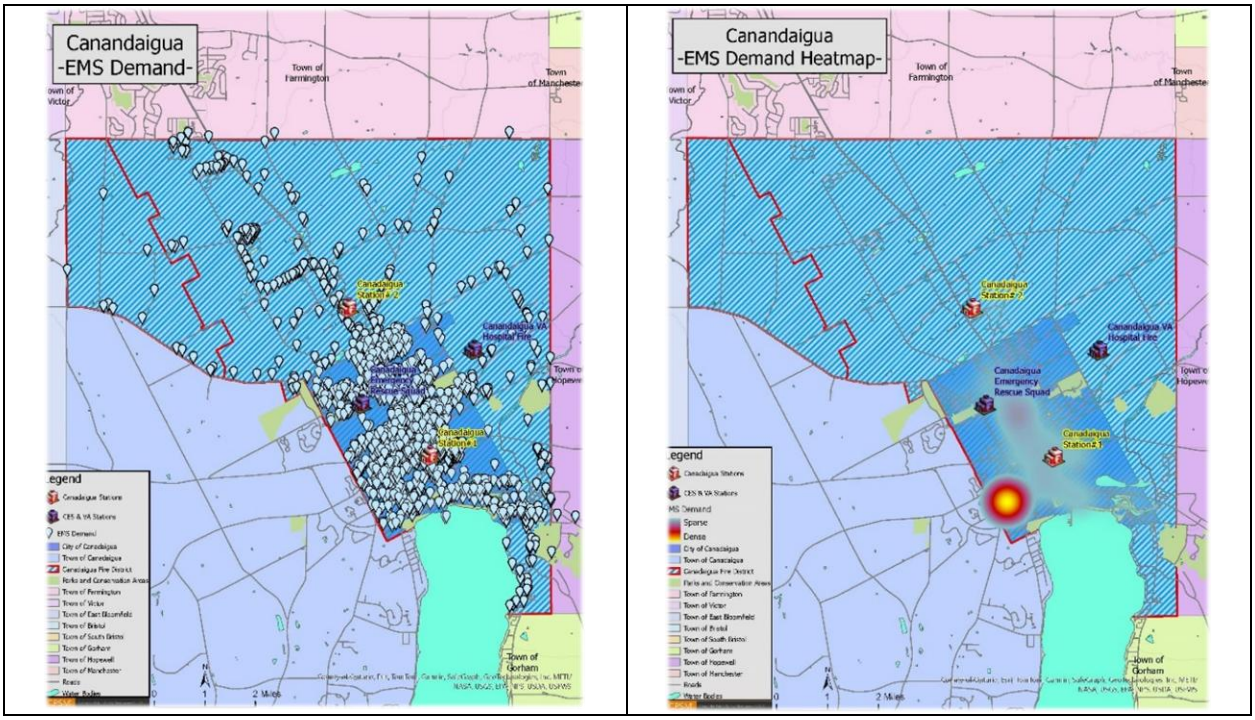


Figure 48: EMS Call Demand



Demand in the maps above primarily coincides with density of local streets and population.

At the current time, fire demand in the CFD response area is mostly concentrated in the city itself with the greatest concentration in the downtown area. This is largely due to the population density in the city. There are pockets of heavier activity in the areas of the town southeast of the city, northwest of the city, and north, in the vicinity of Fire Station 2. These areas correspond to the areas in the town where there is significant commercial development. With a major mixed use development planned for the area near Fire Station 2 call volume can be expected to continue to increase in this area.

For EMS demand, the densest call demand is in the southwestern quadrant of the city where there is heavy demand. This is due to a concentration of medical offices, assisted living, group homes, and other related occupancies in this area of the City. Demand is also heavier in the down town area, again, most likely due to the population density.

Looking ahead, current, and planned development and densification, particularly in the areas of the town north of the city, will almost certainly increase future demand for fire and EMS services while maintaining appropriate response times.

The following tables show the number of total calls, and structure fire calls responded to by CFD from 2022 to 2024. The figure illustrates the trend line in overall calls.

Table 9: Calls by Type and Year: 2022-2024

Call Type	Calendar Year		
	2022	2023	2024
Breathing difficulty	238	263	241
Cardiac and stroke	258	237	238
Fall and injury	141	151	133
Illness and other	282	348	338
MVA	120	119	144
Overdose and psychiatric	71	46	42
Seizure and unconsciousness	171	214	217
EMS Subtotal	**1,281**	**1,378**	**1,353**
False alarm	249	254	259
Good intent	56	45	86
Hazard	130	144	164
Outside fire	29	21	20
Public service	251	303*	264
Structure fire	56	27	38
Technical rescue	57	85	150
Fire Subtotal	**828**	**969**	**981**
Canceled	79	90	72
Mutual aid	53	37	54
Total*	**2,241**	**2,474**	**2,460**

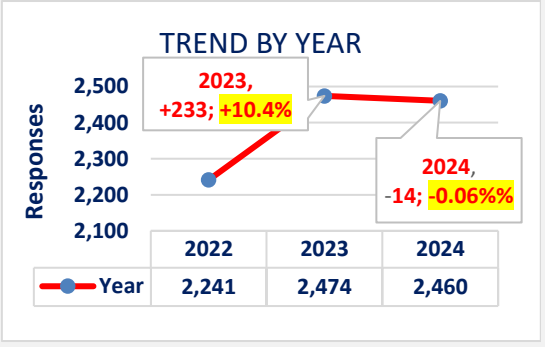
Note: Includes 102 service calls in 2023 that had no unit response history.

Table 10: Structure Fire Calls by Year: 2022-2024

Call Type	Calendar Year		
	2022	2023	2024
Building fire*	21	7	15
Other structure fire	35	20	23
Structure Fire Total	**56**	**27**	**38**

Note: *NFIRS incident type 111.

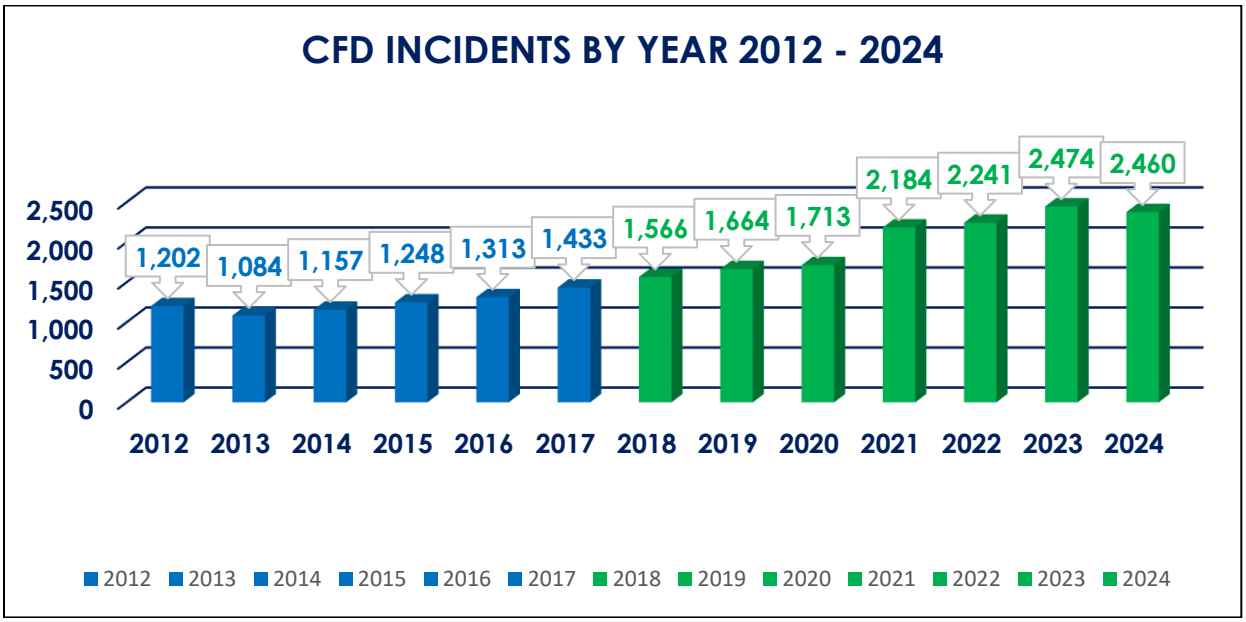
Figure 49: CFD Response Trend: 2022-2024



From 2012 to 2024 CFD incidents increased **104.7%** (in 2023 with 2,474 calls, the incidents had increased by 105.8%). From CPSM's previous study in 2018, the number of incidents has increased by **57.1%.** The largest one-year increase occurred from 2020 to 2021 when the year

over year incidents increased by 27.5%. The following figure illustrates this trend in incident responses.

Figure 50: CFD Incident Trend 2012 - 2024



Source: CFD records and annual reports.

The completion of a comprehensive data analysis was not part of the scope of CPSM's 2018 study and report. However, our data team did an analysis of the call increases utilizing historical CFD annual reports and more recently the three-year trend. Their analysis indicates the following: In 2017, the CFD responded to 686 medical related calls. In 2024 they responded to 1,353, an increase of 667, or 97.2%. Most emergency services providers experience about a 3% to 5% increase in call volume annually much of which is EMS related. Of those increased EMS calls 363 were in the town. In 2017 the CFD did not normally respond to EMS calls in the town, but they do now utilizing the same criterion as to call severity as they do in the City. In addition, it appears that fire related responses in the town increased from 92 in 2016 to 266, an increase of 174, or 189%.

The more recent three-year trend analysis as part of this study does not indicate any discernable trend in call volume. The number of calls increased 10.4% between 2022 and 2023, then decreased by 0.06% from 2023 to 2024. There were increases each year in the number of MVAs,. Hazard Calls, Good Intent and Technical Rescue, with the later two showing the largest increases. Overall, the 667 additional EMS calls since 2017 along with 174 additional non-EMS related fire calls in the Town adds up to 841 additional calls.

CFD Resilience and Reliability

Resiliency as defined "*An organization's ability to quickly recover from an incident or events, or to adjust easily to changing needs or requirements*."[45] Greater resiliency can be achieved by constant review and analysis of the response system and focuses on three key components:

45. The Center for Public Safety Excellence (CPSE) in the Fire and Emergency Service Self-Assessment Manual (FESSAM), Ninth Edition.

- Resistance: The ability to deploy only resources necessary to control an incident and bring it to termination safely and effectively.
- Absorption: The ability of the agency to quickly add or duplicate resources necessary to maintain service levels during heavy call volume or incidents of high resource demand.
- Restoration: The agency's ability to quickly return to a state of normalcy.

Resistance is controlled by the CFD through staffing and response protocol, and with CFD resources dependent on the level of staffing and units available at the time of the alarm.

Absorption is accomplished through availability to respond by CFD units and through regional automatic and mutual aid resources.

Restoration is managed by the district's availability as simultaneous calls occur, the availability of regional automatic and mutual aid resources, recall of personnel to staff fire units during major events when warranted, and backfilling the district's station as needed.

The following tables analyze CFD resiliency. In this analysis, CPSM included all of the 2,460 calls responded to by the CFD between January 1, 2024, and December 31, 2024.CPSM included all calls that occurred inside and outside Canandaigua (to include cancelled calls). We did this because responses outside of the city and canceled calls impact on the resilience of the department to respond to calls.

For these calls, there is significant variability in the number of calls from hour to hour. One special concern relates to the resources available for hours with the heaviest workload. Data was tabulated for each of the 8,784 hours in the year.

The first resiliency measure we look at is the frequency distribution of calls, or how many calls occur in an hour. The next table tells us that for the CFD, 77.1 percent of the time there are no calls in an hour; 18.8 percent of the time there is one call in an hour; and 4.1 percent of the time there are two or more calls in an hour.

Table 11: Frequency Distribution of the Number of Calls

Calls in an Hour	Frequency	Percentage
0	6,771	77.1
1	1,648	18.8
2	302	3.4
3+	63	0.07
Total	**8,784**	**100.0**

For 63 hours (0.07 percent of all hours), three or more calls occurred; in other words, CFD responded to three or more calls in an hour a little less than once every seven days.

The next table shows the workload of fire responses by number of units arriving at these incident types during the year studied. This table only includes calls where a unit from the CFD arrived. In this section, we limit ourselves to calls where an CFD unit arrives.

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Table 12: Calls by Call Type and Number of Arriving CFD Units

Call Type	Number of Units			Total Calls
	One	Two	Three or more	
Breathing difficulty	229	6	1	236
Cardiac and stroke	209	23	5	237
Fall and injury	113	13	1	127
Illness and other	305	13	0	318
MVA	46	72	19	137
Overdose and psychiatric	32	9	0	41
Seizure and unconsciousness	185	25	1	211
EMS Subtotal	**1,119**	**161**	**27**	**1,307**
False alarm	112	110	28	250
Good intent	41	24	7	72
Hazard	70	61	18	149
Outside fire	6	10	2	18
Public service	144	29	3	176
Structure fire	7	23	7	37
Technical rescue	36	13	0	49
Fire Subtotal	**416**	**270**	**65**	**751**
Canceled	22	9	0	31
Mutual aid	14	24	1	39
Total	**1,571**	**464**	**93**	**2,128**
Total Percentage	**73.8**	**21.8**	**4.4**	**100.0**

One unit arrived at 73.8 percent of all calls.

Two units arrived at 21.8 percent of all calls.

Three or more units arrived at 4.4 percent of all calls.

CPSM assesses overall, the CFD has good resistance built into the response matrix which allows for good absorption.

Note: Out of 2,460 total calls, 332 calls did not have an arriving unit, including 41 canceled calls, 46 EMS calls, 230 fire-related calls, and 15 mutual aid calls.

If staffing recommendations contained in this report are implemented, the resistance and absorption rates should be more favorable as the number of incidents to which two and three units respond should decrease with the units staffed more appropriately.

Table 13: Frequency of Overlapping Calls

Scenario	Number of Calls	Percent of Calls	Total Hours
No overlapped call	1,860	75.6	1,246.5
Overlapped with one call	463	18.8	180.9
Overlapped with two calls	104	4.2	28.8
Overlapped with three calls	26	1.1	5.7
Overlapped with four calls	3	0.1	1.0
Overlapped with five calls	4	0.2	0.3

- 75.6 percent of the time there are no overlapped calls.
- 18.8 percent of the time there is one overlapped call.
- 4.8 percent of the time there are two or more overlapped calls.

Overall, nearly one in four calls (24.4%) overlaps with at least one other call.

This allows for only fair restoration of resources and suggests that the CFD needs to continually staff a minimum of two resources 24/7.

The next table looks at the duration of calls, a measure that contributes to overlapping calls by the CFD, particularly those that last one or more hours.

Table 14: Calls by Type and Duration

Call Type	Less than 30 Minutes	30 Minutes to One Hour	One to Two Hours	Two or More Hours	Total
Breathing difficulty	172	61	7	1	241
Cardiac and stroke	172	55	10	1	238
Fall and injury	99	29	5	0	133
Illness and other	238	87	13	0	338
MVA	77	45	20	2	144
Overdose and psychiatric	28	10	4	0	42
Seizure and unconsciousness	149	61	6	1	217
EMS Subtotal	**935**	**348**	**65**	**5**	**1,353**
False alarm	190	58	11	0	259
Good intent	57	23	6	0	86
Hazard	88	54	13	9	164
Outside fire	10	7	1	2	20
Public service	184	52	18	10	264
Structure fire	16	14	5	3	38
Technical rescue	30	15	17	88	150
Fire Subtotal	**575**	**223**	**71**	**112**	**981**
Canceled	72	0	0	0	72
Mutual aid	20	13	12	9	54
Total	**1,602**	**584**	**148**	**126**	**2,460**
Total Percentage	**65.1**	**23.7**	**6.0**	**5.1**	**100.0**

Regarding the table above:

- 65.1 percent of all calls were managed in 30 minutes or less.
- 23.7 percent of all calls were managed in 30 minutes to one hour.
- 6.0 percent of all calls were managed in one to two hours.
- 5.1 percent of all calls were managed in two or more hours.

88.8% of all calls are managed in ≤ 1 hour.

This builds fairly good absorption and restoration into the response system.

CPSM assesses that overall, the CFD currently has relatively good resiliency issues in terms of workload. Limited staffing notwithstanding, the department has good resiliency when analyzing the overall ability to respond to calls in the city and their response area in the town.
The overall frequency of concurrent calls is moderate as 22.4% percent of the time. This is due to a sensible response matrix (built in resistance) that is partially offset by an increasing call volume, and the need to send two understaffed units on incidents that could be adequately managed by a single unit with better staffing. However, managing 89.0% of all calls in one hour or less is a positive, which does provide a decent level of built-in restoration and absorption. As with most smaller departments that operate with minimal staffing levels, CFD's ability to absorb multiple calls and restore response capabilities to a state of normalcy can be challenging at certain times such as during working structural fires, multi-company responses (runs, and times of high response activity.

End of Section
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SECTION 4. CANANDAIGUA FIRE DEPARTMENT

Department Overview

The Canandaigua Fire Department (CFD) is a municipal department of the City of Canandaigua government. It is a full-service fire and emergency services organization which serves both the City of Canandaigua and northern, eastern, and southeastern portions of the adjacent Town of Canandaigua along with the eastern shore of Canandaigua Lake (Next figure). The CFD serves a total population of about 20,000 within an area of approximately 36 square miles which includes approximately 31 square miles in the Town. Fire protection for the Town is done through an interlocal agreement between the two municipalities that has been in place since the Town created the Canandaigua Fire Protection District. The current agreement covers the years 2023 through 2025. In 2025, the Town of Canandaigua is compensating the City $1,100,000 for providing this service.

The CFD staffs two fire stations 24 hours a day, 7 days a week, with four personnel on duty each day, two at each station. The department's apparatus includes two engines, two ladder trucks, a light rescue truck, a marine fire boat, and two squad units.

Station 1, which also serves as the department's administrative headquarters, is located at 335 South Main St. in downtown Canandaigua. Tower Ladder 281 (staffed), Quint 282 (reserve) Special Ops Squad 261 (not regularly staffed), Utility 263 (special ops unit - not regularly staffed) and the confined space/technical rescue trailer are housed there. In addition, Squad 262 is used by Fire Prevention for performing inspections during business hours. The Fire Chief also responds from this station.

Station 2 is located at 5298 Parkside Dr., in the Town of Canandaigua. This station is owned by the Town and leased to the City for $1.00 per year. The equipment and personnel are provided by the City through the aforementioned contract with the Town. Engine 211 (staffed) and Engine 212 (reserve) are normally deployed from this station.

CFD personnel perform a range of emergency responses and calls for assistance. In addition to fire incidents, personnel also respond to potential life-threatening emergency medical responses and provides mutual aid to neighboring departments and jurisdictions. The CFD also has personnel trained to manage complex technical rescues. The department functions as the Ontario County confined space rescue team and is the deployment point for the confined space/technical rescue trailer. Some personnel are also certified as hazardous materials technicians and specialists and participate in a multicounty hazardous materials response team that serves Ontario, Seneca, and Yates counties.

The CFD has established a mission statement. When truly accurate, the mission statement should provide the very foundation for the organization, its operations, and why it exists. The mission statement should be providing that broad direction that everything else that the organization does is going to be built upon. The CFD Mission Statement is illustrated below.

Mission Statement

The City of Canandaigua Fire Department is dedicated to providing quality, timely, and professional fire and emergency services to those who live in, work in, and visit the City and Town of Canandaigua as well as the surrounding communities.

The CFD has 21 staff members, including 20 full-time and one part-time personnel. This includes a total of 20 full-time firefighters (including the Fire Chief). This is double the number of personnel that the city employed (10) during CPSM's previous study in 2018. ***Working in partnership with the Town, the City should be commended for taking the steps necessary to increase their staffing.***

The department's career personnel work a rotating four-platoon system comprised of 24 hours on duty followed by 72 hours off duty. This averages out to a 42-hour work week. Because NY law and the current collective bargaining agreement specify a 40-hour work week, personnel are paid overtime for hours worked above this number. Some variation of the four-platoon work schedule is most common for fire departments located in the northeastern part of the United States, even in smaller communities such as Canandaigua. In most of these states, the four platoon, 42-hour work week has been established through the collective bargaining process and is subject to negotiation. However, as of January 1, 1974, New York Consolidated Law Service, Unconsolidated Laws, Chapter 143-A, § 2 (NY CLS Unconsol, CH. 143-A, § 2) Maximum Hours of labor of certain municipal and fire district firemen states that "…no fireman shall be required to work more than an average of forty hours per week[46],…". This leaves the city with few options for fire department shift scheduling including the ability to shift to the more common three-platoon, 56-hour work week schedule utilized in many regions of the county.

The Fire Chief works a regular Monday to Friday daytime work schedule. All the career personnel except for the Fire Chief are represented by Local 2098 of the International Association of Firefighters.

At the time of our 2018 study, the CFD also had five part-time interior qualified firefighters, and seven volunteer members, four of whom are qualified interior firefighters. All the full- and part-time personnel are covered under the provisions of New York State Civil Service. Since that time, the part-time personnel have all left the department for various reasons so that resource is no longer available.

While they were considered to be part of the overall Canandaigua Fire Department, the volunteer firefighters were primarily considered to be members of the city's two remaining volunteer fire companies; Erina Hose Company and Merrill Hose Volunteer Fire Company A third volunteer fire company, Hook and Ladder Company, was long ago disbanded by the State of New York.

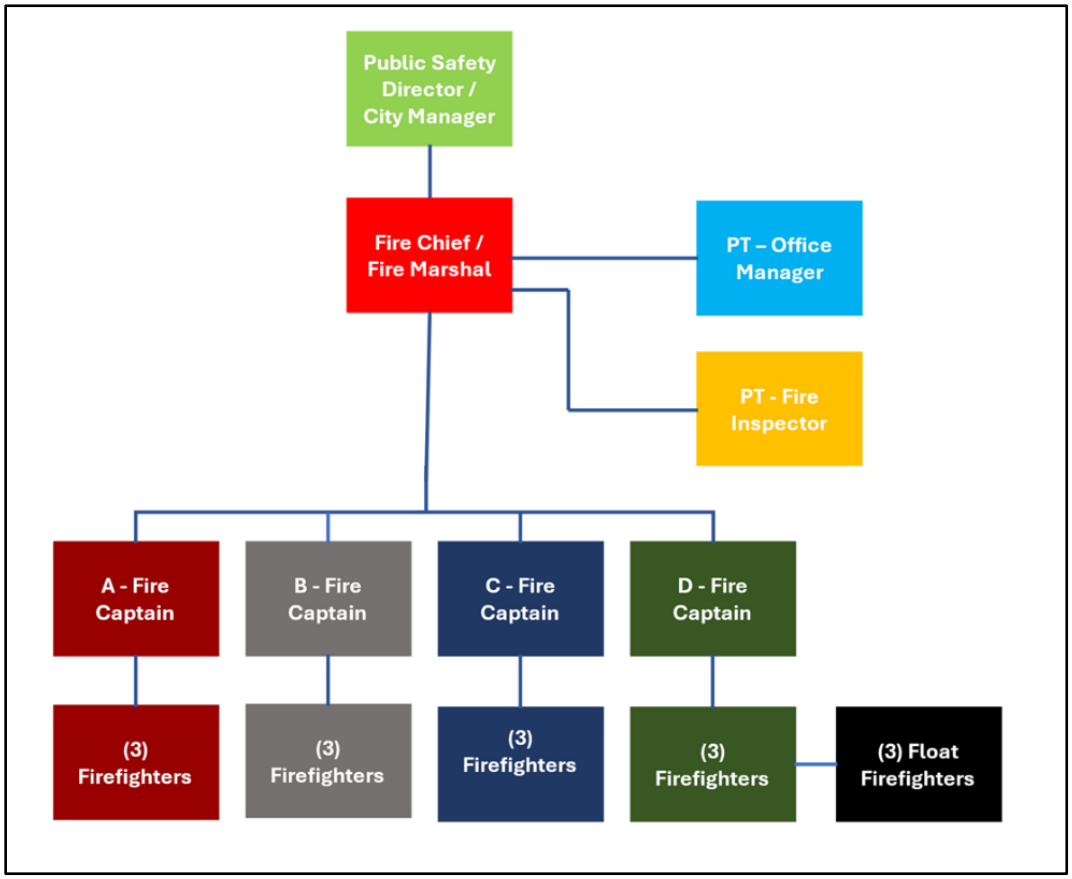
Since the 2018 study, all of the volunteer firefighters have also left active status effectively ending the CFD's status as a combination fire department. The six personnel from Erina Hose were either unable to continue to serve due to age and/or failed to complete the required training. The single remaining member of Merrill Hose, who served in a Fire Police capacity, passed away.

46. It should be noted the 40-hour work week is the normal "scheduled" hours. Various types of leave (sick, personal, vacation) do not count toward this calculation and can effectively further reduce the average number of hours worked.

From a practical perspective, Merrill Hose has been considered to be defunct for many years. In February 2025, the President of Erina Hose sent the Fire Chief a letter announcing their intent to transition the company from an active volunteer company to a support organization. In his letter the president states, "*At the end of the day, our priority is to advocate for the best service model for our community. Reliance of volunteers to augment our career firefighters to protect our community is an abdication of our public safety responsibilities.*" He further states, "*Without any active volunteers turning out, we believe consideration of CFD as a combination department is inaccurate and irresponsible.*"

The next figure illustrates the current organizational chart of the CFD.

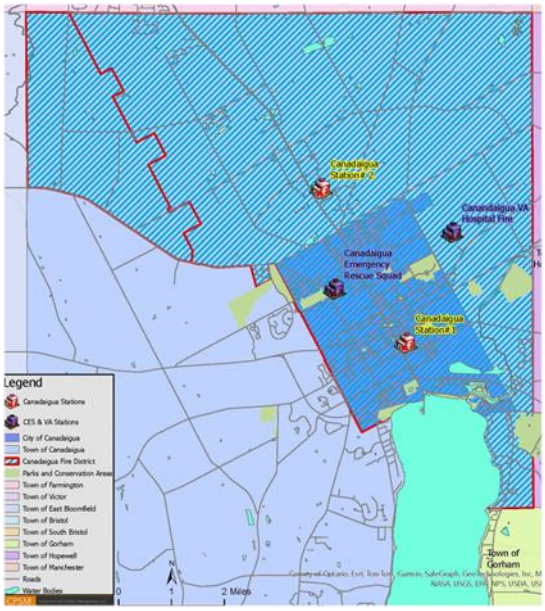
Figure 51: City of Canandaigua Fire Department Organizational Structure - 2025



Service Area

The CFD service area incorporates both the City of Canandaigua, as well as a large portion of the Town of Canandaigua. The city itself is very urban in nature with many of the same challenges that face other similar fire departments. The southern portion of the City includes parts of Canandaigua Lake.

The part of the Town that is protected by the CFD includes the areas northwest, north, northeast, east and southeast of the city. These areas of the Town are suburban in nature close to the City, but transition to a more rural character the farther away from the city border. As the City has limited areas still available for development, particularly larger scale projects, much of the future growth in the area is projected to occur in the Town, in the areas adjacent to the City.



On the map to the left (as well as maps throughout this report), the diagonal line in the northwest corner of the fire protection district (upper left corner) is the line that previously delineated the dividing line between the area of the Town that was protected by the East Bloomfield-Holcomb Fire Department and the CFD. After CPSM's 2018 assessment the area west of that line was reassigned to the CFD.

The CFD also responds to several other surrounding towns on automatic aid for certain incidents, primarily reported structure fires. While supporting data or documentation was not readily available, CPSM was informed that in many cases on these incidents that the CFD is the first fire department unit(s) on scene and often put first water on the fire. In a few cases the CFD has extinguished the fire prior to the arrival of other closer fire departments.

Mutual Aid

Mutual aid (MA) is an essential component of almost every fire department's operation. Except for the largest cities, no municipal fire department can, or should, be expected to have adequate resources to respond to and safely, effectively, and efficiently mitigate large-scale and complex incidents. Mutual aid is shared between communities when their day-to-day operational fire, rescue, and EMS capabilities have been exceeded, and this ensures that the citizens of the communities are protected even when local resources are overwhelmed.

Automatic aid (AA) is an extension of mutual aid, where the resources from adjacent communities are dispatched to respond at the same time as the units from the jurisdiction in which the incident is occurring. There are two basic principles for automatic aid, the first being that all jurisdictional boundaries are essentially erased, which allows for the closest, most-appropriate unit to respond to an incident, regardless of which jurisdiction it belongs to. The second is to provide, immediately and at the time of initial dispatch, additional personnel or resources that may be needed to mitigate the reported incident.

Automatic and mutual aid are generally provided without charge among the participants. Over the years, automatic and mutual aid programs have been developed and refined and are now widely used in the U.S. fire service to augment services and reduce response times.

For AA and MA to be successful, participating agencies must train frequently together and help each other with training shortfalls, specialized or specific training specific to the community. Likewise, successful MA and AA programs are recognized by the Insurance Service Office (ISO) in terms of weight of response (staffing and equipment) and water supplies (fire flow).

The CFD participates in a robust automatic/mutual aid system throughout Ontario County. The city has loose (verbal) mutual aid agreements with all their surrounding fire department neighbors, and the county has an overall mutual aid plan.
The following are the departments that provide mutual aid into Canandaigua for major incidents. The city also reciprocates to many of them.

Figure 52: CFD Automatic/Mutual Aid Partners

Bristol Fire Department 4350 Rt. 64 Canandaigua	**Farmington Fire Department** 1225 Hook Rd. Farmington
Cheshire Fire Department 4255 Rt. 21 South Canandaigua	**Hopewell Fire Department** 3393 CR 4 Canandaigua
Crystal Beach Fire Department 4468 Rt. 364 Canandaigua	**Shortsville Fire Department** 5 Sheldon St. Shortsville
E. Bloomfield Fire Department 105 Main St. E. Bloomfield	**Veterans Affairs Hospital Fire Department *** 400 Fort Hill Ave. Canandaigua

With the exception of the VA hospital, all these departments are fully volunteer and are faced with the same challenges most of those types of organizations are, fielding an adequate number of properly trained and qualified personnel to respond to all requests for assistance.

The Canandaigua Veteran's Affairs (VA) Hospital Fire Department is located on the City/Town border and has its own full-time career fire department that is comprised of a total of 12 personnel. Although staffing can at times be as high as five or six personnel, minimum (and normal) staffing is four personnel on duty 24/7. The VA fire department operates one engine and a reserve ambulance. In addition to their firefighting duties the fire personnel perform emergency maintenance functions in the hospital after normal working hours. They have also recently started doing EMS ambulance transport as their staffing permits.

The VA fire department relies on the city for response to any confirmed fire, and for a ladder to access the multi-floor buildings located on the campus. The city also supports the VA for any type of technical rescue incidents. In return, the VA fire department responds automatically to any confirmed fire in the city. They will normally staff their engine with three personnel for incidents in the city. However, because of the number of other duties and responsibilities they have within their own facility, and the 2,300 calls per year they manage themselves, the VA fire department may not always be available for immediate response. However, this can be true of any emergency services resource. When they are available, the VA is an important resource in the establishment of an initial Effective Response Force (ERF) for fires in the city. However, it was stressed to CPSM that the VA is happy to provide assistance at any time the CFD needs it; however, they should not be used to supplement personnel needs in the municipal department.

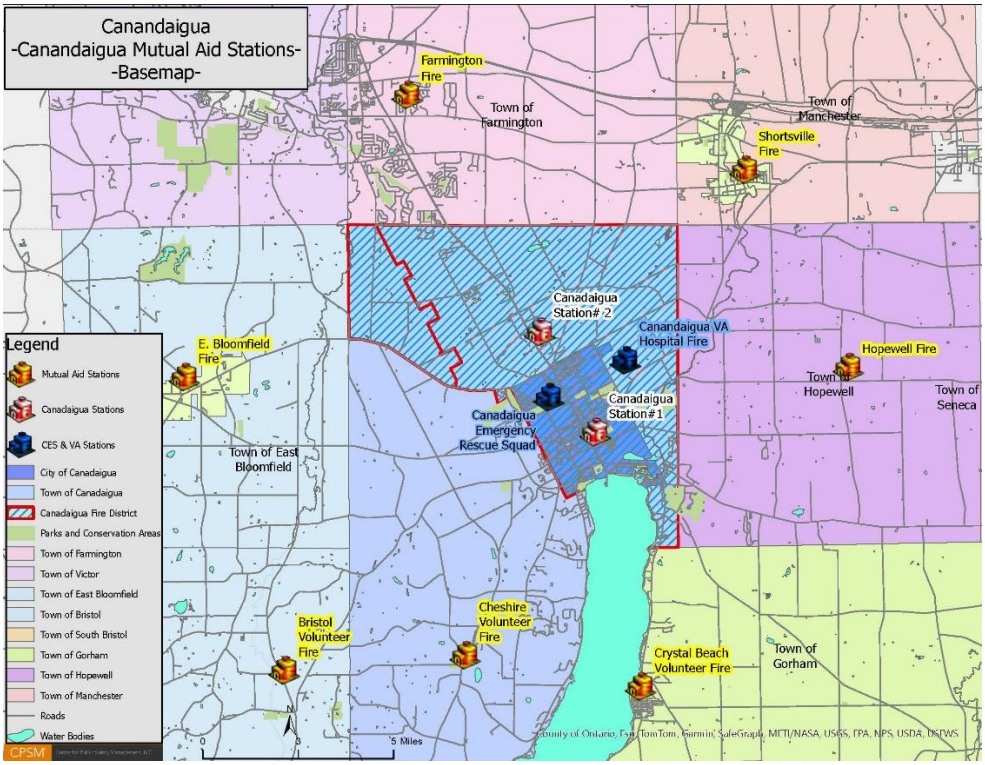
Some of the stakeholders that CPSM interviewed during this study expressed concern over the training and certification of the VA FD personnel and referred to them as a fire brigade not a true fire department. CPSM's research on this issue indicates that as a federal fire department, the VA FD does operate with different certification requirements than municipal departments in that they are mandated to obtain national certifications. The department does have reciprocity with New York state on the 229 requirements including 100 hours of annual training.

All VA personnel are required to have a minimum of Firefighter I, Firefighter II, Hazardous Material Operations level, and EMT basic certifications. Personnel are further required to earn Driver/Operator, Fire Inspector I and II, Haz. Mat. Technician, and technical rescue certifications. All current officers possess a minimum of Fire Officer III certifications.

CPSM strongly encourages the CFD to continue to develop and cultivate a closer working relationship with the VA Hospital FD so that the two departments can collaborate seamlessly with each other on emergency incidents. This includes better utilization of the VA resources for fire suppression duties as the second or third arriving unit on city fire incidents as opposed to just standing by as the Initial Rapid Intervention Team (IRIT). This can be achieved through networking interactions and joint training exercises.

The following figure shows the locations of these stations.

Figure 53: CFD and Automatic/Mutual Aid Partner Station Locations



Since these mutual aid departments are critical to the CFD achieving recommended critical tasking for development of an effective response force (ERF) for a first alarm response to a reported structure fire, and would most likely provide the fourth engine (the VA would provide either the second or third engine) or second ladder on an incident the following figure shows the 480 second travel time bleeds for the assembly of the full effective response force for most incidents in a community with a career fire department as recommended by National Fire Protection Association Standard 1710: *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations by Career Fire Departments* (2020 edition). The applicability of NFPA 1710, and the concepts of critical tasking, and development of an ERF are developed in later sections of this chapter. All of the CFD response areas in both the City and Town are within the 480 second travel time benchmarks as recommended by NFPA 1710. the following map illustrates that travel time from the nearest aid stations.

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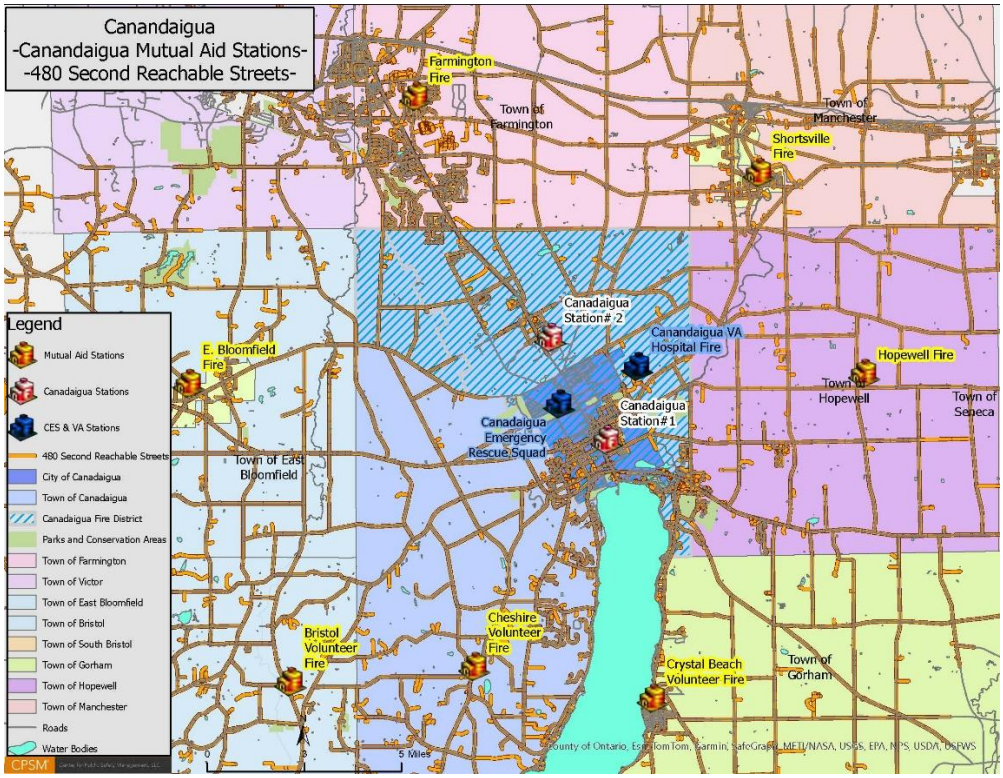
Figure 54: 480 Second Response Bleeds – Mutual Aid Stations



The issue of which companies should respond to certain areas on mutual or automatic aid is often the subject of debate within the emergency services and Canandaigua is no exception. While the simple answer is to say the closest resources should always be called, the reality is not that clear cut. A significant issue that is closely related to automatic and mutual aid is the training of departments and personnel who are participating. In large part due to the lack of mandatory firefighter training requirements (in many cases even basic Firefighter I training is not mandatory) the training of personnel from fire company to fire company can vary widely. This is particularly true in the volunteer fire service. It also creates a major dilemma for fire chiefs of well-trained organizations and can create serious operational and safety issues on the emergency scene. ***In short, personnel who are not adequately trained can be a serious detriment on the emergency scene and present liabilities to the municipality in which the incident is taking place. Ultimately, the incident commander is responsible for the safety and conduct of everyone on the scene regardless of their organizational affiliation.***

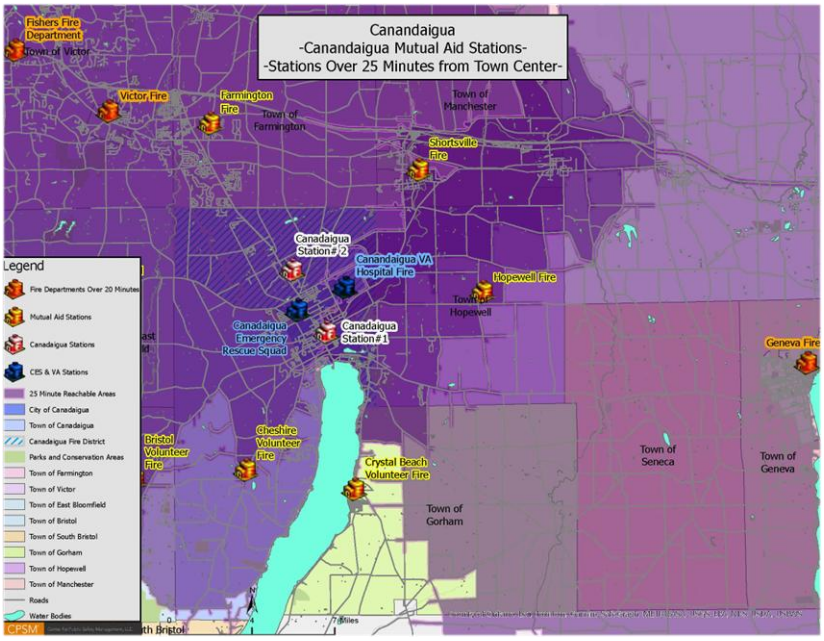
As we discussed in our 2018 report, it is certainly reasonable for the CFD, and in a larger context the City as a whole, to expect that companies coming into the city on automatic and/or mutual aid be required to meet certain minimum training requirements as long as they are valid and reasonable. These minimum training requirements should be spelled out in the formal, signed automatic/mutual aid agreements that should exist between various communities and/or fire departments. A provision in those agreements could stipulate that the fire chief or other designated individual must certify annually in writing that all their personnel (at least those who are supposed to be interior structural-certified and who might respond to mutual aid) continue to meet the requisite training standards. For example, several fire chiefs in southern New Jersey have informed surrounding mutual aid departments that personnel with beards are not permitted to respond to their communities on mutual aid.

While it is less than an optimal solution because of the longer response distances and times, the CFD should look into signing agreements for quicker mutual (or even automatic) aid responses from other Ontario County fire departments that utilize career staffing. The use of these departments can provide the CFD with a guaranteed response with a predetermined number of fully trained and qualified career firefighters that can assist them with the establishment of a full ERF. The only drawback to this option is response times would not allow the establishment of the full ERF within the recommended 480 seconds. However, this situation could be addressed through the establishment of a different Standard of Cover (SOC). The following are the three departments that fit this criterion, and their approximate distance and travel time from downtown Canandaigua.

Fire Department	Distance from Station to Main Street and Ontario Street Canandaigua	Travel Time from Station to Main Street and Ontario Street Canandaigua
Fishers Fire Department * 7853 Main St. Fishers	15 Miles	20 Minutes
Geneva Fire Department 207 Genesee Street Geneva	16.2 Miles	23 Minutes
Victor Fire Department 34 Maple Ave. Victor	10 Miles	16 Minutes

* **NOTE:** While this study was underway, the Fishers Fire District commissioners voted to disband the district so this resource will most likely no longer be available. However, close attention should be given to what arrangements are made to fill this gap.

Figure 55: CFD Long Distance Automatic/Mutual Aid Options



For these potential resources to provide maximum benefit to the CFD on fire situations they should be dispatched simultaneously with the CFD on initial dispatch as automatic aid. If the incident turns out to be minor in nature they can always be quickly returned.

The map to the left shows where these departments can get in 25 minutes or less when responding to Canandaigua.

The next table summarizes the aid given and received calls by year for the years 2022 - 2024.

Table 15: Aid Given and Received Calls by Agency and Year

Agency	Aid Given			Aid Received		
	2022	2023	2024	2022	2023	2024
Bristol VFD	1	2	3	0	0	4
Canandaigua VA Hospital FD	0	1	2	3	3	6
Cheshire VFD	2	3	2	3	1	4
Clifton Springs FD	0	0	1	0	0	1
Crystal Beach VFD	13	0	9	0	0	2
East Bloomfield-Holcomb FD	0	1	0	0	0	2
Farmington FD	22	23	25	1	3	5
Honeoye FD	1	1	0	0	0	0
Hopewell FD	5	1	7	0	0	1
Manchester FD	0	1	0	0	0	0
Middlesex FD, Yates County	1	0	1	0	0	0
Naples FD	3	2	3	0	0	0
Ontario County Emergency Management	0	0	0	4	2	7
Rushville FD	1	0	0	0	0	0
Shortsville FD	0	1	0	0	0	0
Victor FD	4	6	0	0	0	0
White Spring FD	0	0	1	0	0	0
Total	**53**	**42**	**54**	**9**	**6**	**24**

Note: Aid given calls were responded to by CFD to external agencies within their respective fire districts, while aid received calls were responded to by external agencies within the City of Canandaigua. For aid given calls in 2023, we included seven calls without available unit history, including one call assisting Cheshire FD, one call assisting Naples FD, and five calls assisting Victor FD. For aid received calls in each year, the column does not sum up because some aid received calls involved multiple responding agencies.

The next table shows the workload of external fire agencies within the City of Canandaigua over the three years.

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Table 16: CFD Aid Received Workload in Canandaigua City by Agency and Year

Agency	2022		2023		2024	
	Total Arrive	Total Hours	Total Arrive	Total Hours	Total Arrive	Total Hours
Bristol VFD	0	0.0	0	0.0	7	4.9
Canandaigua VA Hosp. FD	3	3.9	3	6.1	6	12.7
Cheshire VFD	4	2.5	2	2.6	8	20.4
Clifton Springs FD	0	0.0	0	0.0	2	0.5
Crystal Beach VFD	0	0.0	0	0.0	2	5.5
East Bloomfield-Holcomb FD	0	0.0	0	0.0	3	2.5
Farmington FD	1	0.2	5	6.8	6	14.2
Hopewell FD	0	0.0	0	0.0	1	4.7
Ontario County Emergency Management	4	1.6	2	1.4	12	20.3
Total	**12**	**8.2**	**12**	**16.9**	**47**	**85.7**

The next table shows the workload of CFD in aiding other fire agencies outside the CFD district,

Table 17: CFD Aid Given Workload by Receiving Agency and Year

Agency	2022		2023		2024	
	Total Arrive	Total Hours	Total Arrive	Total Hours	Total Arrive	Total Hours
Bristol VFD	1	2.0	3	7.5	5	15.0
Canandaigua VA Hosp. FD	0	0.0	0	0.0	3	0.2
Cheshire VFD	4	12.4	4	1.4	3	4.2
Clifton Springs FD	0	0.0	0	0.0	2	4.0
Crystal Beach VFD	17	33.3	0	0.0	14	7.0
East Bloomfield-Holcomb FD	0	0.0	1	0.5	0	0.0
Farmington FD	35	48.5	45	35.0	50	44.6
Honeoye Fire	1	0.5	1	0.2	0	0.0
Hopewell FD	7	5.8	2	0.9	12	14.3
Manchester Fire	0	0.0	2	7.7	0	0.0
Middlesex Fire	0	0.0	0	0.0	1	1.4
Naples Fire	3	11.8	3	10.7	5	9.3
Shortsville Fire	0	0.0	3	2.0	0	0.0
Victor Fire	3	0.2	1	2.9	0	0.0
White Spring FD	0	0.0	0	0.0	1	0.1
Total	**71**	**114.6**	**65**	**68.6**	**96**	**99.9**

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Summary of the table above tells us:

For mutual aid received:

- Calls decreased by 33 percent from 9 in 2022 to 6 in 2023 and then quadrupled to 24 in 2024.
- Runs quadrupled from 12 in both 2022 and 2023 to 47 in 2024.

For mutual aid given:

- Calls decreased by 30 percent from 50 in 2022 to 35 in 2023 and then increased by 54 percent to 54 in 2024.
- Runs decreased by eight percent from 71 in 2022 to 65 in 2023 and then increased by 48 percent to 96 in 2024.

The CFD participates in the overall Ontario County mutual aid system for fire and other emergencies. However, except for the Hopewell Fire District for automatic aid to them on the first alarm, the CFD does not have any other formal written mutual aid agreements. Also, with the exception of the dispatch of water tenders for reported fires in areas without fire hydrants, the CFD does not normally utilize automatic aid at the time of initial dispatch. CPSM recommended in our previous study that the CFD should formalize, in writing, its automatic and mutual aid agreements with all its neighboring departments. Written agreements codify an understanding between two or more entities to provide support in a given context. The primary purpose being to support each other's response efforts in an emergency.

We also recommended at that time that the City of Canandaigua and CFD should require that personnel who staff fire and rescue organizations that respond to the city on mutual aid possess the same minimum levels of training (Firefighter I and II) that Canandaigua personnel are required to maintain.

CPSM assesses that the City of Canandaigua and CFD should still work to formalize, in writing, its mutual aid agreements with surrounding fire departments. ***CPSM further assesses*** that these agreements should stipulate the minimum training standards required for personnel who may respond to the city to assist. Finally, the agreements should also stipulate that the ranking officer of each entity must certify in writing on an annual basis that his/her personnel comply with the standards.

As part of the data-collection process for this report, CPSM developed a 28-item questionnaire that was distributed to the CFD's fire mutual-aid partners. The survey was sent to nine area fire departments, with six responses received (67 percent). Not all respondents answered every question. The following table summarizes the survey results. The information presented is as reported by the responding agencies.

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Table 18: CFD Mutual Aid Partners Select Survey Responses

	Canandaigua VA Medical Center Fire Department	East Bloomfield Volunteer Fire Department	Hopewell Volunteer Fire Department	Chesire Volunteer Fire Department	Bristol Volunteer Fire Department	Farmington Volunteer Fire association
Call Volume (2024)	518	164	333	745	325	552
Number of Times Dispatched and Did Not Respond (2024)	0	0	0	0	0	DNR
Total Number of Members	14	40	33	49	40	85
Total Number of Active Members (members who respond to fire calls)	14	28	33	44	12	60
Average Number of Members who Respond to Structure Fire Calls	6	10-15	16	12	12	25-30
Number of Career Firefighters	14	0	0	0	0	0
Number of Part-Time or Paid On Call Firefighters	0	0	0	0	0	0
Number of Volunteer Firefighters	0	23	33	36	40	57
Number of Certified Firefighters (e.g.: FF I)	**14**	**16**	**21**	**26**	**15**	**36**
Number of Certified Fire Officers (e.g.: Company Officer or Higher)	6	5	12	16	3	8
Number of Members Certified to Perform Interior Structural Firefighting	**14**	**10**	**21**	**26**	**12**	**24**
Number of Members Currently Medically Cleared for SCBA Use	**14**	**10**	**21**	**30**	**15**	**23**
In-Station Duty Crews	Yes	No	Sporadic	Yes M-F 7 - 5	No	No
Training Frequency	Every Shift	Weekly	3X per Month	Weekly	Weekly	1-2 Times Weekly
Frequency of Live Fire or Interior Fire Training	Quarterly	2-3 Times Annually	6 Times Annually	Quarterly	Quarterly	Minimum of 2X Annually

CPSM also convened a virtual meeting with the mutual aid partners on November 19, 2005, to discuss the fire response system in greater detail. All the departments above that had completed the questionnaire were represented with the exception of Hopewell. In addition, the Shortsville Volunteer Fire Department participated. No representative of the CFD participated. The meeting, which lasted close to 90 minutes resulted in a good exchange of information and perspectives. The highlights of the meeting include:

According to one Chief the senior active firefighter in his department who has been a member for about 45 years reports that relationships have always been strained between the CFD and the surrounding departments. This suggests a long-standing cultural issue that is not just limited to career (CFD) versus volunteer (Mutual Aid departments) problems. Multiple departments reported that, with rare exceptions, they dislike responding to the City because they feel like they are underutilized by the CFD and not really appreciated for the assistance they provide.

Little to no training occurs between the CFD and its mutual aid partners, even the VA. Both sides say they have invited the other to training opportunities, but attendance has been sporadic. This has the potential to create operational issues on the emergency scene that can impact incident mitigation. Emergency services organizations that operate with each other on a regular – almost daily – basis must train frequently with each other to gain familiarity with each other's personnel, operations, procedures, and emergency scene expectations.

The representatives reported that the CFD Chief is not a particularly active participant in the Ontario County Chiefs Association and does not attend regular or executive Fire Chiefs meetings on a consistent basis. Attendance at the meetings of these types of organizations are critical to building relationships, developing standardized operational procedures and guidelines, and assisting with ensuring that everyone is "rowing in the same direction."

The CFD has an excellent but under-utilized contiguous resource, which is the VA Medical Center Fire Department. The VA Fire Department can usually provide a guaranteed immediate response of at least three fully certified career firefighters. If they are dispatched simultaneously with the CFD they will be the second or third arriving unit on the scene depending on where in the city the incident occurs (and if both CFD units are available). In addition, the VA staffs their engine proportionally better than the CFD does.

The VA chief reported that his personnel have been directed to regularly stand by once they arrive on scene as the initial rapid intervention team (IRIT) while watching a single CFD firefighter trying to stretch the initial hose line and position it to attack the fire. While the IRIT function is extremely important it should not be staffed to the detriment of the performance of other early critical tasks necessary for incident mitigation.

As they are both comprised of full-time career personnel the CFD and VA FD should train with each other on a regular – even daily – basis.

Representatives from all participating departments, including the VA, indicated they would support being dispatched simultaneously with the CFD as an automatic-aid resource for reported structure fires rather than being requested later as mutual aid. While acknowledging that they may occasionally be returned to service, they noted that this approach would not create a hardship, as their departments typically experience inherent response delays due to personnel needing to report to the station before apparatus can respond.

The Cheshire Fire Department reported that their station is staffed almost every weekday from 7:00 AM to 5:00 PM with three to four certified personnel.

Several chiefs acknowledged that they cannot consistently guarantee the availability of a crew composed of trained, certified, and interior-qualified firefighters. This challenge is not uncommon within the volunteer fire service and reflects the broader issue of declining volunteer participation. When staffing levels are already limited, this reality can further affect fireground operations and the timely completion of critical tasks.

The organizations present indicated that they frequently hear that the CFD is expected to respond and assist them and, in some cases, manage incidents on their behalf. While they expressed unanimous appreciation for the support provided by the CFD, they also noted that CFD's typical mutual-aid response consists of a single unit staffed by only two personnel.

Participants were clear that, although they are willing to assist the CFD when needed, they do not support being relied upon to provide the emergency services resources necessary for basic fire protection and EMS first response within the city. They emphasized that the City of Canandaigua is responsible for ensuring adequate on-duty staffing to meet these fundamental service obligations.

CPSM recommends that the CFD Fire Chief and command staff take a proactive role in strengthening relationships with surrounding automatic- and mutual-aid partners—particularly the VA Medical Center Fire Department—through regular meet-and-greet sessions, chiefs' meetings, networking opportunities, joint training (including multi-company and multi-jurisdictional exercises), and the development of standardized operational procedures and guidelines.

Regionalization

In municipal governments, the residents of the community choose the elected officials who will represent their interests and serve as the governing body. A key question that should be asked is: "*If taxpayers could choose their public services, would they choose the services they receive today?*" Other key questions include, "Would they want the services they receive to be configured the way they are?" and "How much are they able – or willing – to pay to have those services provided?"

The idea of giving up total local control is always a proposition that gives elected officials, and their constituents pause and has been one of the obstacles to true regionalization or consolidation, particularly where small community pride and the time-honored concept of home rule are deeply ingrained in the culture. However, the constantly escalating costs of attempting to provide even a status quo service level is becoming increasingly difficult. Tax dollars are being stretched to the limit. Smaller communities that have far fewer resources and options than their larger neighbors will find it especially difficult to cope within the limitations imposed by the new financial reality.

While no formal studies have been completed, some evidence suggests that the COVID-19 pandemic hastened the decline in the numbers of volunteer and on-call firefighters. Whether this is the case in the Canandaigua area is unknown. The continuing trend of declining volunteerism will create simultaneous challenges that will stretch the provision of emergency services in many communities even farther. This factor is one of the challenges facing Canandaigua. In addition, even in career fire departments recruiting highly qualified new recruits has become much more challenging. Finally, **when automatic and mutual aid become an integral and in fact mission critical component of daily operations, it is probably time to consider what the next logical step is to better integrate those operations is.** This trifecta of challenges may open new opportunities for regional collaborations or shared services agreements related to the provision of emergency services.

As an urban island protected by a career fire department and surrounded by mostly volunteer fire departments, the CFD would provide a great foundation for a potential regional firefighting endeavor in Ontario County. This is an opportunity the Canandaigua city leadership should be receptive to and consider on a case-by-case basis. The City of Canandaigua could be the catalyst for such an endeavor and initiate discussions with surrounding municipalities. Regional collaboration opens a wide range of possibilities for shared services related to the provision of fire and emergency services.

It is important to understand that regionalization and consolidation, which are terms often used interchangeably, are actually very different. Regionalization occurs when two or more jurisdictions share the cost for a service or item. Consolidation occurs when jurisdictions combine their personnel and their inventory into a single entity. Consolidations are typically more costly than just leaving things as they are (although there still may be good reasons for them).

Notwithstanding these types of limitations, regionalization can often provide better services, at a better overall cost to the citizens. If implemented properly, regionalization can successfully:

- Lower costs and increase efficiencies.
- Increase purchasing power, allowing for higher-end acquisitions.
- Make professional staff from larger jurisdictions available for assistance.
- Improve access to state and federal grants.
- Increase citizen satisfaction.

One key to regionalization is to understand what you *do not* want to do. There are plenty of ideas for regionalization that, prima facie, are wonderful. The trick is to triage these and pick the ones that really will work for each specific organization.[47]

In addition, although regionalization and consolidation efforts do often focus primarily on saving money, Jeff Weltz, Co-Executive Director, North Hudson Regionalized Fire & Rescue in New Jersey, once noted, "The number one charge that we had in putting this (regionalization of the North Hudson Fire & Rescue Department) together is not how much money it was going to save, but will it save lives and provide a better fire protection to our citizens." Robert McCoy, Chief of the York Area United Fire and Rescue in Pennsylvania, shares simple advice for any local departments that are considering consolidation: "Put public safety before monetary concerns and be prepared for a long, drawn-out consolidation process. I fully, truly believe in the concept of regionalization and the concept of shared services as long as the safety of residents comes first."[48]

New York State municipal law and laws that provide fire service governance do have some nuances that limit the options available to cities. For instance, cities in NY cannot be a part of a joint fire district, or a consolidated fire protection district. They also are not permitted to form a fire district. In addition, Regional Fire Authorities (RFAs) as permitted in some western states are not allowed in New York.

Cities can, however, enter into cooperative/shared service/inter-municipal agreements (IMAs) with towns, villages, or fire districts Inter-municipal agreements (IMAs) under General Municipal

47. http://mrsc.org/Home/Stay-Informed/MRSC-Insight/November-2012/Regionalizing-Local-Government-Services.aspx
48. http://standardspeaker.com/news/york-area-chief-shares-experience-in-creating-regional-fire-department-1.1467623

Law §119-o, which cities can participate in. This allows shared services, joint operations, or even functional consolidation without forming a new political subdivision.

Genessee County is working to implement recommendation contained in a county wide assessment of the fire protection and EMS delivery systems. As part of that process, they have formed a committee that is working to produce solutions for the staffing shortage throughout the county, as they too rely solely on volunteers with the exception of the City of Batavia. One of the options they are considering is a contract between Genessee County and the City of Batavia. This contract would fund additional positions for the BFD that would be strategically deployed at several locations in the county to respond as an initial crew to any emergency incidents.

There are several options that the City of Canandaigua could consider with regard to shared services or regionalization in the greater Canandaigua/Ontario County area. The most logical partner, and one that it already has a shared fire protection delivery system with is the Town of Canandaigua.. However, the City of Canandaigua should not discount the possibility that there may be other potential partners in the area, or that some of these recommendations could certainly include other participants in addition to City and/or Town of Canandaigua. It is our belief that Canandaigua would be the lead agency on any of these endeavors.

Before presenting options for increased regional collaboration in the delivery of fire protection services across the greater Canandaigua area, it is important to acknowledge several significant challenges that must be addressed before meaningful discussion of enhanced collaboration, shared services, or true regionalization can occur.

Among these challenges are the long-standing, strained relationships between the CFD and its surrounding automatic and mutual-aid partners. These relationships require focused attention and improvement before any joint initiative with the City or the CFD can be seriously considered. Many of these issues appear to be cultural in nature and may span multiple decades, meaning progress will require time and sustained effort. Additionally, there is a fairly widespread perception among surrounding departments that any regionalization efforts led by the City of Canandaigua would be primarily intended to shift a portion of the cost of providing basic fire and EMS services for the city onto neighboring communities, rather than to establish an equitable and mutually beneficial partnership.

1. Enter into Shared Service Agreements for the Full Provision of Fire Services

*Fire and EMS **are** in a crisis – right now. Simply put, EMS is woefully lacking in funding – and the number of volunteer firefighters has fallen dramatically over the decades."*

The quote above comprises the opening of the *SR 6 Final Report* on the status of the fire and EMS delivery systems throughout Pennsylvania. The report then states that "*this is not new*" and notes that many of the same issues have been highlighted in multiple other reports over the past four decades. This crisis is not in any way limited to the state of Pennsylvania. It is being experienced in every state in the country. New York—and the greater Canandaigua/Ontario County area—are no exception.

The multitude of reports that have been completed all say the same thing about the need to act. Yet definitive action—moving ideas that may make a difference from concept to reality—has been slow to happen. While the need to be deliberate in this process is important, the continued wearing down of the emergency services towards potential systemic failure continues unabated.

2. Contract with Surrounding Towns for the Provision of Career Staff

Since the CFD already provides automatic and mutual aid to a number of surrounding communities, and their units often arrive on scene first, there may be towns that want to consider contracting with the City of Canandaigua to provide some level of staffing. In this case, with Canandaigua units staffed with three – or preferably four - personnel, for consistency and safety considerations, which would be the recommended staffing. The hours that these personnel would provide staffing in other communities would be subject to the agreements that were negotiated.

Implementing this type of arrangement with or any other surrounding community would also have the benefit of providing Canandaigua with additional personnel and resources for incidents occurring in the city..

3. Operational Fire Department Consolidation

Another alternative would be to align multiple departments more closely to function as a single unit through the vehicle of an intergovernmental agreement, which would provide both with flexibility and a workable termination plan should joint services prove unwieldy. Under this plan a common command would be established to respond to the new combined service area to meet the overall obligations. The key elements of a functional consolidation approach to service delivery for Canandaigua and other Ontario County towns include (but are certainly not limited to):

- Organize two or more Departments with Canandaigua being one by forming an "amalgamation" for joint services and authorize such an arrangement through an Intergovernmental Agreement. Such an amalgamation would structure one department with two or more division, Canandaigua or City Division, and Town Division(s).
- Establish a central management command and management authority. Canandaigua would serve as the lead agency.
- Consider the expansion of career staffing into certain towns. The Town Division would also be permitted to maintain paid-on-call staff; however, they would be required to meet training and participation requirements.
- Each division would be responsible for their own liabilities including debt. Future liabilities would be apportioned based on the level of benefit achieved with the goal of mutual benefits for all new acquisitions.
- Within the Intergovernmental Agreement provide for the termination of joint operations with the return of separate operations should service levels deteriorate, costs rise, or either participant feels the arrangement is no longer in their best interest.

While there are significant risks with such a combined operational plan there are also opportunities for improved services. There may be opportunities for this type of endeavor with multiple surrounding communities and/or fire departments in Ontario County that are struggling with volunteer or on-call staffing, particularly during the day.

4. Form a Regional Fire Department

The City of Canandaigua and the Town of Canandaigua already have a close working relationship on several fronts. In particular, for fire protection their operations already have a significant degree of integration. CPSM believes that opportunities exist to tangibly improve the level of fire protection that is afforded to both the city and town, as well as possibly some of the

other communities if they were interested in participating. A regional fire department could provide fire protection services to the entire city and town through a single entity**.** If additional partners, such as other Ontario County towns, which already relies heavily on the city for assistance, are interested, they should be included as well.

The formation of a regional fire department would allow for better deployment and utilization of the area's fire protection resources, particularly with the ongoing, and projected, growth in the Town which will further strain the limited existing resources. Benefits to be gained include more widespread utilization of the city's career resources; better deployment of resources; reduction in duplication of assets such as aerial apparatus; and more uniformity and coordination of training, responses, personnel, and operations throughout the service area. Many of the day-to-day administrative duties would be managed by the Canandaigua Fire Chief, as he already does for the city. In conjunction with the governing bodies and managers/administrators of the participating municipalities engaging in annual goal setting, he/she would be able to establish criterion for training, responses, and other operational considerations and then analyze and evaluate them in an ongoing manner. With strong leadership, this fire department could become not only a model regional endeavor, but a model combination fire department as well.

CPSM recommends that the City of Canandaigua should explore and potentially seek out opportunities for more regional and/or shared services collaborations where the CFD would provide the foundation for a more robust regional emergency services delivery system in Ontario County. ***CPSM further recommends*** that the City and Town of Canandaigua enter into discussions regarding the possible formation of the Canandaigua Area Regional Fire Department, or perhaps Finger Lakes Regional Fire Department, which would provide fire protection services to the entire city and town through a single entity. If additional partners, which already rely heavily on the city for assistance are interested, they should be included as well.

While we certainly understand that regionalization of services in the Canandaigua and Ontario County area is probably most appropriate for long-term planning at this point, **the time to start discussions and exploring possible options is now.** There are numerous resources that can assist with undertaking this endeavor, such as:

Fire Department Consolidation, Why & How To Do It …Right, by VFIS (Volunteer Fireman's Insurance Services) in York, Penn.

New York Department of State. "How to Consolidate Fire Protection in Fire Districts, Fire Protection Districts and Villages."

Station Distribution and Response Time Analysis

Response times are typically the primary measurement for evaluating Fire and EMS services. Response times can be used as a benchmark to determine how well a fire department is currently performing, to help identify response coverage trends, and when coupled with demand to predict future operational needs. Achieving the quickest and safest response times possible should be a fundamental goal of every fire department.

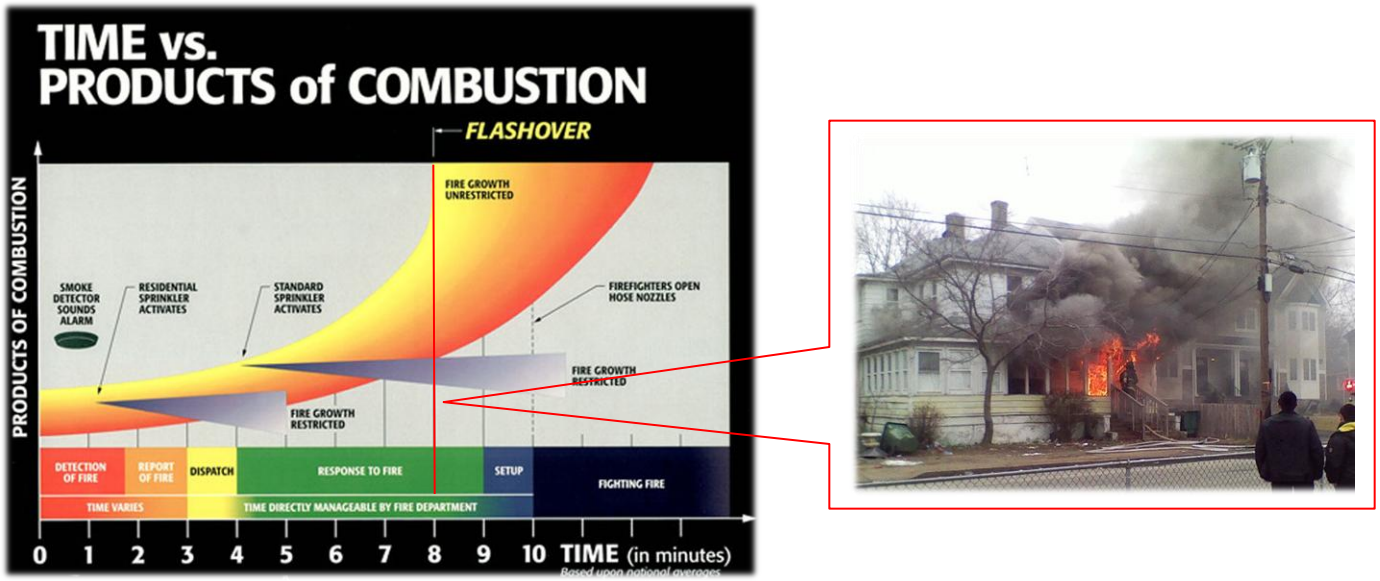
Response times for fire incidents are based on the concept of "flashover." A flashover is the near-simultaneous ignition of directly exposed combustible material in an enclosed area. When certain organic materials are heated, they undergo thermal decomposition and release of flammable gases. Flashover occurs when the majority of the exposed surfaces in a space are heated to their auto ignition temperature and ignite. More definitively, flashover "is the transition phase in the development of a contained fire in which surfaces exposed to thermal radiation

reach ignition temperature more or less simultaneously and fire spreads rapidly throughput the space."[49]

Flashover occurs more quickly and more frequently today and is caused at least in part by the introduction of significant quantities of plastic and foam-based products into homes and businesses (e.g., furnishings, mattresses, bedding, plumbing and electrical components, home and business electronics, decorative materials, insulation, and structural components). These materials ignite and burn quickly and produce extreme heat and toxic smoke.

When the fire does reach this extremely hazardous state, initial firefighting forces are often overwhelmed, and a larger and more destructive fire occurs. In these circumstances the fire escapes the room and even the building of origin, and significantly more resources are required to affect fire control and extinguishment. This links directly to the later discussion in this report regarding the assembling of an Effective Response Force for building fires. The next figure illustrates this phenomenon in terms of fire department response and fire protection systems.

Figure 56: Fire Growth and Flashover[50]

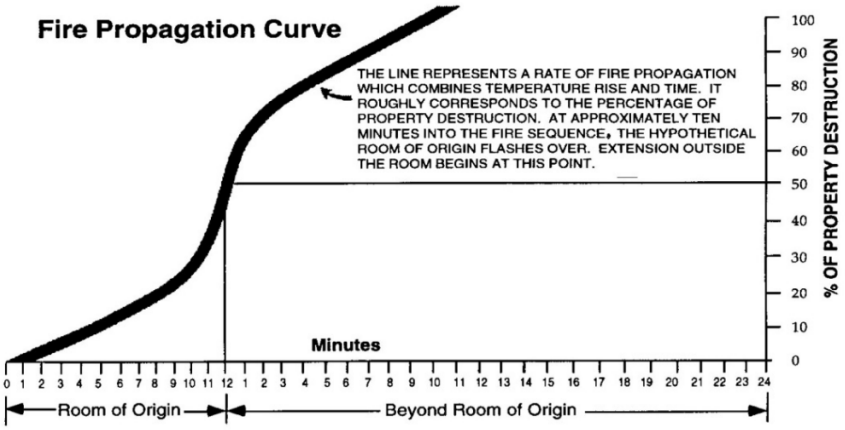


The illustration above shows how a fire grows over a brief period of time from inception (event initiation) through flashover. The time-versus-products of combustion curve shows activation times and effectiveness of residential sprinklers (approximately one minute), commercial sprinklers (four minutes), flashover (eight to ten minutes), and firefighters applying water first to the fire after notification, dispatch, response, and set-up (ten minutes). ***This illustrates the demand on the fire department to have a quick response to a building fire with the goal of containing the fire to the room of origin to reduce property loss and more quickly address a life-safety scenario.***

The next figure shows the fire propagation curve relative to fire being confined to the room of origin or spreading beyond it and the percentage of destruction of property by the fire.

49. National Institute of Standards and Technology, Definition of Flashover.
50. Fire Protection System Designs, Grant, 2018

Figure 57: Fire Propagation Curve



Source: John C. Gerard and A. Terry Jacobsen, "Reduced Staffing: At What Cost?" Fire Service Today (September 1981), 15–21.

According to fire service educator Clinton Smoke, the fire propagation curve establishes that temperature rise and time within in a room on fire corresponds with property destruction and potential loss of life if present.[51] At approximately the eight- to ten-minute mark of fire progression, the fire flashes over (due to superheating of room contents and other combustibles) and extends beyond the room of origin, thus increasing proportionately the destruction to property and potential endangerment of life. The ability to quickly deploy adequate fire staff prior to flashover thus limits the fire's extension beyond the room or area of origin.

Regarding the risk of flashover, the authors of an International Association of Firefighters (IAFF) report conclude:

> *Clearly, an early aggressive and offensive initial interior attack on a working structural fire results in greatly reduced loss of life and property damage. Consequently, given that the progression of a structural fire to the point of "flashover" (the very rapid spreading of the fire due to super-heating of room contents and other combustibles) generally occurs in less than 10 minutes, two of the most important elements in limiting fire spread are the quick arrival of sufficient numbers of personnel and equipment to attack and extinguish the fire as close to the point of its origin as possible.*[52]

Response Time Benchmarks

A principal factor in the whole response time question is what we term "**detection time**." This is the time it takes to detect a fire or a medical situation and notify 911 to initiate the response. In many instances, particularly at night or when automatic detection systems (fire sprinklers and smoke detectors) are not present or are inoperable, the detection time can be extended. Fires that go undetected and are allowed to expand in size become more destructive and are

51. Clinton Smoke, *Company Officer*, 2nd ed. (Clifton Park, NY: Delmar, 2005).
52. *Safe Fire Fighter Staffing: Critical Considerations*, 2nd ed. (Washington, DC: International Association of Fire Fighters), 5.

difficult to extinguish. Medical/trauma emergencies that go undetected decrease positive clinical outcomes and full recovery.

For the purpose of the CPSM data analysis, ***response time*** is a product of three components: ***dispatch time***, ***turnout time***, and ***travel time***.

Dispatch time (alarm processing time) is the difference between the time a call is received and the time a unit is dispatched. Dispatch time includes call processing time, which is the time required to determine the nature of the emergency and types of resources to dispatch. ***The NFPA 1710 standard for these components of response times is as follows:***

The event is processed and dispatched in:

- ≤ 64 seconds 90 percent of the time.
- ≤ 106 seconds 95 percent of the time.

Special call types:

- ≤ 90 seconds 90 percent of the time.
- ≤ 120 seconds 99 percent of the time.

The next component of response time is **turnout time**, an aspect of response which is controlled by the responding Fire and EMS department. ***NFPA 1710 states that turnout time shall be:***

- ≤ 80 seconds for fire and special operations 90 percent of the time.
- ≤ 60 seconds for EMS responses.

The last component of response time is **travel time,** an aspect of response time that is affected by factors such as station location, road conditions, weather, and traffic control systems. ***NFPA 1710 states that travel time for the first arriving fire suppression unit to a fire incident shall be:***

- ≤ 240 seconds for the first arriving engine company to a fire suppression incident 90 percent of the time.
- ≤ 360 seconds for the second company 90 percent of the time.
- ≤ 480 seconds to assemble the initial first alarm assignment on scene 90 percent of the time for low/medium hazards, and 610 seconds for high-rise fire incidents 90 percent of the time.

For EMS incidents the standard NFPA 1710 standard establishes a travel time of:

- ≤ 240 seconds for the first arriving engine company with automated external defibrillator (AED) or higher-level capability.

≤ 480 seconds or less travel time of an Advanced Life Support (ALS) unit at an EMS incident where the service is provided by the fire department provided a first responder with an AED or basic life support unit arrived in 240 seconds or less travel time.

The next figures illustrate the cascade of events for a Fire incident, which includes all components of response time performance.

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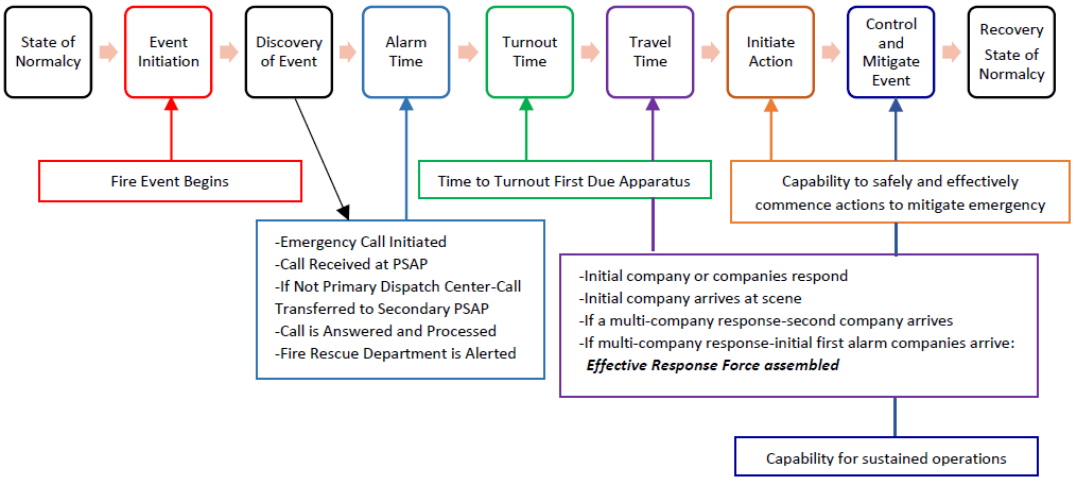
Figure 58: Incident Cascade of Events: Fire Response



Although trying to reach the NFPA benchmark for travel time may be laudable, the question is, at what cost? What is the evidence that supports such recommendations? NFPA 1710's travel times are established for two primary reasons: (1) the fire propagation curve); and (2) sudden cardiac arrest, where brain damage and permanent brain death occurs in four to six minutes.

Travel time is key to understanding how Fire and EMS station location influences a community's aggregate response time performance. Travel time can be mapped when existing and proposed station locations are known. The location of responding units is one key factor in response time; reducing response times, which is typically a key performance measure in determining the efficiency of department operations, often depends on this factor.

The goal of placement of a single fire station or creating a network of responding fire stations in a single community is to optimize coverage with short travel distances, when possible, while giving special attention to natural and manmade barriers, and response routes that could create response-time problems.[53] This goal is generally budget-driven and based on demand intensity of Fire and EMS incidents, travel times, and identified risks.

CFD Response Times

The primary focus of the following part of this section is the dispatch and response time of the first arriving units for calls responded to with lights and sirens (Code 3).

In this analysis, which covers the one-year time period from January 1, 2024, through December 31, 2024, CPSM included all calls within the City of Canandaigua and Town of Canandaigua to which at least one non-administrative unit arrived, and excluding cancelled calls. We included all responding CFD units and mutual aid units from external fire agencies. Calls with a total response time of more than 30 minutes were excluded. In addition, we focused on units that had complete time stamps, that is, units with all components recorded, so that we could calculate each segment of response time. Finally, public service calls and EMS calls with Alpha and Omega emergency medical dispatch (EMD) codes were identified as nonemergency calls and were excluded from this analysis.

53. NFPA 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Departments*, 2020 Edition.

Based on the methodology above, for the 2,460 calls, the data team excluded 72 canceled calls, 54 mutual aid calls, 358 nonemergency calls, 163 calls that did not have a unit on scene time, eight calls where the first arriving unit response time was greater than 30 minutes, and eight calls where one or more segments of the first arriving unit's response time could not be calculated due to missing or faulty data. As a result, a total of 1,797calls are included in the response time analysis, of which 1,305 calls were in the City of Canandaigua and 492 calls were in the Town of Canandaigua.

The following tables provide the average and 90th percentile dispatch, turnout, travel, and total response times for the first arriving unit to each call in Canandaigua Fire Department's response area. The 90th percentile measurement is a more conservative and stricter measure of total response time. Simply explained, for 90 percent of calls, the first unit arrived within a specified time, and if measured, the second and third units. For example, the table shows an overall 90th percentile response time of 9.0 minutes, which means that 90 percent of the time, a call had a response time of no more than 9.0 minutes.

Table 19: Average Response Time by Call Type (Minutes), Canandaigua City

Call Type	Dispatch	Turnout	Travel	Total	Calls
Breathing difficulty	2.1	1.5	3.0	6.6	181
Cardiac and stroke	2.5	1.3	2.7	6.5	187
Fall and injury	4.3	1.4	3.3	9.0	75
Illness and other	2.8	1.5	3.1	7.3	197
MVA	1.5	0.8	2.6	5.0	78
Overdose and psychiatric	2.9	1.4	3.7	8.0	26
Seizure and unconsciousness	2.4	1.4	2.9	6.7	157
EMS Subtotal	**2.5**	**1.4**	**2.9**	**6.8**	**901**
False alarm	1.4	0.9	3.2	5.5	174
Good intent	1.5	0.9	3.8	6.1	52
Hazard	1.8	0.9	3.3	6.0	112
Outside fire	1.5	0.5	4.0	5.9	6
Structure fire	1.4	0.9	3.4	5.7	25
Technical rescue	2.0	0.6	1.6	4.3	35
Fire Subtotal	**1.6**	**0.9**	**3.2**	**5.7**	**404**
Total	**2.2**	**1.2**	**3.0**	**6.5**	**1,305**

- The average dispatch time was 2.2 minutes.
- The average turnout time was 1.2 minutes.
- The average travel time was 3.0 minutes.
- The average total response time was 6.5 minutes.
- The average response time was 6.8 minutes for EMS calls.
- The average response time was 5.7 minutes for fire calls.

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Table 20: 90th Percentile Response Time by Call Type (Minutes), Canandaigua City

Call Type	Dispatch	Turnout	Travel	Total	Calls
Breathing difficulty	2.9	2.4	4.3	8.2	181
Cardiac and stroke	3.4	2.2	4.4	8.6	187
Fall and injury	8.2	2.5	5.2	12.2	75
Illness and other	3.6	2.3	5.0	9.5	197
MVA	2.5	1.4	4.9	7.4	78
Overdose and psychiatric	5.2	2.2	6.9	14.4	26
Seizure and unconsciousness	3.3	2.4	4.7	9.1	157
EMS Subtotal	**3.5**	**2.3**	**4.7**	**9.2**	**901**
False alarm	2.4	1.7	5.2	7.9	174
Good intent	2.4	1.3	6.1	8.4	52
Hazard	2.9	1.6	5.1	8.4	112
Outside fire	2.8	0.7	9.6	11.4	6
Structure fire	1.9	1.4	5.8	8.2	25
Technical rescue	5.2	1.5	4.0	8.7	35
Fire Subtotal	**2.7**	**1.6**	**5.3**	**8.3**	**404**
Total	**3.4**	**2.1**	**5.0**	**9.0**	**1,305**

- The 90th percentile dispatch time was 3.4 minutes.
- The 90th percentile turnout time was 2.1 minutes.
- The 90th percentile travel time was 5.0 minutes.
- The 90th percentile total response time was 9.0 minutes.
- The 90th percentile response time was 9.2 minutes for EMS calls.
- The 90th percentile response time was 8.3 minutes for fire calls.

Table 21: Average Response Time by Call Type (Minutes), Canandaigua Town

Call Type	Dispatch	Turnout	Travel	Total	Calls
Breathing difficulty	2.3	1.5	4.2	8.0	54
Cardiac and stroke	2.4	1.5	3.6	7.5	48
Fall and injury	3.7	1.4	4.1	9.3	24
Illness and other	2.7	1.5	4.6	8.9	82
MVA	1.6	1.0	3.6	6.2	61
Overdose and psychiatric	2.2	1.5	5.3	8.9	13
Seizure and unconsciousness	2.4	1.6	4.9	8.9	45
EMS Subtotal	**2.4**	**1.4**	**4.2**	**8.1**	**327**
False alarm	1.4	0.9	3.7	5.9	75
Good intent	1.6	1.3	4.9	7.9	20
Hazard	1.7	0.9	4.1	6.6	35
Outside fire	1.7	0.8	3.2	5.7	12
Structure fire	1.4	0.8	3.4	5.6	12
Technical rescue	4.1	1.1	5.0	10.2	11
Fire Subtotal	**1.7**	**0.9**	**3.9**	**6.6**	**165**
Total	**2.2**	**1.3**	**4.1**	**7.6**	**492**

- The average dispatch time was 2.2 minutes.
- The average turnout time was 1.3 minutes.
- The average travel time was 4.1 minutes.
- The average total response time was 7.6 minutes.
- The average response time was 8.1 minutes for EMS calls.
- The average response time was 6.6 minutes for fire calls.

Table 22: 90th Percentile Response Time by Call Type (Minutes), Canandaigua Town

Call Type	Dispatch	Turnout	Travel	Total	Calls
Breathing difficulty	3.1	2.5	6.8	10.5	54
Cardiac and stroke	3.2	2.4	5.9	9.6	48
Fall and injury	6.3	2.1	7.0	13.2	24
Illness and other	3.8	2.4	7.4	11.9	82
MVA	2.7	1.6	6.0	8.3	61
Overdose and psychiatric	3.6	2.0	9.6	13.7	13
Seizure and unconsciousness	3.1	2.3	7.9	12.1	45
EMS Subtotal	**3.4**	**2.3**	**6.9**	**11.2**	**327**
False alarm	2.3	1.6	5.8	8.5	75
Good intent	2.6	2.4	7.3	10.7	20
Hazard	2.4	1.6	6.2	10.4	35
Outside fire	2.3	1.1	5.3	8.2	12
Structure fire	2.3	1.1	5.2	7.2	12
Technical rescue	6.9	2.0	9.1	14.9	11
Fire Subtotal	**2.6**	**1.8**	**7.1**	**10.0**	**165**
Total	**3.3**	**2.1**	**6.9**	**10.8**	**492**

- The 90th percentile dispatch time was 3.3 minutes.
- The 90th percentile turnout time was 2.1 minutes.
- The 90th percentile travel time was 6.9 minutes.
- The 90th percentile total response time was 10.8 minutes.
- The 90th percentile response time was 11.2 minutes for EMS calls.
- The 90th percentile response time was 10.0 minutes for fire calls.

- Overall 90th percentile dispatch time was 3.4 minutes in the City and 3.3 minutes in the Town. This included 3.5 minutes for EMS incidents in the City, and 3.4 minutes in the Town. For fire calls it was 2.7 minutes in the City and 2.6 in the Town.

CPSM assesses that these times are well above the NFPA benchmark standard of 60 seconds, 90 percent of the time. This situation is inadequate and needs to be addressed. However, this part of the response time equation is out of control of the CFD. ***CPSM recommends*** that the CFD should work with the Ontario County 9-1-1 Center leadership to identify and attempt to correct the reasons for the extended dispatch times shown in the study year data.

- Overall 90th percentile turnout time was 2.1 minutes for both the City and the Town. For EMS calls the time was 2.3 minutes in both locations, more than double the NFPA recommended benchmark. For fire calls the time was 1.6 minutes for the City and 1.8 minutes in the Town.

CPSM assesses that these times are well above the NFPA benchmark standard of 60 seconds for EMS calls, and 80 seconds for fire calls, 90 percent of the time. This situation is inadequate and needs to be addressed. **Remember, this is the one aspect of total response time the fire department has the most direct impact on**. ***CPSM recommends*** that the CFD should work to identify potential causes and aggressively take whatever steps are necessary to significantly improve turnout times, for both fire and EMS incidents. This will serve to reduce and improve overall response times to emergency incidents. Implementing this recommendation may require collaboration with the Ontario County 9-1-1 Center leadership to ensure that unit responding times are captured and recorded accurately.

Travel time is key to understanding how fire and EMS station location influences a community's aggregate response time performance. In fact, where these facilities are located is the single

most important factor in determining overall response times. Travel time can be mapped from existing and proposed station locations. The location of responding units is one key factor in response time; reducing response times, which is typically a key performance measure in determining the efficiency of department operations, often depends on this factor. The goal of placement of a single fire station or creating a network of responding fire stations in a single community is to optimize coverage with short travel distances, when possible, while giving special attention to natural and manufactured barriers, and response routes that can create response-time problems. This goal is generally budget-driven and based on demand intensity of fire and EMS incidents, response times, and identified risks.

As already discussed, CFD normally responds from two stations.

NFPA and ISO have established different indices in determining fire station distribution. The ISO Fire Suppression Rating Schedule, section 560, indicates that first-due engine companies should serve areas that are within a 1.5-mile travel distance. The placement of fire stations that achieves this type of separation creates service areas that are approximately 4.5 square miles in size, depending on the road network and other geographical barriers (rivers, lakes, railroads, limited access highways, etc.).

NFPA references the placement of fire stations in an indirect way. It recommends that fire stations be placed in a distribution that achieves the desired minimum response times. NFPA Standard 1710, section 4.1.2.1(3) and (6), suggests an engine placement that achieves a 240-second (four-minute) travel time for the first arriving unit. Using an empirical model called the "piece-wise linear travel time function" the Rand Institute has estimated that the average emergency response speed for fire apparatus is 35 mph. At this speed, the distance a fire engine can travel in four minutes is approximately 1.97 miles. A polygon based on a 1.97-mile travel distance results in a service area that, on average, is 7.3 square miles.

It is important to note several aspects of the polygon models and the associated travel distances and times. First, the model often assumes that resources are distributed equally throughout the service area, which is generally not the case. In addition, the road network, and geographical barriers such as a railroad or limited access highways, can impact the distance units can cover over a given amount of time. That said, the formulas do provide a useful reference when attempting to benchmark travel distances and response times.

This section expands on the travel times outlined above, depicting how travel times of 240, 360, and 480 seconds look when mapped from the current fire station locations. Illustrating response time is important when considering the location from which assets should be deployed. When historical demand is coupled with risk analysis, a more informed decision can be made about station numbers and locations.

As discussed above, travel time (aka: response time) is key to understanding how a fire facility location influences a community's aggregate response time performance. NFPA sets benchmark travel times for first arriving fire units as:

- ≤ 240 seconds for the first arriving engine company to a fire suppression incident 90 percent of the time
- ≤ 240 seconds for the first arriving engine company with automated external defibrillator (AED) or higher-level capability to an EMS incident.

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The NFPA also benchmarks the travel time of the second arriving unit on a fire incident, and the travel time to assemble the first alarm assignment of apparatus and staff on low/medium hazards as:

- ≤ 360 seconds for the second company 90 percent of the time.
- ≤ 480 seconds to assemble the initial first alarm assignment on scene 90 percent of the time for low/medium hazard.

As previously discussed, the location of responding units is one key factor in reducing response times and is a key performance measure in determining the efficiency of department operations.

Likewise, current demand and potential for future demand for service is a consideration for the siting of fire facilities. Demand is the number and types of calls for services provided by the entire fire department. When demand is evaluated, it is important that the number of incidents is not confused with the number of unit responses. An emergency call may require the response of more than one unit, but only one incident number is generated. This is a direct accelerator of demand.

The following figures use GIS mapping to illustrate 240-second, 360-second, and 480-second travel time bleeds, using the existing street network from the current CFD stations.

The GIS data for streets includes speed limits for each street segment and allows for "U-turns" for dead-end streets and intersections, as well as other travel obstacles.

It is, however, important to note that while GIS-drawn, theoretical travel times do reflect favorably on the adequacy of station facilities and their corresponding locations within the city to support efficient fire and EMS response to the current built upon areas. Keep in mind, the benefits of favorable travel time findings are only meaningfully realized when apparatus can be predictably staffed for response and have aggressive turnout times.

It is important to understand that measuring and analyzing response times and response time coverage are measurements of performance. Earlier when we discussed community risk, we noted that the CFD, like most other fire departments in the nation, is an all-hazards response agency. Linking response data to community risks lays the foundation for future fire department planning in terms of fire station location, the need for additional fire stations, and staffing levels. Managing fire department response capabilities to the identified community's risk focuses on three components which are:

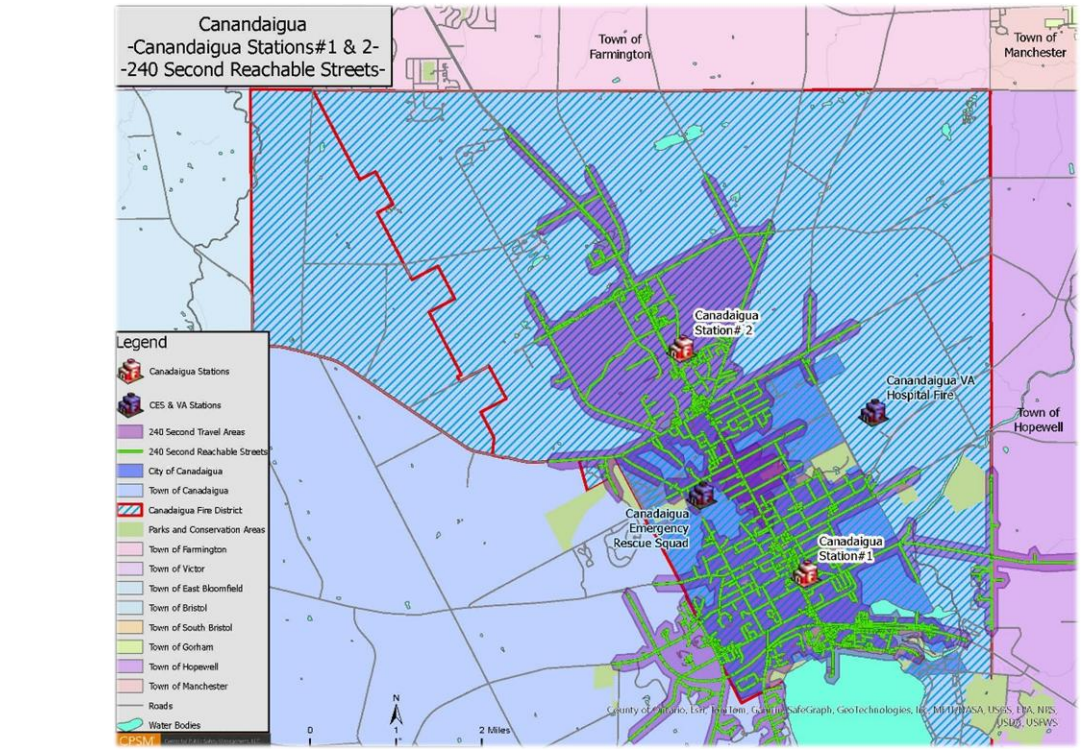
- Having a full understanding of the total risk in the community and how each impacts the fire department in terms of resiliency, what the consequences are to the community and fire department should a specific risk or combination of two or more occur, and preparing for and understanding the probability that the risk may occur.
- Linking risk to the deployment of resources to effectively manage every incident. This includes assembling an Effective Response Force for the response risk in measurable times benchmarked against NFPA standards, deploying the appropriate apparatus (engines, ladders, heavy rescues, ambulances), and having a response force trained to combat a specific risk.
- Understanding that each element of response time plays a role in the management of community risk. Low response times of the initial arriving engine and low time to assemble an Effective Response Force on fire and other incidents are associated with positive outcomes.

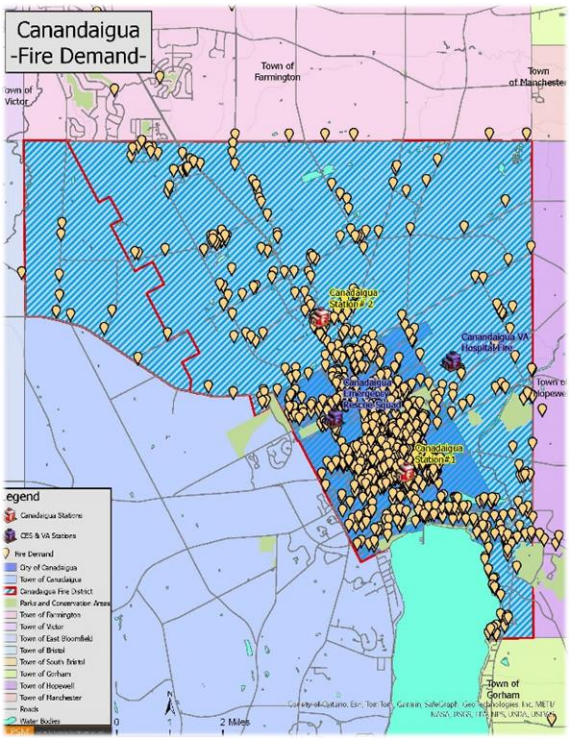
The tables above provided detail on the average and 90th percentile response times to calls that occurred in different parts of the CFD's response area, specifically the City and the Town.

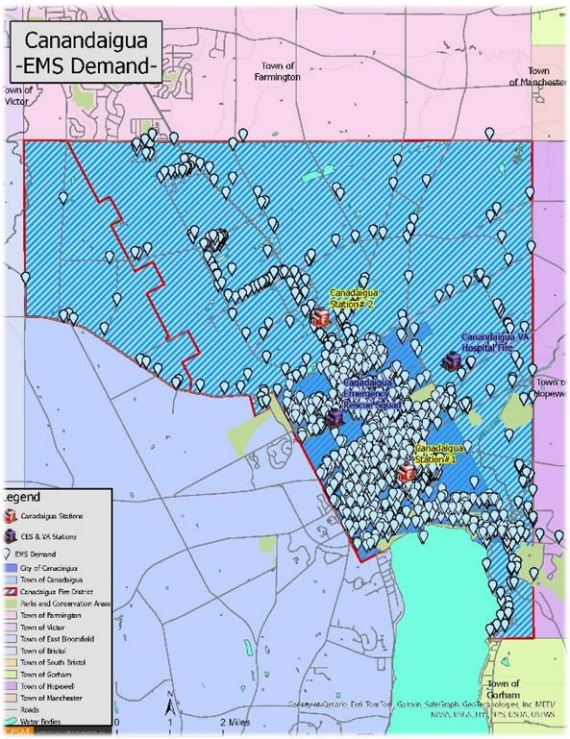
These can then be compared with the GIS generated response time bleeds for those areas that follow.

The next figure compares the projected 240-second response from the current CFD stations. It also shows fire and EMS demand.

Figure 59: Travel Time of 240 Seconds from ALL CFD Stations







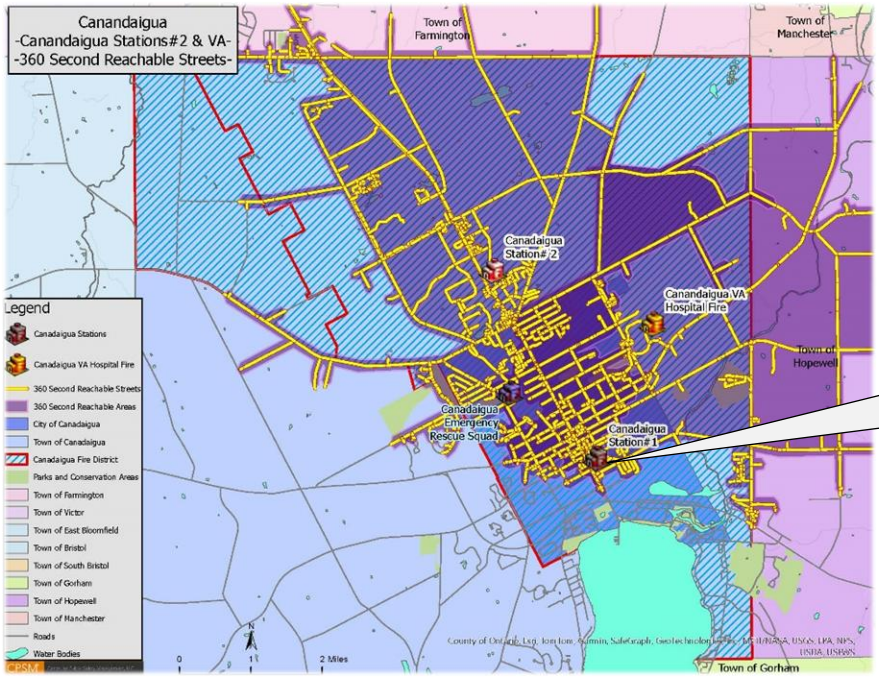
Analysis of the 240-second travel time bleeds show the two CFD stations can cover 100% of the City within 240 second travel time.

- Station 1 District: Low vulnerability throughout the district as it is 100% covered.
- Station 2 District: Moderate vulnerability as the Town areas do not enjoy as robust an area within 240 seconds response travel time as the city does. While it covers far less of the Town at 240 seconds, that is to be expected as the Town is much more suburban, even rural in nature. An important take-away from this figure is the fact that the areas of the Town that fall outside of the 240-second first unit response zone have lower population density and relatively lower call volume when compared to other areas of the response area .In addition, most of the planned development in the Town is close to the City boundary and thus will fall into the 240 second travel time.

Travel times are dictated by, and can be impacted by, the road network and accessibility to local streets, time of day when traffic congestion is heaviest, weather, and station location with respect to the incident. CPSM does have a concern though that the data shows travel times that are higher than what the GIS maps indicate they should be. Aggregate fire and EMS 90th percentile travel time was 5.0 minutes in the City and 7.1 minutes in the Town. Fire was 5.3 minutes in the City and 6.9 minutes in the Town. EMS is 4.7 minutes in the City and 6.9 minutes in the Town.

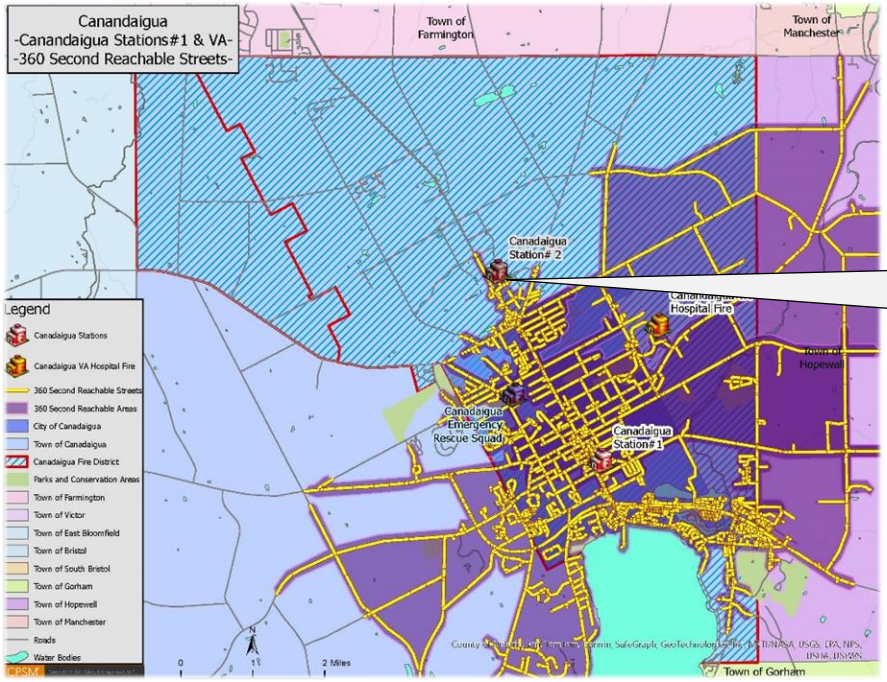
The next set of maps evaluates the NFPA 1710 - 360 second travel time benchmark for the second due fire suppression unit. To evaluate this, we have removed the district station from the travel time bleed analysis to illustrate how well surrounding stations penetrate the missing stations response district using 360 second travel time. Contiguous districts are the most typical to respond to the second fire suppression unit. When discussing the 360 second benchmark, it is prudent to include automatic aid from the Canandaigua VA Hospital.

Figure 60: CFD 360 Second Travel Time Reach – No Station 1



Station 1 removed. Station 2 and VA Hospital Fire Department.

Figure 61: CFD 360 Second Travel Time Reach – No Station 2



Station 2 removed. Station 1 and VA Hospital Fire Department.

Analysis of the 360-second travel time bleeds show either of the two CFD stations (along with the VA) can cover 100% of the City within 360 second travel time.

- Station 1 District: Low vulnerability with small area on the lakefront out the travel time. .
- Station 2 District: High vulnerability as the Town areas do not enjoy the same coverage at 360 seconds if Station 2 is removed. Conversely a significant part of Station 2's area is within a 360 second trave time from Station 2.

CPSM recommends that as a part of any strategic planning, and as travel time is affected by demand and workload on each station, road network, and traffic congestion, the Town of Canandaigua adopt a 6-minute (360 second) travel time benchmark measured at the 90th percentile as a performance benchmark. This is a more realistic performance benchmark as 90%+ of the CFD's Town coverage area appears to be within this benchmark, as indicated in the map above.

The next figures look at the 480-second response bleeds, which in the NFPA 1710 standard is the time benchmark for the assembling of the initial first alarm assignment on scene in 480 seconds or less, 90 percent of the time for low/medium hazards. This standard links to the incident critical tasking and the assembling of the Effective Response Force for the incident. For the CFD this will only be accomplished with the utilization of automatic/mutual aid.

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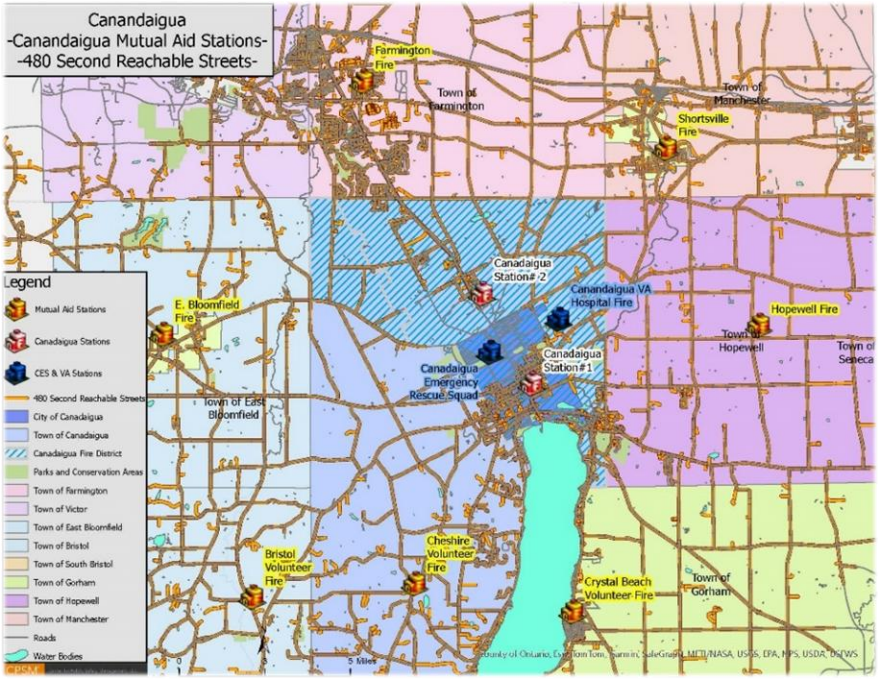
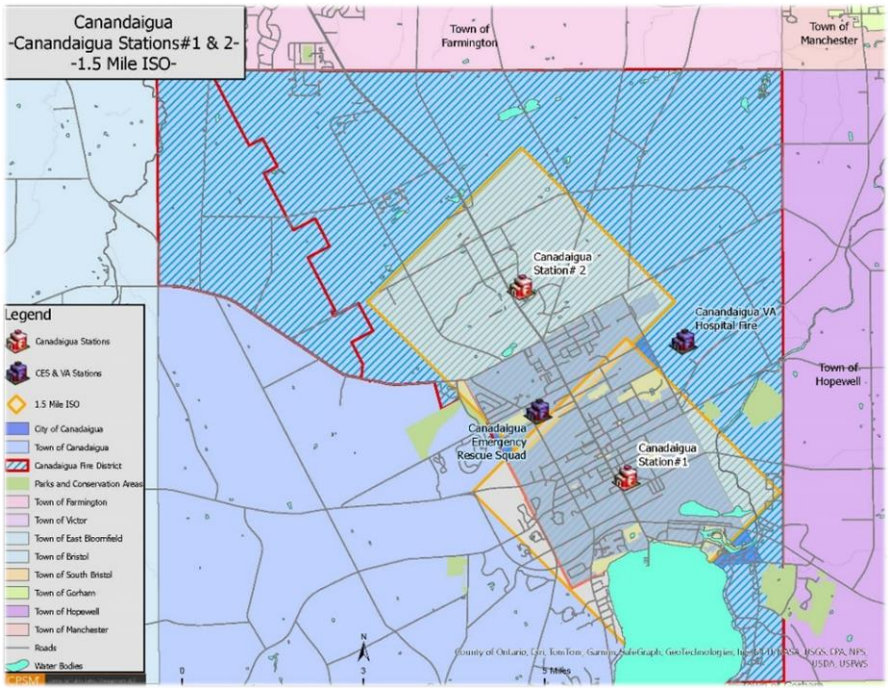
Figure 62: CFD 480 Second Travel Time Reach



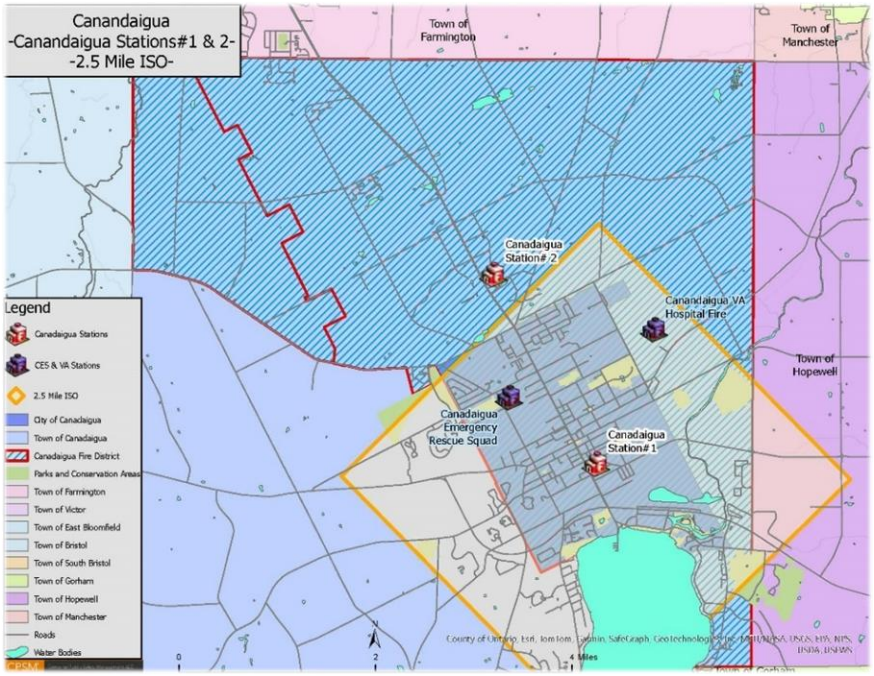
The next figure illustrates the 1.5-mile ISO-FSRS coverage circles for engine company response throughout the city. Ninety percent plus of the city is covered under this benchmark.

Figure 63: ISO-FSRS 1.5 Mile Response Polygons for Engine Companies



One final note here, the ISO Fire Suppression Rating Schedule also indicates that first-due ladder companies should serve areas that are within a 2.5-mile travel distance. The placement of fire stations that achieves this type of separation creates service areas that are approximately 6.25 square miles in size, depending on the road network and other geographical barriers. The next figure illustrates a circle designating 2.5 square miles around Fire Station 1 where the city's ladder is currently deployed from.

Figure 64: ISO-FSRS 2.5 Mile Response Polygon for Ladder Companies



CPSM assesses that the entire City of Canandaigua and about 50% of the Town of Canandaigua are covered when measured against the 240 second benchmark at the 90th percentile and based upon the GIS mapping. Most of the Town is also covered by the 360 second travel time benchmark.

CPSM assesses that the entire City of Canandaigua is covered by the ISO 1.5-mile polygons for engine company coverage. In addition, the most developed area of the City's fire response district in the Town and where future development is planned falls within these zones also. The entire City is also covered by the 2.5-mile ladder company polygon.

Fire Operations

Fire operations is the part of the CFD that provides emergency response to calls for assistance. In addition to normal fire and emergency medical responses at the BLS first responder level, the department provides mutual aid to neighboring jurisdictions and has personnel trained to handle complex technical rescues, water and ice rescues, and hazardous materials responses. Operations personnel also perform company level training, fire prevention activities including limited company level inspections, fire preplanning, and community-based programs.

Fire, rescue, and emergency medical system (EMS) incidents, and the fire department's ability to respond to, manage, and mitigate them effectively, efficiently, and safely, are mission-critical components of the emergency services delivery system. In fact, fire, rescue, and EMS operations

provide the primary, and certainly most important, basis for the very existence of the fire department.

Nationwide, fire departments are responding to more EMS calls and fewer fire calls, particularly fire calls that result in active firefighting operations by responders. This is well documented in both national statistical data as well as CPSM fire studies. Canandaigua is mostly consistent with these trends based upon overall numbers. Those facts notwithstanding, improved building construction, code enforcement, automatic sprinkler systems, and aggressive public education programs have contributed to a decrease in serious fires and, more importantly, fire deaths among civilians.

Despite trends and improvements in the overall fire protection system, fires still do occur, and the largest percentage of those occur in residential occupancies where they place the civilian population at risk. Although they occur with less frequency than they did several decades ago, when they occur today, they grow much quicker and burn more intensely than they did in the past. As will be discussed later in this section, it is imperative that the fire department is able to assemble an effective response force (ERF) within a reasonable time period in order to successfully mitigate these incidents with the least amount of loss possible.

Fire Effective Response Force and Critical Tasking

Even with the many advances in technology and equipment, the fireground is an unforgiving and dynamic environment where **firefighters must complete critical tasks simultaneously.** Lightweight wood construction, truss roofs, dwellings and buildings with basements, increased setbacks that make accessibility to the building difficult, and large footprint commercial buildings and estate homes are examples of the challenges that firefighting forces are met with when mitigating structural fires. Canandaigua is currently experiencing a significant amount of new residential and multi-family construction, and most newly constructed homes are larger than much of the older home stock. These homes tend to incorporate open floor plans, with large spaces that contribute to rapid fire spread. In addition, homes constructed since 1980 – a significant portion of the housing stock in Canandaigua - most likely incorporate lightweight construction which contributes to rapid fire spread and the potential for early collapse of the entire structure. Large commercial buildings present firefighters with different sets of hazards and risks. The challenge of rapid-fire spread is exacerbated by the use of lightweight roof trusses, vinyl siding, and combustible sheathing. The result is that more personnel are required to mitigate the incidents safely and effectively in these structures. Providing adequate staffing through an ***Effective Response Force*** for these environments depends on many factors.

The operations necessary to successfully extinguish a structure fire, and do so effectively, efficiently, and safely, requires a carefully coordinated and controlled plan of action where certain operations such as venting ahead of the advancing interior hose line(s) must be conducted with a high degree of precision and timing. Multiple operations, frequently where seconds count, such as search and rescue operations and trying to cut off a rapidly advancing fire, must also be conducted simultaneously. If there are not enough personnel on the incident initially to perform all the critical tasks, some will, out of necessity, be delayed. This can result in an increased risk of serious injury or death to building occupants and firefighters, and increased property damage.

While staffing and deployment of fire services is not an exact science, CPSM has developed metrics it follows and recommends that communities consider when making recommendations about staffing and deployment of fire resources. While there are many benchmarks that communities and management use in justifying certain staffing levels, there are certain considerations that are data driven and presented through national consensus that serve this

purpose as well. CPSM recommends that communities consider these factors when making decisions regarding staffing and deployment of fire resources.

Staffing is one component of these metrics and is linked to station location and what type of apparatus is responding, that is, the combination of engine, ladder, ambulance, or specialty apparatus. These joint factors help to determine what level of fire and EMS service is going to be delivered in terms of labor, response time, and resources.

Linked to these components of staffing and deployment are critical factors that drive various levels and models from which fire and EMS departments staff and deploy. These factors are:

All-Hazard Risk and Vulnerability of the Community: A fire department collects and organizes risk evaluation information about individual properties, and on the basis of the rated factors then derives a "fire risk score" for each property. The community risk and vulnerability assessment evaluates the community as a whole, and with regard to property, measures all property and the risk associated with that property and then segregates the property as either a high-, medium-, or low-hazard depending on factors such as the life and building content hazard, and the potential fire flow, staffing, and apparatus types required to mitigate an emergency in the specific property. Factors such as fire protection systems are considered in each building evaluation. Included in this assessment should be both a structural and nonstructural (weather, wildland-urban interface, transportation routes, etc.) analysis. All factors are then analyzed and the probability of an event occurring, the impact on the fire department, and the consequences on the community are measured and scored.

Population, Demographics, and Socioeconomics of a Community: Population and population density drives calls for local government service, particularly public safety. The risk from fire is not the same for everyone, with studies telling us age, gender, race, economic factors, and what region in the country one might live in contribute to the risk of death from fire. Studies also tell us these same factors affect demand for EMS, particularly population increase and the more frequent use of hospital emergency departments as many uninsured or underinsured patients rely on EDs for their primary and emergent care, utilizing prehospital EMS transport systems as their entry point.

Call Demand: Demand is made up of the types of calls to which units are responding and the location of the calls. This drives workload and station location considerations. Higher population centers with increased demand require resources.

Workload of Units: This factor involves the types of calls to which units are responding and the workload of each unit in the deployment model. This defines what resources are needed and where; it links to demand and station location, or in a dynamic deployed system, the area(s) in which to post units.

Travel Times from Fire Stations: Analyzes the ability to cover the fire management zone/response district in a reasonable and acceptable travel time when measured against national benchmarks such as NFPA 1710, and the ISO-FSRS engine and ladder company grading parameters. This metric links to demand, risk assessment, unit workload, and resiliency.

NFPA Standards, ISO, OSHA requirements (and other national benchmarking).

EMS Demand: Community demand; demand on available units and crews; hospital off-load wait times; demand on non-EMS transport units responding to calls for service (fire/police units); availability of crews in departments that utilize cross-trained EMS staff to perform fire suppression.

Critical Tasking: On-scene capabilities to control and mitigate emergencies are determined by staffing and deployment of certain resources for low-, medium-, and high-risk responses. Critical tasking involves the individual or team-level tasks that are required to be performed by on-scene personnel based on the type of incident the firefighting and EMS force is responding to. Critical tasks are to the greatest extent performed simultaneously for a more effective operation aimed at increased firefighter and the public's safety. Those risks/incidents requiring more critical tasks to be performed simultaneously drive a larger response force. An example of the importance of simultaneous critical tasking is a search and rescue crew and a ventilation crew operating while a crew or crews are advancing attack lines.

Effective Response Force: The ability of the jurisdiction to assemble the necessary personnel on the scene to perform the critical tasks necessary in rapid sequence to mitigate the emergency. The speed, efficiency, and safety of on-scene operations are dependent upon the number of firefighters performing the tasks. If fewer firefighters are available to complete critical on-scene tasks, those tasks will require more time to complete and impact overall operations and the safety of firefighters and the public.

Innovations in Staffing and Deployable Apparatus: The fire department's ability and willingness to develop and deploy innovative apparatus (combining two apparatus functions into one to maximize available staffing, as an example). Deploying quick response vehicles (light vehicles equipped with medical equipment and some light fire suppression capabilities) on those calls (typically the largest percentage) that do not require heavy fire apparatus.

Community Expectations: The gathering of input and feedback from the community, then measuring, understanding, and developing goals and objectives to meet community expectations.

Ability to Fund: The community's understanding of, and its ability and willingness to fund fire and EMS services, while considering how budgetary revenues are divided up to meet all of a community's expectations.

While each component presents its own metrics of data, consensus opinion, and/or discussion points, aggregately they form the foundation for informed decision making geared toward the implementation of sustainable, data- and theory-supported, effective fire and EMS staffing and deployment models that fit the community's profile, risk, and expectations. The City of Canandaigua had not updated the comprehensive analysis of these elements from our prior study prior to the current analysis. However, part of CPSM's work and analysis involved the completion of an updated community fire risk and target hazard analysis based upon the city's current situation.

The NFPA *Fire Protection Handbook*[54] classifies buildings and occupancies by their relative risk and provides recommendations on the minimum ERF that will be needed to manage fire incidents in them. These include:

High-hazard Occupancies: Schools, hospitals, nursing homes, explosive plants, refineries, high-rise buildings, and other high life safety-hazard or large fire-potential occupancies.

Medium-hazard Occupancies: Apartments, offices, and mercantile and industrial occupancies, not normally requiring extensive rescue by firefighting forces.

54. Cote, Grant, Hall & Solomon, eds., *Fire Protection Handbook* (Quincy, MA: NFPA 2008), 12-3

Low-hazard Occupancies: One-, two-, or three-family dwellings and scattered small business and industrial occupancies. This represents the majority of occupancies found in many communities.

NFPA 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Career Fire Departments*, 2020 edition, outlines organization and deployment of operations by career, and primarily career fire and rescue organizations. It serves as a benchmark to measure staffing and deployment of resources to certain structures and emergencies. Questions of legal responsibilities are often discussed in terms of compliance with NFPA standards. NFPA standards are consensus standards and not the law. Many cities and counties strive to achieve these standards to the extent possible without an adverse fiscal impact on the community. Cities and communities must decide on the level of service and compliance they can deliver based on budgetary constraints and operational capabilities.

NFPA 1710 details staffing levels for fire departments in terms of fire, EMS, and special operation incidents. According to NFPA 1710, fire departments should base their capabilities on a formal community risk assessment, as discussed in this report, and taking into consideration:[55]

- Life hazard to the population protected.
- Provisions for safe and effective firefighting performance conditions for the firefighters.
- Potential property loss.
- Nature, configuration, hazards, and internal protection of the properties involved.
- Types of fireground tactics and evolutions employed as standard procedure, type of apparatus used, and results expected to be obtained at the fire scene.

NFPA 1710 addresses standards for an ***Effective Response Force*** across several types of occupancies. An effective response force (**ERF**) is defined as the minimum number of firefighters and equipment that must reach a specific emergency incident location within a maximum prescribed travel [driving] time. The maximum prescribed travel time acts as one indicator of resource deployment efficiency.

NFPA 1710 provides a staffing deployment model and critical tasking guidelines for four specific occupancies. These occupancies are:

- Single-Family Dwelling.
- Open-Air Strip Mall/Commercial Building.
- Garden Style Apartment.
- High Rise.

The Center for Public Safety Excellence (CPSE) has also established benchmarks regarding staffing and deployment. CPSE sets standards for agencies desiring accreditation through the Commission on Fire Accreditation International (CFAI). CFAI uses standards set forth in the *Quality Improvement for the Fire and Emergency Services* manual, to provide guidance in staffing and deployment to agencies desiring accreditation through Core Competencies.

Both CPSE and the NFPA have defined ***critical tasking***. CPSE defines critical tasking as the application of tasks assigned to the human and physical resources that are minimally required to

55. NFPA 1710, 5.2.1.1, 5.2.2.2

effectively mitigate pain, suffering, and loss of life and/or property. ***Critical tasking is relevant to risk classifications and risk categories.***[56]

Critical tasks as defined by NFPA 1710 are those activities that must be conducted on time by responders at emergency incidents to control the situation and stop loss. Critical tasking for fire operations is the minimum number of personnel needed to perform the tasks needed to effectively control and mitigate a fire or other emergency. ***To be effective, critical tasking must assign enough personnel so that all identified functions can be performed simultaneously.*** However, it is important to note that initial response personnel may manage secondary support functions once they have completed their primary assignment. Thus, while an incident may end up requiring a greater commitment of resources or a specialized response, a properly executed critical tasking assignment will provide adequate resources to immediately begin bringing the incident under control.

There are 93 Core Competencies required for a department to achieve accreditation status as defined by CPSE. Competency 2C.4 is under the heading of Current Deployment and Performance and addresses critical tasking.

> *Criterion 2C: Current Deployment and Performance*
>
> *The agency identifies and documents the nature and magnitude of the service and deployment demands within its jurisdiction. Based on risk categorization and service impact considerations, the agency's deployment practices are consistent with jurisdictional expectations and with industry research. Efficiency and effectiveness are documented through quality response measurements that consider overall response, consistency, reliability, resiliency, and outcomes throughout all service areas. The agency develops procedures, practices, and programs to appropriately guide its resource deployment.*[57]
>
> *Core Competency 2C.4*
>
> *A critical task analysis of each category and risk class is conducted to determine the first due and effective response force capabilities, and a process is in place to validate and document the results.*
>
> Core competency 2C.4 requires that the agency conduct a critical task analysis of each risk category and risk class to determine the first-due and effective response force capabilities, and to have a process in place to validate and document the results. The process considers the number of personnel needed to perform the necessary emergency scene operations. Completion of the process also helps to identify any gaps in the agency's emergency scene practices.

As already stated, for any given emergency to which CFD responds, there are critical tasks that must be completed. These tasks can range from the immediate rescue of trapped occupants within a burning structure to vehicle or water rescue when needed. A set of critical tasks have been developed in an effort to identify what resources are needed for each incident type. The following critical task analysis was performed independent of CFD policies; however, a comparison is provided.

The specific number of people required to perform all the critical tasks associated with an identified risk or incident type is referred to as an **Effective Response Force (ERF)**. The intent of the

56. Center for Public Safety Excellence, Quality Improvement for the Fire and Emergency Services, 2020
57. Center for Public Safety Excellence, Quality Improvement for the Fire and Emergency Services, 2020

risk management process is for the department to develop a standard level of safety while strategically aligning its resources with requests for service. Thus, the critical tasking presented herein will consider the ERF in relation to either a low-, moderate-, or high-risk classification.

The following discussion and tables will outline how critical tasking and assembling an effective response force as recommended in NFPA 1710. Discussion later in this section will compare these benchmarks with operations in Canandaigua. This section will cover single-family dwelling buildings, open-air strip mall buildings, apartment buildings, and high-rise structures. Canandaigua technically does not have high-rise buildings as outlined in the NFPA standard; however, one building is just short of meeting the criteria so it is worth including the recommended ERF for similar structures as many of the challenges will be the same. ***An additional note here: with on duty staffing just four personnel, and no volunteers available to supplement the career staff, the CFD will be unable to manage any type of structure fire, other than perhaps a small shed or outbuilding, without significant mutual aid.***

Single-Family Dwelling: NFPA 1710, 5.2.4.1

The initial full alarm assignment (ERF) to a structural fire in a typical 2,000 square-foot, two-story, single-family dwelling without a basement and with no exposures must provide for a minimum of 16 members (17 if an aerial device is used). These are the proverbial "bread and butter" structural fire incidents that fire departments respond to, and which are, by far, the most common type of structure fire. ***As in most communities, single family dwellings represent the majority of building risk in Canandaigua.***

The next table outlines the critical task matrix for single family dwelling fires. This serves as a good benchmark for critical tasking that needs to be accomplished to mitigate the most common type of structural fire incident, which is the single-family dwelling. The subsequent figure illustrates how the Effective Response Force integrates simultaneously to accomplish these fireground goals.

Table 23: Effective Response Force for Single-Family Dwelling

Critical Tasks	Personnel
Incident Command	1
Continuous Water Supply	1
Fire Attack via Two Handlines	4
Hydrant Hook Up - Forcible Entry - Utilities	2
Primary Search and Rescue	2
Ground Ladders and Ventilation	2
Aerial Operator if Aerial is Used	1
Establishment of IRIC (Initial Rapid Intervention Crew)	4
Total Effective Response Force	**16 (17 If aerial is used)**
CFD Initial Response Provided	**7***

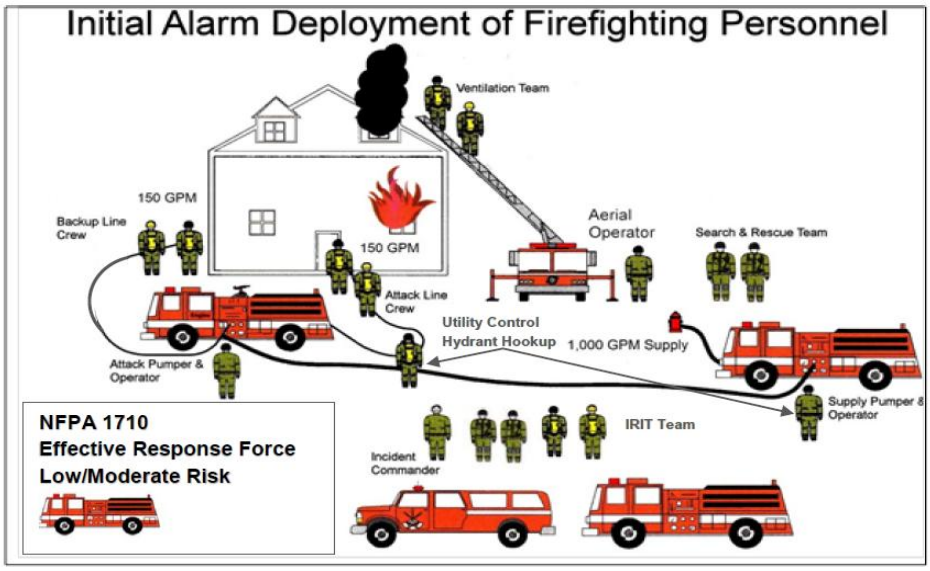
Note: * Assumes both CFD units respond with two personnel and VA Hospital with three. It does not include any potential response from surrounding volunteer departments because their staffing level and response times are both unknown and can vary based upon time of the day.

As a single responding agency, the CFD **does not** meet the minimum benchmarks of NFPA 1710 for an Effective Response Force for a single-family building fire. NFPA 1710 permits fire

departments to use established automatic/mutual aid agreements to comply with section 5.2 of this standard. This will be discussed later in this section.

The next figure illustrates the critical tasking and ERF for a single-family dwelling.

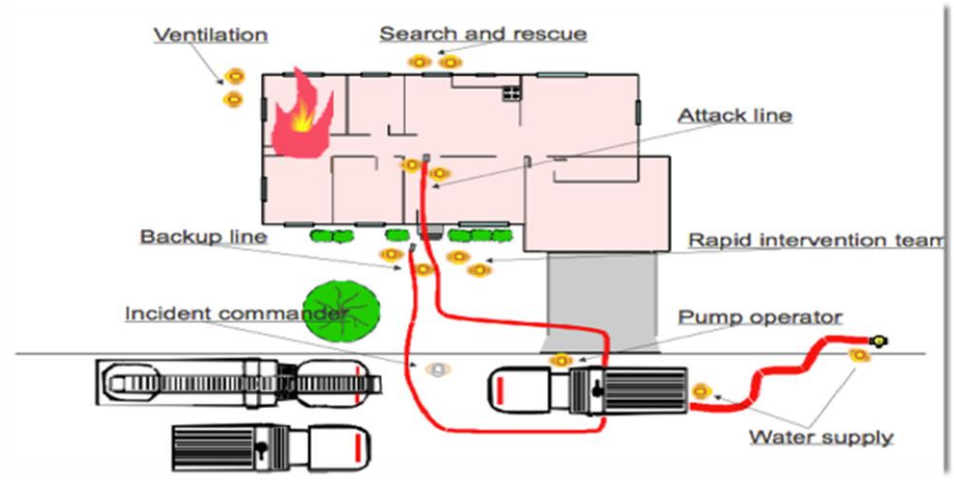
Figure 65: NFPA 1710 Initial Deployment of Firefighting Personnel/ERF Recommendation 17 Personnel: Low/Moderate Risk, Single-family Dwelling



As a single responding agency, the CFD does not meet the minimum benchmarks of NFPA 1710 for an Effective Response Force for a single-family dwelling fire. NFPA 1710 permits fire departments to use established automatic/mutual aid agreements to comply with section 5.2 of this standard. This will be discussed later in this section.

The next figure illustrates a slightly smaller response force for a single-family dwelling utilizing 14 personnel instead of the 17 shown in the previous figure. The primary difference between this figure and the previous one is there is no aerial ladder in use, and the critical firefighter safety net of the Rapid Intervention Team consists of just two personnel rather than four.

Figure 66: Initial Deployment of Firefighting Personnel–14 Personnel: Low/Moderate Risk, Single-family Dwelling



Personnel requirements for fires involving large, more complex structures such as commercial facilities or multifamily residential occupancies will require a significantly greater commitment of personnel.

Open-Air Strip Mall/Commercial Building, NFPA 5.2.4.2

The initial full alarm assignment (ERF) to a structural fire in a typical open-air strip center/commercial building ranging from 13,000 square feet to 196,000 square feet in size must provide for a minimum of 27 members (28 if an aerial device is used). The following table outlines the critical tasking matrix for these building types.

Table 24: Effective Response Force for Open-Air Strip Mall/Commercial Building

Critical Tasks	Personnel
Incident Command	2
Continuous Water Supply	2
Fire Attack via Two Handlines	6
Hydrant Hook Up - Forcible Entry - Utilities	3
Primary Search and Rescue	4
Ground Ladders and Ventilation	4
Aerial Operator if Aerial is Used	1
Establishment of IRIC (Initial Rapid Intervention Crew)	4
Medical Care Team	2
Total Effective Response Force	**27 (28 If aerial is used)**
CFD Initial Response Provided	**7***

Note: * Assumes both CFD units respond with two personnel and VA Hospital with three. It does not include any potential response from surrounding volunteer departments because their staffing level and response times are both unknown and can vary based upon time of the day.

As a single responding agency, the CFD does not meet the minimum benchmarks of NFPA 1710 for an Effective Response Force for an open-air strip mall/commercial building fire. NFPA 1710 permits fire departments to use established automatic/mutual aid agreements to comply with section 5.2 of this standard. This will be discussed later in this section.

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Apartment Building, NFPA 1710, 5.2.4.3

The initial full alarm assignment (ERF) to a structural fire in a typical 1,200 square-foot apartment within a three-story, garden-style apartment building must provide for a minimum effective response force (ERF) of 27 members (28 if an aerial device is used).

The next table outlines the critical tasking matrix for this type of building fire.

Table 25: Effective Response Force for Apartment Building

Critical Tasks	Personnel
Incident Command	2
Continuous Water Supply	2
Fire Attack via Two Handlines	6
Hydrant Hook Up - Forcible Entry - Utilities	3
Primary Search and Rescue	4
Ground Ladders and Ventilation	4
Aerial Operator if Aerial is Used	1
Establishment of IRIC (Initial Rapid Intervention Crew	4
Medical Care Team	2
Total Effective Response Force	**27 (28 If aerial is used)**
CFD Initial Response Provided	**7***

Note: * Assumes both CFD units respond with two personnel and VA Hospital with three. It does not include any potential response from surrounding volunteer departments because their staffing level and response times are both unknown and can vary based upon time of the day.

As a single responding agency, the CFD does not meet the minimum benchmarks of NFPA 1710 for an Effective Response Force for an apartment building fire. NFPA 1710 permits fire departments to use established automatic/mutual aid agreements to comply with section 5.2 of this standard. This will be discussed later in this section.

High Rise, NFPA 5.2.4.4

Canandaigua does not have any true high-rise buildings which are generally seven floors or more in height. However, with one six story, and two five story buildings, the challenges with fires will be similar. The initial full alarm assignment to a fire in a building where the highest floor is greater than 75 feet above the lowest level of fire department vehicle access must provide for a minimum of 42 members (43 if the building is equipped with a fire pump). The CFD should approach these occupancy types as a commercial or apartment building.

CPSM assesses the CFD as a single responding agency, is unable to assemble an Effective Response Force on its own for any type of structure fire, other than a shed or other small outbuilding. For any fire involving single-family dwellings, strip mall/commercial buildings, and apartment building fires, the CFD, as a single responding agency, cannot assemble an Effective Response Force without a robust response from mutual aid companies, which is allowed under the NFPA 1710 standard.

Relevant to assembling an Effective Response Force on building fires, ***the CFD should include in any strategic planning, planning objectives focused on increasing deployable assets – primarily staffing - to respond to all reported structure fires with apparatus staffed for effective operations.***

Additional personnel and resources should be dispatched to potential fire incidents in high risk target hazards that include high risk/vulnerable population risks (nursing/assisted living facilities), educational facilities, multifamily multi-story residential structures (apartments/condos), mercantile building risk, and large footprint commercial buildings with a lower life safety risk, generally a higher hazard risk based on processes, storage, and overall occupancy type. This should include the immediate dispatch of automatic aid from nearby jurisdictions on initial response to any reported building fires.

CFD Staffing Model

When exploring staffing and deployment of fire departments it is prudent to design an operational strategy around the actual circumstances that exist in the community and the fire and risk problems that are identified. The strategic and tactical challenges presented by the widely varied hazards that a department protects against need to be identified and planned for through a community risk analysis planning and management process as completed in this report. Once the acceptable level of risk has been decided, then operational service goals can be established. Whether looking at acceptable risk, or level of service goals, it would be imprudent, and probably very costly, to build a deployment strategy that is based solely on response times and emotion.

The staffing of fire units is a never-ending focus of attention among fire service and governmental leadership. Even with a thorough risk evaluation, staffing Fire and EMS companies continues to remain a hotly debated topic among firefighters and governmental leadership since risk assessment models include high risk / low frequency situations. While there are situations that may be low frequency, they can and do occur and thus require operational readiness to mitigate.

While NFPA 1710 and OSHA provide guidelines (and to some extent the law, specifically OSHA in OSHA states) as to the level of staffing and response of personnel, the adoption of these documents varies from state to state, and department to department. NFPA 1710 addresses the recommended staffing in terms of specific types of occupancies and risks. The staff needed to conduct the critical tasks for each specific occupancy and risk are determined to be the *Effective Response Force* (ERF). The ERF for each type of occupancy is detailed in NFPA 1710 (2020 edition), section 5.2.4, Deployment. OSHA is specific to operating in immediately dangerous to life or health (IDLH) environments, where there is a requirement of two firefighters outside of the building or entry point to the IDLH, while there are two firefighters operating inside the building or other vessel that has an IDLH.

The CFD currently has an authorized staff of 20 full-time employees and two part-time personnel. Of these, 21 are sworn emergency response personnel, with 19 assigned to fire and EMS operations positions while the remainder – Fire Chief and a part time Fire Inspector (a FT Captain with additional duties) - perform a variety of administrative and support functions. The single non-uniformed person is a part-time office Administrative Assistant position who performs a variety of roles for the department.

Each department shift has 4 personnel assigned, including one Captain and three firefighters. The remaining three firefighters are floaters who move from shift to shift based upon need. The minimum staffing is also four personnel. This requires that any time any member is off on any type of leave that the position be filled by either a floater or another firefighter working overtime.

The department delivers field operations and emergency response services through a clearly defined division of labor that includes middle managers /first-line operational supervisors (captains), and firefighters. Currently, the entire city Town fire district response area is considered a single operational unit and is commanded each day by the on-duty captain. Field personnel

work a four-platoon, 42-hour work week that is comprised of 24-hour long duty days. Personnel are on duty for 24 hours followed by 72 hours off duty.

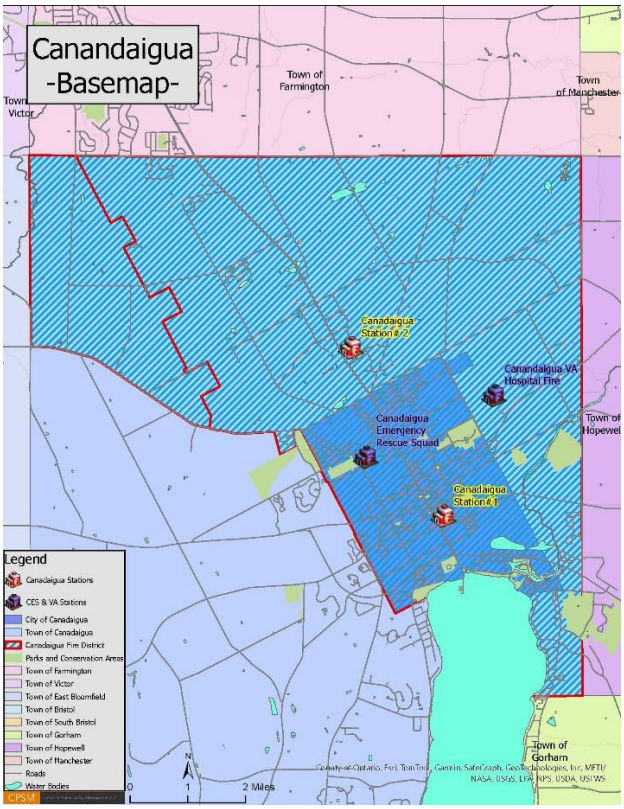
The CFD currently operates out of two stations, staffing one engine and one tower ladder. The following figure illustrates the current CFD deployment.

Table 26: Current CFD Staffing Matrix

ON DUTY STAFFING LEVEL	STATION 1 STAFFING	UNIT(S) STAFFED	STATION 2 STAFFING	UNIT(S) STAFFED
4 Personnel	2	Truck 281 w/ 2	2	Engine 211 w/ 2

The following figures illustrate the location of both CFD fire station along with the VA hospital and CES.

Figure 67: CFD Station Locations



Although the City and Town of Canandaigua should be commended for their efforts to increase CFD career staffing since our previous study, the Department is still understaffed when compared to national best practices. It is generally accepted that fire apparatus staffed with just two personnel are seriously understaffed. This fact is emphasized in a National Institute for Occupational Safety and Health (NIOSH) report on the death of a Kansas firefighter more than 30 years ago which cited a number of "preventable events" that contributed to the firefighter's death, not the least of which was an inadequate number of personnel on the initial response and the lack of additional adequate safety procedures. Among other things the report stated, ***"A two firefighter engine is, at minimum, 50% under-staffed and increases the work effort of the two firefighters by a factor of 3".*** Almost every NIOSH line-of-duty death report recommends that fire departments "provide adequate firefighter staffing to ensure safe operating conditions."

Complicating the situation for the CFD and by extension the City and Town, is the demise of the City's final volunteer fire company during the same time period. Many communities in the United States that are similar sized to Canandaigua are protected by combination fire departments comprised of both career and call/volunteer personnel, or, in some instances fully call/volunteer fire departments. CPSM is often questioned by municipal leaders if maintaining a call contingent in their local fire department would be a viable option to supplement the career staffing levels. However, CPSM rarely ever believes this would be a feasible option in the 21st century and Canandaigua provides no exception.

There are several factors that lead to this conclusion, chief among them the time commitment necessary to complete initial training (up to 550 hours to earn basic certifications for both firefighting and EMT); a demise in the deep tradition of a call or division within the department that would attract and keep members; and a general steep decline in volunteerism throughout the country. Many chiefs who lead combination departments report that they invest considerable resources, both time and financially, in training people to be call firefighters only for them to use it as nothing more than a stepping-stone to a career job. These factors are particularly relevant today when an increasing number of communities are seeking to bolster their staffing by hiring career personnel.

As noted previously, for most of its history, the CFD primarily utilized volunteer firefighters supplemented by a small career contingent. However, as emergency calls and training requirements increased, particularly over the past decade, volunteer firefighters retired, resigned, or accepted career positions. Like many other municipalities throughout the United States, Canandaigua has been unsuccessful at recruiting new volunteer firefighters and has arrived at the realization that it is no longer feasible or practical to recruit and retain volunteer firefighters. Over the past decade, the City has been unsuccessful in recruiting new volunteer firefighters while nearly doubling the size of the career force. In the opinion of the MRI project team, the use of volunteer firefighters is no longer part of recommended fire protection service delivery model for Canandaigua. Today's training requirements for firefighting, rescue, and hazardous materials, and the frequency of emergency calls are just two of the barriers to maintaining an effective and reliable volunteer firefighting force.

According to various stakeholders that were interviewed for this study, the CFD in coordination with the Erina Hose Company did try to aggressively recruit new volunteer members in the intervening years since our previous study. These efforts are shown in the next table.

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Table 26: CFD Volunteer Recruitment and Retention Efforts

- Recruit NY – Open houses
- Community outreach and special events
- Social Media
- Community Materials & Signage
- Outside Training
- Scholarships
- NYS Tax break Incentives.
- Volunteer firefighters' and ambulance workers' credit.
- School Career Days and Outreach
- Word of mouth
- Gym Memberships
- Live in – Student Programs
- College books and tuition reimbursement
- New gear and uniforms
- Use of the firehall meeting room & wash bay
- Property Tax Credits for Volunteer Firefighters and EMS Personnel

Volunteerism in the emergency services has been in decline for decades now. However, it appears to have accelerated since the turn of the century and accelerated even more since the COVID pandemic. There are numerous common reasons for that decline including, but not limited to:

- The training commitment includes an ever-increasing level of specialized skills that requires a significant commitment of personal time.
- An overall reduction in leisure time.
- Employment obligations and the common need to maintain more than one job.
- The virtual elimination of an employer's understanding and flexibility relating to this form of community service.
- Generational differences and increased family demands.

While our intention is not to in any way disparage the dedicated personnel who volunteer and may risk their lives also to protect their communities, it is important to paint an accurate picture of the challenges facing volunteer emergency response organizations throughout the United States since in this situation it impacts both the City and the Town. It is often difficult to get a good handle on the actual staffing numbers in many volunteer fire service organizations. Available personnel from the same station often varies at different times during the day, different days of the week, and sometimes even from incident to incident depending upon what the nature is (service call versus structure fire).

Most members of volunteer fire companies have a primary job, other than the fire department, that often limits their availability to respond, mostly during normal business hours. Those who are often counted in the number of personnel who responded may arrive very late in the incident or may have stood by at the station rather than actually responding to the incident. These long-held practices for awarding credit can often skew the actual number of personnel and make staffing for the volunteer companies appear better than it really is.

When discussing staffing it must also be noted that although many of the members of the fire companies are certified firefighters, a number still are not. Personnel who are not certified as firefighters and up to date in their training, even though they may still arguably be able to contribute, should not be counted toward active "firefighter" numbers. They should not be counted towards unit staffing for incidents. Depending upon their level of training (or lack

thereof in some cases) they could actually be a liability to the City and/or the Town since the municipality that requests mutual aid is frequently liable for anything that occurs on that emergency incident.

CPSM assesses that the CFD is no longer a combination fire department. CPSM further assesses that further efforts to recruit and retain volunteer fire personnel for the CFD would not be a good investment of either time or money. As such, all future efforts to enhance CFD staffing levels will involve the hiring of additional career staff.

While CPSM was developing the draft of this report, questions were raised from Canandaigua officials regarding alternative staffing models, including a "military-style" model and the potential establishment of a live-in firefighter program. Fire departments across the country employ a wide range of staffing approaches, some proven and appropriate, others adopted out of fiscal or operational necessity. Importantly, a model that is successful in one community may not be suitable for another.

As discussed throughout this report, determining appropriate fire department staffing levels is inherently a local decision influenced by multiple factors. Ultimately, it is the responsibility of the governing body to determine the level of risk it is willing to accept, balanced against the level of protection it is able to fund.

While CPSM does not suggest eliminating any staffing option without careful evaluation, it is important to acknowledge that, as of 2025, the challenges associated with implementing new staffing programs are significant and may ultimately be impractical or not cost-effective for the City.

- Efforts by the City and the CFD to maintain a combination department have been discussed previously. Despite these efforts, the City's volunteer fire companies have become operationally defunct. This outcome is not uncommon nationwide and is unlikely to be reversed given the continued and steep decline in volunteer participation in the emergency services.
- Peak Staffing Model: This model is most often used with regard to staffing EMS units rather than for fire suppression purposes. The CFD is already minimally staffed. While call volume is less overnight, the life hazard is significantly increased as the greatest percentage of the population home and sleeping and less aware of the potential of a fire in their residence.
- Military Model: This approach relies on part-time personnel to fill operational roles, similar to the way the military uses reservists or National Guard members. In the fire service, this model is commonly referred to as paid-on-call, paid-on-premise, or part-time firefighter staffing. The CFD previously operated a program of this nature during an earlier CPSM study period; however, it is no longer in place.

  Reestablishing such a program would likely require collective bargaining. Additionally, participation by full-time firefighters from other departments would be unlikely due to union considerations or prohibitions. Finally, if the City were responsible for the costs of training and equipping these personnel, the financial investment would be substantial and may yield limited long-term return, as these positions are often used as a steppingstone to full-time career employment elsewhere.
- Live-In Firefighter Program: There are several long-standing and successful live-in firefighter programs; however, these initiatives are typically located near four-year colleges or universities that can provide a steady pool of participants for up to four years, or longer if students pursue post-baccalaureate education. Canandaigua does not have nearby institutions that would reasonably support such a program. Finger Lakes Community College is a two-year institution

and does not offer fire science or emergency services curricula that would be likely to attract or sustain a live-in firefighter population.

When evaluating staffing options, it is important to recognize that the current CFD model relies on deploying two understaffed units from two stations (when benchmarked against national standards).

OSHA, NFPA 1500, Two-In/Two-Out

There is no New York State or federal requirement that specifies staffing levels on fire apparatus. However, another important consideration, and one that links to critical tasking and assembling an Effective Response Force, is that of two-in/two-out regulations. Essentially, prior to starting any fire attack in an immediately dangerous to life and health (IDLH) environment [with no confirmed rescue in progress], the initial two-person entry team shall ensure that there are sufficient resources on-scene to establish a two-person initial rapid intervention team (IRIT) located outside of the building. This includes any time personnel are conducting interior firefighting activities in a hazardous work environment (that is, an environment that is immediately dangerous to life or health, or IDLH). It is important to note that the potential for an IDLH atmosphere to exist is not just limited to structure fires. They can exist on natural gas leaks, carbon monoxide incidents, confined space emergencies, chemical spills, and even automatic fire alarm activations where there is an actual fire in progress.

This critical tasking model has its genesis with the Occupational Safety and Health Administration, specifically 29 CFR 1910.134(g)(4). New York establishes regulations for firefighters including the adoption of OSHA regulations and NFPA standards. Federal OSHA covers the issues not specifically covered by the New York regulations. As such, the federal rule (29 CFR 1910.134(g)(4)) applies to the CFD.

According to *CFR 1910.134: Procedures for Interior Structural Firefighting*. The employer shall ensure that:

(i) At least two employees enter the IDLH atmosphere and remain in visual or voice contact with one another at all times;

(ii) At least two employees are located outside the IDLH atmosphere; and

(iii) All employees engaged in interior structural firefighting use SCBAs.[58]

According to the standard, one of the two individuals located outside the IDLH atmosphere may be assigned to an additional role, such as incident commander in charge of the emergency or safety officer, so long as this individual is able to perform assistance or rescue activities without jeopardizing the safety or health of any firefighter working at the incident.

NFPA 1500, *Standard on Fire Department Occupational Health, Safety, and Wellness, 2018 Edition, has similar language as CFR 1910.134)g)(4) to address the issue of two-in/two-out, stating the initial stages of the incident where only one crew is operating in the hazardous area of a working structural fire, a minimum of four individuals shall be required consisting of two members working as a crew in the hazardous area and two standby members present outside this hazard area available for assistance or rescue at emergency operations where entry into the danger area is required.*[59]

58. CFR 1910.134 (g) 4
59. NFPA 1500, 2018, 8.8.2.

NFPA 1500 also speaks to the utilization of the two-out personnel in the context of the health and safety of the firefighters working at the incident. *The assignment of any personnel including the incident commander, the safety officer, or operations of fire apparatus, shall not be permitted as standby personnel if by abandoning their critical task(s) to assist, or if necessary, perform rescue, this clearly jeopardizes the safety and health of any firefighter working at the incident.*[60]

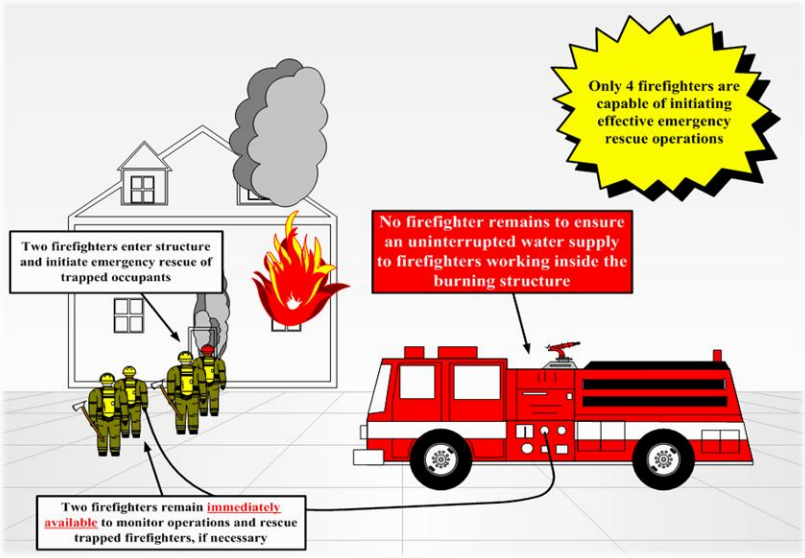
In order to meet CFR 1910.134(g)(4), and NFPA 1500, the CFD must utilize two personnel to commit to interior fire attack while two firefighters remain out of the hazardous area or immediately dangerous to life and health (IDLH) area to form the IRIT, while attack lines are charged, and a continuous water supply is established. In Canandaigua this will currently require both fire suppression units and all duty personnel to commence operations.

However, NFPA 1500 allows for fewer than four personnel under specific circumstances. It states: *Initial attack operations shall be organized to ensure that if on arrival at the emergency scene, initial attack personnel find an imminent life-threatening situation where immediate action could prevent the loss of life or serious injury, such action shall be permitted with fewer than four personnel.*[61]

CFR 1910.134(g)(4) also states that nothing in section (g) is meant to preclude firefighters from performing emergency rescue activities before an entire team has assembled.[62]

It is also important to note that the OSHA standard (and NFPA 1710) specifically references "interior firefighting." Firefighting activities that are performed from the exterior of the building are not regulated by this portion of the OSHA standard. However, ***in the end, the ability to assemble adequate personnel, along with appropriate apparatus, on the scene of a structure fire, is critical to operational success and firefighter safety.***

Figure 68: Two-In/Two-Out Interior Firefighting Model



The OSHA requirement has two key provisions that allow considerable flexibility regarding staffing:

60. NFPA 1500, 2018, 8.8.2.5.
61. NFPA 1500, 2018 8.8.2.10.
62. CFR 190.134, (g).

- One provision specifies that the four personnel who engage in interior firefighting are required at the incident (assembled) and are not a staffing requirement for the individual responding unit(s).
- The second provision is that an exception is provided when crews are performing rescue operations where there is the potential for serious injury or death of the occupants. In this case the standard allows the entry of two personnel to conduct the rescue activity without two firefighters outside immediately available to monitor operations and rescue trapped firefighters, if necessary.

The CFD responds initially to reported structural fires with no specified minimum number of personnel. The initial staffing is determined by the on duty staffing of four, whether all personnel are available for response at the time of dispatch, and the number of personnel who respond from surrounding mutual aid departments. Under this response model, the CFD hopes to provide the minimum number of firefighters on the initial response in order to comply with CFR 1910.134(g)(4), regarding two-in/two-out rules and an initial rapid intervention team (IRIT). In all cases this will require a minimum of both CFD fire suppression units on scene to commence operations. In addition, with units already understaffed, particularly if there is another incident already in progress that has one unit and its personnel committed, the CFD will be unable to provide sufficient staffing to comply with CFR 1910.134 – for interior structural firefighting – until the arrival of a mutual aid unit.

It was consistently reported to CPSM that the CFD does try to follow the provisions of the OSHA Two-In/Two-Out regulation regarding waiting to initiate an interior fire attack until four personnel are assembled when there are no rescues to be made. The department is to be commended for this adherence.

Staffing, Response, and Operating on Scene

One of the factors that has helped the fire service in terms of staffing is technology. The fire service continues to benefit from technological advances that help firefighters extinguish fires more effectively. More advanced equipment in terms of nozzles, personal protective gear, thermal imaging systems, advancements in self-contained breathing apparatus, incident command strategies, drones with infrared cameras, and devices used to track personnel air supply are some of the technologies and techniques that help firefighters extinguish fires faster and manage the fireground more effectively and safely. While some of these technologies do not reduce the staffing or workforce needed, they do have an impact on firefighter safety, property loss, and crew fatigue.

With a population density estimated to be approximately 2,319 people per square mile, Canandaigua is considered an urban community by the Census Bureau. Like many older communities that are still experiencing some growth, the city has an assortment of commercial, industrial (including several large facilities), and residential buildings it must protect, including a growing number of multi-story residential buildings. If a fire grows to an area in excess of 2,000 square feet, or extends beyond the building of origin, it is most probable that additional personnel and equipment will be needed, as initial response personnel will be taxed beyond their available resources. This is particularly true in the older, more densely developed areas of the city including the downtown business district. From this perspective it is critical that CFD units respond quickly and initiate extinguishment efforts as rapidly as possible after notification of an incident. It is, however, difficult to determine in every case the effectiveness of the initial response in limiting the fire spread and fire damage. Many variables will impact these outcomes, including:

- The time of detection, notification, and ultimately the response of fire units.
- The age and type of construction of the structure. The newer construction in Canandaigua will be of lightweight construction, which is prone to early collapse in a fire situation.
- The presence of any built-in protection (automatic fire sprinklers) or fire detection systems. Fortunately, the majority of the new commercial construction in Canandaigua is equipped with automatic fire suppression systems.
- The contents stored in the structure and its flammability.
- The presence of any flammable liquids, explosives, or compressed gas canisters.
- Weather conditions and the availability of water for extinguishment.

Subsequently, in those situations in which there are extended delays in the extinguishment effort, or the fire has progressed sufficiently upon arrival of fire units, there is actually very little that can be done to limit the extent of damage to the entire structure and its contents. In these situations, suppression efforts may need to focus on the protection of nearby or adjacent structures (exterior exposures) with the goal being to limit the spread of the fire beyond the building of origin, and sometimes the exposed building. This is often termed ***protecting exposures***. When the scope of damage is extensive, and the building becomes unstable, firefighting tactics typically move to what is called a ***defensive attack***, or one in which hose lines and more importantly personnel are on the outside of the structure and their focus is to merely discharge large volumes of water until the fire goes out. In these situations, the ability to enter the building is very limited and if victims are trapped in the structure, there are very few safe options for making entry.

Today's fire service is actively debating the options of interior firefighting vs. exterior firefighting. These terms are self-descriptive in that an ***interior fire attack*** is one in which firefighters enter a burning building in an attempt to find the seat of the fire and from this interior position extinguish the fire with limited amounts of water.

An ***exterior fire attack***, also sometimes referred to as a ***transitional attack***, is a tactic in which firefighters initially discharge water from the exterior of the building, either through a window or door and knock down the fire before entry in the building is made. The concept is to introduce larger volumes of water initially from the outside of the building, cool the interior temperatures, and reduce the intensity of the fire before firefighters enter the building. A transitional attack is most applicable in smaller structures, typically single family, one-story

detached units which are smaller than approximately 2,500 square feet in total floor area. For fires in larger structures, the defensive type, exterior attacks generally involve the use of master streams capable of delivering large volumes of water for an extended period of time.

Recent studies by UL have evaluated the effectiveness of interior vs. exterior attacks in certain simulated fire environments. These studies have found the exterior attack to be equally effective in these simulations.[63] This debate is deep-seated in the fire service and traditional tactical measures have always proposed an interior fire attack, specifically when there is a possibility that victims may be present in the burning structure. The long-held belief in opposition to an exterior attack is that this approach may actually push the fire into areas that are not burning or where victims may be located. The counterpoint supporting the exterior attack centers on firefighter safety.

The exterior attack limits the firefighter from making entry into those super-heated structures that may be susceptible to collapse. From CPSM's perspective, there is at least some likelihood that a CFD crew of two to four personnel will encounter a significant and rapidly developing fire situation. It is prudent, therefore, that the CFD builds at least a component of its training and operating procedures around the tactical concept of the exterior fire attack when the situation warrants such an approach.

CPSM recommends that the CFD should build at least a portion of its training regimens and tactical strategies around the exterior or transitional attack for when the fire scenario and the number of available units/responding personnel warrants this approach.

CPSM recommends that In acknowledgement of the fact that the CFD operates in a minimal staffing mode and recognizing the potential for rapid fire spread, particularly in the more densely developed areas of the city, the CFD should equip all its apparatus with the appropriate appliances and hose and develop standardized tactical operations that will enable arriving crews to quickly deploy high-volume fire flows of 1,200 to 1,500 gallons per minute (if the water supply will permit this), utilizing multiple hose lines, appliances, and master stream devices. This

63. "Innovating Fire Attack Tactics," U.L.COM/News Science, Summer 2013.

flow should be able to be developed within four to five minutes after the arrival of an apparatus staffed with three personnel.

To effectively respond to and mitigate requests for emergency services, an agency must have a thorough understanding of its community's risk factors, both fire and EMS. Once identified and understood, each category or level of risk is associated with the necessary resources and actions required to mitigate it. This is accomplished through a critical task analysis. The exercise of matching operational asset deployments to risk, or critical tasking, considers multiple factors including national standards, achievement of benchmark performance measures, and the safety of responders.

During fire incidents, to be effective, critical tasking must assign enough personnel so that all identified functions can be performed simultaneously. However, it is important to note that initial response personnel may manage secondary support functions once they have completed their primary assignment. Thus, while an incident may end up requiring a greater commitment of resources or a specialized response, ***a properly executed critical task analysis will provide adequate resources to immediately begin bringing the incident under control.***

Regarding the implementation of an ERF as was discussed earlier in this section and its aggregate effect on fireground operations, there has been much research done by a number of fire departments on the effects of various staffing levels. A 2010 comprehensive yet scientifically conducted, verified, and validated, study titled *Multiphase Study on Firefighter Safety and the Deployment of Resources* was performed by the National Institute of Standards and Technology (NIST) and Worcester Polytechnic Institute (WPI), in conjunction with the International Association of Fire Chiefs, the International Association of Fire Fighters, and the Center for Public Safety Excellence. For the first time, quantitative evidence has been produced regarding the impact of crew size on accomplishing critical tasks. Additionally, continual research from UL has provided tactical insights that shed further light on the needs related to crew size and firefighter safety. This body of research includes:

- An April 2010 report on *Residential Fireground Field Experiments* from the National Institute of Standards and Technology (NIST).
- An April 2013 report on *High-Rise Fireground Field Experiments* from the National Institute of Standards and Technology (NIST-HR).
- A December 2010 report on the *Impact of Ventilation on Fire Behavior in Legacy and Contemporary Residential Construction* (UL).

As stated, some of these studies' findings have a direct impact on the exercise of critical tasking. For example, as UL studied the impact of ventilation on fire behavior, it was able to obtain empirical data about the effect of water application on fire spread and occupant tenability. The research clearly indicates that the external application of a fire stream, especially a straight stream, does not "push fire" or decrease tenability in any adjacent rooms. Therefore, during the deployment of resources for the critical task of fire attack, consideration must be given to the option of applying water to the fire from the exterior when able. This approach enables a fire attack that can begin prior to the establishment of an IRIT as well as decreases the time to getting water on the fire, which has the greatest impact on occupant survivability.

The NIST studies examined the impact of crew size and stagger on the timing of fireground task initiation, duration, and completion. Although each study showed crew size as having an impact on time-to-task, consideration must be given to what tasks were affected and to what extent. ***For example, four-person crews operating at a low-hazard structure fire completed all fireground tasks (on average) 5.1 minutes or 25 percent faster than three-person crews.***

- Four-person firefighting crews were able to complete 22 essential firefighting and rescue tasks in a typical residential structure 30 percent faster than two-person crews and 25 percent faster than three-person crews.
- The four-person crews were able to deliver water to a similar sized fire 15 percent faster than the two-person crews and 6 percent faster than three-person crews, steps that help to reduce property damage and reduce danger/risks to firefighters. The latter time represents a 34-second difference.
- Four-person crews were able to complete critical search and rescue operations 30 percent faster than two-person crews and 6 percent faster than three-person crews. The latter time represents a 23-second difference. The "rescue time" difference from a four-person to a three-person crew is only seven seconds.

When considering critical tasking for the deployment of an ERF, the City and Town of Canandaigua will need to consider both their own resources (including the demise of both the part-time and volunteer contingents of the CFD), as well as the declining availability of mutual aid from surrounding communities particularly those protected by volunteer fire departments. It is also important to note that the impact of crew size as it relates to high-risk categories is greater than its low-risk implications and should be considered when staffing units that cover a greater amount of risk.

Overall, on-duty fire department staffing is a local government decision. It is also important to note that the OSHA standard (and NFPA 1500/1710) specifically references "interior firefighting." Firefighting activities that are performed from the exterior of the building are not regulated by this portion of the OSHA standard. However, ***in the end, the ability to assemble adequate personnel, along with appropriate apparatus to the scene of a structure fire, is critical to operational success and firefighter safety.***

The CFD is comprised of:

- 1 – Fire Chief.
- 4 – Captains.
- 15 – Firefighters.

Each CFD shift is comprised of a Captain and three firefighters. The three additional firefighters are utilized as "floaters" to cover wherever they are needed to fill personnel vacancies on the various shifts. The part-time personnel are utilized primarily to fill in for shift vacancies created by full-time personnel on leave. As was previously noted, both the part-time personnel and the volunteer fire companies have faded out since the 2018 study.

Regardless of the reasons for this decline in the Canandaigua area, ***the reality is that the total sum of firefighters that are fully trained and certified is not guaranteed beyond the CFDs 20 personnel (with just a minimum of four on duty) backed up by the VA Hospital.*** While it can only provide a limited number of personnel, the city is fortunate to have this resource available for immediate assistance when needed. Many other communities do not. It should also be noted that CPSM was informed that the leadership of several of the volunteer fire departments that are in close proximity to city and provide mutual aid declined invitations to speak to the study team.

The CFD currently operates out of two stations, staffing one engine and one ladder tower. The following figure illustrates current CFD deployment.

Table 28: Current CFD Staffing Matrix

ON DUTY STAFFING LEVEL	STATION 1 STAFFING	UNIT(S) STAFFED	STATION 2 STAFFING	UNIT(S) STAFFED
4 Personnel	2	Truck 281 w/ 2	2	Engine 211 w/ 2

The staffing at Station 1 is one Captain and one Firefighter. Station 2 is staffed with two firefighters.

To be clear, there is no New York or federal requirement that specifies staffing levels on fire apparatus, of shift staffing levels. The closest thing that approaches a requirement for staffing levels is the OSHA 29 CFR 1910.134 standard that was previously discussed.

From a practical standpoint, staffing engines and ladders with two personnel rather than three or four forces the company officer (if there is one) to be actively involved in hands-on tasks such as stretching a line, or raising a ladder, rather than performing size-up and other important initial fireground actions. Company officers – in the case of the CFD, the Captains - are working supervisors. They form an integral part of their company, and it is often necessary for them to assume hands-on involvement in operations, particularly with companies that are minimally staffed, while simultaneously providing oversight and direction to their personnel. During structure fires and other dangerous technical operations, it is imperative that these officers accompany, and operate with, their crew to monitor conditions, provide situation reports, and assess progress toward incident mitigation. During structure fires they operate inside of the fire building. Company officers need to be able to focus on the completion of specific tasks that have been assigned to their respective companies, such as interior fire attack, rescue, ventilation, and/or water supply.

When engine companies are staffed with two rather than three or four personnel, the officer often needs to either function as the nozzle person while the other firefighter backs him/her up and helps with advancing the line, or, if the roles are reversed and the officer is assisting with line advancement they cannot monitor the conditions at the nozzle—and closest to the fire—as they should. Ideally, one firefighter should be the nozzle operator, the officer should be right alongside or behind the nozzle, providing direction and evaluating conditions, and the third (and fourth) firefighter(s) can be further back assisting with advancing the line. This is particularly important for fires on the second and third floors of buildings where the lines must frequently be advanced up narrow and winding stairways. In almost every working fire in Canandaigua, two companies—which is the entire on-duty staffing contingent in City—often must be deployed to get a single line in service, which can then impact the completion of additional critical tasks. The entire on duty contingent is also required for any incident that involves an IDLH.

CPSM advocates structural fire tactics and strategies that are both safe and effective but sometimes staffing levels can make that dual goal difficult to achieve. Initiating offensive operations with fewer than four firefighters will place firefighters at a high level of risk; delaying operations until additional staffing arrives places occupants in greater danger and can increase property damage.

As mentioned previously, ultimately, overall, on-duty fire department staffing is a local government decision. It is also important to note again that the OSHA standard (and NFPA 1500/1710/1720) specifically references "interior firefighting." Firefighting activities that are performed from the exterior of the building are not regulated by this portion of the OSHA standard. ***However, in the end, the ability to assemble adequate personnel, along with appropriate apparatus to the scene of a structure fire, is critical to operational success and***

firefighter safety. How and where personnel and resources are located, and how quickly they can arrive on scene, play major roles also.

All of these factors must be taken into consideration as the City of Canandaigua reaches consensus on the acceptable community fire safety risk level, affordable levels of expenditure for fire protection, and appropriate levels of staffing. The city will need to consider the cost-benefit of various deployment strategies, such as continuing the current staffing and deployment model, or adopting a modified one based upon options and recommendations presented within this report.

For the CFD, emergency responses are based on caller information provided to dispatchers at the Ontario Emergency Communication Center; responses depend on the nature and type of call for service. Since the city has, at most, two understaffed fire suppression units on duty at a time, most fire responses receive an initial response of one or both of these units provided there are not incidents in progress that already have part of the on-duty crew committed.

The City of Canandaigua uses a box alarm system that divides its district into multiple different response "boxes" or zones. These geographically designated boxes determine what additional resources are normally utilized for fires in that area.

For all the CFD's box alarms, the initial dispatch is the city fire department alone, along with CES. In reality, many times this results in an initial response to a structure fire of four personnel on two pieces of apparatus. During the day when the Chief is working, and those days when a floater may be on duty as an extra person, the initial response could be up to six personnel. Additional resources are not dispatched until the first fire unit arrives on scene and performs a size-up, information received while responding indicates that there is the potential for a serious fire, or the number of calls and information received indicates a serious incident. In this case the on-duty Captain can request additional assistance. When the first unit on location reports a "working" fire, the VA Hospital FD is then dispatched.

Once a second alarm is struck, in addition to Canandaigua being re-dispatched for the recall of off duty personnel, additional mutual aid resources are then requested. However, the reliability of either of those resources cannot be guaranteed. For most of the city's response areas in addition to the Veteran's Administration Hospital Fire Department, several other mutual aid departments are dispatched depending upon the box location. In a small area of the Town that does not have municipal water, and thus no hydrants, several water tenders are also dispatched. Part of this process also involves relocating additional resources to cover the city's fire stations. The city's run cards cover up to a fourth alarm assignment.

The following are the CFD's box alarm areas while the figure on the next page illustrates the City's boxes with the following table outlining the Town boxes.

- Box Series 100 – 400 - City of Canandaigua and correspond with the City's council wards.
- Box 511 – Town of Canandaigua, south and southeast of the city including the water treatment plant and City House. Primarily Chesire Fire District.
- Box 620 – Town of Canandaigua, north of the city.
- Box Series 720 – Town of Canandaigua, northwest of the city.
- Box Series 820 - Town of Canandaigua, northeast of the city.
- Box 910 - Town of Canandaigua, east of the city.

Figure 69: Canandaigua Fire Department Box Alarm Areas - City

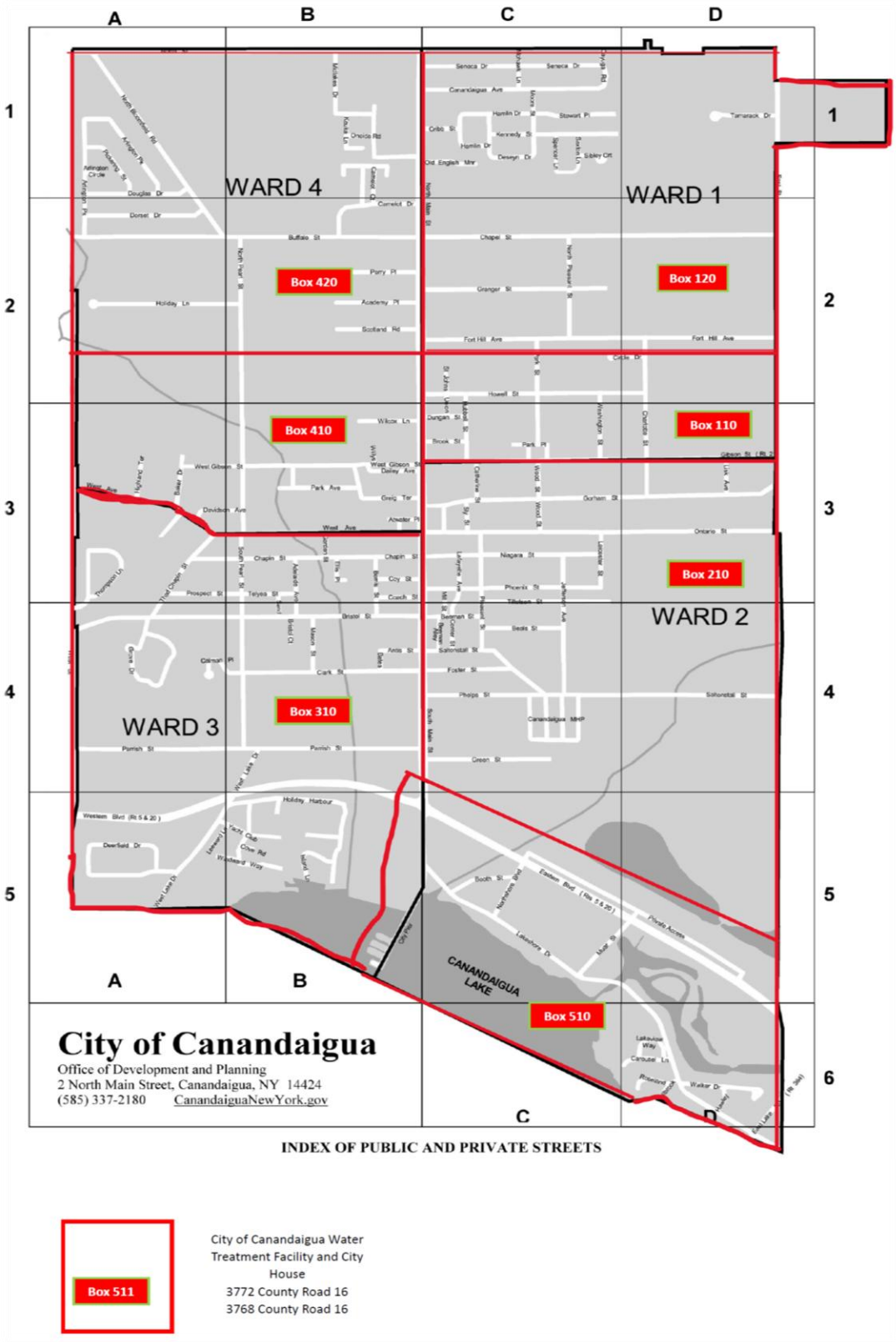
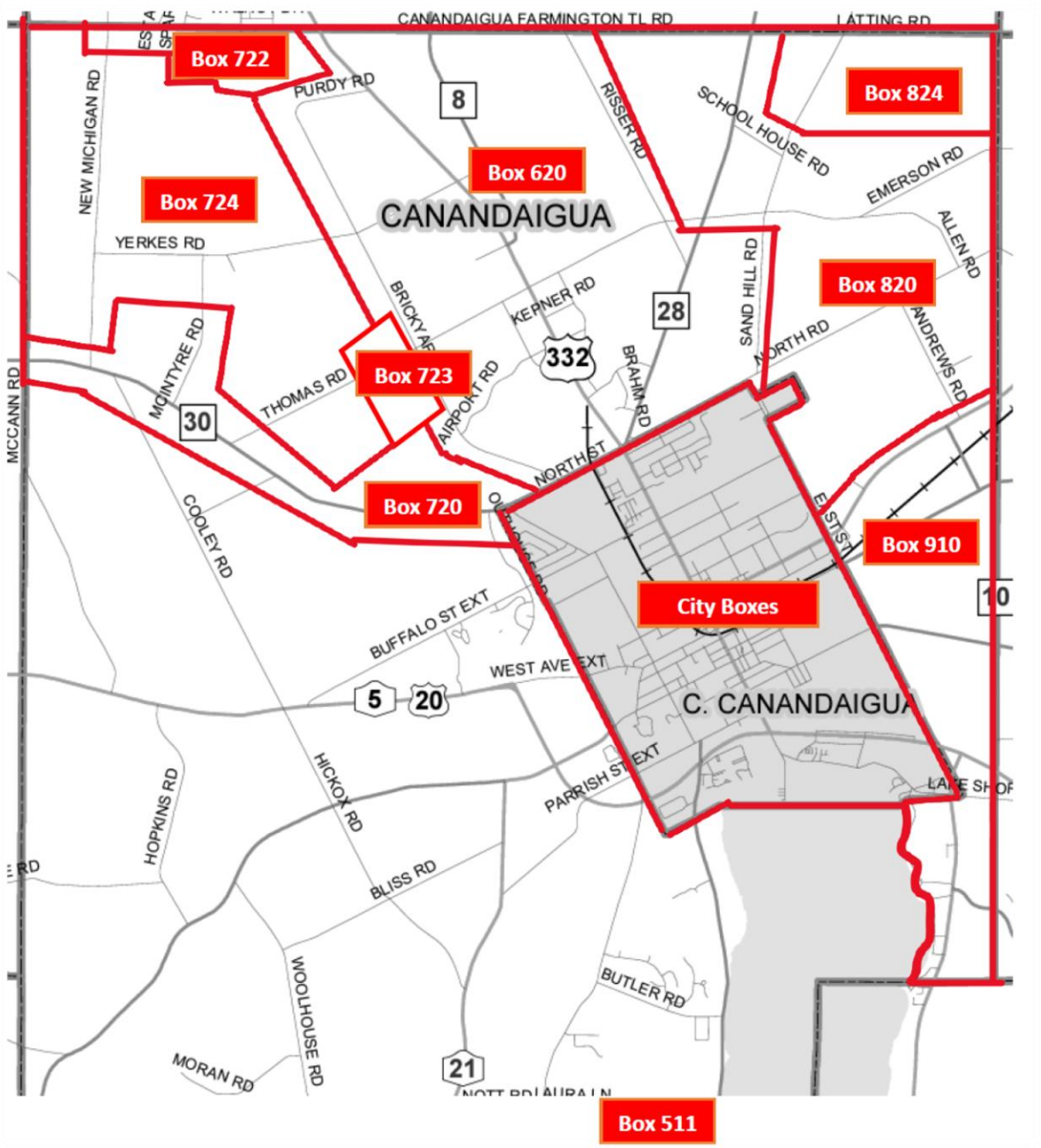


Figure 70: Canandaigua Fire Department Box Alarm Areas - Town



The next table shows the workload of fire responses by number of units arriving at these incident types during the year studied. This table only includes calls where a unit from the CFD arrived. In this section, we limit ourselves to calls where a CFD unit arrives.

Table 29: Fire Calls by Call Type and Number of Arriving CFD Units

Call Type	Number of Units			Total Calls
	One	Two	Three or more	
False alarm	112	110	28	250
Good intent	41	24	7	72
Hazard	70	61	18	149
Outside fire	6	10	2	18
Public service	144	29	3	176
Structure fire	7	23	7	37
Technical rescue	36	13	0	49
Fire Subtotal	**416**	**270**	**65**	**751**

Note: Out of 2,460 total calls, 332 calls did not have a unit arriving time including 230 fire-related calls.

- On average, 1.5 units arrived per fire call.
- One unit arrived 55 percent of the time, two units arrived 36 percent of the time, and three or more units arrived nine percent of the time.
- For outside fire calls, three or more units arrived 11 percent of the time.
    - For structure fire calls, three or more units arrived 19

The next table shows the duration of calls by type using four duration categories: less than 30 minutes, 30 minutes to one hour, one to two hours, and more than two hours.

Table 30: Calls by Type and Duration

Call Type	Less than 30 Minutes	30 Minutes to One Hour	One to Two Hours	Two or More Hours	Total
False alarm	190	58	11	0	259
Good intent	57	23	6	0	86
Hazard	88	54	13	9	164
Outside fire	10	7	1	2	20
Public service	184	52	18	10	264
Structure fire	16	14	5	3	38
Technical rescue	30	15	17	88	150
Fire Subtotal	**575**	**223**	**71**	**112**	**981**

- A total of 798 fire calls (81 percent) lasted less than one hour, 71 fire calls (seven percent) lasted one to two hours, and 112 fire calls (11 percent) lasted two or more hours.
- A total of 17 outside fire calls (85 percent) lasted less than one hour, one outside fire call (five percent) lasted one to two hours, and two outside fire calls (ten percent) lasted two or more hours.
- A total of 16 structure fire calls (79 percent) lasted less than one hour. This suggests fires that were probably more minor in nature, or that the CFD arrived quickly and was able to mitigate quickly. Keep in mind also that these are fires that meet the NFIRS criterion for structure fires as they cause damage to the structure itself. There were most likely many other incidents that were dispatched as a structure fire based upon information received but were ultimately classified otherwise based upon the situation encountered.
- Five structure fire calls (13 percent) lasted one to two hours, and three structure fire calls (eight percent) lasted two or more hours. These times indicate more significant structure fires where the fire department was engaged for an extended period of time.

As already stated, for any given emergency to which CFD responds, there are critical tasks that must be completed. These tasks can range from the immediate rescue of trapped occupants within a burning structure to vehicle or water rescue when needed. A set of critical tasks have been developed in an effort to identify what resources are needed for each incident type. Those necessary for structure fires were discussed previously in this section.

The intent of the risk management process is for the department to develop a standard level of safety while strategically aligning its resources with requests for service. Thus, the critical tasking presented previously considers the ERF in relation to either a low-, moderate-, or high-risk classification.

Although risk management processes and appropriate call screening are important parts of determining the appropriate number of resources that should be initially dispatched to various types of emergency incidents, it is also important that enough personnel and resources be initially available to manage all critical tasks in a timely manner should they need to be performed. For this reason, it is the widespread practice in the fire service to send multiple resources to incidents that ultimately end up not being utilized if the incident turns out to be a minor one that is easily mitigated. Even today, within reason, this remains a prudent approach.

It is important to remember that the effective response force personnel needs contained in NFPA 1710 are the ***minimum*** number of personnel that are needed to be able to accomplish the critical tasking identified. They are not all-inclusive as to personnel needs. For instance, this tasking provides for two initial attack lines, not three, which are often needed for multistory dwellings. It also includes just two personnel on each line, which requires the officer to either be on the nozzle or advancing the line as a back-up rather than monitoring conditions, supervising the application of the water, and the coordination of other activities.

They may also include other clarifying factors. For instance, the low-hazard structure fire is based on a fire in a typical 2,000 square-foot, two-story, single-family dwelling without a basement and with no exposures. It does not consider factors such as lightweight construction, and the fact that in many parts of the country homes have basements and often have multiple exposures close by. In addition, many of the new homes being constructed today are much larger than 2,000 square feet. Housing types such as townhouses and condominiums are also gaining popularity as "single-family" dwellings. All of these factors contribute to the knowledge that many experienced chief officers possess that the actual personnel needs are often higher depending upon the severity of the incident.

As previously discussed, fires involving large, more complex structures such as commercial facilities or multifamily residential occupancies will require a significantly greater commitment of personnel, which is acknowledged in NFPA 1710. For other types of specialized operations that can include incidents such as building collapses, hazardous materials incidents, technical rescue emergencies, maritime vessel fires, train derailments or fires, and aircraft incidents, the personnel needs can be very significant with a large number of personnel needed to support the technical response personnel working to mitigate the incident.

For these reasons, many fire departments have adopted response protocols that dictate the initial dispatch and response of a full "box" to all these types of incidents. A common configuration of this type of initial dispatch is:

- 4 engines.
- 2 ladders/quints.
- 1 rescue truck.
- 1 EMS unit.
- 2 command/chief officers.

Depending upon whether the fire suppression units are staffed with three or four personnel this response provides an initial response force of between 25 and 32 personnel. Additional personnel such as command and/or special operations personnel, multiple EMS units, or safety officers are sometimes also included in the initial dispatch and response depending upon the nature of the incident and the department's available resources.

It should be stressed that the responses of personnel that CPSM is illustrating based upon the recommended benchmark standards to establish an ERF based upon the hazard of the occupancy type (low, medium, and high hazard) are intended for instances where the caller(s) is reporting visible smoke or fire within the building. As part of a risk management strategy, for incidents within structures such as an appliance, a sparking electrical outlet, an odor of smoke, etc., consideration should be given to the initial dispatch of a "Tactical Box" comprised of:

- 2 engines.
- 1 ladder truck.
- 1 command officer.

If additional information is received indicating an active fire in progress, the assignment can then be upgraded to a "Full Box." While achieving this level of ERF is not possible without the use of automatic/mutual aid, with the future implementation of recommendations for staffing and deployment contained within this report, the CFD will have enhanced operations as an intermediate to long-term goal.

In addition, to fire suppression and vehicle rescue operations, the CFD is also responsible for various special operations disciplines both internally, and as part of county/regional response teams. These include:

- Confined space rescue – CFD only
- Hazmat – Regional four county team
- Surface Water Rescue – CFD only
- Swift Water Rescue - CFD only
- Ice/Cold water Rescue – CFD only
- Rope Rescue – County team

All of these types of special operation are also very labor intensive and require a proper number of highly trained personnel to successfully mitigate.

In the 2018 study that CPSM completed for the City and Town of Canandaigua we suggested then that the appropriate daily staffing level was four personnel, in order to manage the

potential fire risk identified herein. We believed that a single firefighter in each station was both unsafe and ineffective. We further suggested that consideration be given to consolidating the deployment of these personnel at Station 1 to provide for the response of a single properly staffed unit. With the increases in multiple statistical areas that the city and fire department have experienced in the ensuing seven years, including a 57% increase in incidents, the demise of the volunteer and part-time forces, and the increasing lack of reliability of surrounding mutual aid departments as they struggle with declining personnel, the City and CFD will need to continue to incrementally increase staffing over the never several years to be able to increase the CFD's ability to effectively, efficiently, and safely provide fire suppression, EMS first responder, and rescue services to the City and Town. With additional development/redevelopment occurring in both the City and the Town it is anticipated that will continue to drive increased requests for service from the CFD. ***As we result we now believe that the minimum on-duty staff should be incrementally increased to a minimum of seven personnel on duty at all times – with nine personnel on duty at all times being optimal.***

The following table provides a recommended staffing matrix for CFD staffing levels between the current four personnel, the recommended minimum of seven, and optimal minimum of nine staff per shift.

Regarding regionalization. as an urban island protected by a career fire department and surrounded by volunteer fire departments, the CFD would provide a great foundation for a potential regional firefighting endeavor in Ontario County. The City of Canandaigua could be the catalyst for such an endeavor and initiate discussions with surrounding municipalities. Regional collaboration opens up the potential for shared services related to the provision of emergency services. However, as previously discussed, before there is any possibility of more regional collaboration the relationships between the CFD and its fire response neighbors must be repaired.

Table 31: CFD Potential Staffing Matrix

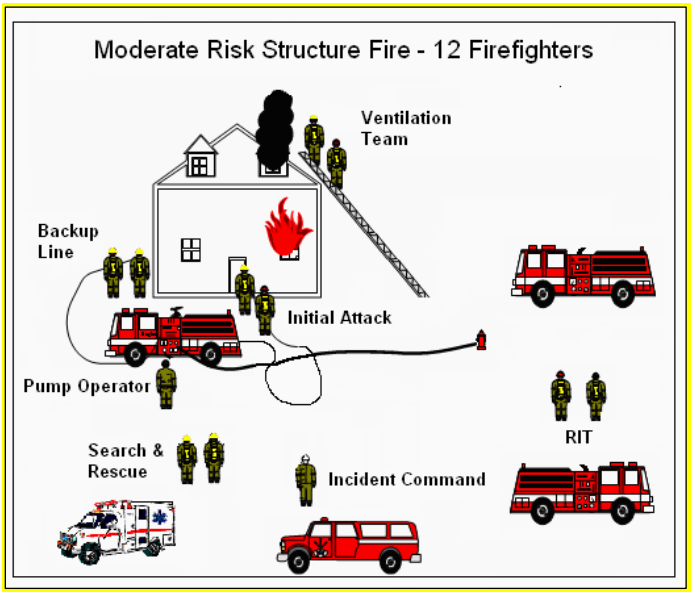
MINIMUM ON DUTY STAFFING LEVEL	STATION 1 STAFFING	UNIT(S) STAFFED	STATION 2 STAFFING	UNIT(S) STAFFED	Planning Term
4 Personnel	2	Truck 281 w/ 2	2	Engine 211 w/ 2	Current
5 Personnel	3	Truck 281 w/ 3	2	Engine 211 w/ 2	Mid
6 Personnel	3	Truck 281 w/ 3	3	Engine 211 w/ 3	Mid
7 Personnel	**4**	**Truck 281 w/ 3 Shift Commander w/ 1***	**3**	**Engine 211 w/ 3**	**Long**
8 Personnel	**4**	**Truck 281 w/ 4**	**4**	**Engine 211 w/ 3 Shift Commander w/ 1***	**Long**
9 Personnel	**5**	**Truck 281 w/ 4 Shift Commander w/ 1***	**4**	**Engine 211 w/ 4**	**Long**

* Captain or Battalion Chief as shift commander in command vehicle (enhanced discussion below).

The next figure illustrates a fire attack with a staffed complement of twelve personnel which is less than the national best practices as outlined herein. In this model, critical tasks are likely delayed and are taking longer to complete. However, depending upon circumstances, an effective interior attack with support functions being performed can be implemented.

If the City of Canandaigua were to adopt the staffing recommendations contained herein and set minimum CFD staffing at nine personnel on duty at all times, and the VA Hospital FD was dispatched simultaneously with the CFD to any reported fire incident in a structure, twelve personnel could be on scene and operating within the benchmark time frames as recommended in NFPA 1710.

Figure 71: Initial Deployment of Firefighting Personnel–12 Personnel: Low/Moderate Risk, Single-Family Dwelling



As fire departments in growing communities increase in size, their emergency scene operational structure and capabilities must expand also to keep pace with the increasing number of incidents, complexity of those incidents, and the availability of additional resources for incident mitigation. Generally, there are multiple agreed-upon levels of command qualification for fire and rescue service operations:

- Level 1 – Initial.
- Level 2 – Intermediate.
- Level 3 – Advanced.
- Level 4 – Strategic.

In CPSM's view, at the present time the CFD has Level 1 capabilities, which is the initial arriving officer on an incident, and Level 3, which is managed by the Fire Chief-when available.

It is mission critical that every emergency incident, no matter how small or large, has an Incident Commander (IC) who is the boss. In many cases, the company officer (Captain in the CFD) fulfills this role. On larger incidents, the Fire Chief assume this role. The Incident Commander is responsible for the overall management of the incident. The safety, welfare and accountability of personnel are taken into consideration when achieving the following incident priorities:

- Life safety.
- Incident stabilization.
- Property conservation.
- Environmental protection.

The Incident Command System (ICS) is used to facilitate the completion of tactical priorities. The IC is the person who drives ICS towards that end. The IC is responsible for building an ICS organization that matches the organizational needs of the incident to achieve the completion of the tactical priorities for the incident.

The functions of command define standard activities that are performed by the IC to achieve tactical priorities. The functions of command at a structure fire include:

- Assume and announce command.
- Rapidly evaluate the situation (size up).
- Establish and announce the location of an effective operating position (Incident Command Post).
- Initiate, maintain, and control the communication plan.
- Identify the overall strategy, develop an Incident Action Plan, and assign companies and personnel to include RIC, consistent with plans and standard operating guidelines.
- Request appropriate resources, when necessary.
- Ensure accountability of all resources utilizing ICS 201 or other tactical worksheets.
- Ensure the utilization of a Time Clock when appropriate.
- Develop an effective ICS organization using divisions and/or groups to maintain the span of control.
- Provide tactical priorities and strategic objectives.
- Coordinate activities with other agencies and cooperators (Law Enforcement, Ambulance, Utilities, Building Department, etc.)
- Continuously assess incident conditions and review, evaluate, and revise the Incident Action Plan as needed.
- Provide for the continuity, transfer, and termination of command.

At least initially, the IC is responsible for all these functions. As command is transferred, so is the responsibility for these functions.

One of the IC's primary duties is to determine the life safety profile of the incident and apply the most appropriate level of risk to first responders. The IC should integrate principles of risk management into the functions of command. Risk management involves the identification and evaluation of risk, and the prioritization of actions followed by coordinated application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events or to maximize the realization of opportunities. Risk management principles should be employed by supervisory personnel at all levels of the ICS. It must be remembered when evaluating risk that not only the severity of the risk but also the frequency of occurrence is of concern. High-risk events that occur infrequently pose the greatest threat to responders because of the likelihood they will have limited experience in dealing with such events.

There are a variety of actions that can be taken by the IC for management of emergency incident risk. Together these actions provide a solid framework for protecting responders from the risks involved in emergency operations. These actions include (but are not limited to):

- Have a well-defined Incident Action Plan that incorporates contingencies.
- Evaluate the situation and risk (size-up).
- Utilize full personal protective clothing.
- Provide effective incident management (Company Unity, Unity of Command, Appropriate Span of Control).
- Ensure effective communications.
- Establish safety procedures and utilize Safety Officers.
- Ensure adequate resources are available.
- Assign Rapid Intervention Crew/Company(ies).
- Provide for incident medical needs.
- Provide for rest and rehabilitation.
- Regularly evaluate the situation for changing conditions.

One of the most critical actions in managing risk is the evaluation of the situation and risks involved. Critical indicators that support gaining situational awareness and evaluating risk must be constantly evaluated. Beyond the specific emphasis on risk management and safety, the role of incident commander is a dynamic position and highly stressful position that has numerous critical responsibilities that must be managed simultaneously and, in a time, critical manner.

While the CFD normally has one chief officer responding to reported structure fires (provided he is available), which provides the Level 3 Advanced command level, in the future CPSM believes that the City will need to consider the implementation of a Level 2 Intermediate command level officer. This would be a designated shift commander (Captain or Battalion Chief) who would respond in a command vehicle to incidents..

A critical component of the incident command system is the establishment of the role of safety officer to monitor conditions at fires and emergency incident scenes to ensure that appropriate safety procedures are being followed. The incident safety officer is an important member of the incident command team. The safety officer works directly under and with the incident commander to help recognize and manage the risks that personnel take at emergencies. These include:

- Incident recon.
- Assess the risk/benefit of operations.
- Assess and address safety concerns on the incident scene.
- Communicate and report safety issues to command.
- Intervene as necessary to provide safety.

During larger-scale incidents, the safety officer reviews the incident action plan and specific details of the safety plan. As appropriate, the safety officer confirms that a safety plan is in effect, reviews it, and provides recommendations. The incident commander may request that the safety officer develop a proposed safety plan and recommendations for command.

CPSM was informed that the role of Safety Officer is usually filled as soon as possible on working fires and other significant incidents. However, because of the department's limited staffing it often takes longer than optimal to get sufficient personnel to the scene.

As a planning objective ***CPSM recommends*** that over the mid-to-the-long-term fiscal planning years, the city enhance CFD staffing levels as outlined here in order to achieve the staffing levels recommended in this report.

- Mid Term – Hire one additional firefighter (one total position) and reassign current floater firefighters to platoons to increase maximum shift staffing to five personnel while maintaining minimum staffing of four on duty 24/7.
- Mid Term – Add one additional firefighter per shift (four total positions) and increase minimum on-duty staffing to five personnel at all times. The maximum shift staffing would be six personnel.
- Mid Term – Add one additional firefighter per shift (four total positions) and increase minimum on-duty staffing to six personnel at all times. This will allow the city to staff two fire suppression units 24/7 with a minimum of three personnel each. The maximum shift staffing would be seven personnel.
- Long Term – Add one additional firefighter per shift (four total positions) and increase minimum on-duty staffing to seven personnel at all times. ***This is the minimum level of staffing that CPSM recommends that the City of Canandaigua should seek to achieve.*** The maximum shift staffing would be eight personnel.
    - To facilitate implementation of a Level 2 Intermediate command level officer the Captains should be designated a shift commander who would respond in a command vehicle to incidents.
    - Create the position of Lieutenant – two per shift - (eight total positions but no additional personnel required) to provide an officer on each fire suppression unit.
- Long Term – Add one additional firefighter per shift (four total positions) and increase minimum on-duty staffing to eight personnel at all times. The maximum shift staffing would be nine personnel.
- Long Term – Add one additional firefighter per shift (four total positions) and increase minimum on-duty staffing to nine personnel at all times. **This is the preferred level of staffing that CPSM recommends that the City of Canandaigua should seek to achieve.** The maximum shift staffing would be ten personnel.
- ***CPSM further recommends*** that the City of Canandaigua pursue federal grant opportunities, specifically the FEMA Staffing for Adequate Fire and Emergency Response (SAFER) program, to offset the financial impacts associated with increasing firefighter staffing levels. The SAFER grant is designed to help local jurisdictions improve their staffing models by providing funding for the hiring of additional personnel, thereby enhancing operational capacity, and improving response capabilities. By actively seeking this funding, the City can reduce the immediate budgetary burden of additional staffing while working toward a more sustainable long-term staffing model that ensures reliable fire and emergency services for the community.

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As an operational objective to increase the number of personnel and resources responding immediately to any reported incident in a structure, ***CPSM recommends*** that the CFD have the VA Hospital FD dispatched simultaneously. This will provide an initial "Tactical Box" response of:

- 2 engines.
- 1 ladder truck.
- 1 command officer.

With a recommended CFD on duty staffing level of seven to nine personnel on duty at a time this will provide an initial response of between ten and thirteen personnel depending upon whether each unit is staffed with three or four personnel. While not the NFPA benchmark staffing, initial structural firefighting operations can be successfully accomplished as illustrated herein (12-FFs on scene) particularly if the fire is limited in scope to one or two rooms.

CPSM assesses that regardless of the status of relationships with the surrounding volunteer fire departments and the adoption of enhanced dispatch procedures to include a more robust use of automatic aid as discussed above and below, **the City of Canandaigua should still strive to increase CFD on duty staffing to between seven and nine personnel at all times**. Even at the optimal staffing level recommended of nine personnel, nearly half of the personnel needed for critical tasking and to establish an effective response force for a single-family dwelling fire would still be coming from automatic or mutual aid partners.

The above recommendation notwithstanding, as an operational gap-objective to further increase the number of personnel and resources responding to any possible or confirmed working fire incident in a structure, ***CPSM recommends*** that the CFD have a "Full Box" assignment dispatched consisting of:

- 4 engines.
- 2 ladders/quints.
- 1 rescue truck.
- 1 EMS unit.
- 2 command/chief officers.

Depending upon whether the fire suppression units are staffed with two, three, or four personnel this response provides an initial response force well beyond what the CFD can assemble currently.

As an option that should be given serious consideration, if the City of Canandaigua decides it is not in their best interest (or that it cannot afford) to increase CFD on duty staffing ***CPSM strongly encourages*** that on-duty staffing be consolidated to Station 1. A single fire suppression unit staffed with four personnel is going to operate much more effectively, efficiently, and safely than two understaffed units. **To be clear, CPSM is only suggesting this as an option of last resort if on duty staffing cannot be increased as recommended above.**

Training and Education

Training is, without question, one of the most essential functions that a fire department can perform on a regular basis. One could even make a credible argument that training is, in some ways, more important than emergency responses because a department that is not well trained, prepared, and operationally ready will be unable to fulfill its emergency response obligations and mission. Education and training are vital at all levels of fire service operations to

ensure that necessary functions at an incident are completed correctly, safely, and effectively. Comprehensive, diverse, and ongoing training is critical to a fire department's success.

An effective fire department training program must cover all the essential elements of that department's core missions and responsibilities. The level of training or education required for a set of tasks varies with the jobs to be performed. The program must include an appropriate combination of technical/didactic training, manipulative or hands-on/practical evolutions, and training assessment to gauge the effectiveness of these efforts. Most of the training, but particularly the practical, standardized, hands-on training evolutions should be developed based upon the department's own operating procedures and operations while remaining cognizant of widely accepted practices and standards that could be used as a benchmark to judge the department's operations for any number of reasons.

Certain Occupational Safety and Health Administration (OSHA) regulations dictate that minimum training must be completed on an annual basis, covering assorted topics that include:

- A review of the respiratory protection standard, self-contained breathing apparatus (SCBA) refresher and user competency training, SCBA fit testing (29 CFR 1910.134).
- Blood Borne Pathogens Training (29 CFR 1910.1030).
- Hazardous Materials Training (29 CFR 1910.120).
- Confined Space Training (29 CFR 1910.146).
- Structural Firefighting Training (29 CFR 1910.156).

In addition, National Fire Protection Association (NFPA) standards contain recommendations for training on diverse topics such as a requirement for a minimum of 24 hours of structural firefighting training annually for each fire department member. As well, the ISO-Fire Suppression Rating Scale (ISO-FSRS) has certain training requirements for which fire departments receive credit during the ISO-FSRS review.

Because so much depends upon the ability of the emergency responder to effectively deal with an emergency, education and training must have a prominent position within an emergency responder's schedule of activities when on duty. Education and training programs also help to create the character of a fire service organization. Agencies that place a real emphasis on their training tend to be more proficient in performing day-to-day duties. The prioritization of training also fosters an image of professionalism and instills pride in the organization. Overall, the CFD has a very good, robust, and comprehensive training program and there exists a dedicated effort focused on a wide array of training activities.

The CFD does not have a formal, standalone Training Division within the department. A firefighter holds the title of Municipal Training Officer (MTO) for which he receives a stipend as specified by the current collective bargaining agreement. There are no full-time dedicated personnel assigned to training. The department does have several additional personnel who are certified as Municipal Fire Instructors (MFI). Training is predominantly provided by peers within the department; however, there are efforts underway to expand training opportunities.

The MTO is responsible for coordinating training between all four groups. He prepares the training classes and evolutions, distributes them to the shift Captains, tries to assure consistency between the shifts (to the extent possible), and ensures that it is properly documented. Career firefighter training in New York state is regulated by the New York State Department of Homeland Security and Emergency Services whose Standard 426.7 requires a minimum of 101hours of training to be completed annually. This includes both classroom instruction and hands-on training. ***CPSM assesses that the CFD meets, and in fact exceeds these requirements.***

ISO also specifies certain training requirements for firefighters as part of their evaluations. These include:

- Company Training: 192 hours per year (16 hours per month), meeting the general criteria of NFPA 1001.
- Hazardous Materials Training: 6 hours per year per member.
- Facilities Utilization: 18 hours per year per firefighter for use of drill towers, live fire training structures, and 2-acre training areas.
- New Driver and Operator Training: 60 hours for new drivers/operators (for maximum credit).
- Existing Driver and Operator Training: 12 hours for existing drivers/operators (maximum credit).

The CFD hires both certified and non-certified firefighting personnel based upon a civil service exam and eligibility list position. Most hires are entry level and attend a certified recruit Firefighter academy. At the time of this study the CFD had two new firefighters attending the Monroe County Recruit Training Program which is thirteen weeks in duration. If Firefighters are hired already certified they must have attended a certified recruit training program within New York state.

The 21st century Firefighter is responsible for much more than just handling fire emergencies. They are all hazard emergency response technicians. This is particularly true in communities such as Canandaigua where the career fire department is an island surrounded by volunteer departments which often have less resources and are likely struggling with their staffing. The CFD is no exception. In addition to their firefighter certifications, CFD personnel possess the following certifications:

- Confined Space Rescue Technician: All personnel except probationary Firefighters.
- Hazardous Materials Training: All personnel except probationary Firefighters.
- Hazardous Material Incident Commander: All personnel except probationary Firefighters. The Hazardous Materials Incident Command class focuses on the duties and responsibilities of Incident Commanders in hazardous materials incidents. This class prepares personnel to manage hazardous materials emergencies, including implementing a National Incident Management System (NIMS)-based Incident Command System (ICS).
- Surface Water Rescue Technician: Majority of CFD personnel.
- Swift Water Rescue Technician: 3 CFD personnel.
- Rope Rescue Technician: All personnel except probationary Firefighters.
- Ice/Cold Water Technician: All personnel except probationary Firefighters. This training is conducted mostly in-house.

The following figure illustrates CFD personnel engaging in training related to their diverse operational mission.

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Figure 70: CFD Personnel Performing Training

CFD personnel seeking promotion to the rank of Captain must have a minimum of three years of service. If they possess at least an Associates Degree the time requirement is reduced to two years. Personnel who are promoted into officer positions are required to earn Fire Instructor I and Fire Officer I certifications within one year. Personnel are also required to attend the FDNY four week first-line supervisor training program (FLSTP) program for officer development. The class is two weeks in length if the participant has already obtained their Fire inspector and Officer certifications.

The MTO informed CPSM that the on-shift and specialized training schedules are evolving again after having been dormant for several years due to the COVID pandemic. As a best practice, there should be a goal for each shift to complete some type of group training every week, or at least several times a month. In-service training should be topic-specific to either teach or practice important skills and to allow crews to work together in simulated emergency situations. With any good fire department training program, at least 50 percent of the drills should include manipulative (hands-on) training to allow for the development of proficiency and to review critical skills.

Every effort should be made to make completion of a daily training session a CFD priority. Additional daily opportunities for training can be found during related activities such as daily/weekly apparatus and equipment inspections and fire pre-planning activities. Annual inspection and testing requirements for hose, pumps, hydrant flow testing, etc. can also provide additional training credits for personnel who participate. Training can and should also be

conducted during evening hours and on weekends. Training should also be conducted on a regular basis between the CFD and the VA Hospital Fire Department and other surrounding mutual aid departments.

An area where CPSM noted a deficiency in training for the CFD was in the area of providing all companies and personnel with high-intensity training on various subjects, including periodic live fire training on at least a semi-annual basis. However, the team was informed that although the department has had some success in obtaining vacant structures to train in the lack of a permanent training facility with live fire capabilities hampers the ability to conduct such training. In addition, this type of training—including training involving live fire—is very difficult for on-duty personnel to perform due to the need to retain the personnel for immediate emergency response. Larger departments can take a company or two out of service for this type of training, but Canandaigua's staffing and deployment makes this impossible. With the number of actual fires declining nationwide, CPSM encourages the CFD to move forward and attempt to provide all personnel with this type of training, including live fire, a minimum of twice per year, with quarterly being preferred.

On the EMS side of operations, training programs and requirements are primarily driven by the mandatory nature of continuing education and recertification requirements for various levels of practitioners. All levels of EMS training require continuing education credits on a multiyear cycle for recertification. If individual personnel, or the agency, were to not keep up with required training and/or certification requirements they could lose their ability to practice or provide the prescribed levels of service.

Professional development for fire department personnel, especially officers, is also an important part of overall training. There are numerous excellent opportunities for firefighters and officers to attend training on a wide range of topics outside of Canandaigua, including those offered at various county and state firefighting academies, at the National Fire Academy in Emmitsburg, Maryland, and at national conferences such as the Fire Department Instructor's Conference (FDIC), and Fire Rescue International. CPSM was informed that as of this time only the Chief has attended NFA for a one-week class.. Beyond the practical benefits to be gained from personnel participating in outside training, encouraging personnel to earn and/or maintain various specialized certifications such as Fire Instructor or Fire Officer increases the positive professional perception of the organization and can help to demonstrate a commitment to continued excellence.

CFD officers typically provide feedback to personnel regarding their performance but there is no formal testing or skills assessments for fire training in the department. Training is a required activity in the fire service and thus it is essential to incorporate a formal testing process as part of the learning effort. EMS skills assessments, both practical and written, are regularly incorporated into EMS training. Traditionally, fire departments are reluctant to incorporate skills testing into their fire training components. However, an increasingly common way to evaluate the department's training program is through annual skills proficiency evaluations where all members of the department are required to successfully perform certain skills or complete standardized evolutions, either individually or as part of a team.

The ability to monitor and record training test scores is beneficial from an overall proficiency standpoint. In addition, training scores should be incorporated into the annual performance appraisal process for both the employee, his/her supervisor, and the training staff. In addition, the concept of adding a testing process to each training evolution adds to the importance and seriousness in which these activities are conducted.

The CFD does not currently utilize a formal task book process to provide training guidance and new rank orientation. A growing number of fire departments are employing task books for probationary firefighters and personnel who aspire to (or in some cases have already been promoted to) higher rank. Use of task books would be appropriate in the CFD for firefighter, future Lieutenants, and Captain. The successful completion of any task book can be considered as a prerequisite for promotion to higher rank or step, or alternatively, can be a required element of the probationary period or post-promotional evaluation. These efforts can help provide new firefighters newly promoted officers with the tools needed to operate both administratively and in field settings. The completion of the task book could also qualify individuals to assume acting officer assignments in which they receive practical experience and on-the-job training.

Beyond the establishment of requirements to achieve certain levels of certification for promotion, the department should consider the implementation of a formal professional development program for all department personnel. The program should attempt to strike an appropriate balance between technical/practical task books, simulator training, formal certifications, mentor relationship, and outside influences. Where practical, best practices identified by the NFA, NFPA, ISO, IFSTA, IFSAC, New York State Department of Homeland Security and Emergency Services, NYOSHA, and the Center for Public Safety Excellence (CPSE) should be incorporated.

Long term, as the CFD's size increases based upon recommendation contained within this report, and overall training requirements for firefighters become more stringent, it will be difficult for the MTO to continue to properly perform his duties as an ancillary duty that is on top of his position as a firefighter on shift. In addition, As we discussed in our 2018 report, and again in this report, it is certainly reasonable for the CFD, and in a larger context the City as a whole, to expect that companies coming into the city on automatic and/or mutual aid be required to meet certain minimum training requirements as long as they are valid and reasonable. As the county's only career department there is an expectation that they will continue to be a regional leader. This status can provide opportunities for regional collaboration such as the creation of a full-time training officer as part of a shared services agreement with either Ontario County or surrounding municipalities.

As a planning objective ***CPSM recommends*** that the CFD should develop task books for firefighter, future Lieutenants, and Captain. For ranks other than probationary firefighter, all personnel aspiring for promotion to a higher rank should successfully complete all elements of that rank's task book to be eligible to participate in the formal promotional testing process.

As a planning objective ***CPSM recommends*** that the CFD continue to enhance its officer development program by, to the extent possible, encourages officers to seek additional training and certifications such as:

- Fire Instructor II and III
- Fire Officer II and III
- IMS Levels I-300 and I-400
- NFA Command and Control for Company Level Officers.
- NFA Command and Control of Incident Operations.
- NFA Command and Control of Fire Department Operations at Target Hazards.
- Incident Safety Officer.

As a planning objective ***CPSM recommends*** that the CFD should develop a plan including providing appropriate funding to provide all personnel with mandatory, off-duty, high-intensity training on various subjects, including periodic live fire training on at least a semi-annual basis, with quarterly being preferred.

As a planning objective ***CPSM recommends*** that the CFD should institute written and practical skills testing and proficiency evaluations (non-punitive) as part of the department's comprehensive fire training program.

As a planning objective ***CPSM recommends*** that the CFD should make a concerted effort to send as many officers as possible to the National Fire Academy (NFA). This should include the MTO (or future dedicated Training Officer) for various training-related classes, and the Deputy Chief/Fire Marshal (if the city funds and fills that position) for fire prevention and community risk reduction classes. Any officers who meet the admissions criteria should be encouraged to enroll in the Academy's Executive Fire Officer Program.

As a planning objective ***CPSM recommends*** that The CFD should look for opportunities to provide periodic joint training between the department and various agencies that provide automatic/mutual aid to the city, particularly the VA Hospital FD. This should include training in the evening and on weekends particularly with mutual aid partners. Consideration should also be given to hosting large-scale exercises to test and evaluate regional interoperability.

As a planning objective ***CPSM recommends*** that the City and CFD consider the creation of a full-time training officer position within the department at the rank of Captain. The City should explore the possibility of creating this position as a joint endeavor or through a shared services agreement with either Ontario County and/or surrounding municipalities. Under this scenario the CFD Training Officer would be responsible for assisting with providing training to various fire departments surrounding the City to assist with ensuring they have properly trained personnel not only for their own communities but also when they respond to Canandaigua. ***CPSM further recommends*** that this position be filled in the mid-term if funding is available.

Community Risk Reduction

Community Risk Reduction (CRR) activities are important undertakings of a modern-day fire department. A comprehensive fire protection system in every jurisdiction should include, at a minimum, the key functions of fire prevention, code enforcement, inspections, and public education. Preventing fires before they occur, and limiting the impact of those that do, should be priority objectives of every fire department.

Fire investigation is a mission-important function of fire departments, as this function serves to determine how a fire started and why the fire behaved the way it did, providing information that plays a significant role in future fire prevention efforts.

Educating the public about fire safety and teaching them appropriate behaviors on how to react should they be confronted with a fire is also an important life-safety responsibility of the fire department.

Fire suppression and response, although necessary to protect property, have negligible impact on preventing fire. Rather, it is public fire education, fire prevention, and built-in fire protection systems that are essential elements in protecting citizens from death and injury due to fire, smoke inhalation, and carbon monoxide poisoning. The fire prevention mission is of utmost importance, as it is the only area of service delivery that dedicates 100 percent of its effort to the reduction of the incidence of fire.

Fire prevention should be approached in a systematic manner, and many community stakeholders have a personal stake and/or responsibility in these endeavors. It has been estimated that a significant percentage of all the requirements found in building/construction and related codes are related in some way to fire protection and safety. Various activities such as plan reviews, permits, and inspections are often spread among different departments in the municipal government and are often not coordinated nearly as effectively as they should be. Every effort should be made to ensure these activities are managed effectively between departments.

The Fire Chief of the CFD concurrently holds the title of Fire Marshal for both the City and the Town and provides overall supervision of the CRR functions. However, most of the day-to-day CRR activities are conducted by one of the CFD's shift Captains who serves as a part-time Fire Inspector. The Fire Inspector is primarily responsible for commercial fire and property maintenance inspections as well as educating business and property owners concerning code compliance and risk reduction. Other duties include permitting and permit inspections such as tent, festival, or special event inspections, mobile food vendor inspections, construction walkthroughs, fire protection system acceptance tests, and code complaint investigations.

The Fire Chief's Office also conducts numerous plan reviews to determine if the submitted plans (building plans, site plans, fire protection plans and other plans) meet the requirements of the various Codes and Standards that have been adopted by the State, City, and Town.

At the time of this analysis the CFD Fire Marshal's Office utilized the following Building and Fire Codes:

- Fire Code of New York State (FCNYS), which is largely based on the 2018 International Fire Code (IFC). It includes specific additions and amendments tailored to New York's needs including specific regulations for unique situations found in New York. The FCNYS is part of the broader Uniform Fire Prevention and Building Code.
- Building Code of New York State
- Energy Conservation Construction Code
- Existing Building Code of New York State
- Fuel Gas Code of New York State
- Mechanical Code of New York State
- Plumbing Code of New York State
- Property Maintenance Code of New York State
- Residential Code of New York State

As is the case with all adopted codes, many other codes and standards are adopted by reference as is appropriate and necessary.

There are many reasons why existing buildings should be inspected for fire code compliance. The obvious purpose is to ensure that occupants of the building are living, working, or occupying a building that is safe for them to do so. Some buildings are required to have specific inspections conducted based on the type of occupancy and the use of the buildings such as but not limited to healthcare facilities (hospitals, nursing homes, etc.), schools, restaurants, and places of assembly. These inspections are mandated by various statutes, ordinances, and codes. The inspections themselves are often limited to specific areas within the building and to specific time frames. The fire inspectors will also witness tests of required fire protection systems and

equipment. Conversely, many businesses are not required to have any type of periodic fire safety inspections.

Fire inspections can also identify violations and make follow-up inspections to ensure that violations are addressed and that the fire code is enforced. In fire prevention, the term "enforcement" is most often associated with inspectors performing walk-throughs of entire facilities, looking for any hazards or violations of applicable codes. Educating the owner to the requirements, as well as the spirit and intent, of the code can also attain positive benefits for fire and life safety.

In many departments, on-duty firefighters can be assigned with the responsibility for "in-service" inspections to identify and mitigate fire hazards in buildings, to identify risks that may be encountered during firefighting operations, and to develop pre-fire plans. On-duty personnel in many departments are also assigned responsibility for permit inspections and public fire safety education activities. Fire department personnel are often able to recognize hazards or violations, whereas inspectors are often able to identify features of a specific property that could prove important during an emergency. Effective information sharing enhances the ability of the fire department to protect the community.

The next table provides a historical analysis of CFD fire code inspections.

Table 32: CFD Fire Inspections Completed

Occupancy Type	2021	2022	2023	2024
Commercial Fire Inspections			172	78
Public Assembly Occupancy Fire Inspections	123	128	234	97
Tent Inspections			56	38
Food Vendors			53	54
Operating Permits Issued/Inspections	162	272	266	253
Total Inspections Conducted	456	444	515	507

NFPA 1730: *Standard on Organization and Deployment of Fire Inspection and Code Enforcement, Plan Review, Investigation, and Public Education Operations, 2019 edition* provides recommendations for the operations of a comprehensive CRR function within the fire department. Chapter 6, Section 6.7 of NFPA 1730 establishes guidance on the minimum inspection frequency of inspectable occupancies in a jurisdiction, where not specified elsewhere such as the 2020 FCNYS, as follows:

Table 33: NFPA1730 Occupancy Classifications and Inspection Frequency

Occupancy Risk Classification	Frequency
High	Annually
Moderate	Biennially*
Low	Triennially
Critical infrastructure	Per Authority Having Jurisdiction

*Some departments include Moderate Risk Occupancies on an annualized inspection frequency.

The basis for classifying occupancies is through a community risk assessment. The purpose of the risk assessment is to identify the needs and circumstances of the community.[64] Additionally, occupancy classifications and use established through the Building Code utilized by the

64. NFPA 1730, 2019 Edition.

jurisdiction drives occupancy risk classification as well. Canandaigua, like other urban/suburban communities, includes all occupancy types as outlined next.[65]

- Assembly Group A: a use where people gather for the purpose of civic, social, religious function, recreation, food/drink consumption, or waiting for transportation.
- Business Group B: use of a building that functions as an office or a professional or service type transaction.
- Educational Group E: use of a building where six or more people at any one time occupy a space for educational purposes through the 12th grade.
- Factory Group F: use of a building that involves assembling, disassembling, fabricating, finishing, manufacturing, packaging, repair, and processing operations that would not otherwise be classified as a Group H or Group S occupancy.
- High Hazard Group H: use that involves the manufacturing, processing, generation, or storage of materials that can constitute a physical or health hazard. Group H occupancies are classified into 5 high hazard areas that identify the type of hazard for each group.
- Institutional Group I: a use in which care, or supervision is provided to people who are or are incapable of self-preservation without physical assistance or in which people are detained for penal or correctional purposes or in which the liberty of the occupants is restricted.
- Mercantile Group M: use that involves the display and sale of merchandise, stocking of goods, and is accessible to the public.
- Residential Group R: use of a building or structure intended for sleeping purposes when not classified as a Group I or when not regulated by the *International Residential Code (IRC)*.
- Storage Group S: a building or structure, or a portion thereof, that is used for storage purposes and that is not classified as a hazardous occupancy.

Utility and Miscellaneous Group U: a building or structure that is used as an accessory or miscellaneous use not classified as any other specific occupancy.

CPSM recommends that the CFD Fire Prevention Bureau identify and group all the occupancies within the City and Town into their appropriate risk classification. They should further attempt to adopt a formal inspection schedule following the requirements of the FCNYS and the recommendations contained with NFPA 1730.

CPSM recommends that the CFD initiate an "in service" inspection program utilizing on duty career personnel to assist with performing various inspection duties including for permits.

As discussed, the Fire Chief's Office, as the Fire Marshal for the City and Town, conducts building plan reviews to ensure fire protection and fire code elements are met pursuant to the adopted fire and building codes. These include:

- Fire Sprinkler Systems
- Fire Department Connections
- Fire Service Mains and Appurtenances
- Standpipe Systems
- Flammable and Combustible Liquids
- Hazardous Materials Storage
- Mobile Food Preparation Vehicles
- On Demand Mobile Fueling Operations

65. International Building Code, 2021

- Hood Suppression
- Battery Systems
- Clean Agent Systems
- Compressed Gases
- Fire Alarm and Detection Systems
- Welding and Cutting Operations
- Outdoor Assembly Event
- Temporary Membrane Structures, Tents, Inflatable Structures
- Pyrotechnic Special Effects Material
- Spraying or Dipping (rooms, booths, tanks)
- Fire Pumps and Related Equipment

It should be noted that many plan reviews, particularly those involving fire protection systems, site plan review, and fire department ingress and egress require a final fire inspection, which are coordinated and conducted by either the Chief or Fire Inspector as well.

Performing complex - technical inspections can be a very time-consuming, but necessary, endeavor. Nationwide, communities that have proactive fire inspection and code enforcement programs in place often have a lower incidence of fire loss because many potential fire and life safety hazards are identified and corrected before they cause or contribute to a fire.

Of course, having sufficient personnel to perform fire prevention inspections can be a costly proposition. To help offset these costs, many jurisdictions are now assessing registration or inspection fees for businesses. The fees assessed often vary widely by jurisdiction. New Jersey has enacted a uniform state-wide fee structure for different types of businesses with the annual registration fees for businesses ranging from $108 to $4,781. Fees for various permits range from $54 to $641. Kern County, Calif., has established a fee schedule that covers a wide range of permits, inspections, and services such as plans reviews. The fee schedule includes:

- Operating Permits – $50 to $520.
- Construction Permits – $35 to $1,000.
- Fireworks Permit – $325.
- Plan Review – $130 to $195.
- Special Inspections – $450 to $520 and $140/hour (minimum two hours).
- Fire Safety Inspections and Standbys (all two-hour minimum) – $140/hour to $455/hour.

The CPSM team was provided with documentation regarding the CFD CRR fee schedule, which covers inspections and permits. It does not cover plans reviews. The fees attempt to offset some of the city/department's actual costs of performing these functions.

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Table 34: CFD Fire CRR Fee Schedule - 2024

Type of Inspection/Permit	Fee
Inspection – Per Hour	$100
No Show fee	$100/unit
Commercial Fire Inspection Violation Order and Subsequent Inspection	$250
Open Burning and Pyrotechnics Permit	$100
Fire Extinguisher Training – Per Session	$350
Fire and Life Safety Inspection Festivals, Carnivals, Fairs, Exhibits, Misc.	$100/Hour
Temporary Tent Inspection	$100
Seasonal Tent Inspection (180 Days Max.)	$250
Mobile Food Vendor (Annual)	$275
Commercial Barbecue Inspection	$100
Avoidable Alarm N/C for first two avoidable alarms/calendar year Three or more/calendar year	$100
Fire Drill Observation – Off Duty Firefighter – Per Hour	$60

CPSM recommends that the CFD review the fee structure to make sure it reflects the **actual** cost of providing the services including plans reviews. We further recommend that the City consider an annual escalator fee that takes effect at the beginning of each calendar year.

The investigation of the cause and origin of fires is also an important part of a comprehensive fire prevention system. Determining the cause of fires can help with future prevention efforts. The CFD Fire Chief, one Captain and one Firefighter are certified as fire investigators. The on-duty Captain initiates the fire's origin and cause determination process. When possible, they can make those determinations. When needed, they request one of the investigators to respond if there is not one already on scene. If the fire involves a significant loss, injury, or fatality, a request for the County fire investigation team, or the State Police to respond can be made to assist with performing a more in-depth investigation.

Table 35: CFD Fire Investigations Completed

2021	2022	2023	2024
8	14	11	13

Fire Life Safety Education is an effective way to establish community wide fire-safe behavior across all age groups. Of particular importance is the community's vulnerable population. Fire Life Safety Education helps promote a greater understanding of what to do when and not to do when faced with a fire situation either in your home, a vehicle, or at work. Lastly, and most importantly, educating the community about fire and life safety not only prevents fires and accidents, but also contributes to a safer and more informed society.

The CFD has an active public fire education program overseen by one of the Captains who is a certified life safety educator. Public education is a vital component of an overall Community Risk Reduction program, particularly in the residential areas of the city. This effort is very commendable and results in time and resources well spent. A significant percentage of all fires, fire deaths, and injuries occur in the home, an area where code enforcement and inspection programs have little to no jurisdiction. Public education is the area where the fire service will make the greatest impact on preventing fires and subsequently reducing the accompanying

loss of life, injuries, and property damage through adjusting people's attitudes and behaviors regarding fires and fire safety.

Public education programs in Canandaigua include fire & life safety education for public and private schools/daycares, EDITH, fire safety trailer with 5th graders, station tours, senior homes, egress equipment training, smoke alarm installations, community events, day camp demonstrations, etc.

Table 36: CFD Public Fire Education Contacts

2021	2022	2023	2024
Incomplete data	Incomplete data	3,200+	3,000+

There are numerous ways the CFD can increase the spread of its fire safety (and all hazard) messages. These include, but are certainly not limited to:

- Maximize CFD public appearances at community events.
- Add signs or marquees to fire stations with regular fire and life safety messages.
- Keep school and other presentations on track.
- Include fire safety messages in the city and town's community videos.
- Increase social media presence for the community to learn about their fire department and its services, along with frequent social media postings (Facebook, Instagram, etc.) on department events, disaster preparedness, all-hazards injury prevention, etc.
- Social media addresses advertised on apparatus, department letterhead, etc.
- Development of a CFD YouTube page.
- Increased social media activity during holidays (when there is an uptick in cooking fires), prior to and during major weather events, during public education events (Facebook Live, for example), and live dispatch or live updates from the PIO on incidents.

As previously mentioned, In its 2025 budget, the CFD was approved for the hiring of a Deputy Fire Chief whose primary duties would include assuming the fire marshal duties from the Fire Chief allowing him to concentrate on other duties and priorities. Due to staffing concerns, the CFD and city ultimately agreed to postpone filling this position and hire an additional entry level firefighter instead which is reasonable.

CPSM fully supports the creation of the position of Deputy Fire Chief with primary responsibilities that include serving as the City's Fire Marshal and overseeing the City and CFD CRR functions. The Deputy Chief would be primarily responsible for plans review, permitting, and new construction inspections. The current CFD inspector and the operations personnel performing in service inspections would be primarily responsible for permit inspections, and routine fire prevention inspections in business, mercantile, industrial, public assemblies, institutional, and other occupancy classifications outlined in the adopted FCNYS and NFPA 1730.

While not CRR related, the hiring of a Deputy Fire Chief will have additional benefits to the city and the CFD. At present, he management structure of the CFD is limited. Although with just 20 personnel in total the department is not large, the fire chief is the only non-union, executive management position. As a result, the chief does not have a real management and support assistant that can share responsibilities for confidential personnel matters, supervision, handling grievances or potential grievances, administering the collective bargaining agreement,

overseeing budgetary expenditures, assisting with the development of policies and procedures, and the myriad of administrative and management tasks that are associated with running a modern, full service emergency services provider. In the absence of the Fire Chief, the City is without a true member of the executive management team to oversee a critical public safety agency.

CPSM recommends that with the establishment of the Deputy Fire Chief position, the City of Canandaigua should delineate the position as a clear number two position in the fire department and to provide the Chief with another confidential management position to assist him with leading the department. This position should be an executive management position that is exempt from the firefighters' collective bargaining unit.

CPSM recommends that the CFD should include in any strategic planning a focus on Community Risk Reduction that includes the expansion of public life safety education staff and programs; a comprehensive fire prevention code enforcement plan that ensures the completion of required annualized inspections, and which details the remaining occupancy types and a schedule identifying inspection of these occupancies as outlined in NFPA 1730; and the expansion of fire code enforcement staff that matches the growth and demand of inspectable properties and plans review. This is also an area where the City and CFD may want to explore the possibility of entering into a shared services agreement with neighboring towns in a way that would be mutually beneficial.

Infrastructure

Fleet

The resources that the fire department uses to perform its core mission and mitigate a wide range of emergency incidents are generally divided into two major categories, apparatus, and tools/equipment. Apparatus generally includes the department's motorized vehicle fleet and includes the major emergency response apparatus such as engines (pumpers), aerial apparatus including towers and ladders, and rescue vehicles. Specialized apparatus includes emergency units such as lighting vehicles, brush trucks, and other off-road vehicles. They also often include trailers for specialized applications such as technical rescue, hazardous materials response/ equipment, hazardous material decontamination, structural collapse rescue equipment, breathing air/light support units, foam units/supplies, and mass casualty incident supplies. Support vehicles that are critical to fire department operations, both routine and emergency, include command/staff vehicles, and maintenance trucks.

The geography, infrastructure, hazards, and construction features within the community all play a major role in determining the composition of each department's unique and individualized apparatus fleet and equipment inventory. Canandaigua's characteristics present the fire department with a wide variety of strategic and tactical challenges related to emergency response preparedness and mitigation. This includes fire suppression operations, emergency medical responses, and complex incidents requiring special operations capabilities such as technical rescue and hazardous materials emergencies.

Large commercial buildings, mid/high-rise structures, and a diverse mixture of target hazards present many different operational hazards and challenges than those required for operations in single family dwellings. These factors, as well as projected future needs, must be taken into consideration when specifying and purchasing apparatus and equipment. Every effort should be made to make new apparatus as versatile and multi-functional/capable as is possible and practical.

Fire department apparatus are designed and intended to transport firefighters and fire and life safety equipment to the scene of an emergency. The provision of an operationally ready and strategically located fleet of mission-essential fire- rescue vehicles is fundamental to the ability of a fire-rescue department to deliver reliable and efficient public safety within a community. Modern, reliable vehicles are needed to safely deliver responders and the equipment/materials they deploy to the scene of dispatched emergencies within the City and Town.

The procurement, maintenance, and eventual replacement of response vehicles is one of the largest expenses incurred in sustaining a community's fire-rescue department. Reliable vehicles are needed to deliver responders and the equipment/materials they employ to the scene of dispatched emergencies within the City and surrounding areas. A well-planned and documented emergency vehicle replacement plan (capital) ensures ongoing preservation of a safe, reliable, and operationally capable response fleet. A plan must also include a schedule for future capital outlay in a manner that is affordable to the community.

NFPA 1901, *Standard for Automotive Fire Apparatus*, serves as a guide to the manufacturers that build fire apparatus and for the fire departments that purchase them. NFPA 1901 is updated every five years using input from the public/stakeholders through a formal review process. The committee membership is made up of representatives from the fire service, manufacturers, consultants, and special interest groups. The committee monitors various issues and problems that occur with fire apparatus and attempts to develop standards that address those issues. A primary interest of the committee over the years has been improving firefighter safety and reducing fire apparatus crashes.

The Annex Material in NFPA 1901 (2016) contains recommendations and work sheets to assist in decision-making in vehicle purchasing. With respect to the recommended vehicle service life, the following excerpt is noteworthy:

> *"It is recommended that apparatus greater than 15 years old that have been properly maintained and that are still in serviceable condition be placed in reserve status and upgraded in accordance with NFPA 1912, Standard for Fire Apparatus Refurbishing (2016), to incorporate as many features as possible of the current fire apparatus standard. This will ensure that, while the apparatus might not totally comply with the current edition of the automotive fire apparatus standards, many improvements and upgrades required by the recent versions of the standards are available to the firefighters who use the apparatus."*

It is a generally accepted fact that fire department apparatus and vehicles, like all types of mechanical devices, have a finite life. The impetus for these recommended service life thresholds is continual advances in occupant and vehicle safety. Despite good stewardship and maintenance of emergency vehicles in sound operating condition, there are many advances in occupant and vehicle safety, such as fully enclosed cabs, enhanced rollover protection and air bags, three-point restraints, enhanced air filtering in air conditioning units, antilock brakes, higher visibility, cab noise abatement/hearing protection, carcinogen exposure reduction, and a host of other improvements as reflected in each revision of NFPA 1901. These improvements provide safer response vehicles for those providing emergency services within the community, as well those "sharing the road" with these responders.

The NFPA 1901 standard states apparatus that was not manufactured to applicable NFPA fire apparatus standards or that is 25 years old should be replaced.

Today's fire departments are obligated to establish and document formal programs and procedures to ensure that equipment is replaced regularly, maintained properly, and deployed in accordance with accepted standards and department procedures. Proper training on the

use and maintenance of equipment is essential to effective and safe firefighter performance and minimizes the fire department and city's risk exposure.

The current CFD fire apparatus fleet consists of two (2) pumpers (1 front line, 1 reserve), one (1) 100' ladder tower/arial ladder, one (1) quint/aerial ladder[66], one (1) command vehicle (Fire Chief), and three (3) utility vehicles used for special operations and fire prevention activities. The age of the major firefighting apparatus currently in service ranges from 22years old for Reserve Engine 212 which is a spare pumper, to two years old for Truck 281. The apparatus fleet as a whole, even the older units in it all appear to be in very good to excellent condition, well maintained, and with the equipment stowed in an orderly fashion. When considering apparatus usage, hours on the motor and pumps hours must be taken into consideration. Fire apparatus typically spend more time idling while at emergency scenes or throttled up when operating the fire pump. A rule of thumb that can be used is that each hour on the motor is the equivalent of thirty to thirty-five miles of actual road usage.

Canandaigua is both above and below national averages regarding the current size and configuration of its apparatus fleet when compared to communities with comparable populations. For instance:

- Just over one third (34%) of communities with populations between **10,000 and 24,999** have two pumpers while nearly half (46%) have three or four. [67]
- For other fire suppression vehicles such as brush trucks, water tenders/tankers, etc., 24% of communities do not have any, while 23% of communities each have one, 20% have two, and 21% have three or four.[68]
- For aerial ladder apparatus, 49% of communities in that population range do not have an aerial, while 47% have one, and just 3% have two.

It is important to keep in mind that Canandaigua does have significant risk and as an urban community has many larger buildings that present more complex firefighting problems.

The CFD emergency vehicle inventory, age, and station assignment are outlined in the next table.

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66. A quint fire truck is an apparatus that combines the equipment capabilities of a ladder truck and the water-pumping ability of a fire engine. As its name implies, it features five main tools to carry out firefighting functions: pump, water tank, fire hose, aerial device, and ground ladders.
67. https://www.nfpa.org/education-and-research/research/nfpa-research/fire-statistical-reports/us-fire-department-profile
68. https://www.nfpa.org/education-and-research/research/nfpa-research/fire-statistical-reports/us-fire-department-profile

Table 37: CFD Full Fleet Listing and Age

UNIT #	YEAR	MAKE	MODEL/USE	PUMP SIZE (GPM)	TANK SIZE (GALLONS)
Station 1					
Truck 281	2023	E-One Cyclone HP	100' Tower Ladder	1,500	300
Reserve Truck 282	2013	Sutphen	75' Quint	1,500	500
Car 20	2022	Ford F-150 Hybrid	Fire Chief		
Squad 261	2012	Ford F-450	Custom Rescue		
Squad 262	2014	Ford Interceptor	SUV (Fire Prevention)		
Utility 263	2013	F - 250 Super Duty			
Marine Unit	1987	Boston Whaler			
Technical Rescue Trailer	2006	14' Christie			
Station 2					
Engine 211	2017	Pierce	Saber	1,500	500
Engine 212	2003	Spartan	Crimson	1,500	630

The City and CFD do have an apparatus replacement plan. At the current time the following vehicles are scheduled to be replaced.

- **2025** – Expecting deliver in September 2025 of a new E-One Cyclone pumper with 1,500 GPM pump, 500-gallon water tank and 30-gallon foam tank.
- **2029** – E-One Cyclone 100' Ladder/Quint with 1,500 GPM pump and 500-gallon water tank. Contract for this truck has been approved and signed.

When purchasing fire apparatus, agencies should consider the option of group purchasing or piggybacking off another agency as a method to save money and in many cases better the delivery time. (Also known as joint, bridging, cooperative bids, etc.). Group purchasing can be done formally such as by using an established consortium (state-wide bid, as an example, or Houston-Galveston Buy) or less formally (such as teaming up with another local agency during their bid process, as an example). In both cases, the aggregate of two or more similar fire engine purchases often leads to a more economical purchase, including less cost and more rapid delivery.[69] Similarly, when piggybacking, there is the advantage of time savings because it can reduce transaction and administrative costs, workload, and processing time as someone else has already done the work of specifying, evaluating, and negotiating the final contract award price. The City of Canandaigua should consider group purchasing when updating fleet vehicles.

All CFD apparatus appears to be in good condition with normal wear and tear. Equipment within all apparatus is comprehensive and common with industry trends. Items within appear modern, secure, clean, and in good condition.

One of the biggest factors that can impact the serviceable life of the apparatus is the level of preventative maintenance that is receives. NFPA 1911 provides guidance on this important

69. https://www.firehouse.com/apparatus/article/21142831/consortium-purchasing

aspect of fire department support operations. Apparatus manufacturers also identify suggested programs and procedures to be performed at various intervals. As apparatus ages it is reasonable to expect that parts will wear out and need to be replaced. It follows then that maintenance costs and overall operating expenses will increase. As a result, cost history and projected costs for the future must be considered as a factor in determining when to replace, or refurbish, a fire apparatus. In addition, reliability of the apparatus must be considered. Experiencing low downtime and high parts availability are critical factors for emergency equipment maintenance and serviceability. A pro-active preventative maintenance program can assist with holding costs to an acceptable level. The Annex Material in NFPA 1911 contains recommendations and work sheets to assist in decision making in vehicle replacement.

The City of Canandaigua provides routine vehicle repairs and maintenance to the CFD fleet using the city's maintenance shop. In addition, limited preventative maintenance is completed by some personnel within each of their stations. More complex and/or warranty work on the vehicles is performed by either the dealer of the apparatus, or a regional vendor who is contracted to do the work. Regarding maintenance and repair to apparatus, a few key points to remember are:

- Ensuring that preventative maintenance programs are developed and implemented for fire apparatus according to manufacturer's guidelines and national consensus standards.
- Ensuring that preventative maintenance on fire apparatus is performed and/or overseen by qualified personnel who meet the certification requirements outlined in NFPA 1071, Standard for Emergency Vehicle Technician Professional Qualifications.
- Develop and utilize policies and procedures that monitor preventative maintenance and other automotive services performed by vendors.

CPSM assesses the CFD has a modern Fire and support vehicle fleet with two new replacement apparatus ordered for delivery over the next five years.

CPSM recommends the City and CFD should continue to include vehicle replacements in all capital budgeting and strategic planning the department conducts, planning objectives focused on:

- Following the NFPA 1901 standard for fleet replacement: Apparatus should not remain on the frontline greater than fifteen years. Planning for replacement should be advanced up to 48 months due to current delivery times of fire apparatus manufacturers.
- Following the NFPA 1901 standard for fleet replacement: Placing apparatus out of service once the apparatus reaches the 25-year age ceiling.
- Planning the routine periodic replacement of command, staff, and utility vehicles and including them in the capital budget as appropriate.

Facilities

Fire facilities must be designed and constructed to accommodate both current and forecast trends in fire service vehicle type and manufactured dimensions. A facility must have sufficiently sized bay doors, circulation space between garaged vehicles, departure and return aprons of adequate length and turn geometry to ensure safe response, and floor drains and oil separators to satisfy environmental concerns. Station vehicle bay areas should also consider future tactical vehicles that may need to be added to the fleet to address forecast response challenges, even if this consideration merely incorporates civil design that ensures adequate parcel space for additional bays to be constructed in the future.

Personnel-oriented needs in fire facilities must enable performance of daily duties in support of response operations. For personnel, fire facilities must have provisions for vehicle maintenance and repair; storage areas for essential equipment and supplies; space and amenities for administrative work, training, physical fitness, laundering, meal preparation, and personal hygiene/comfort; and—where a fire department is committed to minimize "turnout time"—bunking facilities.

A fire department facility may serve as a de facto "safe haven" during local community emergencies and serve as a command center for large-scale, protracted, campaign emergency incidents. Therefore, design details and construction materials and methods should embrace a goal of having a facility that can perform in an uninterrupted manner despite prevailing climatic conditions and/or disruption of utilities.

Programmatic details, such as the provision of an emergency generator connected to automatic transfer switching—even going as far as to provide tertiary redundancy of power supply via a "piggyback" roll-up generator with manual transfer (should the primary generator fail)—provide effective safeguards that permit the fire department to function fully during local emergencies when response activity predictably peaks. Fire facilities should conform to all building and fire codes – fire facilities should have fire sprinklers systems.

Personnel/occupant safety is a key element of effective station design. This begins with small details such as the quality of finish on bay floors and nonslip treads on stairwell steps to decrease tripping/fall hazards, or use of hands-free plumbing fixtures and easily disinfected surfaces/countertops to promote infection control. It continues with the installation of specialized equipment such as an exhaust recovery system to capture and remove cancer-causing by-products of diesel fuel exhaust emissions. A design should thoughtfully incorporate best practices for achieving a safe and hygienic work environment.

An ergonomic layout and corresponding space adjacencies in a fire station should seek to limit the travel distances between occupied crew areas to the apparatus bays. Likewise, facility design should carefully consider complementary adjacencies, such as lavatories/showers in proximity of bunk rooms, desired segregations, and break rooms or fitness areas that are remote from sleeping quarters. Furnishings, fixtures, and equipment selections should provide thoughtful consideration of the around-the-clock occupancy inherent to fire facilities. Durability is essential, given the accelerated wear and life cycle of systems and goods in facilities that are constantly occupied and operational.

National standards such as NFPA 1500, *Standard on Fire Department Occupational Safety, Health, and Wellness Program*, outlines standards that transfer to facilities such as infection control, personnel and equipment decontamination, cancer prevention, storage of protective clothing, and employee fitness. NFPA 1851, *Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Firefighting and Proximity Fire Fighting*, further delineates laundering standards for protective clothing and station wear. Laundry areas in fire facilities continue to evolve and are being separated from living areas to reduce contamination. Factors such as wastewater removal and air flow need to be considered in a facility design.

Fire facilities are exposed to some of the most intense and demanding uses of any public local government facility, as they are occupied 24 hours a day for a crew of three to six personnel. Fire facilities must enable the performance of daily duties in support of response operations such as vehicle maintenance and repair areas, storage areas for essential equipment and supplies.

Fire facilities should be accessible and should be welcoming. Parking and walkways to the lobby of the station and emergency phone should follow ADA requirements to allow all members of

the community to be able to approach the station for assistance. Station site configuration, building orientation and exterior façade should provide a clear understanding of the location a community member should go to receive help, often the primary entrance into the facility. Fire facilities should have a marquee or electric signs displaying important community fire and life safety information.

The CFD operates out of two operational facilities. Station I is located in the southern part of the City. Station 2 is located in the Town, just north of the city limits. Both stations house around the clock crews of firefighters, 365 days a year.

<table>
<tr>
<td>  </td>
<td>Station 1

Address: 335 S. Main Street
Year Built: 1990
Square Feet: 15,265
Apparatus Bays: 4
3 - Double deep drive through
1 - Standard

Number of Personnel on Shift: 2

Administrative offices:
■ Fire Chief's office
■ Secretary's office
■ Each Captain has shared office space
■ Inspector's office
■ Large meeting room</td>
</tr>
<tr>
<td>Station 1 Assigned Apparatus

■ Truck (ladder) 281 (first line)
■ Truck (ladder) 282 (reserve)
■ Car 20 (Fire Chief)
■ Squad 261 (special ops-not regularly staffed)
■ Squad 262 (Prevention/inspection-used during business hours for inspections)
■ Utility 263 (special ops-not regularly staffed)</td>
<td>Station 1 Concerns:

■ Plumbing upgrades
■ Electrical upgrades
■ Parking lot
■ Some exterior doors
■ Storage/upgrade unused space
■ Kitchen/bath upgrades
■ Skylight(s) removal
■ Some exterior brick work
■ Fire alarm system upgrade</td>
</tr>
<tr>
<td colspan="2">CPSM found Station 1 to be clean and well maintained. However, Station 1 was constructed 35 years ago when the CFD, its mission, and staffing were quite different. The station has less than optimal space utilization, design, and flow paths. As configured it is really nearing maximum capacity for personnel living quarters, and office/administrative space. However, the existing meeting could be reconfigured to provide additional space which will be needed for increased staffing.</td>
</tr>
</table>

<table>
<tr>
<td>  </td>
<td>Station 2

Address: 5298 Parkside Drive
Year Built: 1991
Square Feet: 5,457
Apparatus Bays: 2
2 - Double deep drive through

Number of Personnel on Shift: 2

Station is owned by the Town of Canandaigua and leased to and staffed by the City of Canandaigua.</td>
</tr>
<tr>
<td>Station 2 Assigned Apparatus

■ Engine 211 (first line)
■ Engine 212 (reserve)</td>
<td>Station 2 Concerns:

■ Exterior/interior lighting
■ HVAC
■ Plumbing
■ Flooring
■ Apparatus bay drainage
■ Windows
■ Kitchen/bath upgrades
■ Fire alarm system upgrade
■ Limited space for additional personnel.</td>
</tr>
<tr>
<td colspan="2">CPSM found Station 2 to be clean and well maintained. Station 2 was also constructed 34 years ago when the CFD, its mission, and staffing were quite different. Some age-related maintenance issues notwithstanding, the station is more than adequate for the deployment of a single fire suppression unit. However, deploying additional personnel through increased staffing will most likely require renovation and expansion of the crew quarters.</td>
</tr>
</table>

The CFD is consistent with other communities with service area populations between 10,000 and 24,999. According to the NFPA 2020 *Fire Department Profile*, of communities in that population range, 45% of communities had one fire station while 30% had two, and 25% had three or more.

CPSM assesses that overall, both the current CFD stations maintain adequacy as fire stations for continued service to the City and Town.

CPSM recommends the City and CFD should, as part of any strategic planning process, especially if additional staffing is incrementally added as recommended in this report, include as planning objectives and provide capital funding focused on modifications for increased and better space utilization at both Station 1 and Station 2.

End of Section

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SECTION 5. CANANDAIGUA EMERGENCY SQUAD

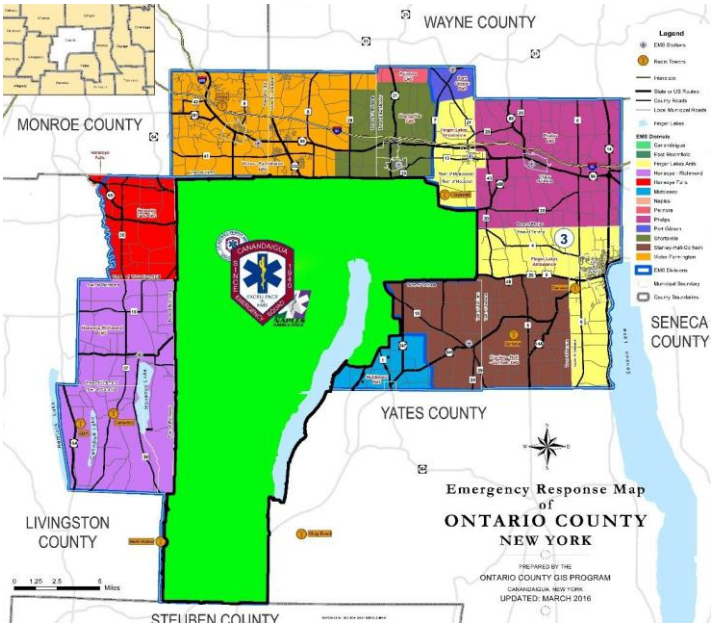
EMS System Overview

The City of Canandaigua receives Emergency Medical Services (EMS) through a dual-agency model involving the Canandaigua Fire Department (CFD) and the Canandaigua Emergency Squad (CES). This structure leverages both municipal first-response EMS capability (CFD) and an external EMS transport system (CES).

The initial tier response to EMS calls is the Canandaigua Fire Department (CFD), a career-staffed municipal fire and rescue agency providing fire suppression, technical rescue, hazardous materials response, and EMS first response. The department staffs with strong experienced personnel at the EMT Basic (EMT-B) level and serves as the initial EMS responder on high acuity 911 medical calls within the city and town response district. Under the medical oversight of Dr. Glick, CFD's EMS role focuses on early assessment, stabilization, and scene control until transport arrives.

Canandaigua Emergency Service (CES) is a not-for-profit EMS transport provider with over eighty-five years of operational history. Governed by a Board of Directors and led by an internal administrative and clinical team, CES is licensed by the New York State Department of Health as an Advanced Life Support (ALS) transport provider. CES currently operates three ALS ambulances, with 24/7 staffing and the ability to scale up through volunteer and per diem personnel. CES maintains its own education and continuing medical education (CME) plan, including compliance with NYS CME recertification models. QA/QI functions are coordinated through CES's internal management and medical direction via Dr. Glick, in alignment with Finger Lakes REMAC protocols.

Service Area



The primary response district is highlighted in green on the above map.

The service area for CES includes the Town of Canandaigua and City of Canandaigua, which also have primary CFD response areas. Other divisions of CES includes Naples Ambulance (located in the Town of Naples), and East Bloomfield (located in the Town of East Bloomfield-all volunteer). More broadly, when considering where all three divisions provide primary response coverage, this includes:

- City of Canandaigua
- The Towns of Canandaigua, East & West Bloomfield, Hopewell (partial), Gorham (partial), Bristol, and South Bristol.
- Naples Fire District, South Bristol Fire District, potions of Italy, Middlesex, and Prattsburg Fire Districts.

EMS Critical Tasking

As outlined in the fire operations section, EMS calls require a level of tasks to be completed depending on the acuity. Critical tasks by specific call type in EMS-only agencies assisted by fire departments are not as well-defined as those in the fire discipline. Notwithstanding, Critical Tasking in EMS is typical of that in the fire service in that there are certain critical tasks that need to be completed either in succession or simultaneously. EMS on-scene service delivery is based primarily on a focused scene assessment, patient assessment, and then followed by the appropriate basic and advanced clinical care through established medical protocols. EMS critical tasking is typically developed (in fire-based EMS Standards of Cover documents) in accord with the U.S. Department of Health and Human Services, Centers for Medicare & Medicaid Services (CMS), as:

- Basic Life Support (BLS), which is an emergency response by a ground transport unit (and crew) and the provision of medically necessary supplies and services.
- Advanced Life Support, Level 1 (ALS1), which is the transportation by ground ambulance vehicle and the provision of medically necessary supplies and services including the provision of an ALS assessment or at least one ALS intervention.
- Advanced Life Support, Level 2 (ALS2), which is the transportation by ground ambulance vehicle and the provision of medically necessary supplies and services including:
  - At least three separate administrations of one or more medications by intravenous push/bolus or by continuous infusion (excluding crystalloid fluids) or
  - (2) ground ambulance transport, medically necessary supplies and services, and the provision of at least one of the ALS2 procedures listed below:

    a. Manual defibrillation/cardioversion.

    b. Endotracheal intubation.

    c. Central venous line.

    d. Cardiac pacing.

    e. Chest decompression.

    f. Surgical airway.

    g. Intraosseous line.

The next set of tables reviews the baseline critical tasking for EMS incidents. As indicated above, the critical tasking is based on the current CMS ground transport definition of ambulance services. Individual EMS agencies adjust critical tasking up or down based on protocols, evidence based medical review, and community experiences.

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Table 38: BLS Critical Tasking

Critical Task	# Responders
Primary Patient Care Incident Command	1
Secondary Patient Care Vehicle Operations	1
Effective Response Force	**2**

Resource Deployment

1 Transport Ambulance

Table 39: ALS1 Critical Tasking

Critical Task	# Responders
Primary Patient Care	1
* Secondary Patient Care Vehicle Operations	1 to 3
Effective Response Force	**2 to 4**

Resource Deployment

1 Transport Ambulance

*** This call type may escalate and require a fire department response.**

Table 40: ALS2 Critical Tasking

Critical Task	# Responders
Incident Command	1
Primary Patient Care	1
Secondary Patient Care	1
Tertiary Patient Care Provider	2
Vehicle Operations	1
Effective Response Force	**6**

Resource Deployment

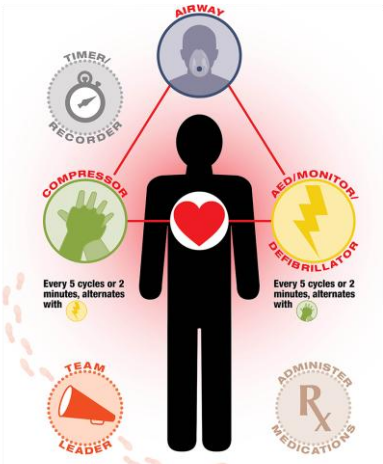
1 Command Officer
1 Transport Ambulances
1 Engine Company

Table 41: Pulseless/Non-Breathing Critical Tasking

Critical Task	# Responders
Incident Command	1
Primary Patient Care	1
Secondary Patient Care	1
Tertiary Patient Care Provider	2
Vehicle Operations	1
Effective Response Force	**6**

Resource Deployment

1 Transport Ambulances
1 Command Officer
1 Engine Company



Source: American Heart Association

CPSM's assesses the EMS system has sufficient capabilities to assemble an Effective Response Force for EMS calls when units are available (based on call demand and EMS unit availability [resiliency]), and when calls occur during off-peak hours.

EMS Demand Analysis and Resilience

EMS workload and demand encompass the types, frequency, and locations of EMS calls. These factors directly drive staffing, resource allocation, and overall workload. Population centers with higher call volumes require greater resources, and sustained demand places pressure on system resiliency, often resulting in longer response times.

EMS demand poses unique challenges. The need for available EMS units and crews is typically greater than that for fire units. In many cases, fire or police resources are called to support EMS incidents, adding to their workload. In departments where personnel are cross-trained, EMS calls can limit the availability of staff for fire suppression and other critical functions.

Community EMS risk is reflected in the number and type of incidents, their geographic distribution, and the underlying causes of demand, such as limited access to healthcare, chronic illness, and transportation barriers. These factors collectively shape the overall call volume across the entire service area.

In tiered response systems where fire department units also respond to EMS incidents, the volume and type of calls can reduce fire unit resiliency. Ongoing evaluation is essential to ensure that fire resources are used strategically and reserved for the functions where they are most effective.

The next tables and figures include CES EMS demand analysis focused on CES's service in the City of Canandaigua between January 1, 2024, and December 31, 2024. In addition, CPSM also analyzed the 3-year service of CES from January 1, 2022, to December 31, 2024, in the City of Canandaigua, the Town of Canandaigua, and other areas CES services primarily, or through mutual aid.

The first table reviews call incident data in the City of Canandaigua for CY 2024.

Table 42: CES Calls by Type in the City of Canandaigua-CY 2024

Call Type	Total Calls	Calls per Day	Percent Calls
Breathing difficulty	182	0.5	4.6
Cardiac and stroke	212	0.6	5.4
Fall and injury	415	1.1	10.5
Illness and other	630	1.7	15.9
MVA	96	0.3	2.4
Overdose and psychiatric	79	0.2	2.0
Seizure and unconsciousness	208	0.6	5.3
EMS Subtotal*	**1,822**	**5.0**	**46.0**
Fire assist	24	0.1	0.6
Interfacility transfer	2,114	5.8	53.4
Total	**3,960**	**10.8**	**100.0**

Note: *We separated interfacility transfer calls and 9-1-1 EMS calls in this analysis.

Table Analysis

46% of all calls are 911 related.

53% are interfacility transports. This has the potential to create resilience issues with 911 calls.

15.3% of all EMS calls are either breathing difficulty, cardiac, stroke, or seizure and unconscious which are typically higher acuity calls needed ALS intervention.

The next table shows CES incident demand by location to include the City of Canandaigua, Town of Canandaigua, and other areas of the county CES has an EMS district, or through mutual aid.

Table 43: CES Calls by Type, Location, and Year

Call Type	Canandaigua City			Canandaigua Town			Other Areas		
	2022	2023	2024	2022	2023	2024	2022	2023	2024
Breathing difficulty	184	179	182	124	194	154	146	125	158
Cardiac and stroke	186	186	212	165	166	133	157	156	172
Fall and injury	442	410	415	513	533	556	287	294	310
Illness and other	552	620	630	447	540	508	395	350	413
MVA	73	77	96	94	92	124	67	70	70
OD	101	82	79	88	58	57	58	53	55
Seizure and UNC	169	213	208	123	170	164	110	132	123
911 EMS Subtotal	**1,707**	**1,767**	**1,822**	**1,554**	**1,753**	**1,696**	**1,220**	**1,180**	**1,301**
Fire assist	35	30	24	6	7	9	40	27	29
Interfacility transfer	2,029	1,960	2,114	1	10	3	20	25	20
Total	**3,771**	**3,757**	**3,960**	**1,561**	**1,770**	**1,708**	**1,280**	**1,232**	**1,350**

Note: OD=Overdose and psychiatric; UNC=Unconsciousness.

This table tells us:

- Overall, there are more interfacility transfer calls in the City than 911 calls in each of the analysis years. ***CES is the primary interfacility transport agency for Canandaigua Veterans Affairs Hospital in Canandaigua.***
- From 2022 to 2024, calls increased by 7% in the City.
- Over the three-year analysis period:
  - The City cumulatively had 5,296 911 EMS calls.
  - The Town cumulatively had 5,003 911 EMS calls.
  - Calls in other response areas cumulatively had 3,701 calls.
- Overall, in the three-year analysis period:
  - CES responded to 20,389 calls.
  - There were 6,182 interfacility transfers completed (30% of all CES calls- **53% of City calls**).

The next table breaks out the other areas CES responded to.

Other Areas include (data as provided to CPSM):

Table 44: CES Calls by Type, Location, and Year-Other Areas

Location		Year		
		2022	2023	2024
Other Areas	Bristol	192	164	199
	Cheshire	2	0	2
	Crystal Beach	121	124	110
	Hopewell	795	747	839
	VAMC	170	197	200
	Subtotal	**1,280**	**1,232**	**1,350**

The Hopewell response area has the highest demand outside of the City.

Table 45: CES Deployed Hours by Type, Location, and Year

Call Type	Canandaigua City			Canandaigua Town			Other Areas		
	2022	2023	2024	2022	2023	2024	2022	2023	2024
911 EMS Subtotal	1,450.2	1,508.1	1,637.7	1,452.7	1,674.6	1,634.9	1,361.9	1,304.3	1,486.5
Fire assist	14.5	17.6	37.7	18.6	17.7	24.7	246.1	141.4	158.6
Interfacility Transfer	3,428.7	3,217.5	3,518.7	3.1	8.8	1.9	59.0	49.0	46.5
Total	**4,893.4**	**4,743.2**	**5,194.1**	**1,474.5**	**1,701.0**	**1,661.6**	**1,667.0**	**1,494.6**	**1,691.6**

In terms of time on task (deployed hours):

- CES spends 42% of the time deployed on interfacility transfers and 55% on 911 EMS. The remaining deployed time is spent on fire assist calls.

The next table breaks out the other areas CES responded to.

Other Areas include (data as provided to CPSM):

Table 46: CES Deployed Hours by Type, Location, and Year-Other Areas

Location		Year		
		2022	2023	2024
Other Areas	Bristol	232.5	168.4	242.6
	Cheshire	2.9	0.0	2.1
	Crystal Beach	153.4	147.0	140.5
	Hopewell	1,071.1	958.6	1,078.9
	VAMC	207.0	220.7	227.4
	Subtotal	**1,667.0**	**1,494.6**	**1,691.6**

Overall, CES deployable hours in other areas:

- Are overall consistent the City and Town of Canandaigua in each study period.
- In 2022 and 2024 the Hopewell response area drove up deployable hours in other areas outside of the City and Town.

The next maps show CES demand in the CFD fire district as well as county-wide.

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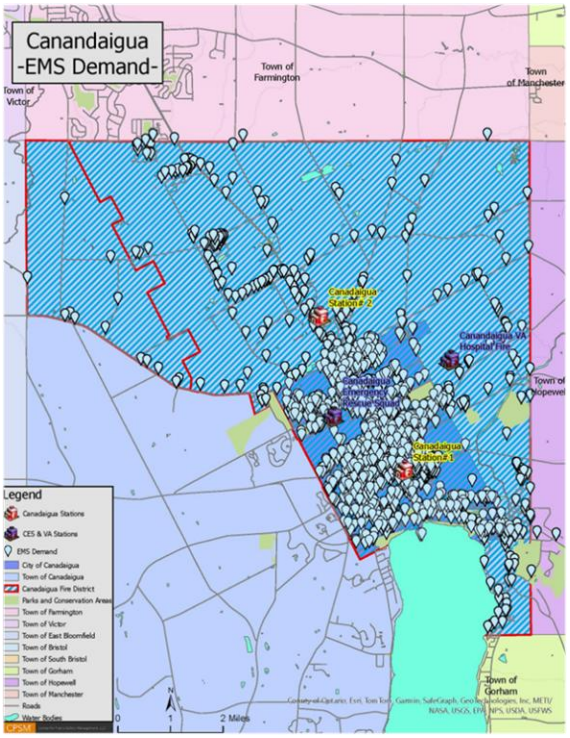
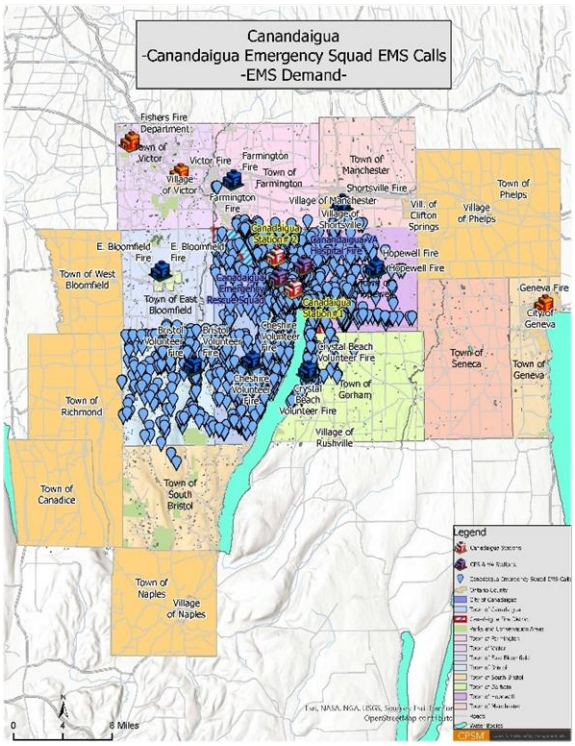
Figure 72: CES Demand-CFD Fire District





The maps to the left represent EMS demand over the three-year analysis period.

Overall, when analyzing the CES demand in the CFD response district, the heaviest demand is concentrated mid-city with heavy demand on the Northside.

When looking at CES – Canandaigua-Hopewell demand countywide, the heaviest demand remains in the city of Canandaigua with additional higher demand in Hopewell and Bristol.

EMS resilience like fire resilience is "*An organization's ability to quickly recover from an incident or events, or to adjust easily to changing needs or requirements*."[70] Greater EMS resiliency can be achieved by constant review and analysis of the response system and focuses on:

- Resistance: The ability to deploy only resources necessary to control an incident and bring it to termination safely and effectively.
- Absorption: The ability of the agency to quickly add or duplicate resources necessary to maintain service levels during heavy call volume or incidents of high resource demand.
- Restoration: The agency's ability to quickly return to a state of normalcy.

EMS transport also has an effect of resiliency of EMS units. EMS transport and hospital wait times significantly impact unit resiliency by reducing the availability of frontline emergency units for subsequent calls. When ambulances are delayed at hospitals due to long patient handoff times, they remain out of service for extended periods, limiting system capacity and increasing response times for new emergencies. This strain forces other units to cover wider areas, leading to fatigue, increased operational stress, and longer response times. Over time, persistent delays, whether transport travel time or hospital wait time can erode the overall effectiveness and readiness of the EMS system, compromising its ability to respond efficiently to concurrent or large-scale incidents.

As noted already, CES includes interfacility transfers as a part of their overall ground transport system. This initiative offers clear benefits: for the Veterans Affairs hospital in Canandaigua, it ensures reliable and consistent patient transfers, improving operational coordination and interfacility transport needs. For CES, the program generates revenue from billing non-emergency and emergency facility to facility transports, helping offset costs and support reinvestment in equipment and staffing.

Overall, an EMS ground transport system that provides both emergency EMS ground transport and interfacility hospital transfers plays a critical role in supporting the continuum of care while also enhancing its own operational sustainability. By offering interfacility transport services, the EMS agency becomes a vital partner to local hospitals and healthcare systems, ensuring timely and reliable patient movement between medical facilities for specialized care, diagnostic procedures, or higher levels of treatment. This not only improves patient outcomes and hospital transport needs but also strengthens regional healthcare coordination.

As a note here, using 911 ambulances for interfacility transfers presents several challenges. When units designated for emergency response are diverted to manage scheduled or non-emergent patient transfers, system availability for true 911 emergencies is reduced, which can lead to longer response times and decreased coverage for critical incidents. This practice places additional strain on already limited EMS resources and personnel. Interfacility transfers, while important, are typically predictable and better suited for dedicated transport services rather than frontline 911 units, whose primary mission is to respond rapidly to emergent calls. Overreliance on 911 ambulances for transfers may compromise the resiliency of the EMS system and hinder its ability to provide timely care during surges in emergency demand.

The next tables analyze CES transport times. ***Because the Ontario 911 Center does not record "begin transport" and "end transport" times for interfacility transfers, CPSM was not able to analyze time on task for these transport incidents.*** These tables summarize the number of EMS and transport calls responded to by CES by year and location.

70. The Center for Public Safety Excellence (CPSE) in the Fire and Emergency Service Self-Assessment Manual (FESSAM), Ninth Edition.

Table 47: 911 EMS Transport Call Volume by Year and Location

Year	Location	EMS	Transport	Conversion Rate
2022	Canandaigua City	1,707	1,115	65.3
	Canandaigua Town	1,554	1,065	68.5
	Other Areas	1,220	901	73.9
2023	Canandaigua City	1,767	1,188	67.2
	Canandaigua Town	1,753	1,278	72.9
	Other Areas	1,180	853	72.3
2024	Canandaigua City	1,822	1,230	65.5
	Canandaigua Town	1,696	1,237	72.9
	Other Areas	1,301	949	72.9

The above table tells us that overall CES calls include a transport:

- For 2022: 69% of the time.
- For 2023: 71% of the time.
- For 2024: 70% of the time.

Affects overall absorption and restoration resilience of CES ambulances.

Table 48: Time Component for EMS Transport Runs by Year and location (Minutes)

Location	Year	Average Time Spent per Run				Runs
		On Scene	To Hospital	At Hospital	Deployed	
Canandaigua City	2022	15.4	7.7	29.6	60.0	1,126
	2023	15.4	7.3	26.2	55.9	1,223
	2024	15.8	7.3	28.2	58.5	1,282
Canandaigua Town	2022	15.7	8.6	30.2	64.1	1,086
	2023	16.6	7.6	27.2	60.3	1,344
	2024	16.8	7.6	28.2	61.7	1,299
Other Area	2022	17.8	12.9	31.0	73.8	927
	2023	17.5	12.7	29.1	71.7	882
	2024	18.0	12.8	29.0	71.3	1,006

This table tells us that:

- On scene time is very efficient.
- Travel to hospital time is excellent.
- Time spent on transports is extended but consistent, with each year averaging just over one hour.
  - 2022 overall: 66 minutes
  - 2023 overall: 63 minutes
  - 2024 overall: 64 minutes

Affects overall absorption and restoration resilience of CES ambulances.

Other area transport analysis includes the following tables.

Table 49: EMS and Transport Call Volume by Year and Location for Other Areas

Year	Location		EMS	Transport	Conversion Rate
	Other Areas	Bristol	191	104	54.5
		Cheshire	2	1	50.0
		Crystal Beach	120	78	65.0
		Hopewell	757	586	77.4
		VAMC	150	134	90.7
		Subtotal	**1,220**	**903**	**74.0**
	Other Areas	Bristol	162	68	42.0
		Cheshire	0	0	NA
		Crystal Beach	123	84	68.3
		Hopewell	714	549	76.9
		VAMC	181	159	87.8
		Subtotal	**1,180**	**860**	**72.9**
	Other Areas	Bristol	196	112	57.1
		Cheshire	2	1	50.0
		Crystal Beach	110	78	70.9
		Hopewell	806	599	74.3
		VAMC	187	163	87.2
		Subtotal	**1,301**	**953**	**73.3**

The above table tells us that overall CES calls outside of the City and Town of Canandaigua include a transport:

- For 2022: 74% of the time.
- For 2023: 73% of the time.
- For 2024: 73% of the time.

Affects overall absorption and restoration resilience of CES ambulances-system wide.

- The VAMC is the highest each year as highlighted (emergency interfacility transfers), which further affects CES system resiliency.

Regarding transport deployment time in other areas over the analysis periods (2022, 2023, 2024):

- Transports from Bristol averaged 89 minutes.
- Transports from Chesire averaged 95 minutes.
- Transports from Crystal beach averaged 80 minutes.
- Transports from Hopewell averaged 71 minutes.
- Transports from VAMC averaged 62 minutes.

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The next resilience CPSM analysis is more focused on CY 2024 and the City. It is important to look at EMS response activity over time, such as calls by month, calls by hour of the day, and calls by day of the week.

The next figures illustrate this. First, we look at CES responses by time of day (calls per hour). As the analysis shows, the system has a higher demand in the City between the hours of 9:00 am and 4:00 pm.

Figure 73: CES Calls by Hour of Day-City of Canandaigua

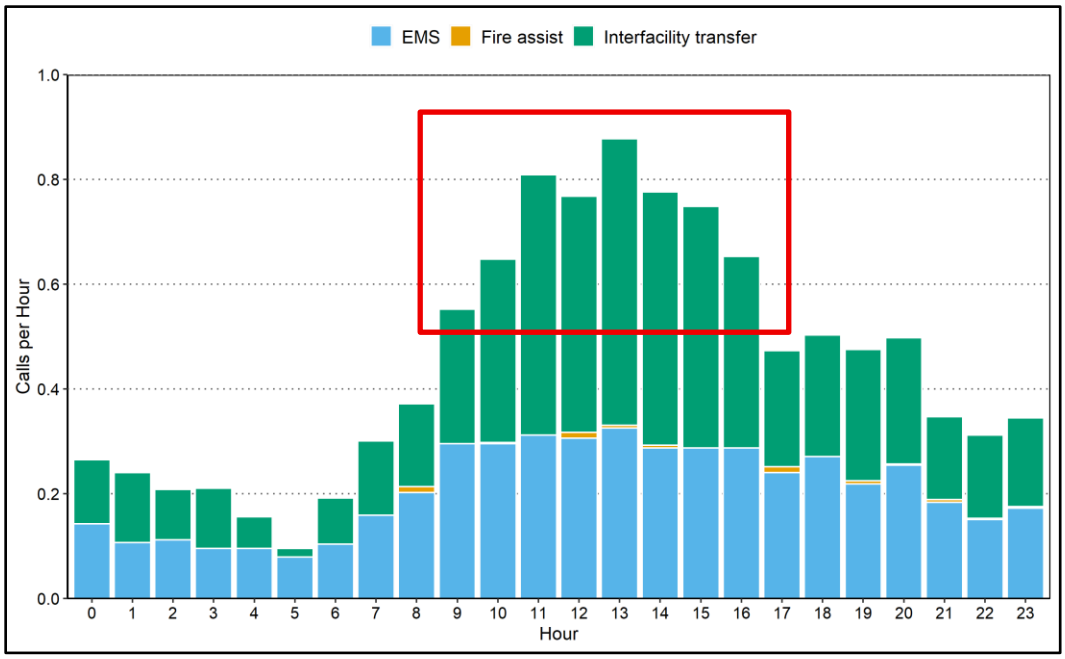
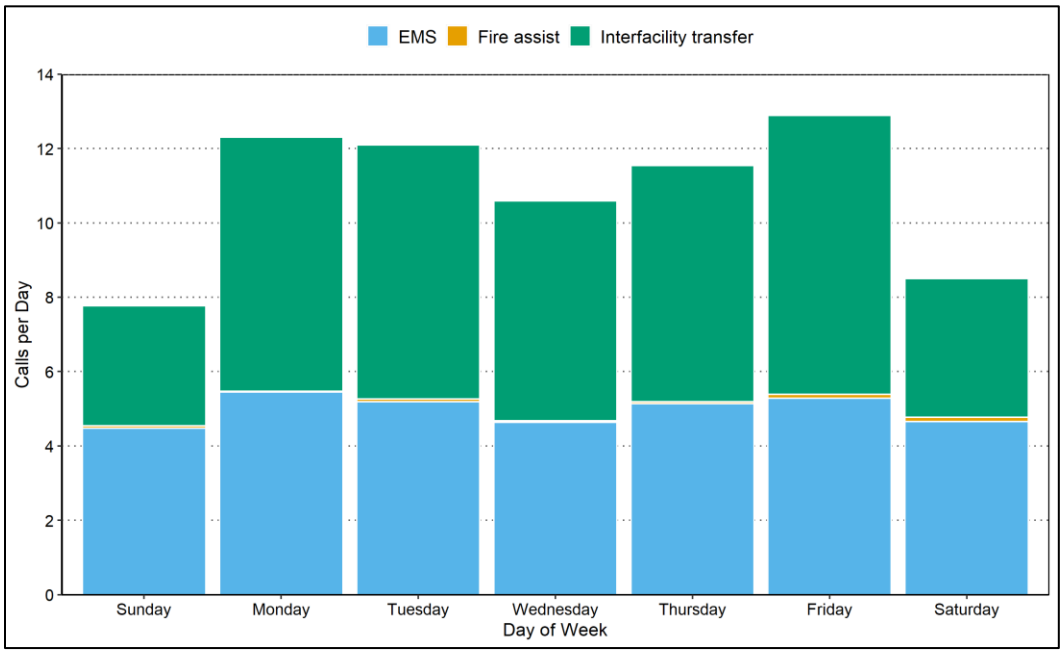


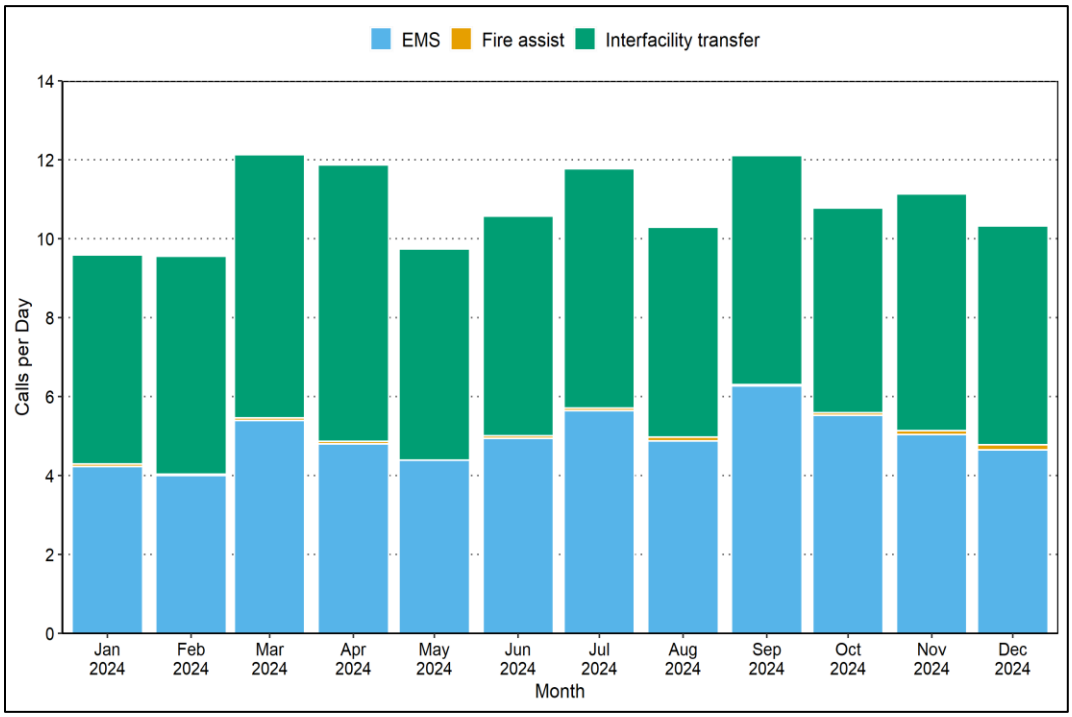
Figure 74: CES Calls by Day of Week-City of Canandaigua



The above table tells us that:

- Interfacility Transfers peak Monday, Tuesday, Thursday, and Friday, which is typical of this activity in CPSM studies.
- 911 EMS calls peak Monday, Tuesday, Thursday, and Friday, with slightly lower call volume Wednesday, Saturday, and Sunday.

Figure 75: CES Calls by Month-City of Canandaigua



The above table tells us that:

- Interfacility Transfers peak during the months of March, April, July, and September.
- 911 EMS calls peak during the Spring and Fall months to include November and December.

The next and final resiliency analysis is the frequency overlapping CES calls in the City.

Table 50: Frequency of Overlapping CES Calls-City of Canandaigua

Scenario	Number of Calls	Percent of Calls	Total Hours
No overlapped call	2,097	53.0	2,594.0
Overlapped with one call	1,280	32.3	843.3
Overlapped with two calls	466	11.8	202.5
Overlapped with three calls	102	2.6	27.2
Overlapped with four calls	14	0.4	2.1
Overlapped with five calls	1	0.0	0.0

Percentages include interfacility transfer calls. Primarily from the Canandaigua VA Hospital.

- 53% of the time CES has no overlapping calls in the City.
- 32% of the time CES has one overlapping calls in the City.
- 15% of the time CES has two or more overlapping calls in the City.

An additional overall EMS demand and resiliency analysis includes joint responses between CES and the CFD. The next tables analyze CES only responses, CES and CFD combined responses, and CES initial dispatch that included a CFD response after CES was enroute. CPSM utilizes CY 2024 data that captures these responses with available data that has time stamps that correspond. Additionally, as the Ontario County 911 Center utilizes Medical Priority Dispatch System (MPDS), response data is broken out by MPDS nature code as follows:

- **A**lpha: Low priority; Non-life-threatening.

  Basic Life Support response capabilities needed.
- **B**ravo: Low to moderate priority; medical attention needed but not immediately life-threatening.

  Basic Life Support response capabilities needed.
- **C**harlie: Moderate to serious; potentially life-threatening requiring advanced life support. Advanced Life Support response capability needed.
- **D**elta: Serious; likely life-threatening condition requiring immediate advanced care.

  Advanced Life Support response capability needed.
- **E**cho: Critical-obvious life threat; immediate intervention required.

  Advanced Life Support response capability needed. In some areas of the country specialized units are dispatched as well.

The first table is a comparison between CES and CFD for calls by MPDS call determinant.

Table 51: EMS Calls by Agency, Location, and Call Determinant Level

EMD Level	Canandaigua City		Canandaigua Town	
	CFD	CES	CFD	CES
Alpha	43	414	24	524
Bravo	49	455	16	356
Charlie	356	360	129	314
Delta	422	433	123	361
Echo	17	18	3	7
Total	**887**	**1,680**	**295**	**1,562**

CFD responses to CES calls in the City closely align with Charlie, Delta, and Echo responses (higher acuity), which is appropriate for a fire department first response agency. Of the 887 EMS responses in the City, 10% were to low acuity, non-life-threatening calls. CFD responds to low acuity calls when CES resources are unavailable.

CFD Town responses are lower as CES responses in the Town may be outside of CFD's response area.

This table tells us that:

- CFD responds to 53% of EMS with CES in the City, and to 19% in the CFD Town district.
- Of the CFD responses in the City and Town:
- 5% of CFD City responses were to Alpha calls, and 8% of Town responses were Alpha calls.
- 5% of CFD City responses were to Bravo calls, and 5% of Town responses were Bravo calls.
- 40% of CFD City responses were to Charlie calls, and 44% of Town responses were Charlie calls.
- 48% of CFD City responses were to Delta calls, and 42% of Town responses were Delta calls.
- 2% of CFD City responses were to Echo calls, and 1% of Town responses were Echo calls.

The next table analyzes CFD arrival prior to CES.

Table 52: EMS Calls Where CFD Arrived First

EMD Level	# CES Calls	# CFD Responses	CFD Arrives First	# CES Calls	# CFD Responses	CFD Arrives First
Alpha	414	43	17	524	24	7
Bravo	455	49	19	356	16	6
Charlie	360	356	294	314	129	109
Delta	433	422	322	361	123	106
Echo	18	17	14	7	3	2
Total	**1,680**	**887**	**666**	**1,562**	**295**	**230**

This table tells us that for the CES calls the CFD responded on:

- Of the 887 CFD responses to CES calls in the City, the CFD arrived first 75% of the time.
    - When analyzing Alpha and Omega calls, the CFD arrived in the City first 4% of the time.
    - When analyzing Charlie, Delta, and Echo calls, the CFD arrived in the City first 71% of the time.

    This points to a system use of CFD first response appropriately.
- Of the 295 CFD responses to CES calls in the Town, the CFD arrived first 78% of the time.
    - When analyzing Alpha and Omega calls, the CFD arrived in the City first 4% of the time.
    - When analyzing Charlie, Delta, and Echo calls, the CFD arrived in the City first 74% of the time.

Next we look at overlapping calls while a CFD unit is committed to an EMS call.

Table 53: CFD Call Overlap While Committed to an EMS Call by Call Determinant

Scenario	Alpha	Bravo	Charlie	Delta	Echo
No overlapped call	48	45	378	436	19
Overlapped with one call	13	17	97	91	1
Overlapped with two calls	4	2	7	16	0
Overlapped with three calls	2	1	3	2	0

This table tells us that:

- Of the 1,182 joint EMS responses in CY 2024, 78% of the calls did not have an overlapping call.
- 19% of the 1,182 joint responses in CY 2024 overlapped with one other CFD call.
- 3% of the 1,182 joint responses in CY 2024 overlapped with two or more other CFD call.

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To conclude, we analyze the number of calls CES was dispatched to and then requested a CFD response, or CES arrived on scene and requested a CFD response.

Table 54: CFD Response After CES Was Dispatched

EMD Level	CFD Was Dispatched After CES Went En Route	CFD Was Dispatched After CES Arrived
Alpha	51	30
Bravo	64	44
Charlie	4	0
Delta	3	0
Total	**122**	**74**

Of the 1,182 joint EMS responses in CY 2024:

- 10% of the calls CFD was dispatched after CES went enroute.
- 6% of the time CFD was dispatched after CES arrived on scene.

CPSM assesses the EMS response system use of the CFD as a first response agency is appropriate.

CPSM further assesses that overall, the CES EMS system is challenged regarding resiliency in terms of workload, interfacility transfers, and hospital transport times. EMS resiliency is significantly impacted due to transport times. As outlined herein, on average, over the three-year analysis period, 70% percent of EMS calls resulted in a transport with transport times averaging 64 minutes per transport. An additional impact on EMS resiliency is the number of units staffed on a daily basis, which is typically three overall (there is a potential for adding additional units with volunteer and per-diem staff). Overall, over the three-year analysis period, CES responded to 20,389 calls of which 30% were interfacility transfers (53% of City of Canandaigua calls). ***CPSM assesses when you couple dual EMS roles (911 and interfacility) with extended transport times, there will be resilient impacts on the EMS system, particularly during the peak call time periods of the day (which in the City-interfacility and 911 EMS calls tend to peak at the same times).***

EMS Response Times

The focus of EMS response times should be directed to the evidence-based research relationship between clinical outcomes and response times. Much of the current research suggests response times have little impact on clinical outcomes of low acuity calls.

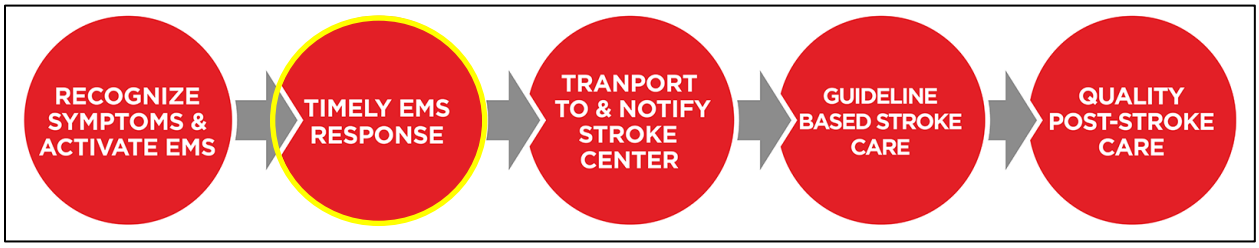
Higher acuity calls such as cerebrovascular accidents (stroke), injury or illness compromising the respiratory system, injury or illness compromising the cardiovascular system to include S-T segment elevation emergencies, certain obstetrical emergencies, and certain other medical emergencies that affect cardiovascular, neurological, and respiratory systems require rapid response times, rapid basic and advanced life support on-scene treatment and packaging for transport, and rapid transport to the hospital.

There are also other EMS incidents that are truly life-threatening, and the time of response can clearly impact the outcome. These involve emergencies such as full drowning, allergic reactions,

electrocutions, and severe trauma (often caused by gunshot wounds, stabbings, and severe motor vehicle accidents).

The next figure illustrates the out-of-hospital chain of survival for a stroke emergency, which is a series of actions that, when put in motion, reduce the mortality of a stroke emergency. ***A key component is timely EMS response.***

Figure 76: Cerebrovascular Emergency (Stroke) Chain of Survival



Source: https://nhcps.com/lesson/acls-acute-stroke-care/

The next figure illustrates the out of hospital chain of survival, which is a series of actions that, when put in motion, reduce the mortality of sudden cardiac arrest. Adequate EMS response times coupled with community and public access defibrillator programs can positively impact the survival rate of sudden cardiac arrest victims. ***Again, timely basic and advanced EMS response is a key component of the overall patient care system.***

Figure 77: Sudden Cardiac Arrest Out of Hospital Chain of Survival

From: 2020 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care.

Typically, a low percentage of 911 patients have time-sensitive and advanced life support (ALS) needs. But, for those patients that do, time can be a critical issue of morbidity and mortality. For the remainder of those calling 911 for a medical emergency, though they may not have a medical necessity, they still expect rapid customer service. Response times for patients and their families are often the most important measurement of the EMS department. ***Regardless of the service delivery model, appropriate response times are more than a clinical issue; they are also a customer service issue and should not be ignored.***

The next figures illustrate the cascade of events for an EMS incident.

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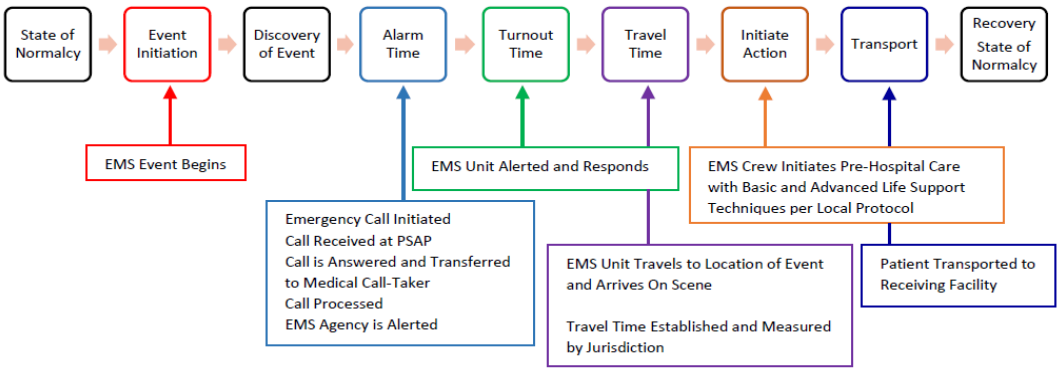
Figure 78: Incident Cascade of Events: EMS Response



For EMS calls, CPSM analyzed CES responses over the three-year analysis period for all emergency (911) calls and analyze these response times at the average and 90th percentile. The 90th percentile is of a higher standard and typically used to measure performance in staffed EMS systems. CPSM only analyzes calls with complete time stamps. As a note here, there is currently no agreed upon performance standard for response times between the City and CES.

Call determinants displayed in the next table are created by the call taker in the Ontario County 911 Center. Ontario County 911 utilizes Medical Priority Dispatch System (MPDS) software to categorize EMS calls. The MPDS uses a structured set of call determinants to classify EMS calls based on the type and severity of the patient's condition. These determinants are established through scripted protocols that guide dispatchers in asking standardized questions and assigning a priority level to the incident. Each determinant establishes a priority level ranging from the most critical, life-threatening emergencies that require an immediate response with lights and sirens (Echo and Delta), to lower-acuity calls that may only need a basic or non-emergent response (Alpha and Bravo). This system ensures that EMS resources are dispatched appropriately, matching the level of care and urgency needed for the patient, while also promoting consistency, safety, and efficiency in call triage.

CPSM noted during the 911 Center site visit that EMS calls are not triaged for tiered resource deployment. Although determinants are captured and assigned, the dispatch center does not use them to modulate or stage ALS/BLS resources. All calls continue to receive an immediate emergency (lights and sirens) response regardless of the determinant. The practical effect is that CFD and CES responses remain largely undifferentiated by acuity, despite the system's availability.

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Table 55: Average EMS Response Time by Call Type (Minutes)

Year	EMD Level	Canandaigua City					Canandaigua Town				
		Dispatch	Turnout	Travel	Total	Calls	Dispatch	Turnout	Travel	Total	Calls
2022	Bravo	1.9	2.5	4.8	9.2	355	2.2	2.8	6.6	11.7	330
	Charlie	2.7	2.7	4.5	9.9	304	2.7	2.8	6.6	12.2	259
	Delta	2.3	2.5	4.2	8.9	419	2.2	2.8	6.7	11.7	328
	Echo	1.9	1.9	2.9	6.7	19	1.8	1.7	4.9	8.3	18
	MVA*	1.5	1.9	4.3	7.7	59	1.7	2.3	5.6	9.6	80
	Total	**2.2**	**2.5**	**4.4**	**9.2**	**1,156**	**2.3**	**2.8**	**6.5**	**11.6**	**1,015**
2023	Bravo	1.9	2.3	4.9	9.1	375	2.3	2.5	6.9	11.6	312
	Charlie	2.7	2.2	4.4	9.3	343	2.7	2.4	6.3	11.4	340
	Delta	2.3	2.3	4.3	8.9	430	2.2	2.3	6.2	10.7	400
	Echo	1.9	1.6	2.8	6.3	19	1.8	2.3	5.2	9.3	15
	MVA*	1.7	1.7	3.8	7.2	61	1.8	1.9	4.6	8.4	74
	Total	**2.3**	**2.2**	**4.5**	**8.9**	**1,228**	**2.3**	**2.4**	**6.3**	**11.0**	**1,141**
2024	Bravo	2.0	2.3	4.7	9.1	400	2.3	2.5	6.7	11.5	329
	Charlie	2.7	2.4	4.6	9.7	349	2.6	2.5	6.5	11.6	310
	Delta	2.2	2.3	4.3	8.8	417	2.2	2.4	6.1	10.8	352
	Echo	1.9	2.0	2.6	6.5	18	1.7	1.9	4.7	8.2	7
	MVA*	2.0	1.9	3.9	7.8	74	1.7	2.0	5.4	9.1	98
	Total	**2.3**	**2.3**	**4.5**	**9.0**	**1,258**	**2.3**	**2.4**	**6.3**	**11.1**	**1,096**

This table tells us that on average for 911 EMS calls, CES has turnout and response travel time of:

- 6.9 minutes in the City for 2022.
- 6.7 minutes in the City for 2023.
- 6.8 minutes in the City for 2024.

Dispatch and turnout time consistently just under 7 minutes in the City.

- Dispatch (call processing time) consistently just over 2 minutes.
- CES response time to the Town of Canandaigua consistently is around 9 minutes (just over in 2022).

The next table looks at response times to the City and Town of Canandaigua at the 90th percentile.

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Table 56: 90th Percentile EMS Response Times by Call Type (Minutes)

Year	EMD Level	Canandaigua City					Canandaigua Town				
		Dispatch	Turnout	Travel	Total	Calls	Dispatch	Turnout	Travel	Total	Calls
2022	Bravo	3.1	4.1	7.6	12.7	355	3.2	4.6	10.2	15.8	330
	Charlie	3.7	4.4	7.2	13.1	304	3.6	4.4	10.2	15.9	259
	Delta	3.1	3.9	6.9	12.2	419	3.1	4.6	10.3	16.6	328
	Echo	2.5	3.2	5.8	10.4	19	2.7	3.0	8.5	12.1	18
	MVA*	2.4	2.9	7.4	11.2	59	2.3	4.3	9.1	13.5	80
	Total	**3.3**	**4.1**	**7.3**	**12.4**	**1,156**	**3.3**	**4.5**	**10.2**	**15.9**	**1,015**
2023	Bravo	3.1	3.7	7.8	12.8	375	3.4	3.9	11.2	16.5	312
	Charlie	3.9	3.4	6.8	12.1	343	3.5	3.6	9.6	15.3	340
	Delta	3.3	3.6	6.9	12.2	430	3.0	3.6	9.6	15.0	400
	Echo	2.4	2.5	5.2	8.6	19	2.4	3.0	9.8	14.0	15
	MVA*	2.6	2.6	6.8	9.9	61	2.9	3.0	7.2	12.3	74
	Total	**3.4**	**3.5**	**7.2**	**12.1**	**1,228**	**3.3**	**3.6**	**10.0**	**15.4**	**1,141**
2024	Bravo	3.3	3.7	7.9	12.9	400	3.3	3.9	10.8	16.3	329
	Charlie	3.6	3.8	7.1	13.0	349	3.5	3.7	10.0	15.2	310
	Delta	3.3	3.5	6.9	11.9	417	3.0	3.7	9.4	14.7	352
	Echo	2.4	2.6	4.2	8.4	18	2.4	2.6	8.0	12.8	7
	MVA*	2.8	2.8	7.6	11.5	74	2.6	3.3	9.2	14.9	98
	Total	**3.4**	**3.6**	**7.4**	**12.5**	**1,258**	**3.3**	**3.7**	**10.0**	**15.2**	**1,096**

This table tells us that at the 90th percentile for 911 EMS calls, CES has turnout and response travel time of:

- 11.4 minutes in the City for 2022.
- 10.7 minutes in the City for 2023.
- 11 minutes in the City for 2024.

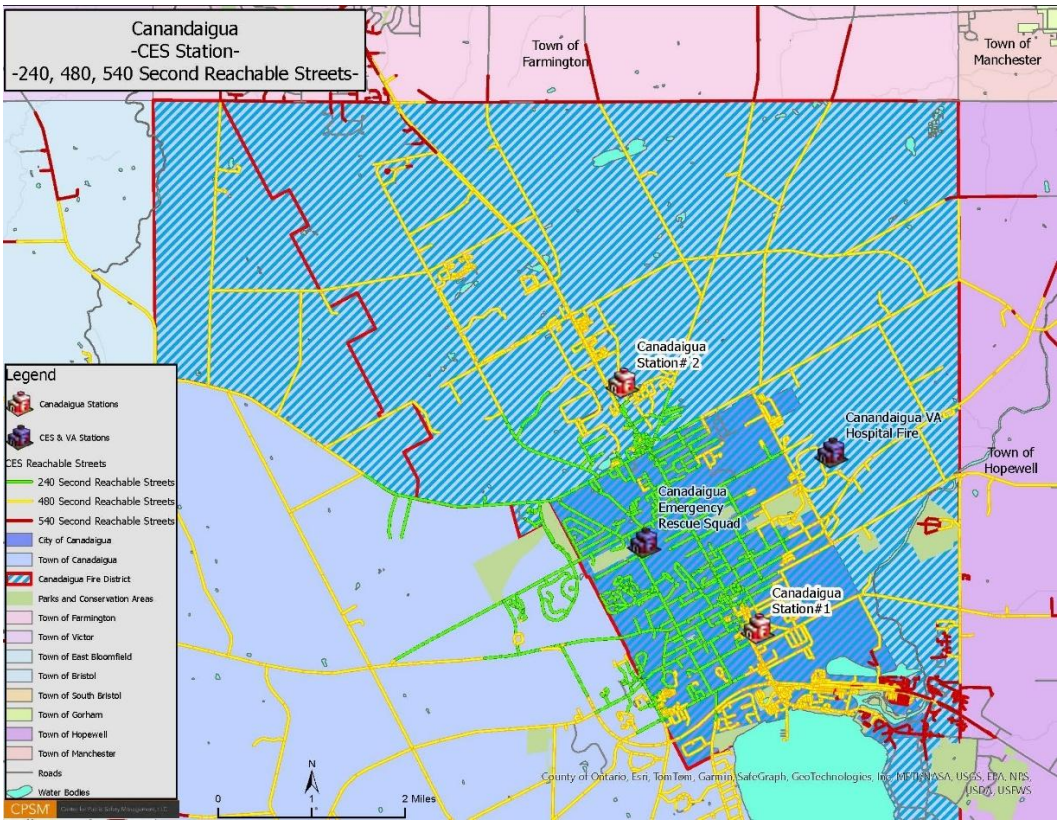
Dispatch and turnout time consistently around 11 minutes in the City.

- Dispatch (call processing time) consistently just over 3 minutes, which is consistent with the call taking process for the Medical Priority Dispatch System.
- CES response time to the Town of Canandaigua is consistently between 13.6 minutes in 2023 to 14.7 minutes in 2022.

As a note here, turnout time is extended. While EMS does not have a national standard for turnout time, ensuring rapid turnout time for EMS ambulances is a critical factor in improving overall response performance and patient outcomes. Turnout time, which is the interval from when crews are notified of a call to when the ambulance begins moving directly adds to total response time, which also includes travel time to the scene. Reductions in turnout time can make a difference, especially when coupled with the often-variable travel time required to reach a patient. By emphasizing efficient turnout practices through training, station design, and crew readiness, EMS agencies can enhance reliability, improve response metrics, and ultimately deliver faster and more effective emergency care to the community.

The next figure illustrates the CES station in Canandaigua and response travel time bleeds from this response facility.

Figure 79: CES City of Canandaigua Station with 4, 6, and 8 minute Travel Time Bleeds



This map tells us that from the CES City of Canandaigua station, there are excellent travel times within the City limits when the CES resource is in the station that include:

- Most of the City is covered in 4 minutes.
- The southeast portion of the City is covered in 6 minutes with some areas covered in 8 minutes. In this area of the City CFD Station 1 provides initial-tier EMS response.
- The north and eastern area of the City has areas that are covered in 6 minutes. In this area of the City CFD Stations 1 or 2 provides initial-tier EMS response.

CPSM assesses that CES response time (turnout and travel time) can be improved by reducing turnout time. For responses in the City, CES on average takes over 2 minutes for turnout to a call and at the 90th percentile this increases to over 3.5+ minutes. As outlined herein, efficient turnout times are key to reducing overall response times. Further, on average, travel times are 4.5 minutes and at the 90th percentile they are just over 7 minutes. This is consistent with the travel time bleeds from the City CES station (figure above), but also indicates, as most of the city is covered in 240 seconds, that units responding to the City also come from outside of the City.

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As discussed above, the City of Canandaigua utilizes a dual-tier EMS service delivery model. The current model includes the CFD as an initial non-transport emergency response tier with a focus on initial patient assessment and care, and CES, which serves as the EMS ground transport agency delivering a continuum of care from the scene to the hospital. While functionally cooperative during EMS operations, this two-tiered system lacks a formal service-level agreement (SLA) between the City and CES and a unified clinical performance framework. These factors present vulnerabilities but also offer a platform for strategic system design moving forward.

Canandaigua Emergency Squad

CPSM assesses through interviews with CES and in review of provided information that CES has a well-established internal operational structure, including vehicle deployment plans, clinical credentialing, response data, and continuing education. CES currently staffs three ambulances with ALS coverage as their core deployment and can, through per-diem and volunteer members, upstaff with surge if per-diem and volunteers are available. CES is licensed by the New York State Department of Health. Their medical direction is aligned with the Finger Lakes Regional EMS Council and coordinated by Dr. Glick, who also oversees CFD's clinical protocols.

The current structure reflects a complex EMS environment that balances traditional municipal first response with nonprofit-based transport operations and a growing interfacility workload. CES's dual role as both a 911 provider and a regional interfacility transport agency introduces several complexities, which include:

Mission Resource Conflict: CES must constantly prioritize between urgent 911 calls and scheduled or emergent interfacility transfers, which often originate from hospitals or long-term care facilities outside city limits. Staff, units, and deployment strategies must be continuously balanced to serve both immediate EMS needs and longer-duration transports — a task that creates tension during peak demand.

Geographic Dispersion: CES serves a mix of urban, suburban, and rural , meaning that coverage models must account for extended transport times and varying hospital destinations.

Collaboration Misalignment: CFD and CES remain structurally and contractually independent, which impedes joint educational and operational discussions, potentially may slow decision-making and operational realignment when system adjustments are needed.

No Service Level Agreement

Despite decades of informal partnership and cooperative operational history, no legally binding service agreement, or memorandum of understanding currently exists between CES and the City of Canandaigua. This arrangement significantly diverges from the standards outlined in the EMS Agenda 2050 (National Highway Traffic Safety Administration [NHTSA], 2019), which underscores the importance of clearly defined roles, accountability, and documented agreements in multi-agency EMS systems. Consequently, the absence of formalized agreements and performance benchmarks expose the City to service delivery risks.

There are typically two types of contracts for EMS ground transport services. These are: "***Level of Effort***" or "***Level of Performance"*** contracts. A "***Level of Effort"*** contract consists of a written agreement (contract) that describes the scope of work in general terms and requires the contractor to provide a specified level of effort (number of hours, number of units, or percentage of effort) over a stated period of time.

It is common as well for ambulance providers and jurisdictions to operate under a ***"Performance-Based or Level of Performance"*** agreement (contract), which specifies desired performance levels for key clinical and response time metrics. For example, when mutually agreed upon between both parties, the agreement could include a specific number of ambulances and performance level indicators (e.g., response time metrics such as 8 minute turnout + travel time for ALS calls, level of care (ALS provision) that links to quality improvement/quality insurance metrics involving patient care outcomes). ***Again, there currently is no agreement or contract between CES and the City of Canandaigua.***

Unified Response System

The long-standing working relationship between CFD and CES is operationally stable but lacks the formal infrastructure and system-wide planning seen in high-performing EMS systems. While both agencies follow the same regional treatment protocols and maintain strong internal standards, there is no shared system-level governance, joint Quality Assurance/Quality Improvement process, or coordinated collaborative training integration. This separation contributes to operational silos despite overlapping service responsibilities. CFD is a well-resourced and clinically capable agency and can expand its knowledge and operational capabilities through greater interagency integration.

The documentation submitted by CES confirms internal clinical oversight and structured organizational practices; however, these efforts occur in parallel rather than in partnership with the City's fire-based EMS component. Additionally, response data and performance reports are not routinely shared with CFD leadership or City officials, leaving a gap in system transparency and shared situational awareness.

Further, clinical oversight, while unified under Dr. Glick as designated Medical Director through the Finger Lakes Regional EMS Council, lacks effective implementation of quality assurance, collaborative training, and standardized protocols. This shortfall is inconsistent with recommendations from the National Association of EMS Physicians (NAEMSP, 2020) advocating robust quality improvement programs and structured continuing education.

CPSM assesses that although effective in day-to-day operations, the model requires formal integration and shared oversight to ensure long-term sustainability, coordination, and accountability.

System Vulnerabilities

As discussed in this section, there are vulnerabilities in the EMS system as it applies to the City of Canandaigua, and include:

- CES is the primary EMS transport agency serving the City, managing both 911 and interfacility calls. CES uses the same pool of EMS units for both emergency 911 response and interfacility transfers. This dual-role configuration contributes to ambulance resiliency issues, particularly during peak hours, reducing resiliency and increasing 911 response time variability.

  This creates a single point of failure without redundancy or contractual performance protections. CES historically averaged five calls per day in the City and just under six interfacility calls per day. In 2024, 47 percent of City calls overlapped with one or more calls (included 911 and interfacility calls). As demand increases, response times will be affected, especially without guaranteed additional surge resources.

  With interfacility transport comprising over 42 percent of deployed time over the three-year deployment hour analysis, 911 readiness is often compromised due to extended out-of-service unit intervals for hospital-based trips.

- Despite shared medical direction, there are no joint operational protocols, training and education, operational readiness discussions/drills, shared QA/QI processes, or integrated dispatch analytics. As a result, no systemwide process exists to evaluate care delivery across both agencies and ensure continuous improvement.
- The City and CES have not engaged in a formal agreement regarding performance benchmarks for response times or any level of effort regarding expected number of available ambulances staffed at the Advanced Life Support or Basic Life Support level. The City is exposed if CES experiences staffing or resource instability.
- CES collects robust internal performance data but does not regularly share these metrics with the CFD or the City in a structured format. Without standardized data sharing, system performance cannot be consistently evaluated. This limits system visibility into system performance, risk patterns, and resource utilization.

CES Strengths

Despite challenges, several operational assets offer a strong foundation for EMS delivery in Canandaigua:

- CES maintains round-the-clock ALS coverage through a core deployment model supplemented by per diem and volunteer personnel. Unit availability for 911 calls do fluctuate, particularly during peak call hours when transport units are occupied with interfacility transfers.
- CES has established internal QA/QI processes, continuing education-based credentialing, and protocol compliance tracking. Medical Direction is consistent across both agencies via Dr. Glick, but its impact on joint system quality assurance is limited.
- CES has served Canandaigua and surrounding areas for over 85 years and is widely trusted in the community. This longevity is a key asset for future planning and system redesign though the growing complexity of EMS demands now require enhanced recruitment and retention efforts, and data driven staffing and deployment considerations, particularly those systems that engage interfacility transfers.

While these strengths are real, the concurrent use of ALS ambulances for both interfacility transfers and 911 response diminishes system resiliency. Without dedicated resources or deployment controls, even well-staffed systems risk degraded emergency availability during peak hours.

Mobile Integrated Health/Community Paramedicine

Mobile Integrated Health (MIH), sometimes referred to as Community Paramedicine, has emerged as an innovative model of care delivery that extends the role of EMS providers beyond traditional emergency response and transport functions. The need for MIH programs is driven by multiple factors, including rising healthcare costs, increased demand for hospital emergency departments, the strain on EMS systems from non-emergency calls, and the growing population of individuals with chronic health conditions, social determinants of health conditions, and a lack of access to consistent primary care. Communities are also recognizing that EMS providers, who are uniquely positioned to reach patients in their homes and communities, can play a critical role in bridging gaps in healthcare access and coordination.

The benefits of MIH for EMS agencies and the broader healthcare system are significant. By addressing patient needs proactively, MIH reduces unnecessary emergency department visits and hospital readmissions, which alleviates demand impacts on both EMS units and hospital resources. It also enhances patient outcomes by ensuring that individuals receive the right level

of care at the right time, whether through in-home assessments, chronic disease management, or navigation to appropriate healthcare and social service resources. For EMS providers, MIH programs strengthen community integration, expand the professional scope of practice, and support overall system resiliency by allowing frontline units to focus on true emergencies. Ultimately, MIH represents a shift toward a more patient-centered, efficient, and sustainable EMS model that aligns with evolving healthcare needs.

Understanding the demographics of a community is important when assessing EMS risk as different demographic groups may experience varying health outcomes, access to care, and prevalence of certain medical conditions.

Social determinants of health, such as income, housing, language barriers, and healthcare access, often intersect with demographics such as race, population at or below the poverty level and can influence the frequency and nature of EMS calls. Additionally, cultural beliefs and mistrust of healthcare systems can affect how communities interact with emergency services.

By understanding community demographics, EMS agencies can better anticipate community needs, address potential disparities, ensure culturally competent care, and build trust within diverse populations—ultimately leading to more effective emergency response.

First, ***CPSM assesses*** City demographics that will likely impact EMS demand. Unless noted, the data reflects the 2023 American Community Survey 5-year estimates. Key points include:

- Total 2020 Census population: 10,576
- Total households: 5,019
- Employment Rate: 59.7%
- Median Gross Rent: $1,093
  - < $500: 7.7%
  - $500-$999: 34.5%
  - $1,000-$1499: 36.7%
- Homeownership: 48.5%
- Disabled population: 20.1%
  - Ambulatory difficulty: 8.9%
  - Self-Care difficulty: 3.8%
  - Independent living difficulty: 11.2%
- Population ≥ 65 years: 23.2%
- Population < 17: 15.9% years:
- Population without health care: 4.3%
- Poverty level: 9.4%
- Poverty by age
  - Under 18: 8.8%
  - 18-64: 8.9%
  - 65+: 11.3%
- Median Household income: $63,268
  - Families: $86,705
  - Married couple families: $119,063
  - Nonfamily households: $40,401

The 2022 Comprehensive Regional Community Health Assessment, Ontario County chapter identifies several social determinants of health conditions for Ontario County, which should be periodically reviewed as they influence EMS demand and may point to programs such as MIH.

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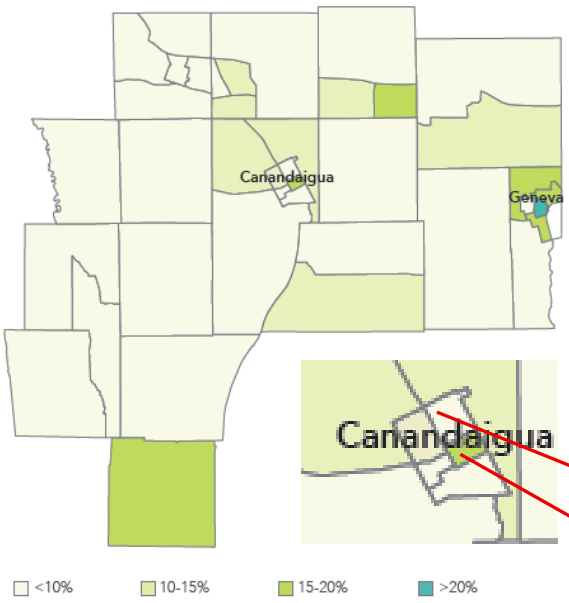
Poverty Level

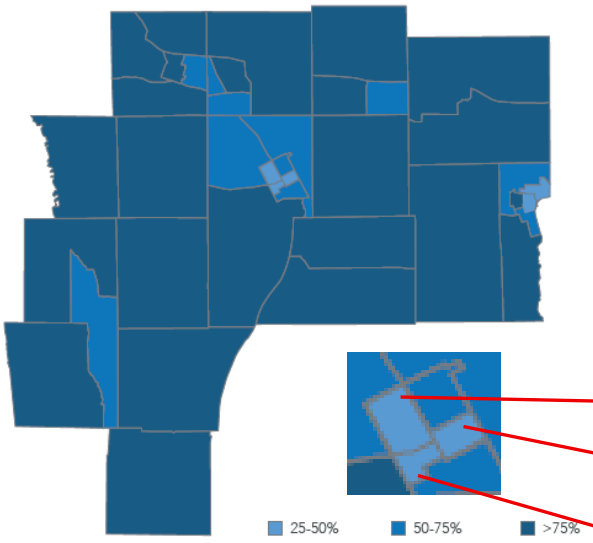


Those living at or below the poverty level typically have access to health and transportation challenges. These challenges lead to chronic healthcare issues and increased demand potentially for EMS services.

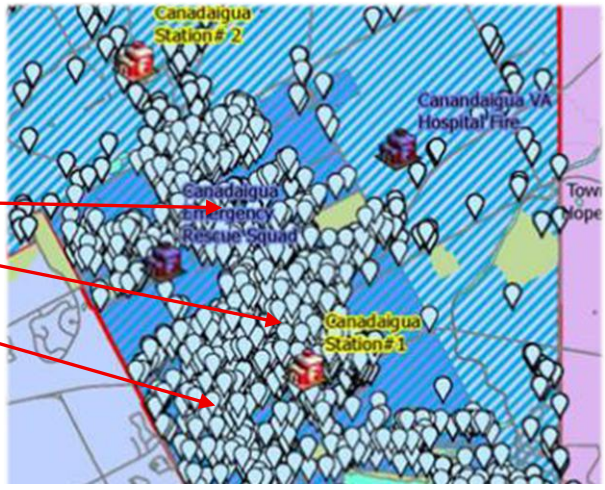
The map to the left identifies an area in Canandaigua that has a poverty level of < 10% and an area of 15-20%. These areas align with increased EMS demand.

Maps Source: 2022 Comprehensive Regional Community Health Assessment, Ontario County Chapter

Owner Occupied Residents



Non-owner-occupied homes also align with EMS demand. The lightest blue areas of the city where owner occupied hoes are 25% to 50% have increased EMS demand.



The 2022 Comprehensive Regional Community Health Assessment, Ontario County Chapter identifies the following priority areas in the assessment plan:

- Prevent Chronic Diseases with a focus area on healthy eating and food security.
  - Links to demographics, and to EMS demand as outlined above.
- Promote well-being and prevent mental and substance abuse disorders.
  - Potentially will link to EMS demand.
- Disparity: low income/low socioeconomic status.
  - Links to demographics, and to EMS demand as outlined above.

The alignment for an EMS system with Mobile Integrated Health include the key points identified above. EMS service delivery agencies whether transport or fire-response should regularly review this data and work in concert with the, in this case, County public health agency. Fully understanding the following EMS demand impacts will lead to successful integration of non-transport community EMS support systems such as Mobile Integrated Health.

- Population living in underserved areas may face challenges such as fewer available private and public healthcare resources, fewer EMS resources (due to high demand in the more urban and suburban areas), longer EMS response times (again, due to high demand in the more urban and suburban areas), or difficulty accessing transportation to get to medical facilities, which typically drives up the need for utilizing EMS resources. ***This factor is prime for Mobile Integrated Health/Community Paramedicine programs.***
- Socioeconomic factors like poverty and low education levels can lead to higher rates of chronic conditions or preventable emergencies and can increase the demand for EMS services and complicate emergency care due to the prevalence of complex health issues. ***This factor is prime for Mobile Integrated Health/Community Paramedicine programs.***
- Population in the lower socioeconomic backgrounds may have less access to preventative care, health education, and navigation to public health care. This typically leads to higher rates of EMS responses that could have been avoided with earlier intervention, education, and navigation to healthcare. ***This factor is prime for Mobile Integrated Health/Community Paramedicine programs.***
- Challenges that include language barriers, lack of social support, and difficulties in understanding or managing medical instructions create barriers for EMS responders.
- Areas with higher social and economic disadvantages may require more intensive and frequent EMS interventions. Understanding the community's social determinants of health can help EMS agencies allocate resources more effectively and address underlying issues that contribute to frequent emergency calls. ***This factor is prime for Mobile Integrated Health/Community Paramedicine programs.***

In conclusion, addressing social determinants of health is crucial for improving overall health and reducing the burden on emergency services. EMS systems can play a role by recognizing these determinants and collaborating with community resources to help mitigate their impact.

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EMS System Recommendations:

CPSM recommends the City should work with Canandaigua Emergency Squad to:

- Develop a comprehensive deployment plan that prioritizes 911 coverage first and aligns interfacility transport around available CES unit capacity or with a dedicated interfacility transport unit.
- Establish performance zones within CES's service footprint to track coverage gaps and balance geographic demands with the necessary number of ambulances.
- Establish routine reporting of CES performance data to CFD and City leadership for transparency and accountability.
- Create a formal plan for communicating to the CFD low-unit or no-unit availability during high-demand periods. This plan should include communication to CFD about surge staffing to manage the high demand.
- Facilitate system governance workshops to bring CES and CFD together with hospital stakeholders, and the Medical Director to establish joint goals and performance strategies.
- Create a shared communications protocol to ensure seamless coordination during overlapping incidents, high-acuity responses, and major events.
- Formalize a Quality Improvement/Quality Assurance agreement between CES and the City of Canandaigua, initiating a robust joint agency (CFD and CES) clinical quality improvement program.
- Formally define service expectations through a service-level agreement that establishes minimum response time benchmarks, staffing requirements, and transport priorities.
- Expand CES and CFD EMS community risk reduction programs in support of regional public health priorities. Explore a CES community paramedicine or mobile integrated healthcare program development and implementation.

Opportunity for System Enhancement

With CES demonstrating operational capability and internal clinical compliance, and CFD maintaining a strong BLS first-response model, the City of Canandaigua is positioned to move toward a strategically enhanced EMS delivery system, one built around resiliency, contractual clarity, performance-based outcomes.

True system redesign in this context should go beyond interagency integration. It must include the formal implementation of a service-level agreement that defines response time targets, BLS/ALS resource availability, and response data transparency. The establishment of shared training and EMS operational readiness should include CES, CFD, and the Medical Director who should be tasked with overseeing QA/QI, clinical performance, and interagency training.

Additionally, deployment practices should be modernized to protect 911-unit availability, which may include developing dedicated interfacility transport assets and limiting interfacility transport activity during peak 911 demand.

These elements combined with updated data reporting, formalized contingency planning, and transparent public performance dashboards will allow the current system to evolve from a well-intended, informal model into a deliberate, accountable, and high-performance EMS system tailored to Canandaigua's growing demands.

End of Section

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SECTION 6. EMERGENCY COMMUNICATIONS

Ontario County Emergency Communications Center Overview

The Ontario County Emergency Communications Center (911 Center) analysis provides an evaluation of the center's workload and capacity in delivering critical 911 services to the community. This assessment examines operational components, including center workload in terms of call-taking, information processing, radio communications and shift staffing configurations. ***The primary focus of this assessment is Fire and EMS operations in the 911 Center.***

By analyzing these core areas, the study identifies strengths, gaps, and opportunities for improvement to ensure the 911 Center is optimally staffed, organized, and equipped to meet current demands while preparing for future operational challenges.

Analyzing the workload of an Emergency Communications Center is essential to understanding its operational capacity, efficiency, and ability to meet public safety demands. A workload analysis examines all incoming phone calls, measuring both volume and the time it takes to process the call for dispatching. An increase in call processing time adds to overall response time.

A 911 Center workload analysis also accounts for the number and type of incidents dispatched the volume of information requests managed, and the distribution of calls by hour of the day to identify peak demand periods, which can assist with center staffing decisions. Together, these metrics provide a clear picture of workflow management and opportunities to enhance service delivery in a high-pressure, time-sensitive environment.

The Ontario County 911 Center is an accredited Emergency Communications Center from the New York Sheriff's Association and is one of the first two 911 Centers in western New York that implemented the capabilities to locate cellular 911 callers.[71]

Service Area

The Ontario County 911 Center serves all or part of nine law enforcement agencies (includes the Ontario County Sheriff's Office, the City of Canandaigua Police, and the New York State Police), thirty-four fire districts (includes the Canandaigua Fire Department), and eleven EMS agencies (includes the Canandaigua Emergency Squad and Naples Ambulance) as the primary Public Safety Answering Point (PSAP) and dispatch center for agencies working in Ontario County.

Overall Ontario County includes sixteen towns, eight villages, and two cites (Canandaigua included). Geographically the County includes all or portions of five finger lakes, and twenty-seven miles of the New York Thruway (includes four exits).

There are also seventeen school districts and two colleges in the County. In totality, the 911 Center handles emergent and non-emergent PSAP calls, radio traffic, and information requests generated from these communities and their businesses, citizens, and visitors; lakes; infrastructure; and educational institutions.[72]

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71. Ontario County 911 Center
72. Ibid.

2024 911 Center accomplishments include: [73]

- Implementation of *Prepare Live*-ability to receive real-time video from a callers cellular phone.
- Planning/investment for new phone system to enhance call-handling capabilities.
- Planning/investment for radio upgrades to improve communication between the 911 Center and emergency responders.
- Planning/investment for 911 console enhancement.
- Planning and preparation for a new Computer Aided Dispatch system by 2027.
- Text-to-911 system enhancements.
- Seamless communication capabilities with Monroe County.
- Investment in Next-Generation 911 recorder to improve call tracking.
- Completed a microwave backup project, which ensures redundancy in emergency communications.

911 Center Workload

The first set of data we look at is the overall demand on the 911 Center, which is the incoming phone calls to the 911 Center, incidents dispatched, and law enforcement activity. When evaluating a 911 center's workload, it is important to account for law enforcement support activities that occur alongside emergency call handling, as these tasks significantly contribute to overall operational demand.

Functions such as processing NCIC warrant checks, NCIS protective order inquiries, and driver's license or vehicle tag identifications require focused attention, accurate data entry, and precise communication with officers in the field.

These activities, while not always reflected in raw call volume statistics, consume substantial Communications Officer time, mental focus, and system resources. Including them in workload assessments provides a more accurate picture of overall workload.

The first set of tables reviews incoming phone calls (emergency and non-emergency) to the 911 Center for 2023 and 2024.

Table 57: 911 Center Incoming Calls

Call Type	2023	2024
Incoming Non-Emergency Calls	108,529	67,029
Incoming Emergency (911) Calls	61,242	56,782
Total	**169,771**	**123,811**

Table Analysis

Non-Emergency incoming phone calls decreased 38% from 2023 to 2024.

Emergency (911) incoming phone calls decreased 7% from 2023 to 2024.

73 . Ontario County 911 Center 2024 Annual Report.

Table 58: 911 Center Incoming Emergency (911) Calls Breakdown

Call Type	2023	2024
Wireless Call	49,790	45,724
Wire-Line Call	4,864	4,522
Voice over Internet Protocol (VoIP)	6,588	6,536
Total	**61,242**	**56,782**

Overall, 911 calls in all categories were less from 2023 to 2024.

911 calls decreased 7%.

The next table reviews 911 Center dispatches across the three public safety disciplines (Law Enforcement, Fire, EMS) for 2023 and 2024.

Table 59: 911 Center Workload-Dispatch

CAD Event Type	2023	2024
County Law Enforcement	55,096	58,914
Canandaigua City PD	16,584	17,258
Geneva City PD	13,372	13,632
EMS	17,504	18,237
Fire	5,029	5,489
Total	**107,585**	**113,530**

Overall, dispatch of incidents in all public safety disciplines increased 5.5% from 2023 to 2024.

The next table reviews law enforcement activities where the 911 Center staff is involved. These activities are completed by Communications Officers in addition to regular duties such as call-taking and radio communications.

Table 60: 911 Center Workload-Law Enforcement Activity

CAD Event Type	2023	2024
Property Checks	57,246	66,523
County Law Enforcement Traffic Stops	15,179	18,297
Canandaigua PD Traffic Stops	3,906	2,822
Geneva PD Traffic Stops	1,868	3,005
Total	**78,199**	**90,647**

Overall, law enforcement activities increased 16% from 2023 to 2024.

Canandaigua PD is the only agency that had a decrease (-28%)

CPSM assesses the 911 Center is at times a busy emergency communications center. CPSM makes this assessment based on the collective workload as reviewed herein.

Key workload points include:

In total, the 911 averages:

- 402 incoming calls/day (911 and non-emergency) over the two-year period for an average of 17 incoming calls per hour.
- The 911 Center averages 303 calls dispatched per day (all public safety disciplines), or on average, 13 calls an hour over the two-year period.
- On average for the two-year period, the 911 Center completes 231 law enforcement information request per day, or on average 10 per hour.

Call Processing Times

Call processing time within a 911 Center is a critical component of the overall response timeline for fire and EMS incidents. This period, measured from the moment a call is received until units are dispatched, directly affects how quickly emergency resources can be mobilized to the scene. Delays in call processing can compound with travel and turnout times, ultimately lengthening the total response time and reducing the effectiveness of emergency intervention.

National standards and best practices emphasize the need to minimize call processing times to ensure that resources are dispatched quickly and accurately. Efficient call handling not only supports faster emergency response but also builds public trust, improves patient outcomes in medical emergencies, and enhances overall community safety.

National Fire Protection Association (NFPA) standard 1225, *Standard for Emergency Services Communications*, 2022 edition promulgates the following benchmark for call processing time:

- Section 15.4.4: Emergency event processing for the highest prioritization level emergency events listed in 15.4.4.1 through 15.4.4.2 shall be completed within 60 seconds, 90 percent of the time.
  - 15.4.4.1

    The following types of calls where there is an imminent threat to life shall be included in the highest prioritization level:

    - Trauma (e.g., penetrating chest injury)
    - Neurologic emergencies
    - Cardiac-related events
    - Unconscious/unresponsive patients
    - Allergic reactions
    - Patient not breathing
    - Choking
    - Other calls as determined by the AHJ

  - 15.4.4.2

    The following types of calls where significant property loss/damage is likely or actively occurring shall be included in the highest prioritization level:

    - Fire involving or potentially extending to a structure(s)
    - Explosion
    - Other calls as determined by the AHJ

Additional standards information from NFPA 1225 outlines that the following call types are exempt from the call processing timeline as outlined in the standard:

- Joint responses with law enforcement (involving weapons)
- Hazardous materials incidents
- Technical rescue
- Language translation
- TTY/TDD
- Incomplete location
- SMS message to 9-1-1
- Calls received from outside the normal area of responsibility and/or service area
- Calls requiring use of a PSAP registry or similar tool to determine the appropriate PSAP and/or transfer location
- Calls received during a significant disaster that severely and significantly depletes available resources, impacts local infrastructure, and could result in changes to normal dispatcher procedures (disaster mode)

Lastly, and applicable to this discussion, Section 15.4.6 of the 1225 standard states "*Any communication center that processes a medical event shall provide emergency medical dispatch.*"

As discussed above, the 911 Center utilizes Medical Priority Dispatch System (MPDS) software to categorize and prioritize EMS calls. When an EMS call is received in a 911 Center that utilizes the Medical Priority Dispatch System (MPDS), the call-taker must follow a structured series of scripted questions to determine the nature and severity of the emergency. This process ensures that the appropriate response is dispatched (EMS and Fire; EMS only; ALS or BLS) while also providing the opportunity to give callers pre-arrival instructions, such as CPR or bleeding control, before responders arrive.

While MPDS is designed to enhance accuracy and consistency in triaging calls, it does add time to the call-processing phase as the call-taker must work through the established protocol. National best practices suggest that EMS calls should ideally be processed within 60 seconds. Striking the balance between thorough triage and rapid dispatch is critical, as the time spent in the 911 Center directly influences the overall response time and, ultimately, patient outcomes.

Regarding call prioritization, NFPA 1225, 15.4.4.3 states "*Where the communications center employs a call prioritization system, the use of selected categories, groups, or codes from that system, as approved by the AHJ, shall be included in the highest prioritization level, in conjunction with 15.4.4.1 and 15.4.4.2.*" This said, the standard does not address specifically an emergency medical dispatch system, however these systems do categorize and prioritize EMS calls based on acuity.

The Medical Priority Dispatch System (MPDS) is built around 37 distinct call protocols, each corresponding to a specific type of medical emergency such as chest pain, breathing problems, stroke, trauma, or pregnancy-related issues. When a 911 call is received, the call-taker uses these protocols to guide a structured questioning process, allowing them to quickly identify the chief complaint and gather essential information. Based on the caller's responses, the system

assigns a call determinant code that reflects the acuity of the situation. Determinants are categorized by priority levels:

- Omega calls identify situations where the caller's condition does not require an emergency ambulance response
- Alpha calls represent the lowest acuity, often stable, non-life-threatening conditions.
- Bravo calls indicate situations that may require a prompt but not emergent response.
- Charlie calls suggest more serious medical issues that could rapidly deteriorate.
- Delta calls are high-acuity events requiring an urgent, lights-and-siren response.
- Echo calls are the most critical, often involving conditions such as cardiac arrest where immediate intervention is necessary.

This standardized system ensures consistency in triage, prioritization, and response allocation, ultimately supporting better patient care and resource management.

The following tables outline call processing times for the 911 Center as analyzed by CPSM for the CFD and CES (***includes calls with complete time stamps-may add equal other data***).

Table 61: CES -EMS Call Processing Times by Call Determinant, 90th Percentile, City of Canandaigua

Year	EMD Level	90th Percentile	
		Dispatch	Calls
	Alpha	3.3	394
2022	Bravo	3.1	355
	Charlie	3.7	304
	Delta	3.1	419
	Echo	2.5	19
	MVA*	2.4	59
	Total	**3.3**	**1,550**
	Alpha	3.5	372
2023	Bravo	3.1	375
	Charlie	3.9	343
	Delta	3.3	430
	Echo	2.4	19
	MVA*	2.6	61
	Total	**3.4**	**1,600**
	Alpha	3.4	400
2024	Bravo	3.3	400
	Charlie	3.6	349
	Delta	3.3	417
	Echo	2.4	18
	MVA*	2.8	74
	Total	**3.4**	**1,658**

*Motor vehicle accident (MVA) calls did not have assigned EMD levels.

Table Analysis

Year to Year (2022-2024) the Dispatch or Call-Processing times are consistent:

- Just over three minutes.

The highest priority (Delta and Echo) averaged:

- 2.8 minutes in 2022
- 2.9 minutes in 2023
- 2.9 minutes in 2024

Table 62: CFD – Fire & EMS Call Processing Times, 90th Percentile, City of Canandaigua

Year	Call Type	90th Percentile	
		Dispatch	Calls
2022	EMS	3.5	1,169
	Fire	2.4	513
	Subtotal	**3.3**	**1,682**
2023	EMS	3.5	1,230
	Fire	2.4	492
	Subtotal	**3.3**	**1,722**
2024	EMS	3.4	1,228
	Fire	2.7	569
	Subtotal	**3.3**	**1,797**

Table Analysis

Year to Year (2022-2024) the Dispatch or Call-Processing times are consistent for EMS and Fire:

- EMS: Just over three minutes.
- Fire: Just over two minutes.

Table 63: CFD -EMS Call Processing Times by Call Determinant, 90th Percentile, City of Canandaigua

Year	EMD Code	90th Percentile	
		Dispatch	Calls
2022	Alpha	14.8	22
	Bravo	13.8	28
	Charlie	3.7	304
	Delta	3.0	406
	Echo	2.5	17
	MVA	2.2	61
	Total	**3.7**	**838**
2023	Alpha	14.4	50
	Bravo	14.2	28
	Charlie	3.5	330
	Delta	3.1	423
	Echo	2.4	18
	MVA	3.3	66
	Total	**3.9**	**915**
2024	Alpha	16.9	42
	Bravo	15.8	47
	Charlie	3.5	346
	Delta	3.2	414
	Echo	2.4	16
	MVA	2.5	78
	Total	**3.9**	**943**

Table Analysis

Year to Year (2022-2024) the Dispatch or Call-Processing times are consistent:

- CFD is just over three minutes.
- CES is just over three minutes.

The highest priority (Delta and Echo) averaged:

- 2.75 minutes in 2022
- 2.75 minutes in 2023
- 2.8 minutes in 2024

CFD call processing times are consistent with CES.

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Operational Configuration

Similar to 911 centers nationwide, Ontario County's 911 Center is experiencing staffing shortages, contributing to dispatcher fatigue, slower call processing, and limited capacity for incident monitoring and response coordination. These conditions are consistent with national trends, as the Association of Public-Safety Communications Officials (APCO, 2021) notes that emergency communication centers across the country face persistent challenges in recruiting, training, and retaining qualified personnel.

Ontario County utilizes a consolidated PSAP model in which call-takers also serve as dispatchers, though there is functional separation between law enforcement, fire, and EMS channels.

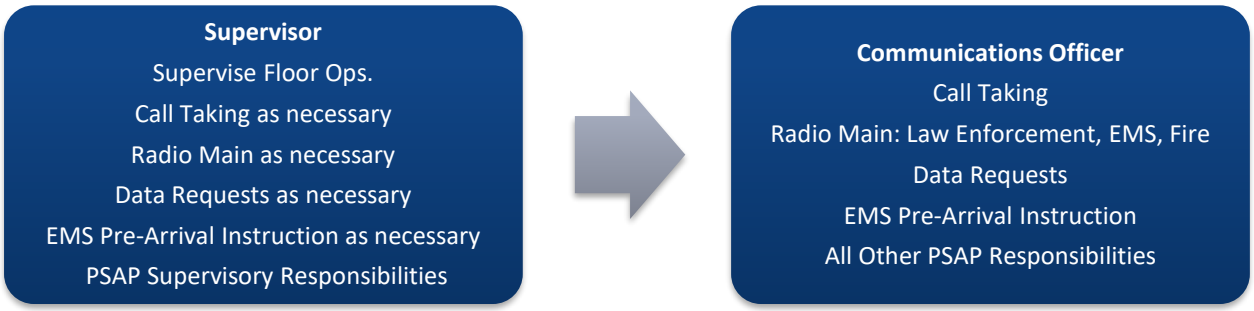
EMS calls are processed via EMD (Emergency Medical Dispatch) using the Medical Priority Dispatch System (MPDS) as discussed above. However, pre-arrival instructions may be limited due to Communications Officer workload.

Fire and EMS dispatch occurs over separate radio channels, and both services are coordinated from the same communications room. Fire dispatchers manage CFD activations and may monitor working incidents (e.g., structure fires, MCI events), but no dedicated dispatcher is assigned to monitor ongoing EMS calls or working incidents. Once an EMS call is dispatched, follow-up communication or incident progression monitoring is limited unless initiated by field units.

These structural limitations will potentially impact:

- Call triage during peak demand.
- Support for field units once dispatched.
- Reduced situational awareness for simultaneous or escalating incidents.

Overall, CPSM observed Communications Officer's operation as a horizontal 911 Center configuration.[74] In this configuration a telecommunicator performs both call-taking, radio dispatch, manages data and administrative requests, provides EMS pre-arrival instructions, and a host of other 911 center responsibilities.



When exploring staffing and deployment of the 911 center operational workforce, it is prudent to design an operational strategy around the actual circumstances that exist in the community that is served, and the demand created in the 911 center across the public safety disciplines served. CPSM has completed a data summary for the 911 Center that shows the total workload

74. NFPA 1225, *Standard for Emergency Services Communications*, 2022 Edition.

in the 911 center for law enforcement, fire, and EMS can be moderate to high depending on the time of day, and depending on staffing levels, will have impacts on overall operations.

While there are many benchmarks that communities and management utilize in justifying certain staffing levels, there are certain considerations that are reached through national consensus that serve this purpose as well. Included in these are NFPA 1225 *Standard for Emergency Services Communications*, 2022 Edition.

Key NFPA 1225 standards for staffing include (Chapter 15):

- 15.3.1: There shall be a minimum of two telecommunicators on duty and present in the communications center at all times.
- 15.3.1.1: The AHJ shall ensure that there are sufficient telecommunicators available to effect the prompt receipt and processing of alarms and events needed to meet the requirements of Section 15.4 (operating procedures).

- Emergency lines answered within 15 seconds: 90% of the time.
- Emergency lines answered within 20 seconds: 95% of the time.

- 15.3.1.3: A communications center shall manage emergency calls for service and dispatching in preference to nonemergency activities.
- 15.3.2 When requested by the incident commander, a telecommunicator shall be dedicated to the incident and relieved of other duties within the communications center.

- The issue of communication capabilities and/or failures is cited by the National Institute for Occupational Safety and Health (NIOSH) as one of the top five reasons for firefighter fatalities. ***The importance of an assigned telecommunicator for specific incidents is a critical factor in incident scene safety for all public safety disciplines.***

- 15.3.4: Supervision shall be provided when more than two telecommunicators are on duty.

- The supervisor position(s) in the communications center are provided in addition to the telecommunicators positions. Although supervisory personnel are intended to be available for problem solving, the supervisor position is permitted to be a working position

- 15.3.4.1 Supervision shall be provided by personnel located within the communication center who are familiar with the operations and procedures of the communication center.
- 15.3.4.2: The supervisor shall be allowed to provide short-term relief coverage for a telecommunicator, provided that the telecommunicator does not leave the communications center and is available for immediate recall as defined in the policies and procedures of the AHJ.

Through this review, ***CPSM assesses*** that the 911 Center is considered busy based on the workload as outlined herein. Key workload points include:

- 402 incoming calls/day (911 and non-emergency) over the two-year period for an average of 17 incoming calls per hour.
- The 911 Center averages 303 calls dispatched per day (all public safety disciplines), or on average, 13 calls an hour over the two-year period.

- On average for the two-year period, the 911 Center completes 231 law enforcement information request per day, or on average 10 per hour.

Call processing times are beyond the national benchmark established through NFPA standard 1225, *Standard for Emergency Services Communications*, 2022, which states the highest prioritization level emergency events listed in the standard shall be completed within 60 seconds, 90 percent of the time. The highest priority EMS calls (Delta and Echo) averaged:

- 2.8 minutes in 2022
- 2.9 minutes in 2023
- 2.9 minutes in 2024

The 911 Center utilizes Medical Priority Dispatch System as its Emergency Medical Dispatch to prioritize EMS calls. The system will potentially extend call processing times.

- Fire calls over the same three-year period are just above two minutes.

Nurse Navigation

Nurse Navigation within a 911 Center is an emerging practice designed to improve patient care while reducing demand on EMS resources. In this model, low-acuity 911 medical calls (Omega and Alpha) identified through triage protocols such as the Medical Priority Dispatch System the 911 Center is using, can be transferred to a trained registered nurse who conducts a secondary assessment. The nurse uses clinical expertise, decision support tools (such as LowCode software produces by Priority Dispatch), and patient history to determine whether an EMS response is necessary, or if the patient would be better served through an alternative care pathway. This approach ensures that true emergencies receive the fastest possible response, while patients with non-emergent conditions are directed toward more appropriate and efficient healthcare options.

The benefits of Nurse Navigation can be significant when properly utilized. By safely diverting non-urgent calls away from traditional EMS responses, the program preserves ambulances for higher-acuity emergencies, thereby improving overall system reliability and response times. It can also reduce emergency department overcrowding by guiding patients to urgent care centers, primary care providers, telehealth options, or even home self-care when appropriate. During peak periods of 911 call volume when dispatchers and EMS crews are most taxed, this program can be especially valuable in mitigating system overload, ensuring that resources remain available for time-sensitive emergencies.

Nurse Navigation also complements Mobile Integrated Health (MIH) and Community Paramedicine (CP) programs by supporting the broader goal of connecting patients with the right care at the right time. Where MIH/CP programs deploy trained paramedics and other health care professionals in the field to provide in-home assessments and follow-up care, Nurse Navigation provides a front-end filter at the point of call intake. Together, these programs form a continuum of care that potentially reduces unnecessary EMS transports, improves patient outcomes, and strengthens the healthcare system's ability to respond effectively to true emergencies.

By aligning 911 triage, nurse-driven clinical navigation, and community-based paramedicine, agencies can build a more efficient, patient-centered system that balances emergency readiness with proactive, preventive care delivery.

As the 911 Center already utilizes Emergency Medical Dispatch (EMD) determinant codes through the Medical Priority Dispatch System (MPDS), which provides an effective initial filter for

identifying and routing low-acuity calls (Omega or Alpha levels). Utilizing a Nurse Navigation program, these calls could be directed to nurse navigation. This program could be structured in one of two ways:

- Through dedicated clinical workstations co-located within the Public Safety Answering Point (PSAP) staffed with registered nurses who have specialized in critical care.
- Via a partnership with a clinical telehealth program.

The 911 Center could design the program to operate during periods of peak call volume and during peak call volume days with an initial focus on non-urgent illness, minor injury, and frequent caller populations. These programs work best when they function under the joint supervision of the PSAP Director and the system's Medical Director.

911 Recommendations:

- ***CPSM recommends*** that the City work collaboratively with the 911 Center to improve call-taking performance for Fire and EMS incidents, with a specific focus on aligning the processing of the highest-priority calls with the benchmarks outlined in NFPA 1225. Achieving these benchmarks is critical, as every second saved in call processing contributes directly to reducing overall response times and improving outcomes for time-sensitive emergencies.
- ***CPSM recommends*** that the City work with Canandaigua Emergency Squad, the Medical Director, and the 911 Center and explore the implementation of a Nurse Navigation program within the 911 Center as a strategy to improve system efficiency, enhance patient care, and preserve EMS resources for high-acuity emergencies. If implemented, this program can guide patients to the most appropriate care pathway, whether that is referral to a primary care provider, urgent care, telehealth consultation, or safe self-care at home.

  CPSM further recommends if implemented, the Nurse Navigation program should align closely with the goals of a potential Mobile Integrated Health/Community Paramedicine initiative. Together, these efforts would create a more comprehensive and integrated approach to patient care, supporting more efficient use of EMS resources, reducing healthcare system strain, and improving outcomes by connecting individuals with the right care, at the right time, in the right setting. CPSM recommends the City pursue partnerships with regional healthcare providers, hospitals, and Canandaigua Emergency Squad to design and implement this initiative.

End of Section

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Concluding Remarks

The CPSM team recognizes the complexity of managing Fire, EMS, and Emergency Communications Center operations, and commends the City, the Canandaigua Fire Department, Canandaigua Emergency Squad, and the Ontario County Sheriff's Office 911 Center for their dedication to providing these essential services to the residents and visitors of Ontario County and the City of Canandaigua. Overall, CPSM found that the Fire and EMS system and 911 personnel demonstrate strong knowledge of contemporary practices in Fire, EMS, and Emergency Communications service delivery.

This report includes a substantial amount of technical data, much of which was provided by the Canandaigua Fire Department, Canandaigua Emergency Squad, and the Ontario County Sheriff's Office 911 Center, and through discussions with practitioners and management during stakeholder meetings. The comprehensive nature of this document is intended to give readers a clear understanding of the issues and challenges that a modern Fire and EMS system and Emergency Communications Center must address.

The operational sections of the report are not intended as a critique of the organizations assessed, but rather as a resource to inform the City Council and the City Manager of key aspects of these vital public safety functions. In addition, the report provides recommendations and considerations that focus on enhancing the efficiency and effectiveness of both the Emergency Communications Department and the Fire and EMS system.

The importance of all of the recommendations lies in their ability to create lasting organizational improvements, regardless of the organization. The desired outcomes of each recommendation is a more sustainable, efficient, and adaptable Fire and EMS system and Emergency Communications Center that is well-positioned to meet both present and future community needs.

A critical component of this study was the operational assessment of each agency. An operational assessment of a Fire, EMS, and 911 agency examines the critical components that define organizational effectiveness, service delivery, and long-term sustainability. Key elements included an analysis of operational levels, workload distribution, and deployment strategies to ensure adequate coverage and response reliability. The assessment also evaluates call processing and EMD protocols within the 911 center, measuring alignment with national standards and best practices. Facility conditions, fleet readiness, and equipment capabilities in the Canandaigua Fire Department are reviewed to determine whether resources support current and future demand.

CPSM's intent is that the information contained in this report proves useful and equips the City with the insights necessary to ensure that Emergency Communications and Fire and EMS services continue to meet both current and future needs in the most effective and efficient manner possible.

End of Report

CPSM®
Center for Public Safety Management, LLC

CITY OF CANANDAIGUA
ARCHITECTURAL STANDARDS

ADDITIONAL UNIQUE DISTRICTS:

Approved by:
Resolution 2016-045
Resolution 2017-154

Note:

In 2001 the City Council authorized the City Planning Commission to conduct Architectural Review for all new construction and additions, excluding single-family and two-family homes. Architectural Standards were adopted to guide this review and are referenced in Chapter 850, sections 850-19 (C)(3)

The 2001 Architectural Standards state; *These standards are intended to apply to districts for which there are no unique standards."* This document defines three districts and provides additional standards for these unique districts.

ARCHITECTURAL STANDARDS
DOWNTOWN CENTRAL BUSINESS DISTRICT

The "Downtown Central Business" is defined as the portion of South Main Street within a 40-acre area bounded by the following:

North: Railroad tracks just south of West Avenue and Ontario Street
East: Lafayette Street and Center Street
South: Saltonstall Street and Antis Street
West: Bemis Street (extended north and south)

1. The purposes of these standards are to safeguard the heritage of the City of Canandaigua by preserving the character of South Main Street and thereby:
    - Stabilize and improve property values.
    - Foster civic pride.
    - Strengthen the local economy.
    - Promote the use of historic districts, building and structures for the education, pleasure and welfare of the citizens of the City.

2. To guide rehabilitation and construction in order to improve and protect the buildings within South Main Street through historically appropriate restorations and renovations which allow for the individuality of the business owners, yet promote a cohesive positive image of the district as a whole. The cohesive positive image shall include the overall streetscape which is defined as the combination of features along the street such as buildings, signs, awnings, landscaping, and street furniture.

3. To set up clear rules and easily understood criteria in order to minimize decisions based on individual tastes and preferences in the review and approval of plans for historic structure alterations.

4. To act as a supplement to the Secretary of Interior's Standards and Guidelines for Rehabilitation

Secretary of Interior's Standards for Rehabilitation

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.

6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

DOWNTOWN STANDARDS

A. General

1. The historic architectural character of a building shall be maintained and restored. Building shall be rehabilitated to reveal their historic materials and details. Any proposed changes shall be historically appropriate to either the building's original type and style or to the type and style of any historically significant later appearance. Any missing architectural elements shall be recreated wherever feasible. Existing materials shall be retained wherever possible, by stabilizing, repairing or matching them with compatible new materials as required.

2. No building shall be altered to appear older than its true construction or of another historic period.

3. Block buildings shall be treated as one structure, whether the building has a single owner or has been subdivided. The entire facade shall be treated as a single element.

B. Primary Façade

1. The primary facade shall not be fully covered or screened with materials which obscure any of the building's original materials and details

2. The facade of block buildings shall not be divided to appear as more than one building. All features of a block building shall correspond in shape, size, and color across the facade. It is not recommended that the retention of any later changes attaining historical significance take precedence over restoring the unitary appearance of a block building.

3. It is recommended that wall material be maintained or restored to the original texture and color.

C. Roof

1. Any roof visible from the public right of way shall be maintained or replaced in its original shape.

2. Replacement of roofing material should be compatible in material and color to the original roofing material.

3. It is recommended to restore, replace or preserve any existing or previously existing decorative features of a roof. These features may include balustrades, brackets and chimneys.

4. Any ducts, antennas, satellite dishes, or air conditioners shall be installed in locations which create the least disturbance to the historical appearance of the building, and which involve the minimum alteration to its structural integrity.

D. Masonry

1. Masonry walls shall be maintained or restored to a serviceable and visually acceptable state by replacing missing masonry units and mortar with matching elements, and repointing and stabilizing using proper techniques and materials.

2. Cleaning shall be accomplished using the gentlest effective means possible, so as not to damage either the

masonry unit or the mortar joints. Cleaning will be done with pressurized water at a maximum pressure of 350 pounds per square inch (psi) at the tip using at least a nine (9) inch tip at a distance of one (1) foot from the surface.

3. Removing paint from masonry to restore the masonry color is generally not recommended.

4. Unpainted masonry shall not be painted. Sandblasting or water blasting is prohibited.

E. Cornice

1. It is not recommended to remove or cover an original cornice. It is recommended to restore and maintain the original cornice. Any repairs shall be made with a compatible material and match in size, shape and color.

2. It is recommended that any missing cornice be restored to its original size, shape and profile to match any physical, photographic or written documentation. Where no documentation exists, the cornice should be replaced to match the historic style of the building.

3. The cornice or continuous lintel on a block building shall appear as one unit across the facade

F. Doors and Windows

1. Original or historically significant window configuration, size, shape, material and light configuration shall be restored and maintained. Original window openings shall not be infilled or made smaller.

2. Any original window frames and sashes shall be restored and maintained. Replacement of frames and sashes shall be of a compatible material and match in profile the original design or be of a profile appropriate to the building's style.

3. Storm windows shall be installed on the interior of the window.

4. The original size, shape, details and material of the window lintels, crowns and sills shall be restored and maintained. Any missing crowns shall be recreated wherever feasible or replaced to match the building's style.

5. It is recommended to restore and replace any upper story missing shutters where shutters are historically appropriate to the building type and style. Shutters should be installed with appropriate operable hardware and at the correct size to cover the full opening of the window. Shutters should not be directly mounted flush to the front of the building.

6. Transom windows shall be maintained and preserved. It is recommended to uncover, restore or replace any covered or missing transom windows to their original configuration and material. Transom windows should not be covered with paint or other materials.

7. Infill above and below windows and doors shall be historically appropriate to the building's type and style. It is recommended to remove any inappropriate infill and restore the panel with historically appropriate material.

8. It is recommended to provide a rear customer entrance to any commercial establishment whenever feasible.

G. Signs

1. Location and Size of Signs

    a) Signage shall be placed where historically appropriate to the building's type and style.

    b) Sign placement shall not dominate the facade or obscure any architectural details on the building facade such as arches, transoms, sills, moldings, cornices, windows.

    c) The size of signs and individual letters shall be an appropriate scale for pedestrians and slow-moving traffic;

    d) Signs on adjacent storefronts should be coordinated in height and proportion. Signs on individual storefronts on block buildings should be coordinated across the facade in size, shape, and color.

    e) Wall signs shall generally be located no higher than the window sill line of the second story.

    f) Signs on awning valances only is permitted.

2. Design of signs

    a) Messages should be simple and as brief as possible.

    b) Letter fonts should be compatible with the style of the building. No more than two different font styles should be used on the same sign. Letters should be carefully formed and properly spaced, to be neat and uncluttered. It is recommended to use simple, plain style letters.

3. Sign color

    a) Colors of signs shall be historically appropriate to the building's type and style.

    b) Colors should be chosen to complement the facade color of the building

    c) Signs should not normally contain more than three different colors.

    d) For all buildings, dark backgrounds and light colored letters on signs are recommended.

4. Sign materials and illumination

    a) Signs shall be made of an historically appropriate material or a material conveying the appearance of historic materials.

    b) Signs shall not be internally Illuminated. In general, any Illumination used shall be external and directed downward toward the sign.

    c) External neon wall signs or LED signs are not recommended.

5. Sign brackets and hardware

    a) Supporting brackets for projecting signs should complement the sign design, and not overwhelm or clash with it. They must be adequately engineered to support the intended load, and generally should conform to a 2:3 vertical-horizontal proportion. Screw holes must be drilled at points where the fasteners will enter masonry joints, to avoid damaging bricks, etc.

b) It is recommended to remove any previously installed hardware or materials no longer utilized for the mounting and installation of a current sign. Original sign hardware such as hooks or metal brackets attached to a masonry surface shall be an exception and should be preserved.

6. Portable Signs

a) Portable or "A-frame" sign should be wooden or metal. Plastic signs are not recommended.

7. Window Signs

a) Window signs should fill less than 25% of any single window.

b) Window signs should be open lettering, affixed to the interior window glass.

c) Window signs should be located in the top 25% of the window or lower 25% of the window, keeping the center 50% open.

d) Window signs, when displayed in addition to wall signs, should contain more detailed information about the business or service, and designed to be read by the pedestrian. Letters should be less than 6 inches high.

e) Window signs should not be hand-written.

H. Awnings

1. Awnings shall be installed where historically appropriate to the building's type and style.

2. Awning shape, fabric and color shall be historically appropriate to the building's type and style.

a) Shed type awnings are recommended, retractable shed type are preferable.

b) Canvas fabric is recommended. Shiny or plastic fabric is not appropriate.

c) Awnings may be either solid or striped in color and shall coordinate with the body and trim colors of the building

3. Awnings shall not be backlit or internally illuminated.

I. Color

1. Architectural features shall be restored with colors and finishes appropriate to the nature of the materials and to the character of the original building. Where original colors are not to be used, historic colors within the spirit of the period may be substituted.

2. Color schemes on block buildings shall be consistent across the entire front facade.

J. Exterior Illumination

1. No building facade shall be illuminated by exterior floodlights

2. Generally, exterior lighting shall be limited to illumination of signs except for security lighting in the rear or alley

K. Fences

1. Fences shall be of a simple, utilitarian design. Simple board fences are recommended. Cham link fences are inappropriate.

2. Gates shall be a simple, utilitarian design. They shall not obscure, detract, or dominate from the building's features and details. Chain link gates are inappropriate.

L. Infill Construction

1. Infill construction shall be defined as any structure built fronting a street and constructed between two existing structures. Infill structures shall maintain the architectural character along the street. The following guidelines apply to infill structures.

2. Building Height, Setback, and Width

    a) Infill structures shall generally contain at least two stories above street level and relate very closely to the height of the adjacent downtown buildings.

    b) Infill structures shall conform to the street setback parameters established by adjacent buildings.

    c) Infill structures shall extend the entire width of the lot between the existing structures.

3. Infill structures shall respect the proportion and rhythms of neighboring facades. The amount of window area to surrounding wall area on neighboring facades shall be considered in comparison to a proposed facade. The height and width of windows and doors on neighboring facades shall be considered in comparison to a proposed facade. Introducing incompatible building facades in the downtown central business district shall be prohibited.

4. Facades of infill buildings shall be brick. Secondary facades shall be masonry.

5. Colors chosen for infill structures shall respect the surrounding structures.

M. New Construction

1. New construction shall be defined as any addition to an existing structure or any structure not fronting a primary street.

2. New construction shall respect the architectural character of the surrounding structures.

3. It is recommended that any new construction be of masonry.

ARCHITECTURAL STANDARDS
SOUTH MAIN STREET

"South Main Street" is defined as the portion of Main Street south of the Downtown district (Antis Street on the west and Saltonstall Street on the east) and extends to the south to NYS Rtes 5 & 20. For the most part, the district is limited to parcels that have frontage on South Main Street, but does include land-locked parcels behind that could be consolidated with frontage property.

Historically, Main Street south of downtown was a residential district similar to North Main Street and while the homes were more modest, a number of notable residences were found here as well. Yet as downtown evolved into the twentieth century, it pushed against its southern boundaries, which ultimately led to a rezoning in the 1960s that permitted commercial construction on South Main Street. In 2003, the majority of South Main Street was rezoned to encourage mixed use development while preserving the residential scale.

The South Main Street District is intended to be a lively, pedestrian-friendly, mixed-use neighborhood similar to traditional neighborhoods where living, working and shopping are in close proximity to one another. The stated goal for the area, as stated in the Comprehensive Plan, is that "South Main Street should be developed as a mixed-use neighborhood that links Downtown and the Lakefront.

1. The purposes of these standards are to safeguard the heritage of the City of Canandaigua by preserving the character of South Main Street and thereby:
   - Stabilize and improve property values.
   - Foster civic pride.
   - Strengthen the local economy.
   - Promote the use of historic districts, building and structures for the education, pleasure and welfare of the citizens of the City.

2. To guide rehabilitation and construction in order to improve and protect the buildings within South Main Street through historically appropriate restorations and renovations which allow for the individuality of the business owners, yet promote a cohesive positive image of the district as a whole. The cohesive positive image shall include the overall streetscape which is defined as the combination of features along the street such as buildings, signs, awnings, landscaping, and street furniture.

3. To set up clear rules and easily understood criteria in order to minimize decisions based on individual tastes and preferences in the review and approval of plans for historic structure alterations.

SOUTH MAIN STREET STANDARDS

A. Site Plan

1. Buildings should be located close to the sidewalk with a consistent build-to line on each block. Closer to downtown, the build-to line is close to the sidewalk in a more formal arrangement, while toward the south end of the neighborhood, the buildings step back from the street allowing for small front yards, outdoor seating, or landscaped gardens.

2. Front lawns shall be maintained and parking should be located in the side and rear yards.

3. Shared parking and interconnected parking between properties is encouraged.

C. Renovations

1. Renovations to former residential buildings should maintain the residential character of the structure.

D. New Construction

1. New buildings should be compatible with the size, scale, color, material and character of the district.

2. New construction should incorporate architectural design elements that are compatible with the residential structures of the district.

3. Windows and doors should be placed in a manner that is harmonious with the established rhythm of the district. Primary entrances should face the street and be accessible from the public sidewalk.

4. All mechanical equipment, trash containers, and loading areas, shall be screened from public view. Utilities shall run underground.

5. Two-story construction is recommended or new single story buildings designed to create the appearance of a multi-story building.

6. Larger buildings should incorporate architectural design elements to break up long wall expanses and maintain a pedestrian friendly scale.

E. Signs

1. Wall signs are discouraged on former residential buildings. Ground signs are preferable.

2. Internally illuminated signs are not recommended.

ARCHITECTURAL STANDARDS
NORTHERN GATEWAY

The “Northern Gateway" is defined as the properties along the most northern part of North Main Street (NYS Rte 332), an area that extends south about one-third of a mile from the city-town line at the North Street intersection. The district includes about 30 properties on a total of 30 acres.

The area is divided into two zone districts with the northern portion zoned for heavy commercial (C-3), but the southern portion zoned for single-family residential (R-1B), this creates a planning challenge in creating an appropriate transition from one district to the next. On the west side of North Main Street, the transition is more gradual with two larger institutional uses (Cornell Cooperative Extension and the American Legion) providing a suitable buffer between the commercial and residential uses. Also on the west side, a number of homes have been converted to offices that aid the commercial to residential transition. In both cases the non-residential uses maintain a streetscape compatible with the residential district: the buildings are built to the residential setback line, there is limited parking in front of the structures, and the lawns are maintained. On the east side of North Main Street, the transition is more abruptly divided at Seneca Drive.

The “Northern Gateway" should be a pedestrian-friendly, mixed-use neighborhood similar to traditional neighborhoods where living, working and shopping are in close proximity to one another. As the primary entry to the City of Canandaigua, it is important that this district portray an appropriate "first impression" of the community.

1. The purposes of these standards are to safeguard the heritage of the City of Canandaigua by preserving the character of the Northern Gateway and thereby:
   - Stabilize and improve property values.
   - Foster civic pride.
   - Strengthen the local economy.
   - Promote the use of historic districts, building and structures for the education, pleasure and welfare of the citizens of the City.

2. To guide rehabilitation and construction in order to improve and protect the buildings within the Northern Gateway and through historically appropriate restorations and renovations which allow for the individuality of the business owners, yet promote a cohesive positive image of the district as a whole. The cohesive positive image shall include the overall streetscape which is defined as the combination of features along the street such as buildings, signs, awnings, landscaping, and street furniture.

3. To set up clear rules and easily understood criteria in order to minimize decisions based on individual tastes and preferences in the review and approval of plans for historic structure alterations.

NORTHERN GATEWAY STANDARDS

A. Site Plan

1. Buildings should be located close to the sidewalk with a consistent build-to line on each block.

2. Front lawns shall be maintained and parking should be located in the side and rear yards.

3. Shared parking and interconnected parking between properties is encouraged.

C. Renovations

1. Renovations of former residential buildings should maintain the residential character of the structure.

D. New Construction

1. New buildings should be compatible with the size, scale, color, material and character of the district.

2. New construction should incorporate architectural design elements that are compatible with the residential structures of the district.

3. Windows and doors should be placed in a manner that is harmonious with the established rhythm of the district. Primary entrances should face the street and be accessible from the public sidewalk.

4. All mechanical equipment, trash containers, and loading areas, shall be screened from public view. Utilities shall run underground.

5. Two-story construction is recommended or new single story buildings designed to create the appearance of a multi-story building.

6. Larger buildings should incorporate architectural design elements to break up long wall expanses and maintain a pedestrian friendly scale.

E. Signs

1. Wall signs are discouraged on former residential buildings. Ground signs are preferable.

2. Internally illuminated signs are not recommended.

CITY OF CANANDAIGUA

COMPREHENSIVE PLAN

2025 UPDATE

Final Draft

Additions or modifications are highlighted

Deletions are ~~strikethrough and grey highlight~~

CONTENTS

Appendices:

A.1 New York State City Law § 28-a. "City comprehensive plan"

A.2 Charge of the Comprehensive Plan Review Committee

A.3 ~~Active Transportation Plan - Summary~~

A.4 Complete Streets Policy (Resolution 2013-46)

A.5 ~~Canandaigua Regional Transportation Plan - Summary~~

A.6 ~~Blue Zone Initiative Report~~

A.4 2021 Waterfront Active Transportation Plan

A.5 Parks Inventory and Master Plan

A.7 ~~Strategic Economic Development Plan - Summary~~

A.8 2108 Economic Development Concept Mapping Plan

A.9 Recommendations of the Tree Advisory Board

A.10 National Citizen Survey

A.11 Summary of Public Input

A.12 Environmental Review

A.13 Resolution Adopting the Plan

1. INTRODUCTION

1.1 PLANNING FOUNDATION

The City of Canandaigua has a solid history of comprehensive planning, with at least seven plans on record, each completed at roughly ten-year intervals.

1958: City of Canandaigua Master Plan, Isadore Candeub & Associates.
1970: City of Canandaigua Master Plan, Herbert H. Smith Associates.
1981: City of Canandaigua Comprehensive Master Plan, City of Canandaigua
1993: City of Canandaigua Comprehensive Plan, Nutter Associates.
2002: City of Canandaigua Comprehensive Plan, City of Canandaigua
2013: City of Canandaigua Comprehensive Plan, City of Canandaigua
2020: City of Canandaigua Comprehensive Plan, City of Canandaigua

The latest Comprehensive Plan was adopted in 2020. That plan serves as the foundation for this update. An ad hoc committee appointed by the City Council developed this plan over a one-year period.

1.2 CURRENT PLANNING PROCESS

In June of 2024, the City Council appointed a committee to review and update the 2020 Comprehensive Plan. The committee members were:

Thomas Lyon – Chair, City Council
Donna Cator – City Council
Teale Fox – Planning Commission
Molly Ennis – Resident
Ron Ouimette – Resident
Karen White – Resident

Richard Brown, Director of Development and Planning

The review committee met five times from September through November 2024. The purpose of the review was not to make wholesale changes to the plan, but to update data and status of previous plan recommendations.

1.3 PERIODIC REVIEW

It is important that a Comprehensive Plan provide an accurate description of the physical, social and economic conditions of the community as well as providing an accurate reflection of the community's current planning goals and objectives~~. Therefore, this plan should be reviewed within a period of five years from the date of adoption to ensure the accuracy and relevancy of the plan.~~

~~Demographic and economic data for this review is from the US Census American Community Survey. The 2020 Census will be publicly available by the next review of the Comprehensive Plan, which should provide detail needed for long range planning.~~

This document represents the five-year review of the 2020 Comprehensive Plan to ensure the accuracy and relevancy of the plan. It also incorporates the 2020 Census data as well as 2022 estimates from the US Census Bureau.

1.4 Implementation

To address the goals, vision and concerns of this comprehensive plan it is important to engage residents, staff, elected officials, and service partners in continued efforts to prioritize and review this this and subsequent planning documents. To that end the city should:

1. Establish a Comprehensive Plan Implementation Committee to provide ongoing strategic input.

2. Conduct a comprehensive review and revision of zoning throughout the city.

3. Conduct a Community Survey before next full comprehensive review.

2. OVERVIEW

2.1 LOCATION

The City of Canandaigua lies about 25 miles south of the City of Rochester at the northern head of Canandaigua Lake, in Ontario County.

2.2 HISTORY

The name Canandaigua is derived from the Native American word "Kanandarque", which means "chosen spot". It was the site of the principal village of the Seneca Indians and is the legendary birthplace of these "People of the Hills".

In 1788, following the Revolutionary War, Oliver Phelps and Nathaniel Gorham acquired six million acres of land extending from Seneca Lake to the Genesee River, and later extended to Lake Erie and from Lake Ontario to the Pennsylvania border. Phelps and Gorham then established the first land office in Canandaigua to sell homestead parcels to settlers from the east. The office was operated by William Walker, who is credited for constructing the first house in Canandaigua. On January 27, 1789, Canandaigua became the seat for Ontario County, which then encompassed the entire Phelps-Gorham Purchase, an area that eventually became 13 counties.

Oliver Phelps is credited with laying out the city plan that exists today, a wide, tree-lined Main Street with elegant homes set behind deep front yards. A central public square was retained with the first courthouse located on the site of the current Ontario County Court House. The second courthouse, constructed in 1824, is the current City Hall.

Originally organized as a district, Canandaigua became a township in 1791. The village of Canandaigua was incorporated within the town in 1815 and then became a city by act of the New York State Legislature in 1913. The City is currently bordered by the township of Canandaigua on the east, west, and north, and by Canandaigua Lake to the south.

2.3 GOVERNMENT

By City Charter adopted in 1966, The City of Canandaigua operates under the "Council-Manager" form of government. The legislative body is the City Council, composed of a mayor and eight council members who are elected by the people each serving four-year terms. Four council members are elected as representatives of their respective wards, while the other four and the mayor are elected at large on alternating odd years. The administration of the City government is the responsibility of the City Manager, who is appointed by and reports to the City Council.

2.4 DEMOGRAPHICS

Demographics	City of Canandaigua			Town of Canandaigua			Ontario County		
	2010	2022*	Diff.	2010	2022*	Diff.	2010	2022*	Diff.
Total Population	10,545	10,576	0.3%	10,020	11,109	10.9%	107,931	112,458	4.2%
Land Area (sq/mi)	4.6	4.6	NA	56.9	56.9	NA	644	644	NA
Median Age	42.5	41.8	-1.6%	45.1	44.6	-1.1%	42.1	44	4.5%
< 5 yrs	4.9%	3.70%	-24.5%	5.1%	3.6%	-29.4%	5.4%	4.7%	-13.0%
< 18 yrs	20.2%	17.8%	-11.9%	22.0%	19.1%	-13.2%	22.5%	18.7%	-16.9%
> 65 yrs	19.1%	21.9%	14.7%	17.5%	21.4%	22.3%	15.4%	22.5%	46.1%
% White	95.1%	88.9%	-6.5%	96.1%	91.3%	-5.0%	93.7%	87.9%	-6.2%
% Male, > 18 Yrs	47.0%	46.7%	-0.6%	48.9%	48.2%	-1.4%	48.9%	49.2%	0.6%
Average Family Size	2.1	2.8	NA	2.4	2.7	NA	2.4	2.8	NA
% High School Graduation	92.5%	91.5%	-1.1%	93.7%	98.3%	4.9%	89.7%	94.8%	5.7%
% Bachelors or higher	34.4%	38.9%	13.1%	42.5%	48.9%	15.1%	32.3%	33.5%	3.7%
Median Household income	$43,776	$59,144	35.1%	$62,581	$96,054	53.5%	$53,567	$76,424	42.7%
Median Family Income	$66,659	$90,281	35.4%	$74,779	$116,821	56.2%	$65,350	$100,433	53.7%
% Below Poverty	13.5%	8.2%	-39.3%	7.8%	8.6%	10.3%	9.9%	10.2%	3.0%

*Source: 2022 American Community Survey 5-Year Estimate

POPULATION	1960	1970	1980	1990	2000	2010	2020
City of Canandaigua	**9,370**	**10,488**	**10,419**	**10,725**	**11,418**	**10,545**	**10,576**
Town of Canandaigua	4,894	5,419	6,060	7,160	7,649	10,020	11,109
City of Geneva	17.286	16,793	15,133	14143	13,617	13,207	12,812
Town of Farmington	2,114	3,565	8,933	10,381	10,585	11,825	14,170
Victor Town & Village	3,295	5,071	5,784	7,191	9,23	14,275	15,860
Manchester (incl Villages)	6,242	7,840	9,002	9,351	9,258	9,395	9,404
Town of Gorham	2,505	2,839	3,450	3,296	3,776	4,247	4,106
Town of Hopewell	1,822	2,347	2,509	3,016	3,346	3,747	3,931
East Bloomfield	2297	3151	3327	3258	3,361	3,634	3,640
Town of Bristol	1,002	1,307	1,802	2,071	2,421	2,315	2,284
Ontario County	**68,070**	**78,849**	**88,909**	**95,101**	**100,224**	**107,931**	**112,458**

% POPULATION CHANGE	1960	1970	1980	1990	2000	2010	2020
City of Canandaigua	NA	**12%**	**-1%**	**3%**	**7%**	**-8%**	**0%**
Town of Canandaigua	NA	11%	12%	18%	7%	31%	11%
City of Geneva	NA	-3%	-10%	-7%	-4%	-3%	-3%
Town of Farmington	NA	69%	151%	16%	2%	12%	20%
Victor (Town & Village)	NA	54%	14%	24%	37%	45%	11%
Town of Manchester	NA	26%	15%	4%	-1%	2%	0%
Town of Gorham	NA	13%	22%	-5%	15%	13%	-3%
Town of Hopewell	NA	29%	7%	20%	11%	12%	5%
East Bloomfield	NA	37%	6%	-2%	3%	8%	0%
Town of Bristol	NA	30%	38%	15%	17%	-4%	-1%
Ontario County	**NA**	**16%**	**13%**	**7%**	**5%**	**8%**	**4%**

*Source: 2020 Census

2.5 LAND USE & ZONING

Over half the land area in the city is devoted to residential use, the large majority of that being detached single-family homes.

The city's industrial land is primarily limited to two large districts. An industrial district in Ward IV, in the northwest quadrant, covers approximately 150 acres and includes Canandaigua Winery and AJay Glass. In Ward II, in the southeast quadrant of the city, is an industrial district that covers approximately 250 acres. This area is made up of a number of older manufacturing businesses and structures largely underutilized.

The city has almost 300 acres of parks, recreation and open space. Most of this is found in Ward II, in the southeast quadrant of the city and is associated with Canandaigua Lake and Muar Lake.

There are three primary commercial districts in the city: the historic downtown central business district, the Eastern Boulevard commercial strip, and the lakefront commercial area along Lakeshore Drive.

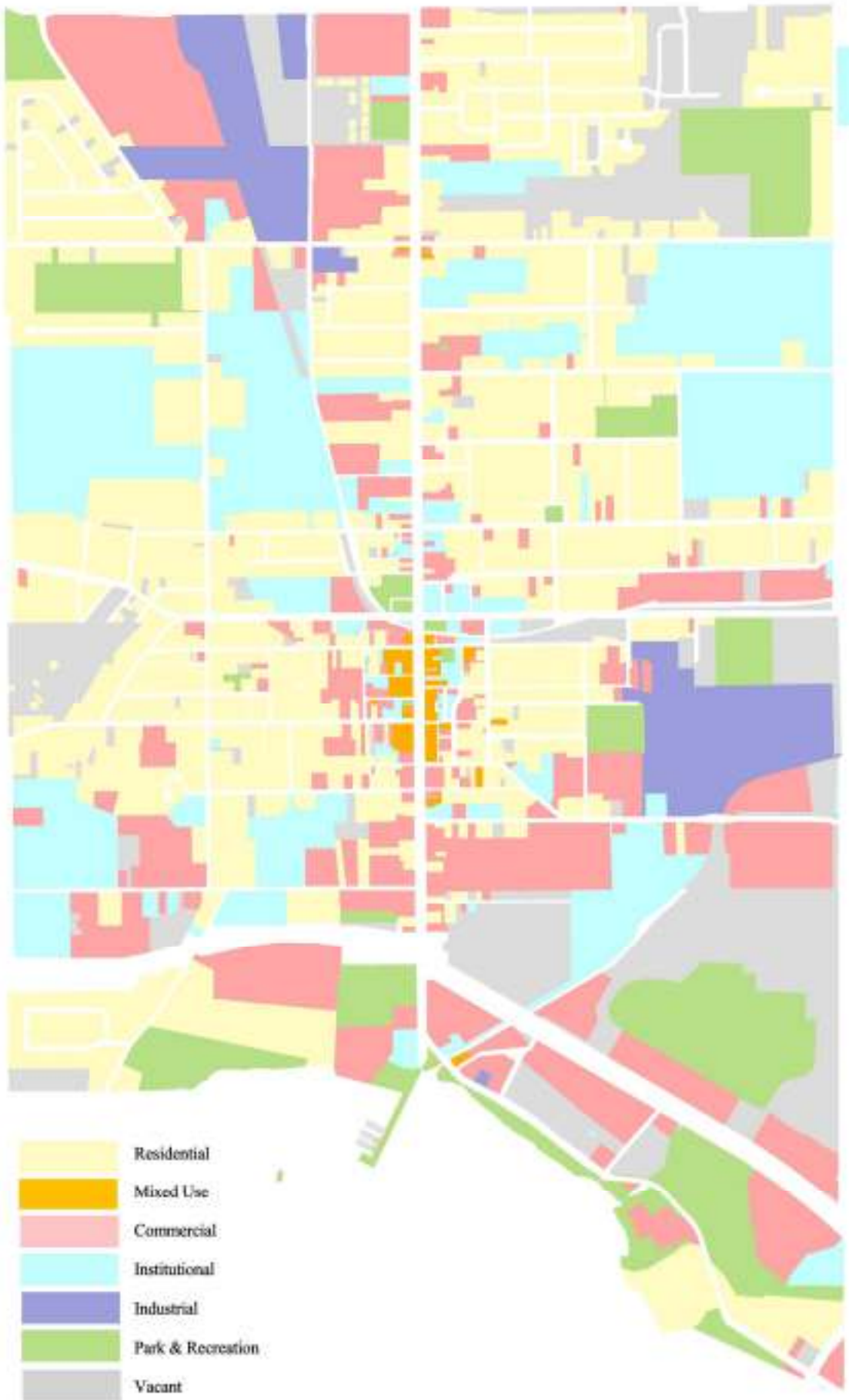
The downtown core is surrounded by districts that allow a mix of uses. North of downtown is a "Residential-Institutional" district, the home of City Hall, the County Court House and Office Building, ~~the YMCA~~, Wood Library, numerous churches, and several homes that have been converted into professional offices. South of downtown is a district that includes a mix of heavy commercial, office, and residential use. The 110-acre Rosepark Planned Unit Development is a planned, mixed-use development on the lakefront.

With zoning changes in 1994, the city created a district restricted to health-related uses. The Thompson Health Care campus containing the hospital and nursing home occupies the majority of this. The district also includes a number of adjacent medical offices directly and indirectly associated with the hospital, or providing independent health and wellness services.

Active redevelopment of the Lakeshore Drive corridor began in the early 2010's, ~~primarily consisting of two larger mixed-use developments~~ including Pinnacle North, Hotel Canandaigua, ~~Finger Lakes Resort~~ and the reconstruction of the Lake House hotel, ~~as well as remodeling and redevelopment of other existing anchor projects.~~

LAND USE	AREA	Percentage
Residential	1,800 acres	58 %
Industrial	400 acres	13 %
Parks & Recreation	300 acres	10 %
Commercial	300 acres	10 %
Mixed Use	200 acres	6 %
Health Related	100 acres	3 %
TOTAL	**3,100 acres**	**100 %**

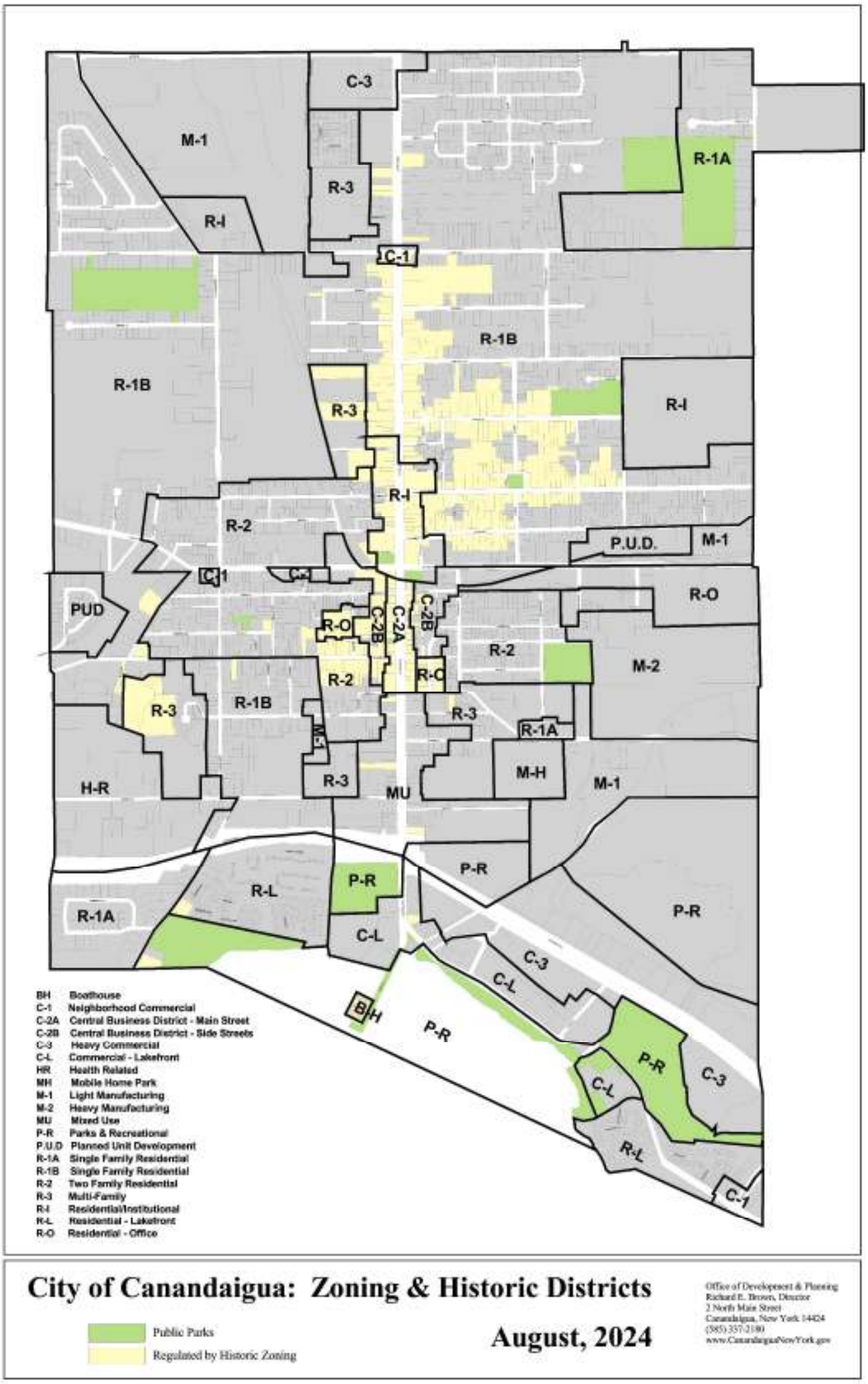
Agricultural uses to the northwest and northeast and wetlands to the southeast provide a fairly continuous green belt along the city borders, providing a distinct edge to the urban center. The exception to this pattern is the development along NYS Rte 332 extending north and NYS Rtes 5 & 20 extending east, where the city-town line is less apparent.



City of Canandaigua: Land Use

Not to scale

City of Canandaigua
Office of Development & Planning
Richard E. Brown, AICP Director


C-3
M-1
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P.U.D.
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PUD
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R-1A
C-L
C-3
C-L
BH
P-R
P-R
C-3
C-L
R-L
C-1
BH Boathouse
C-1 Neighborhood Commercial
C-2A Central Business District - Main Street
C-2B Central Business District - Side Streets
C-3 Heavy Commercial
C-L Commercial - Lakefront
HR Health Related
MH Mobile Home Park
M-1 Light Manufacturing
M-2 Heavy Manufacturing
MU Mixed Use
P-R Parks & Recreational
P.U.D Planned Unit Development
R-1A Single Family Residential
R-1B Single Family Residential
R-2 Two Family Residential
R-3 Multi-Family
R-I Residential/Institutional
R-L Residential - Lakefront
R-O Residential - Office
City of Canandaigua: Zoning & Historic Districts
Public Parks
Regulated by Historic Zoning
August, 2024
Office of Development & Planning
Richard E. Brown, Director
2 North Main Street
Canandaigua, New York 14424
(585) 357-2180
www.CanandaiguaNewYork.gov

3. VISION & MISSION

Vision Statement
Canandaigua is a beautiful, historic, full service, economically vibrant, safe, lakeside community ~~leading~~ rich in culture, commerce, governance, education, and healthcare.

Mission Statement
As residents, city staff and appointed & elected officials of the City of Canandaigua, our decisions and actions will be guided by these Core Values: Responsive, Participatory Governance; Caring & Respect; Integrity; Heritage; Stewardship; and Continuous Improvement.

--As adopted by Canandaigua City Council

4. GOALS

1. **Transportation**
   Provide for an efficient, safe, multi-modal private and public traffic flow on city streets, and encourage a shift from personal vehicles to other means of transportation

2. **Housing**
   Provide opportunities for a variety of residential units, and price points that integrate new development into existing neighborhoods by reflecting the architectural style and citing characteristics of those neighborhoods, as well as encourage development of higher density residential alternatives. In addition, the City should encourage rehabilitation of existing housing stock.

3. **Parks and Recreation**
   Provide a wide range of active and passive recreational uses in a manner that features and complements the Canandaigua environment.

4. **Economy**
   Promote economic development, mixed-use neighborhoods, capitalize on the unique characteristics of the city, like Downtown and Lakeshore, and develop a ~~sound niche market~~vibrant sense of place to support a healthy ~~in the~~ regional economy in order to increase the property tax base, expand employment opportunities, and raise household income levels.

5. **Historic Preservation**
   Promote the history of Canandaigua throughout the community and in the tourism economy, and continue to encourage the preservation and rehabilitation of designated historic structures and neighborhoods.

6. **Urban Forestry**
   Develop, protect and enhance the urban forest and the historic character of our streetscape.

7. **Environment**
   Ensure the long-term health of the environment through local initiatives and participation in local, state, and national efforts.

8. **Intermunicipal Opportunities**
   Identify and maximize opportunities ~~to~~ that build positive and effective relationships ~~and~~ to promote increased efficiencies, and provide a greater level of service for residents through shared revenues and resources, and sources of funding through multi-jurisdictional cooperation

9. **Downtown**
   Invigorate downtown's role as a cultural, economic and social center of the greater community and promote downtown as a safe, inviting and vital area for community activity.

10. **South Main Street**
    Encourage development of South Main Street as a high-density mixed-use neighborhood that links downtown to the lakefront with an inviting pedestrian environment.

11. **Lakefront**
    Promote the lakefront as a ~~balanced,~~ mixed-use area focusing on year-round public access to Canandaigua Lake with a streetscape design that is pedestrian oriented, and has open areas with courtyards, patios and alleyways.

12. **Eastern Boulevard**
    Eastern Boulevard should continue to provide a location for auto-oriented commerce that would be less appropriate in the historic districts of the city. However, the City should allow higher-density residential along with increased provisions multi-model use. Efforts should be made to improve the overall appearance of the district, especially within the street right-of way.

13. **Northeast Quadrant**
    Complete this area as a medium-density residential district with the characteristics of a traditional Canandaigua neighborhood.

14. **Southeast Quadrant**
    Develop this area as ~~a mixed use~~neighborhood district with a blend of high-density residential properties adjacent to Jefferson Park and natural open and recreational spaces.

15. **Health Related District**
    Continue to develop the area as a more unified healthcare campus

5. CITYWIDE CONCERNS

5.1 Transportation

5.2 Housing

5.3 Parks and Recreation

5.4 Economy

5.5 Historic Preservation

5.6 Urban Forestry

5.7 Environment

5.8 Intermunicipal Opportunities

5.1 TRANSPORTATION

5.1.1 Existing Conditions

The City of Canandaigua road network is a traditional urban grid with a strong north-south axis along Main Street (NYS Rte 332), that divides the city into equal halves. Pearl Street provides a secondary north-south collector on the city's west side. There is no clear north-south collector on the city's east side. East-west collectors include Buffalo Street and Chapel Street, Gibson Street and West Gibson Street, Bristol Street, and Parrish Street. Eastern and Western Boulevard (NYS Rtes 5 & 20), a limited access highway, divides the city from its lakefront.

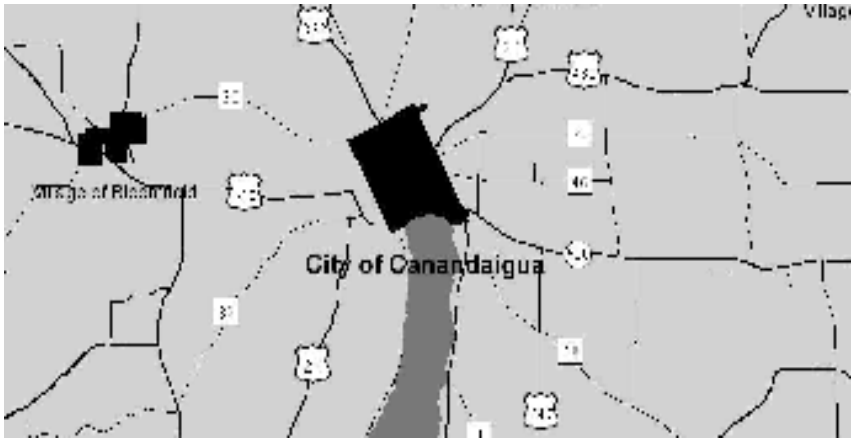
Traffic Counts from the NYSDOT Traffic Data Viewer indicate the following daily volumes on the busiest Canandaigua streets. (2024 update)

Street	Vehicles Per Day
North Main Street (Rt 332)	28,325
Eastern Blvd (5/20)	25,580
South Main Street (Rt 332)	24,099
Downtown (Rt 332)	22,374
Western Blvd (5/20)	13,848
Lakeshore Drive	10,161
Parrish Street	7,875
Gibson Street	5,846
North Street	5,824
West Avenue	5,736
North Pearl Street	5,526
Buffalo Street	4,369
Thad Chapin Street	4,110
Saltonstall Street	3,610
West Lake Drive	3,571
South Pearl	3,426
Ontario Street	3,388
West Gibson Street	3,106
Bristol Street	2,663
Pleasant Street	2,602
Chapel Street	1,998

Source NYDOT Traffic Data Viewer

The local grid network, with few closed loops or cul-de-sacs, aids traffic distribution and provides a distinct urban character.

The Ontario County road network radiates outward from the city and therefore funnels the majority of regional trips through the City of Canandaigua. While the city's growth has been fairly stable for decades, the more dynamic development in the surrounding communities has resulted in high traffic within the city.



The Regional Transit Service (RTS) bus service provides a public transportation alternative to the greater Rochester area with routes passing through the City and a transportation hub located near the center of the City on West Ave. Generally, these stops are serviced every hour except on weekends and when service stops between the hours of 7pm and 5am.

~~In 2008 a volunteer group, Canandaigua Walkers & Cyclists (CWC) prepared an extensive **Active Transportation Plan**. In 2013 City Council adopted the Active Transportation Plan in its entirety (Resolution 2013-056). See Appendix A.3.~~

The City of Canandaigua is generally considered accessible to walkers, though there are areas that lack sidewalks to connect to amenities like schools, parks, hospitals and shopping. Additionally, crossings on 332 and 5&20 are difficult in some areas.

In 2013, City Council adopted a **Complete Streets Policy** (Resolution 2013-46) as a guiding principle for the improvement of the city's transportation infrastructure. The City supports the development of a complete street system of bikeways, pedestrian facilities and shared use roadways, and safe crossings to connect residences, businesses, and public places. In all City of Canandaigua new construction, reconstruction, and maintenance road projects consideration should be given to the accommodation of the transportation needs of all users, regardless of age or ability, including those traveling by private vehicle, mass transit, foot, and bicycle.

5.1.2 Goal

Provide for an efficient, safe, multi-modal private and public traffic flow on city streets, and encourage a shift from personal vehicles to other means of transportation.

5.1.3 Recommendations

~~1. Update and incorporate projects identified in the Active Transportation Plan (ATP) into the Ten-Year Capital Plan. This is included as Appendix A.3.~~

~~2. Consider recommendations from the 2018 "Blue Zone" initiative report. This is included as Appendix A.6.~~

3. **Maintain the commitment to~~of~~ the Complete Streets Policy.**

4. **Expand a citywide network of bicycle trails and pedestrian pathways that link neighborhoods to activity centers in the city, as well as a regional system that links to other communities.**

5. **Where possible, work to reduce block lengths and limit dead end streets to promote walkable districts. ~~particularly near the historic downtown.~~**

~~6. Review traffic study for the intersections of West Lake Dr and South Pearl with Parrish Street, consider modification or removal of one or more traffic control devices.~~

7. **Ensure that public sidewalks are clear of snow, vehicles and debris.**

~~8. Work with the Canandaigua Watershed Council to encourage boating best practices.~~

~~9. Work with Regional, County, and Local municipalities to review the recommendations from the 2006 "Canandaigua Regional Transportation Plan".~~

~~This study included analysis of Main Street "bypass" alternatives, intersection improvements to Rte 332 & Rtes 5&20, and "segment improvements" to Main Street within downtown Canandaigua to improve pedestrian access. See Appendix A.5.~~

~~10. Study the feasibility of diverting undesirable truck traffic off Main Street via a truck route or alternate route.~~

11. **Work with NYS DOT to install traffic calming measures to reduce vehicular speed and improve pedestrian crossings on Main Street and Eastern Boulevard.**

12. **Study the transit needs of the community and work with the providers to better meet those needs**

~~13. Increase safety for bike and pedestrian access to the Lakeshore.~~

14. **Incorporate projects identified in the 2021 Waterfront Active Transportation Plan into the Ten-Year Capital Plan.**


City of Canandaigua Comprehensive Plan
TRAILS PLAN
Existing Trails
Short Term (3 - 5 years)
Potential Long Term Routes
Not to Scale
City of Canandaigua
Office of Development & Planning
Richard E. Brown, AICP Director

5.2 HOUSING

5.2.1 Existing Conditions

HOUSING SUMMARY	City of Canandaigua	Town of Canandaigua	City of Geneva	Town of Victor	Town of Farmington	Ontario County
Total Housing Units	5,542	5,328	5,280	6,789	5,725	52,636
Built Before 1939	38.4%	11.7%	61.3%	6%	5.7%	26.7%
Built After 2010	5.5%	17.3%	2.0%	12.8%	17.2%	7.9%
Owner Occupancy	47.1	68.7%	48.4%	79.8%	69.3%	72.5%
Vacant Units	7.9%	10.9%	9.9%	4.9%	3.8%	10.6%
Cost of Home Ownership >30% household income	17.7%	16.6%	13.5%	13.2%	5.7%	14.9%
Cost of Rent > 30% household income	31.1%	27.4%	39.4%	39.5%	37.1%	35.4%
Median Gross Rent	$1,015	1,423	$938	$1,386	$1,389	$1,210
Median Value of Owner-Occupied Units	212,600	296,300	$123,100	$342,200	$200,400	$192,800

*Source: 2022 American Community Survey 5-Year Estimate

The housing stock in the City of Canandaigua is relatively old with nearly half the units constructed before 1939 and hundreds of 19th Century homes. The oldest homes are found on North Main Street as well as tree-lined, side-streets including Howell Street, Gibson Street, and Gorham Street.

There was a later wave of residential construction in the late 1960s and early 1970s with the construction of Holiday Lane, Dorset Drive, Douglas Drive, and Arlington Park in Ward 4; Seneca Drive, Canandaigua Avenue, Mohawk Lane and Cayuga Road in Ward 1 and Deerfield Drive in Ward 3. While these subdivisions retained a street grid similar to the city's historic development pattern, the street construction and homes themselves are more suburban in appearance. The roads are wider, without curbing and there are no sidewalks. The homes tend to be built with their longer axis parallel to the street as opposed to 19th Century homes that were built perpendicular to the street on deeper and narrower lots.

During the 1990s there were four major subdivisions approved in the city resulting in more than 300 building lots, with nearly half these being townhouse projects, indicating a strong demand for this type of housing within the city. By 2008, the last of these projects had been completed.

NEW HOUSING STARTS: 2015-2024			
	Detached	Attached Or Apts.	TOT
2015	6	0	6
2016	11	0	1
2017	10	135	14
2018	6	0	6
2019	8	0	8
2020	9	0	9
2021	22	16	3
2022	9	25	3
2023	1	0	1
2024			
Totals	82	176	25

Between 2015 and 2024 there have been 258 new dwelling units built in the city; a rate of 4.6% growth over 10 years. The large majority of the new housing in this period was either attached dwellings or apartments.

- Pinnacle North began in 2017: 135 apartment units
- Thompson Lane began in 2021: 31 detached homes
- Legion Heights, P2, began in 2021: 44 townhouse unit

About half of the dwelling units in the city are owner-occupied, while the other half are rented. This rate of owner-occupancy is much lower than surrounding communities, indicating that the city fills much of the regional need for rental housing. The high percentage of rental housing has been

seen as a concern as rented units are at times not as well maintained by absentee landlords. To address this issue the city has developed a Minimum Housing Inspection program where all rental units are inspected once every three years.

Residential districts are largely built out, with the exception of a portion of the North East of the City that has been subdivided but undeveloped. This leaves few opportunities for new single-family development, with the exception of infill, replacement of derelict properties, or development of property with environmental or physical constraints concerns (floodplain, brownfield, land locked).

In the City of Canandaigua, there has been a slow demand for detached single-family homes s~~ince before the 2008 great recession~~. This is reflective of the demand for attached homes and apartment development in Canandaigua Classics in the City, which hosts a mixture of detached and attached single family, duplexes, and townhome development.

It is important to note that housing costs in excess of 30% are a widely used and accepted measure for housing affordability used by state and federal agencies to determine if a household is "burdened" by cost of living. This metric evolved from the United States National Housing Act of 1937. Within the City, 17.7% of homeowners have mortgage payments that exceed 30% of their income. 31.1% of renters pay more than 30% of their income in rent. These rates are fairly consistent with the rest of Ontario County.

~~While roughly one-in-ten homeowners pay more than 30% of household income on housing costs, more than two-fifths of renters pay more than 30% for housing. And while, this level of burden on residents of the City is lower …~~

There are about 2,900 rental units in the city; nearly half of these are located in large complexes, with the balance located in structures containing four or fewer units.

Apartment Complex	Address	Units
Camelot Square Apartments	374 North Main Street	310
Reserve Pointe Apartments	190 Parrish Street	153
80 Parrish Street	80 Parrish Street	131
Wilcox Lane Senior Apts.	40 Wilcox Lane	120
Lakeside Village	275 Jefferson Avenue	64
Fort Hill Apartments	235 North Main	57
Jefferson Square Apts.	348 Jefferson Ave	55
Canandaigua Garden Apts.	223 Bristol Street	44
Thompson Apartments	120 North Main	42
Olde English Manor	427 North Main	36
Chosen Place	125 North Bloomfield	36
The Pines	145 Buffalo Street	32
Pinnacle North (Phase I)	20 Ellen Polimeni Blvd	135
TOTAL		**1,280**

5.2.2 Goal

Provide opportunities for a variety of residential units, and price points that integrate new development into existing neighborhoods by reflecting the architectural style and siting characteristics of those neighborhoods, as well as encourage development of higher density residential alternatives. In addition, the City should encourage rehabilitation of existing housing stock.

5.2.3 Recommendations

1. **Support higher quality rental housing.**
   In the National Community Survey, only half of respondents felt positive about the variety of housing options, and only 30% believed there was an adequate supply of available, affordable, quality units. In other, agencies, businesses and individuals have expressed a desire for higher quality rental housing within the City of Canandaigua. Pinnacle North has recently added some new rental units, but at a price point higher than the median rental rate for the area. More than half the rental units in the city are within older homes that lack many modern amenities.

2. **Permit higher density in the remainder of the undeveloped residential districts, ~~and close to downtown~~.**
   There is less than 100 acres of available residential land remaining in the city. To maximize the potential of this land, and create traditional urban neighborhoods, an increase in residential density should be considered when subdividing this vacant land. While lots developed over the last 30 years have averaged 10,000 square feet older neighborhoods in the city have been very attractively built with 5,000-8,000 square foot lots. Higher density can be achieved by zero lot-line, and attached homes, and accessory dwelling units to encourage activity in the urban core.

3. **Encourage more affordable housing.**
   The cost of home-ownership in the City is similar to the rest of the county, but the average home price ($212,000) is lowered due to the age of the housing stock. With new construction exceeding $300,000, new homes are out of the price range of many local families. Efforts should be made to create new housing in the city that is more affordable to a wider segment of the population.

   In addition, new affordable rental housing for both the elderly and families across a wide income band is encouraged, sourcing the many affordable housing funding streams, including CDBG and HOME funds.

4. **Support the redevelopment of aging housing stock and ensure climate resiliency**
   With nearly half the dwelling units in the city being older than 80 years, the condition of this housing stock is becoming problematic. It is important for the City to maintain the Rental Housing Inspection Program to ensure that rental units continue to meet the New York State Minimum Hosing Standards. ~~Given the age of the existing housing stock, enhanced code enforcement, with inspection reduced from 3 to 2 years ….~~

5. **Develop a Comprehensive Housing Affordability Strategy (CHAS).**
   HUD uses CHAS data to demonstrate the extent of housing need and/or housing problems, particularly with low-income houses. This data will help to secure housing grants, through state and federal agencies

6. **Encourage a variety of housing types and ensure climate resilient housing**
   Meet resident demand for additional attached housing, duplex, rowhouse, and multiplex residential design as infill, adaptive reuse, and mixed-use development.

5.3 PARKS AND RECREATION

5.3.1 Existing Conditions

The City of Canandaigua owns and maintains a number of public parks:

City Parks	Area (acres)	Location
Atwater Meadows	18	Ward 3
Canandaigua Canine Campus	2	Ward 4
City Pier	4	Ward 3
Frank Baker Park	23	Ward 4
Gibson Street Park	1	Ward 1
Jefferson Park	8	Ward 2
Kershaw & Lakefront Park	9	Ward 2
Lagoon Park	30	Ward 2
Northeast Park	38	Ward 1
Sonnenberg Park	8	Ward 1
Telyea Tot Lot	1	Ward 3
The Commons	0.1	Ward 3
Triangle Park	0.2	Ward 3

Atwater Meadows is an 18-acre wetland site on Canandaigua Lake off West Lake Road, while designated as parkland, it is left mainly in a natural state, with public parking as the sole public amenity. This site provides some limited fishing access but has little development potential due to the topography and poor access to the site.

Canandaigua Canine Campus (CCC) is a membership dog park opened in 2019, owned and managed by the City. The approximately two acre off-leash park is a safe and friendly fenced space for healthy socialized dogs and their owners to gather. CCC features secure access gates, separate fenced play yards for small and large dogs, water stations, paw wash station, benches, parking area, bike rack and a pet memorial rock garden, the centerpiece of an outdoor lobby

City Pier located off Lake Shore Drive provides a view of Canandaigua Lake, fishing, seasonal restrooms and parking. The City Pier serves as a home to a concentration of historic boathouses.

Frank Baker Park consists of 23 acres of parkland and facilities on Buffalo Street. Features of the park include a jogging path, various game fields and courts, play equipment, space available to cross country ski, a covered pavilion, seasonal restrooms and parking. The park is used for special events (5K races), family gatherings, and general recreation and play. It is a host to one of the City's summer day camps. During the winter months, hills of Baker Park are used for snow sledding.

Gibson Street Park is located at the intersection of Gibson Street and Park Street. Although the park is fairly small, it is used by the St. Mary's School during recess and physical education classes. The Park is a passive park providing green space to the area. The small park has four benches that surround a landscaped center.

Jefferson Park is situated on Jefferson Avenue and includes 8 acres of parkland and facilities. Features of the park include an enclosed pavilion with a multi-purpose room that is heated during the winter, a lighted game field, play equipment, seasonal restrooms and parking. New playground equipment was added in 2007 and in 2010 a skateboard park was constructed.

Kershaw Park & Lakefront Park feature over 9 acres of parkland on the north shore of Canandaigua Lake. Redeveloped in 1996-1997, the park includes lakefront walkways and benches, picnic areas and grills, five picnic pavilions, a gazebo, playground, fishing pier/outlook, two parking areas and a bike rack, which is outfitted with a bike repair station. The park also has a beach area and boathouse, which are open from Memorial Day to Labor Day, a small craft launch and a swim beach area with a bathhouse. A new public dock was donated to the city in 2012 and is equipped with a boat pump-out station. Kershaw Park connects to Lakefront Park via a walking bridge.

Lagoon Park consists of 34 acres of wetlands with walking trails, bridges, and overlooks along the Canandaigua Outlet. There is a small craft launch on south side of Lakeshore Drive. The park is also a wildlife preserve.

Northeast Park was developed as a collaborative effort between the City of Canandaigua, the Town of Canandaigua and the Canandaigua City School District. It opened in 2009 and consists of three soccer/lacrosse fields, along with a practice field and restrooms, used by the school district and local sports leagues. Future construction may include a playground, pavilion, and amenities for the playfields such as scoreboards, bleachers and lighting.

Sonnenberg Park features 8 acres of parkland and facilities on Howell Street. The facilities include an enclosed pavilion, a large athletic field, various courts, softball fields, play equipment, picnic area and seasonal restrooms. New playground equipment was donated in 2007 and a parking lot was constructed in 2012. In 2019 City Council approved converting ~~some~~ tennis courts into pickle-ball courts, as a response to community request

Telyea Tot Lot offers 1 acre of parkland and year-round play equipment set in and away from the traffic on Telyea Street. New playground equipment was added in 2010.

The Commons provides a setting for special events in the downtown area. It features a donated performance stage and a decorative water feature recalling the significance of the site in the development of the idea for the Erie Canal.

Triangle Park This small park, located at the intersection of Lakeshore Drive, Main Street and the entrance of the City Pier, has a historical marker that commemorates the routes of the armies of General John Sullivan and General James Clinton.

Other recreational uses in the City of Canandaigua include:

The New York State Marine Launch is a state-owned facility where approximately half of all boats on Canandaigua Lake are launched**.** More than 10,000 boats are launched from the site each year.

Greater Canandaigua Civic Center is a multi-use facility that includes an ice-skating facility that hosts numerous hockey leagues and ice-skating programs. The City of Canandaigua owns the property but leases it to a not-for-profit organization.

Ontario Pathways is a private, non-profit organization that owns and maintains a 23-mile rails-to-trails project open to the public free of charge for hiking, bicycling, horseback riding, and cross-country skiing. The western trailhead is located on Ontario Street, near Leicester Street.

Canandaigua Lake is the greatest recreational asset in the Canandaigua area. This seventeen-mile lake is a regional draw for boating, fishing, and water sports. Of a total 36 miles in shoreline, less

than three miles are held in public ownership. Combined, the City Pier, Kershaw Park and Lakefront Park make up almost one mile of public lake access.

5.3.2 Goal

Provide a wide range of active and passive recreational uses in a manner that features and complements the Canandaigua environment.

5.3.3 Recommendations

1. **Encourage public programs offered in existing city parks.**
2. **Encourage winter activities in the parks, ~~specifically ice skating~~.**
3. **Explore the feasibility of improving drainage and usability of sports fields during wet seasons**
4. **Explore the feasibility of shared recreational services with area schools, and nonprofits, such as Finger lakes Community College, Greater Canandaigua Civic Center, Town of Canandaigua, State Parks, and Canandaigua City School District**
5. **Maintain the defining characteristics of the city's historic parks.**
6. **Implement Park requests and upgrades from the Parks Inventory and Master Plan 2016. See Appendix A.7**
7. **Explore methods to increase public access and encourage non-motorized boat usage on Canandaigua Lake.**
8. **Connect sidewalks and trail networks to parks.**

5.4 ECONOMY

5.4.1 Existing Conditions

Historically the City of Canandaigua has been the economic center of the Finger Lakes region. While over the last 50 years significant development has taken place in the periphery, the city maintains a healthy economy that defines Canandaigua as a full-service community.

Employment by Sector

	City of Canandaigua		Ontario County	
Civilian employed population 16 years and over	5,565		55,310	
Educational services, health care, and social assistance	1,460	26%	16,182	29%
Entertainment, recreation, accommodation, food service	923	17%	4,851	9%
Retail trade	673	12%	6,253	11%
Manufacturing	627	11%	6,008	11%
Professional, scientific, and management…	553	10%	5,751	10%
Finance and insurance, real estate, rental and leasing	299	5%	3,218	6%
Transportation and warehousing, and utilities	275	5%	1,947	4%
Construction	226	4%	3,941	7%
Other services, except public administration	225	4%	2,304	4%
Public administration	110	2%	1,910	3%
Wholesale trade	102	2%	1,265	2%
Information	59	1%	693	1%
Agriculture, forestry, fishing and hunting, and mining	33	1%	987	2%

*Source: 2022 American Community Survey 5-Year Estimate

The economy in the City of Canandaigua is focused on institutional uses, specifically health care, education, and government. These uses occupy prominent facilities in the city and comprise several of the largest employers who provide hundreds of high-wage, professional jobs. It is also these institutions that define the city within the region by providing important services to the greater Canandaigua area, bringing into the community thousands of people daily. Yet, while institutional uses provide excellent employment, these uses are often tax exempt and do not provide property tax revenues which are crucial to provide quality municipal services.

Tourism has played an important role in the local economy for more than 100 years. Tourism and retail also provide a great number of jobs locally, but many of these jobs tend to be low paying and seasonal.

While manufacturing jobs have been decreasing nationwide, Ontario County has been very successful in maintaining and even increasing its manufacturing economy. In the City of Canandaigua, manufacturing provides high wage employment, including "blue collar" jobs that historically have been the lifeblood of middleclass America.

The City of Canandaigua needs to maintain a balanced economy that provides varied employment, a wide range of services, and solid property tax revenues to continue to support a high quality of life for its residents.

Trends in the economy are placing a premium upon community character and quality of life. Companies are on the move and being drawn to communities that offer a good quality of life. They realize that their workers want to live in communities that offer reasonable commutes, a vibrant social life, environmental amenities, housing and transportation choices. To retain and attract their employees, companies must locate in such environments.

The emphasis on placemaking & quality of life presents enormous opportunities for communities to capitalize on their quality of life assets and to employ them as a tool for economic development. Canandaigua must think of quality of life as a commodity that can be cultivated and managed and make strategic decisions that improve rather than harm livability to make the city a more lucrative place for business and labor to locate.

The new economy values distinctive places that have the talent, technology and infrastructure to sustain competitive advantage. Talent is attracted to sociable communities—places with destinations, public and civic spaces, environmental amenities—where they can come together with colleagues and friends either through planned or chance encounters. It is no coincidence that these are many of the same elements that support what has already been identified as one of Canandaigua's most cherished commodities small city character.

5.4.2 Goal

Promote economic development, mixed-use neighborhoods, capitalize on the unique characteristics of the city, like Downtown and Lakeshore, and develop a vibrant sense of place to support a healthy ~~sound niche market in the~~ regional economy in order to increase the property tax base, expand employment opportunities, and raise household income levels.

5.4.3 Recommendations

1. **Implement the Strategic Economic Development Plan**
   Following a joint concept mapping program in 2018, (see Appendix A.8) ~~as well as earlier economic development strategies from 2012, and Ontario County's Economic Development Strategy from 2016,~~ the City and Town of Canandaigua, along with the Canandaigua Chamber of Commerce, in 2019 established the Canandaigua Local Development Corporation with representatives of each respective body, as well as resident inclusion.

~~2. **Support workforce development**~~
~~Many of the emerging jobs in health care, technology, and manufacturing are "middle skills" or "paraprofessionals". Low skill jobs are being eliminated. There is a need to train people for these emerging jobs. This is being done at Finger Lakes Workforce Development and through newly developed degree programs at Finger Lakes Community College.~~

~~3.~~2. **Create liaisons with major players**
The City's Economic Development efforts should work with the Ontario County Industrial Development Agency and build relationships with the large and emerging employers in the region, including UR Medicine Thompson Hospital, VA Medical Center, ~~Canandaigua~~ Gallo Wine, Pactiv, Wegmans, and AJay Glass

~~4.~~3. Work with the Ontario County tourism agency, the "Finger Lakes Visitor's Connection", to **conduct a needs assessment and market analysis of the Tourism Economy including the following:**

- Need for lodging in the City
- Market support for conference facilities (capacity of 350+)
- Restaurants
- ~~Demand for niche markets~~
- Tourist destinations (e.g., recreation, history, art, music, culinary)
- Tourism in all seasons to tourism destinations
- Transportation (e.g. car rental, ride share)
- Linking lakefront and downtown area

~~5.~~4. **Capitalize on the expansion of local heath care institutions, such as the recent growth at the Canandaigua VA Medical Center and Thompson Health's affiliation with the University of Rochester Medical Center.**

- Encourage workforce development to fill the demand for new jobs locally
- Explore related opportunities
- Respond to impacts of:
  - Housing
  - Traffic
  - Available real estate

~~6. Take advantage of emerging technologies.~~
~~Communities that prosper in the future must be "digital ready" for the future growth of the technology and telecommunication revolution.~~

~~7.~~5. **Promote ~~an FLCC satellite campus downtown and/or other~~ mutually beneficial connections, deepen relations and foster a shared vision with FLCC.**

6. **The use of public incentives, such as grants and tax breaks should be used only to support projects that clearly advance the goals of the Comprehensive Plan.**

~~8.~~7. **Work to create greater cohesion and connection between Downtown, South Main Street and Eastern Boulevard.**

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5.5 Historic Preservation

5.5.1 Existing Conditions

Canandaigua has a rich history. Many of the structures that provided the setting for this history are in current use today:

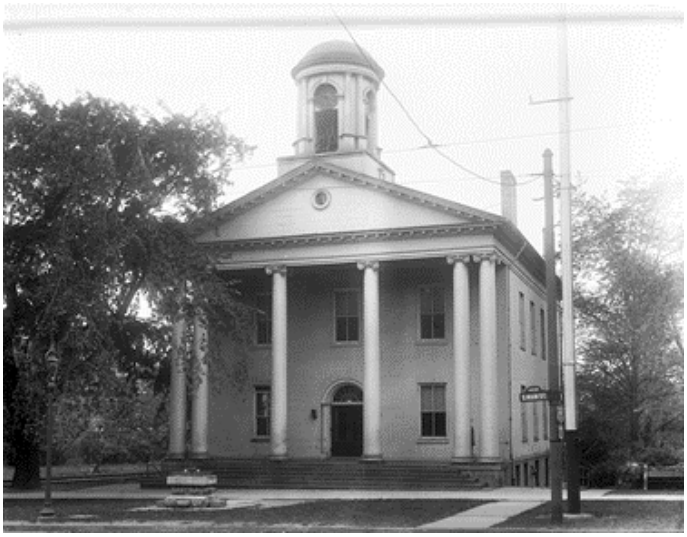
1790 Pioneer Cemetery is mentioned in village minutes dating back to 1790 as the original "burying yard" for the settlers including Captain Caleb Walker, the first recorded death in Canandaigua.

1795 Canandaigua Academy is established as a private school, later becoming the public high school. The Academy building at North Main Street and Fort Hill Avenue was constructed in 1905.

1812 First Congregational Church constructed on North Main Street.

1814 The Granger Homestead is built on North Main Street as the home of Gideon Granger who served as the Postmaster General under Thomas Jefferson.

1824 The second County Court House is constructed on the southwest corner of the public square (now used as City Hall)



1847 City Pier is constructed as a steamboat dock for produce and later tourists traveling Canandaigua Lake. Soon after, a rail line was extended down Main Street and out onto the pier.

1854 Bemis Block is constructed downtown. Many of the current downtown structures date to this period.

1855 Brigham Hall was established off Bristol Street as a hospital for mental and nervous disorders.

1857 Current Ontario County Court House constructed on the northeast corner of the public square.

1887 Sonnenberg Mansion completed, gardens are finished over the next ten years.

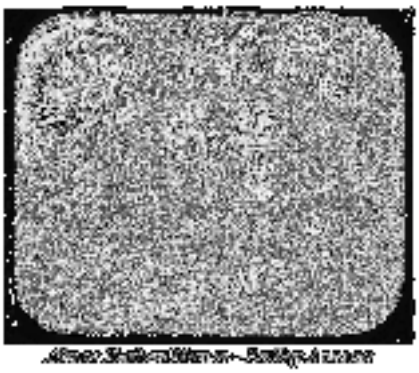
1890 N.Y. Central R.R. Depot built by the Vanderbilt's near the intersection of Niagara & Pleasant Streets as a favor to Mary Clark Thompson.

1903 Methodist Church built on North Main Street.

1904 Original F.F. Thompson Hospital built at 120 North Main Street.

1905 Saint Mary's Church completed.

Other historic structures in Canandaigua that are still in use include:



In 1975, following an extensive survey process, the City of Canandaigua designated a number of historically significant structures, as well as establishing several historic preservation districts that included over 300 properties. These districts were later added to the National Register of Historic Places in 1984.

Properties designated locally are subject to a Historic Preservation Ordinance. The purpose of this ordinance is to "safeguard the heritage of the City of Canandaigua by preserving districts and buildings in the City which reflect elements of its cultural, social, economic, political and architectural heritage".

The historic zoning requires that all new construction or alterations to existing structures on subject properties be approved as "historically appropriate" by the City Planning Commission when such alterations are visible from a public street or right-of-way.

5.5.2 Goal

Promote the history of Canandaigua throughout the community and in the tourism economy, and continue to encourage the preservation and rehabilitation of designated historic structures and neighborhoods.

5.5.3 Recommendations

1. **Promote heritage tourism as a means of celebrating local history and rounding out the current tourism economy.**
   Promote and package the community to visitors around themes such as historical events, places and personalities that define Canandaigua

2. **Develop a series of plaques and historic markers throughout the community and publish self-guided walking tours of these sites utilizing technology where appropriate.**

3. **Continue to support historic zoning, work with local heritage and historic organizations to recognize quality structures and rehabilitation efforts.**

4. **Encourage or create incentives for the rehabilitation of historic structures.**
   Maintaining a historic structure can be costly. To rehabilitate these structures in an appropriate manner that preserves and enhances the character of these structures can be even more costly. Property owners often cannot bear the full cost of this expense; yet the value of these structures is identified as a community resource. It is this finding that justifies the historic zoning that regulates these structures. Therefore, it is appropriate that the community identify incentives, especially monetary incentives that would make the appropriate rehabilitation of historic structures feasible and even beneficial for the owners.

5. **Enhance property maintenance enforcement within the historic districts in conjunction with incentives.**

6. ~~**Expand regulated preservation districts to include properties added to the National Register of Historic Places in 2016, by Create more contiguous districts by including adjacent side streets, such as Dungan Street, Hubbell Street, Park Street, Catherine Street, and Wood Street.**~~

5.6 URBAN FORESTRY

5.6.1 Existing Conditions

As a historic community, the City of Canandaigua is blessed with many streets lined with large, old trees. Sidewalks are set back from the curb by ten to fifteen feet and on Main Street as much as thirty feet and stately homes are set behind lawns and framed with mature plantings. Local zoning protects the structures in these historic districts, yet it is often the landscaping that has a larger role in defining the visual environment.

Landscaping within the municipal right-of-way is also vital in creating an inviting public realm. Street trees and lawn between the curb and sidewalk, as well as plantings between the sidewalk and buildings, narrow the vehicular corridor and enclose a comfortable pedestrian environment on the sidewalk.

Since 1992, the City of Canandaigua has maintained the designation of being a "Tree City USA". The Tree City USA program is a national program that provides the framework for community forestry management for cities and towns across America. Communities achieve Tree City USA status by meeting ~~of~~ sound urban forestry management: maintaining a tree board or department, having a community tree ordinance, spending at least $2 per capita on urban forestry and celebrating Arbor Day.

5.6.2 Goal

Develop, protect and enhance the urban forest and the historic character of our streetscape.

5.6.3 Recommendations

1. **Maintain standards for landscaping within Site Plan Review.**
   The current Site Plan review regulations require a landscape plan upon the request of the City Planning Commission as well as within parking areas.

2. **Continue the Recommendations from the Tree Advisory Board. See Appendix A.9**
   In 2011 the City appointed a Tree Advisory Board to work with the parks division of the Department of Public Works, educate the community regarding issues related to the urban forest, and to develop and recommend a Public Tree Management Plan.

3. ~~**Enhance the park-like setting at the northeast corner of Routes 332 and 5/20.**~~

4. **Promote citywide tree maintenance, and continue city funded tree replacement in public parks and rights-of-way**

5.7 ENVIRONMENT

5.7.1 Existing Conditions

Canandaigua enjoys a spectacular natural environment focused on Canandaigua Lake and surrounded by wooded hills and active farmland. Canandaigua Lake is invaluable to residents and visitors alike. Over 60,000 people depend on our clean water for drinking, nearly $100 million is generated from tourism and recreation, and the value of the lake-influenced tax base is approaching $1 billion.

Since its founding in 1996, the City of Canandaigua has been a member of the **Canandaigua Lake Watershed Council**, which consists of publicly elected representatives from each of the fourteen watershed and water purveying municipalities, and is the lead organization in the protection of the Canandaigua Lake watershed. The goal of the Watershed Council is to maintain and enhance the high water quality of the Canandaigua Lake watershed through education, research, restoration and regulation. The Canandaigua Lake Watershed Council employs a Watershed Program Manager to oversee the day-to-day operations of the organization.

~~In 2009, after extensive study, the City of Canandaigua adopted an **Integrated Pest Management** (IPM) Program, as recommended by New York State. Pests are managed using methods that minimize environmental, health, and economic risks. At this same time, the city passed a policy that largely eliminated the use of all phosphorus-containing fertilizers on City-maintained property.~~

~~In 2011 the city enacted a voluntary program to allow the use of larger **recycling** containers capable of being lifted by mechanical means with City equipment (i.e., "toters") (Res 2011-02)~~

~~In 2012, the City of Canandaigua received a "**green innovation"** grant from the State Environmental Facilities Corporation to install a series of bioretention beds within the downtown sidewalks. Stormwater from the roadway and sidewalks will flow into the beds, reducing and filtering the runoff. This green infrastructure improvement will help protect the water quality of Canandaigua Lake.~~

~~In 2012, the City Council enacted a moratorium of all activities related to **hydraulic fracturing** to allow time to consider possible legislation related to the topic. Several informational meetings were held throughout 2012 and 2013.~~

~~A level 2 charging station was opened in downtown Canandaigua in 2016, as part of a region wide Electric Vehicle charging network.~~

In June 2016, Canandaigua City Council passed Resolution 2016-037, establishing the City of Canandaigua Turf and Landscape Management Policy. This policy established an Integrated Pest Management (IPM) program to limit and/or ban pesticide use on City property, except in extreme cases.

~~In November 2017, the City was certified as a Clean Energy Community by the New York State Energy Research and Development Authority. This was followed in January 2019 with the formal establishment of a Climate Smart Communities Taskforce.~~
~~On Earth Day 2019, the City of Canandaigua was honored with designation as a Climate Smart Bronze Community.~~

In ~~2107~~2017, the city opened a 20.5 acre solar array on City owned property at the corner of County Route 10 & County Route 46. This array provides 94% of energy used for City Facilities, and 82%

of energy consumed through municipal operations (including streetlights). As further energy efficiency upgrades are completed, the array should cover almost all municipal electrical usage.

~~During 2018, Canandaigua formed a Composting Committee to leverage an Ontario County waste reduction grant to start a pilot composting program. By the end of 2018, the program was expanded City-wide as an opt in community waste reduction program.~~

In August 2022, the City ~~began~~ completed an LED conversion of city street lights, which is expected to reduce municipal energy consumption and help finance additional energy efficiency improvements, financed with long-term cost savings.

In 2023, work began on a $28 million project to upgrade the city's Water Resource Recovery Facility to an~~d~~ ATAD system (autothermal aerobic thermophilic digestion) to switch waste production from Class B to Class A biosolids that can be used as landfill cover.

In May 2023, the city entered in to a CCA (Community Choice Aggregation) supply contract with Gateway Community Power, ensuring that registered residents will to receive energy from 100% renewable sources.

In 2023 and 2024, the city purchased ten, zero emission vehicles for municipal use and installed four, all-solar charger in municipal parking lots.

As a result of these environmental initiatives, in May of 2024, the City of Canandaigua was designated by New York State as a Climate Smart Silver Community. Climate Smart Communities is a New York State program that helps local governments take action to reduce greenhouse gas emissions and adapt to a changing climate. In doing so, Climate Smart Communities can advance community goals for health & safety, economic vitality, energy independence, and quality of life.

5.7.2 Goal

Ensure the long-term health of the environment through local initiatives and participation in local, state, and national efforts.

5.7.3 Recommendations

1. **Continue ongoing efforts to protect the water quality of Canandaigua Lake, including flood mitigation**

2. **Promote enhanced recycling and composting.**

3. **Explore further "green initiatives", including but not limited to:**
   a. Solar/Alternative Energy
   b. Electric vehicle charging stations
   c. Energy efficient fleet replacement planning
   d. LED streetlight conversion
   e. LEED or other green building guidelines
   f. Green House Gas (GHG) monitoring
   g. Support ordinance to limit the use of pesticides, and herbicides
   h. Support DPW policy for road salts

4. **Reduce dependence on fossil fuels.**

5. **Encourage denser development to reduce negative impacts on water quality and energy usage.**

~~6. Allow for the development of community gardens~~

~~7. Prohibit all activities related to hydraulic fracturing including the exploration for, and the production or storage of, natural gas and petroleum within the City of Canandaigua.~~

8. **In effort to reduce light pollution, ~~R~~require that all new or modified outdoor lighting comply with International Dark-Sky Association, or other recognized comparable association.**

5.8 INTERMUNICIPAL OPPORTUNITIES

5.8.1 Existing Conditions

The City of Canandaigua has explored and taken advantage of many opportunities to partner with nearby communities and organizations. In some situations, this has been to address issues that do not recognize municipal boundaries like traffic or watersheds. One shining success of this was the formation of the Canandaigua Lake Watershed Council in which thirteen municipalities jointly plan for the protection of this regional water body. In other circumstances services can be provided at greater efficiencies when they are shared. As an example, the City of Canandaigua and the Town of Canandaigua work cooperatively through a joint parks and recreational committee.

5.8.2 Goal

Identify and maximize opportunities ~~to~~ that build positive and effective relationships ~~and~~ to promote increased efficiencies, and provide a greater level of service for residents through shared revenues and resources, and sources of funding through multi-jurisdictional cooperation

5.8.3 Recommendations

1. Explore state funding for intermunicipal cooperation and shared services.

2. Encourage regional planning for issues that span municipal boundaries:

- Transportation
- Economic Development
- Marketing and Tourism
- Watershed protection
- Open space
- Land use planning
- ~~Hydrofracking issues (e.g., traffic, water, wastewater)~~
- Electricity provision
- Housing

3. Explore opportunities to share resources and revenues:

- Parks and Recreation
- Code Enforcement
- Police Protection
- Fire Protection
- Emergency Preparedness
- Utilities: water, sewer, electricity, telecommunication
- Bulk waste and transfer facility

4. Explore Creation of a regional fire service

City of Canandaigua Comprehensive Plan

FOCUS AREAS

Not to scale

City of Canandaigua
Office of Development & Planning
Richard E. Brown, AICP Director

6. FOCUS AREAS

City of Canandaigua Comprehensive Plan

DOWNTOWN

Not to scale

City of Canandaigua
Office of Development & Planning
Richard E. Brown, AICP Director

6.1 DOWNTOWN

6.1.1 Existing Conditions

From its earliest development in the late 1780's, downtown Canandaigua has been the commercial and civic center of a much larger community.

Historic images show the streetscape design largely as it is today: three story storefronts built along wide sidewalks. Features introduced with the reconstruction of Main Street in the 1970s include the creation of a second moving lane in each direction and parallel parking instead of diagonal parking. Street trees were also introduced at this point. Also, during this period Urban Renewal initiatives created public lots behind the Main Street storefronts. These lots currently provide 500 parking spaces. Another 100 spaces are provided in parallel parking on Main Street.

The Canandaigua Business Improvement District (or BID) was formed in 1992 to support and enhance the downtown district, which matches the boundaries shown on the preceding map. The BID was formed in accordance with New York State Law, thereby creating a special taxation jurisdiction to help fund the organization. The primary functions include promotions, marketing, and recruitment, as well as ensuring the maintenance and safety of public areas downtown. The BID is led by a full-time Downtown Manager and a board of directors made up of property owners, merchants, and representative from City government.

There are approximately 80 storefronts Downtown; about seven of these turn over every year, and a similar number remain vacant at any given time. This vacancy and turnover rate is not uncommon for similar traditional downtown districts.

Downtown consists of approximately 500,000 square feet of commercial space, with an average size of ~~3,000~~ 2,000 square feet. About half of the uses are owner-occupied, while half rent space.

The majority of businesses are small, "homegrown" businesses. These businesses are unique and individualistic. This creates an eclectic character and identity for the Downtown business district, unlike what is found in malls or plazas.

~~In 2005, the city enlisted a consultant to complete a study of the municipal lots downtown. This study made numerous recommendations regarding lot configuration, parking duration, signage, and landscaping. These recommendations are being implemented as funds allow. In 2008, the Mill Street Lot was renovated and the Farmers' Market pavilion was added. In 2012, the Antis Street Lot was reconstructed.~~

Pedestrian safety was studied extensively Downtown and many improvements have been made to manage the speed of traffic and improve pedestrian crossings. ~~from 2003-2008. Crosswalk improvements were installed in 2005 and in 2009, Main Street was restriped to narrow the moving lanes and create a lane between the moving lane and on street parking. This lane is only 4 feet wide, one foot less than what is required for official bike lane designation. Mid-block pedestrian crossing is currently available with lighted signals and cautionary signs.~~

Two-hour, parallel parking is available on Main Street, with free, long-term parking in several municipal lots located behind the Main Street buildings. ~~Street parking is limited in Downtown, though there is currently a mixture of 2-hour and all-day parking available behind Main Street in every lot, except between Chapin and Coy, which only has 2-hour parking.~~

~~In 2012, the Canandaigua City Council approved downtown streetscape improvements in association with a "Green Innovation Grant" that was awarded to the city. This project involves the installation of rain gardens and planting zones to assist in the collection and treatment of storm water runoff in this area along with beautifying the business improvement district.~~

6.1.2 Goal

Invigorate downtown's role as a cultural, economic and social center of the greater community and promote downtown as a safe, inviting and vital area for community activity.

6.1.3 Recommendations

1. **Continue to provide a mix of specialty retail uses and convenience services Downtown.**
   Downtown cannot and should not attempt to compete with regional malls and large retail suburban development. Downtown should continue to seek a niche market in providing unique specialty products as well as providing convenience goods and services to the surrounding working and residential population**.** Recruit franchises that fit the character of the community.

2. **Support 'buy local' and 'farm to table' initiatives**
   a. Support the local agriculture community through continued support of the downtown farmers market, as well as the use of local produce at downtown restaurants
   b. Supporting downtown businesses carrying local producers and artisan wares
   c. Encourage artisan spaces

3. **Permit offices only on upper floors and side streets in downtown.**
   Mixes of retail, service, and office uses are desired downtown. Current zoning does not permit offices on the first floor of downtown structures; therefore, the mix of uses must be "vertical", with offices limited to the upper floors. There are a number of pre-existing, non-conforming office uses on the first floor of downtown structures. These uses have been "grandfathered" from previous zoning. The current mix of commercial uses is appropriate. Additional first floor office space would have a negative impact on existing retail trade by reducing the "critical mass" that makes downtown a shopping destination.

4. **Encourage more restaurants and gathering places downtown.**
   Downtown should focus on being a social center for the greater Canandaigua area, providing services, restaurants, and cultural attractions. Outdoor dining should be encouraged.

5. **Preserve and encourage institutional uses within the City Center**
   Downtown should serve as the center for civic activity, this includes Institutional, cultural, and County and City administrative functions, social, fraternal, and civic organizations.

6. **Redevelop quality upper floors of downtown structures.**
   a. Continue to provide incentives to rehabilitate downtown structures to provide access to upper floors.
   b. Encourage high-tech and telecommunication offices.
   c. Downtown does have access to high-speed Internet connections that are not available in outlying areas. These types of businesses, less dependent on location, might find Canandaigua attractive for the high quality of life.
   d. –Develop an incentive program to encourage relocation and support start-up businesses
   e. Promote the construction and use of shared elevators between adjacent buildings

7. **Improve Downtown Parking**
   a. Improve rear facades and entrances.
   The majority of downtown parking is provided behind the Main Street structures, yet not all businesses are accessible from these rear lots. Many of the rear lots are not well maintained and have become unattractive. Where rear entrances are provided, they are often not well marked. Businesses should be encouraged to develop entrances from the rear lots and improve the appearance of these rear facades.

   b. Improve the signage for downtown parking.
   The need for more downtown parking may be more of a perception than a reality. While there is limited on-street parallel parking on Main Street, there is substantial off-street parking provided in municipal lots, behind downtown structures. However, these lots are not visible for the Main Street traveler. Clear signage should be developed that better identifies this parking.

   c. Provide connections between parking lots.
   The municipal lots on the east side of Main Street are linked by Mill Street that has become largely a travel lane between these lots. However, on the west side of Main Street the lots are not linked, making through-traffic inconvenient. Easements should be acquired where possible to create better interconnections between these lots on the west side.

   d. Allow for increased overnight parking.

   ~~e. Study the need for additional municipal parking downtown~~

   ~~f. Ensure on-Street Parking is kept clear of snow~~

8. **Work with transit providers to provide greater ~~access~~accessibility to downtown for residents.**

9. ~~**Install Traffic Calming Measures**~~
   ~~Crossing Main Street is difficult and outdoor dining is not pleasant. The noise and safety concern created by the speed of traffic on Main Street has a significant adverse impact on the quality of the pedestrian experience Downtown. City officials need to actively work with the NYS Department of Transportation regarding methods of traffic calming.~~

10. ~~**Study the feasibility of diverting heavy truck traffic off Main Street via a truck route or an alternative route.**~~
   ~~Heavy truck traffic is incompatible with the purpose of walkability and outdoor social gathering downtown, and should be discouraged when possible. The City should work with local, regional and state partners to implement alternative routes.~~

11. ~~**Develop a**~~ **Maintain the Distinct Downtown Character**
   Work with the BID and local business owners to encourage collaboration, such as cross promotion, specific store hours, customer service training, branding and signage. ~~Downtown signs and wayfinding should include considerations of color, font, scrollwork, etc. that distinguishes Downtown Canandaigua as a destination.~~

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12. **Bury utilities as a part of street repairs and redevelopment throughout downtown.**

13. **Support wider use of public spaces**
   a. Work with BID, Canandaigua City School District, Finger Lakes Community College and civic organizations to utilize downtown as a prime gathering place

b. Encourage festivals, concerts, and other gatherings that maximize assets like the Farmers Market Pavilion, Commons Park, and underutilized parking lots.

14. ~~Improve~~ Maintain Safety and Security Downtown

a. Increase police presence downtown with a foot or bicycle patrol.

~~b. Install more cameras in high risk areas.~~

~~b.~~15. **Work to create greater cohesion and connection with South Main Street and Eastern Boulevard.**

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City of Canandaigua Comprehensive Plan

SOUTH MAIN STREET

Not to scale

City of Canandaigua
Office of Development & Planning
Richard E. Brown, AICP Director

6.2 SOUTH MAIN STREET

6.2.1 Existing Conditions

"South Main Street" as a study area is defined as the portion of Main Street south of the Downtown district (Antis Street on the west and Saltonstall Street on the east) and extends to the south to NYS Rtes 5 & 20.

Historically, Main Street south of downtown was a residential district similar to North Main Street and while the homes were more modest, a number of notable residences were found here as well. Yet as downtown evolved into the twentieth century, it pushed against its southern boundaries, which ultimately led to a rezoning in the 1960s that permitted commercial construction on South Main Street. The community quickly realized the error in this decision as numerous homes were demolished to make way for simple commercial structures, many set back from the Main Street offering only parking lots to the streetscape. A serious loss to the character of South Main Street occurred with the demolition of the Jasper Parrish Mansion, which made way for a gas station at the corner of Parrish Street. Soon after, the city conducted a historic needs survey and enacted a local Historic Preservation District. Unfortunately, it was too late for South Main Street, which didn't even retain enough character to fall into one of the city's several preservation districts.

~~Over the last twenty years,~~ Canandaigua has done well to preserve its historic homes on and off North Main Street and has done a fair job of preserving its historic downtown. However, the same cannot be said for South Main Street, which unlike the rest of the city does not exhibit a cohesive identity. It is neither Downtown nor Lakefront and due to the rezoning, it is neither residential nor commercial. It is a mix of turn-of the century homes and 1970s commercial boxes, it has structures built to the street line as well as setback, behind parking lots.

Significant changes have occurred to the transportation system that supports this area of the city. These transportation changes have influenced the patterns of development and the viability of different types of uses along South Main Street.

Where once pedestrians and even a trolley traveled down South Main Street between downtown and the working waterfront, today 25,000 vehicles per day (AADT) move through this area on their way to or from Routes 5 & 20. Eastern and Western Boulevards (Routes 5&20) have evolved into major highway arterials with little accommodation for pedestrians. Eastern Boulevard has also been developed as a highway commercial district, generating significant traffic in this area. While the lakefront has transitioned from a working waterfront to a wonderful recreational and tourism amenity, the level of traffic and the physical barrier created by the arterial have effectively separated the lakefront from South Main Street and Downtown for pedestrians.

~~Perceiving growth pressures in the late 1990s the city studied South Main Street extensively from 2000-2002. In 2001 *EDR P.C,* was commissioned to run a design charrette and Saratoga Associates was hired in 2002 to draft the original South Main Street chapter of the 2002 Comprehensive Plan~~.

In 2003, the majority of South Main Street was rezoned to encourage mixed use development while preserving the residential scale. However, since this time, there has been no significant development in the district and the land use pattern remains largely unchanged from that of the 1980s.

6.2.2 Goal

Encourage development of South Main Street as a high-density mixed-use neighborhood that links downtown to the lakefront with an inviting pedestrian environment.

6.2.3 Recommendations

1. Encourage Mixed Use

A wide range of mixed uses should be permitted. Ideally, active uses (retail and services) would occupy the ground floor and would help create an interesting and safe pedestrian environment linking the downtown and the lakefront districts.

Mixed use occurs in the first instance between different buildings and between different areas of the South Main Street Neighborhood. For example, along South Main Street a wide range of uses will be permitted. Behind South Main Street (to the east and west), uses will be limited to high density residential and office. Mixed uses occur in the second instance by allowing and encouraging mixed-uses within buildings (vertical integration of uses). For example, along South Main Street retail and service uses (active uses) will be encouraged on the ground floor of buildings and additional uses (residential and office) encouraged on the second and third floors.

Walkable connection is desired between Downtown and Lakeshore; as such, pedestrian improvements should be a priority. Drive-throughs should not be allowed due to negative impact on pedestrian and bike safety.

2. Encourage high-density residential

The South Main Neighborhood district should include a mix of high-density residential units that cater to persons and households who desire to live in close proximity to the activities of Downtown and the ~~Lakefront~~ Lakeshore. Lake views, small boating canals to the lake at the rear of this neighborhood, walkable streets, and neighborhood commercial services and activity will enhance the marketability of this new residential real estate product.

- Review current zoning requirements to allow for denser lots.

3. Develop a streetscape and architectural style, to unify the Downtown and ~~Lakefront~~ Lakeshore districts

In the South Main Street Neighborhood, building placement and design will reinforce the notion of a walkable community. Buildings will be located close to the sidewalk with a consistent build-to line on each block. Closer to downtown, the build-to line will be close to the sidewalk in a more formal arrangement, while toward the south end of the neighborhood the buildings should step back from the street allowing for small front yards, outdoor seating, or landscaped gardens. Commercial activity, especially retail and services at the ground level, will ensure that the streets in this neighborhood feel active, interesting to walk along, for the public.

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Building height and scale should be compatible with the character of the community North of Routes 5 & 20. Developers requiring larger floor areas should be strongly encouraged to expand upward through the construction of a second or third story where upward expansion meets needs. All new construction should incorporate architectural design elements to improve character and break up long wall expanses in order to create the impression of a series of smaller buildings. Such buildings should have one or more primary entrances as well as windows on the front (street-facing) side of the structure. All new development should draw on the historic character of the community.

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Large footprint retailers ("big boxes") are not appropriate for this neighborhood (most would not select this area anyway due to inadequate land area). Medium-size footprint buildings exceeding South Main Street scale may be considered South of Parrish and Green Streets. However, wetlands south of Green Street will likely limit the size of building footprints in this area.

Residential structures currently existing South of Antis Street and North of Parrish and Green Streets should be encouraged to be used for residential, office, and small business purposes. Commercial single purpose buildings that currently exist should be given some modest zoning incentives to re-develop those parcels in an architecturally enhanced manner.

Off-street parking requirements for individual uses in the South Main Street Neighborhood should be reduced. Emphasis should be on shared parking arrangements.

Multiple-story buildings with commercial uses on the ground floor and commercial, residential, and/or office uses on the upper floors should be strongly encouraged for all new development. Developers should be encouraged to design any new single-story buildings to create the appearance of a multi-story building.

4. Leverage the Active Transportation Plan to **Improve the pedestrian environment at the Eastern Boulevard intersection.**
Work with the NYSDOT to rebuild the intersection of Eastern Boulevard (Rtes 5 & 20) with South Main Street. This intersection creates a physical barrier between the ~~Lakefront~~ Lakeshore and the South Main Street and Downtown areas.

In the 1950s, an overly wide right-of-way was acquired for a potential overpass and several homes to the north and south of Eastern Boulevard were demolished. This void now adds to the divide between Downtown and the ~~Lakefront~~ Lakeshore.

In 2008, the NYSDOT made improvements to the pedestrian crossings at this intersection and planted trees in the open space of the northwest corner. However, further improvements are needed.

~~**5. Consolidate MU-1, MU-2, MU-3 into a single mixed-use zoning district and review existing zoning standards, including eliminating major commercial development (i.e. Big Box Retail) as a permitted use.**~~

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City of Canandaigua Comprehensive Plan

LAKESHORE

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City of Canandaigua Comprehensive Plan

EASTERN BOULEVARD

Not to scale

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6.3 LAKESHORE

6.3.1 Existing Conditions

"Lakeshore" as a study area is defined as the properties along Lakeshore Drive from the intersection of South Main Street to East Lake Road (County Road 364). The ~~Lakefront~~ Lakeshore district extends approximately half the length north along both Booth Street and Muar Street towards NYS Rtes 5 & 20. This District includes more than 175 acres including 50 acres of public parks.

Currently the zoning of this sub-area is Commercial Lakefront (C-L), Parks and Recreation (P-R) ~~and Planned Unit Development (PUD),~~ some portions are zoned for Heavy Commercial (C-3).

While agriculture was the first industry of the ~~Lakefront~~ Lakeshore tourism followed closely behind. Much of the Canandaigua Lake watershed wasn't settled until the early 1800s and by 1880, 80% of the watershed had been cleared for farming. In 1827, steamboats began carrying crops from the southern port at Woodville. Rail and trolley lines extended to this working lakefront to gather the produce. In 1847, these lines were extended over the lake itself with the completion of the City Pier.

Wealthy families built summer homes on the lake and by 1900, there were several hotels, restaurants, and summer camps for children dotting the lakeshore. Kershaw Park was built between 1920 and 1936 to not only accommodate residents but also attract tourists. By this time, the steamboats on Canandaigua Lake carried less produce and more sightseers.

Roseland Park, an amusement park, opened in 1925 and over its sixty-year history, shaped much of the Lakeshore area. Roseland Park closed in 1985. The property was sold to *Rosewil Associates*, a development corporation of Wilmorite. In 1989, the City of Canandaigua approved a redevelopment plan called "Rosepark", a 110-acre, mixed-use Planned Unit Development (P.U.D.). ~~The Rosepark plan includes a number of activity centers that have been built more or less according to plan over the last decade.~~ This project includes two townhouse developments, Wegmans and the US Post Office, Lagoon Park, and the recently completed Hotel Canandaigua.

~~Lagoon Park was completed in 2005 and the remaining un-built component of this P.U.D. is the hotel to be associated with the Steamboat Landing. In 2010, a Final Site Plan was approved for this project. Construction began in 2013, and is anticipated to be complete in 2020.~~

~~In 2007, the New York Kitchen (formerly known as New York Wine & Culinary Center) was opened at the intersection of South Main Street and Lakeshore Drive. This facility serves as a gateway for agritourism throughout New York State, providing culinary courses, a wine tasting room, and a restaurant that features locally sourced ingredients.~~

In 2013, the City Council approved a Planned Unit Development project known as Pinnacle North. This 34-acre, mixed-use project included most of the property between Booth Street and Muar Street and between Lakeshore Drive and Eastern Boulevard. ~~The mixed-use plan proposes 450 dwelling units and 75,000 square feet of new commercial space.~~ The first phase of this project has been completed with 135 dwellings and 30,000 square feet of commercial space. However, the second phase of the project stalled and there are no clear plans for the remainder of this land.

There are two, newly completed hotels on the Lakeshore. The reconstructed and rebranded "Lake House on Canandaigua" opened in 2020 and in 2023, the "Hotel Canandaigua" was opened.

~~In 2018, 2020 the Canandaigua Inn on the Lake began remodeling efforts changing from a single hotel and conference space into a resort facility, now called "the Lake House on Canandaigua" with…~~

6.3.2 Goal

Promote the Lakeshore as a ~~balanced,~~ mixed-use area focusing on year-round public access to Canandaigua Lake with a streetscape design that is pedestrian friendly, has open areas with courtyards, patios and alleyways.

6.3.3 Recommendations

~~**1. Monitor the completion of Canandaigua Finger Lakes Resort.**~~

2. Support the implementation of the Pinnacle North Development, and consider integrating Parkway Plaza, Canandaigua Commons (commonly known as the Old Wegmans), and the south side of Eastern Blvd to Wegmans, into the Lakeshore-district.

a. Encourage a fine blending of mixed uses that are open to the public. Restaurants, shopping, hotels and other tourist and culturally-related development should be located within close walking distance of one another to create a lively, synergistic combination of activities. One use should not dominate.

b. Allow some retail-type offices typically used by the public ~~(such as real estate offices)~~ on Lakeshore Drive.

c. The height of multi-story buildings should not exceed four (4) stories nor overwhelm the Lakeshore district.

d. Parking should be developed in association with the addition of new commercial development so that small lakefront properties can be maximized, and curb cuts will be minimized. Parking should be located behind or within buildings. Other parking options should be encouraged such as shared parking, off-site parking with seasonal shuttle service, and municipal parking.

3. Evaluate the three-way intersection of South Main Street, Lake Shore Drive and the City Pier to accommodate increased development and pedestrian access.

4. Expand year-round cultural, recreational, and social activities in the Lakeshore district.

~~**5. Evaluate a pedestrian walkway connecting Lakeshore Drive to Eastern Blvd. along the Canandaigua Feeder Canal & Canandaigua Commons with retail and restaurants facing the walkway.**~~

6. Ensure public spaces and accessibility throughout the district.

~~**7. Recognize the local historical importance of Roseland Amusement Park**~~

~~**8. Encourage greater connection from Lakeshore District with FLCC**~~

9. Greater utilization of the City Pier as a unique asset of our community.

~~**10. Develop pedestrian bridge from Holiday Harbor to State Marine Launch**~~

6.4 EASTERN BOULEVARD

6.4.1 Existing Conditions

The "Eastern Boulevard" study area consists of about 25 properties located along one mile of Eastern Boulevard bounded by South Main Street on the west and the city-town boundary to the east.

The Eastern Boulevard roadway was constructed in the 1950's, and diverted NYS Routes 5 & 20 from Lakeshore Drive to this arterial thoroughfare. Prior to this construction, the area was marshlands and included the city landfill. The construction used soil from adjacent property to raise the elevation for the roadway, thereby creating the adjacent Muar Lake. New York State wetlands are identified at the northeast corner of Eastern Boulevard and South Main Street.

Since its inception, Eastern Boulevard has functioned as a commercial corridor, providing a location for auto-oriented commerce, distinct from the historic, pedestrian-oriented downtown. Currently, Eastern Boulevard includes about 500,000 square feet of retail space including Parkway Plaza, Wegmans Food Market and the Canandaigua Town Centre (tenants include PetCo, ~~Bed Bath & Beyond, and~~ Michaels, and Goodwill). The district also includes nine restaurants, many with drive-through service. In 1992, the U.S. Post Office relocated from its downtown location to Eastern Boulevard.

In 2000, Roseland Water Park opened as a 56-acre outdoor water adventure park with wave pool, water slides, and other attractions. In 2016, the Roseland Wake Park was added to the adjacent Muar Lake with cable driven water skiing and wakeboarding.

6.4.2 Goal

Eastern Boulevard should continue to provide a location for auto-oriented commerce that would be less appropriate in the historic districts of the city. However, the City should allow higher-density residential along with increased provisions for multi-model use. Efforts should be made to improve the overall appearance of the district, especially within the street right-of way.

6.4.3 Recommendations

1. **Engage NYS DOT and support from state representatives to redevelop the Eastern Boulevard right-of-way (Rte 5 & 20). Improvements should include**:
   - A "Road Diet" and returning any unused right-of-way to private ownership or public use
   - Improved pedestrian and bicycle facilities
   - Improved pedestrian crossings at Main Street, Booth Street, Muar Street, and Wegmans
   - Improved landscaping and lighting

2. **Work toward creating a form based code for Eastern Blvd ~~Continue to apply Architectural Review and Site Plan Review for~~ to ensure new construction and alterations to existing structures ~~to ensure~~are attractive and compatible construction, as well as a more traditional look:**
   - Ground signs as opposed to pole signs
   - Extensive landscaping to minimize view of parking areas

3. **Review lighting standards.**

4. **Encourage a mix of uses, in a traditional urban form, including permitting high-density residential.**

City of Canandaigua Comprehensive Plan

NORTHEAST QUADRANT

Not to scale

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Office of Development & Planning
Richard E. Brown, AICP Director

6.5 NORTHEAST QUADRANT

6.5.1 Existing Conditions

The area referred to as the "Northeast Quadrant" consists of approximately 240 acres, mostly north of Chapel Street and east of Moore Street. About half of the land in this area remains undeveloped. It includes ~~one active subdivision and~~ two ~~mapped, but~~ un-built subdivisions. It also includes the Northeast Park and the former VA Golf Course. There is a large, protected wetland central to the district.

	Acreage
Developed residential land	80
Northeast Park	40
"Covington Place" Subdivision (58 lots)	30
"Grand Meadows East" Subdivision (66 lots: un-built)	20
"Parkwood" Subdivision (20 lots: un-built)	10
VA Golf Course	40
Wetlands	20
TOTAL	**240**

Developed residential land includes single-family homes on Seneca Drive, Canandaigua Avenue, Chapel Street, East Street, and Tamarack Drive, as well as attached single-family dwellings on Stewart Place. The "Covington Place" subdivision ~~was~~ approved in 2005, is now complete ~~To date, 53 lots have been developed along Kennedy Street and Spencer Lane. Saxton Lane and Sibley Court have not yet been built, nor has the connection between Kennedy Street and Stewart Place. The subdivision also includes some wetlands and is slated to have a pedestrian trail leading to the Northeast Park.~~

The "Grand Meadows East" subdivision was approved in 2005 and was to consist of attached, single-family dwellings. Construction was never initiated.

The "Parkwood" subdivision was approved in the late 1980s but was never built. Provisions were made in the approval of the "Covington Place" subdivision to allow connection between these two projects.

During the planning in 2003-2005 efforts were made to establish interconnected streets between subdivisions in an effort to create a more traditional street network, improve traffic patterns, and provide access to Chapel Street as well as North Road. Currently, Stewart Place and the Covington Place subdivision is accessed primarily from Main Street via Cribb Street.

The Canandaigua VA Medical Center operated a private golf course on 40 acres west of East Street until the early 1990s. The federal government retains this land and as such, it is not subject to local zoning or plan review.

6.5.2 Goal

Complete this area as a medium-density residential district with the characteristics of a traditional Canandaigua neighborhood.

6.5.3 Recommendations

1. **Support development with residential lot sizes of 5,000 to 10,000 square feet to allow higher density residential.**

2. **Allow alternative residential development patterns such as:**
   - attached, single-family homes
   - patio homes
   - zero-lot line development
   - duplex, triplex, and multiplex,
   - ~~small, neighborhood oriented businesses~~

3. ~~3.~~ **Build traditional streetscapes with narrow roadways with curbs, street trees, sidewalks, and homes built close to the road, ~~as well as small, neighborhood oriented businesses~~.**

4. **Create a network of interconnected streets and pathways.**

5. **Provide pedestrian linkages to the Northeast Park and through to neighboring schools.**

6. **Explore the possibility of developing the wetland area as a regional stormwater retention area and natural park space.**

7. ~~**Actively work to acquire the former golf course from the VA**~~
   Work with the VA to find a compatible use for the former VA Golf Course.

City of Canandaigua Comprehensive Plan

SOUTHEAST QUADRANT

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Office of Development & Planning
Richard E. Brown, AICP Director

6.6 SOUTHEAST QUADRANT

6.6.1 Existing Conditions

The area referred to as the "Southeast Quadrant" consists of approximately 230 acres, mostly south of Ontario Street, north of Saltonstall Street, and east of Jefferson Avenue. This area includes a mix of high-density housing and older industrial properties, as well as Jefferson Memorial Park.

Over 200 dwelling units are contained on three properties near the intersection of Saltonstall Street and Jefferson Avenue between the Lakeside Village Apartments, Barrington Townhomes, and the Canandaigua Mobile Home Park.

Central to the district are three large, vacant properties that comprise more than 75 acres, although the easternmost of this is hindered by wetlands and the flood plain of the Canandaigua Lake Outlet. These properties are zoned for heavy industrial and manufacturing operations.

6.6.2 Goal

Develop this area as a ~~mixed-use~~neighborhood district with a blend of high-density residential properties adjacent to Jefferson Park and natural open and recreational spaces.

6.6.3 Recommendations

1. **Rezone the area to allow for and ~~D~~development vacant property adjacent to Jefferson Memorial Park as a residential district where appropriate**

2. **Allow alternative residential development patterns such as:**
   - attached, single-family homes
   - patio homes
   - zero-lot line development
   - duplex, triplex, and multiplex,
   - ~~small, neighborhood oriented businesses~~

3. **Explore the possibility of developing the wetland area as a regional stormwater retention area and natural park space**

4. **Leverage the Feeder Canal and Outlet as an asset to promote the water trail**

5. **Develop interconnected streetscapes with narrow roadways with curbs, street trees, sidewalks, throughout the district to promote use of underdeveloped property, ~~for example:~~**
   a. **~~"East Street Extension" from Ontario St to Eastern Blvd~~**
   b. **~~"Oliver Street" from Ontario St to Saltonstall St~~**
   c. **~~Niagara St or Tillitson Street~~.**

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City of Canandaigua Comprehensive Plan

HEALTH CARE DISTRICT

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City of Canandaigua
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6.7 HEALTH CARE DISTRICT

6.7.1 Existing Conditions

The "Health Care District" is primarily centered around FF. Thompson Hospital, a part of the University of Rochester Medicine, along with several diagnostics, primary care, physical therapy, mental therapy, dental, eye, hearing, and other medical and wellness specialties connected with Thompson or in private practice. There is also a 24-hour continuing care center, and private group living home in close proximity. The area is bordered by multiple apartments, townhomes, and single-family residences, which cater to health related staff, as well as the wider community.

6.7.2 Goal

Continue to develop the area as a more unified healthcare campus

6.7.3 Recommendations

1. **Consolidate properties and driveways to improve vehicular and pedestrian safety**
   - Create shared access roads off Parrish.
   - Lots fronting on Parrish with parking and access to buildings from rear.
   - Reduce setback requirements for buildings onto Parrish Street.
   - ~~Allow high-density residential usage to create opportunities for shared parking.~~

2. **Develop a more uniform design for landscaping, signage and architectural character**

~~**3. Permit multi-family residential.**~~

Permit workforce housing and~~some limited,~~ commercial uses that support the needs of health-care workers, patients, and patients' families.

~~**4. Improve traffic control of the Parrish Street, Pearl Street, West Lake Drive intersections**~~

~~**5. Support the "Middle Cheshire Road and Health Care Corridor Active Transportation Plan" sponsored by the Town of Canandaigua**~~