

# City of Burlington Fire Master Plan

Burlington Fire Department

June 9, 2022

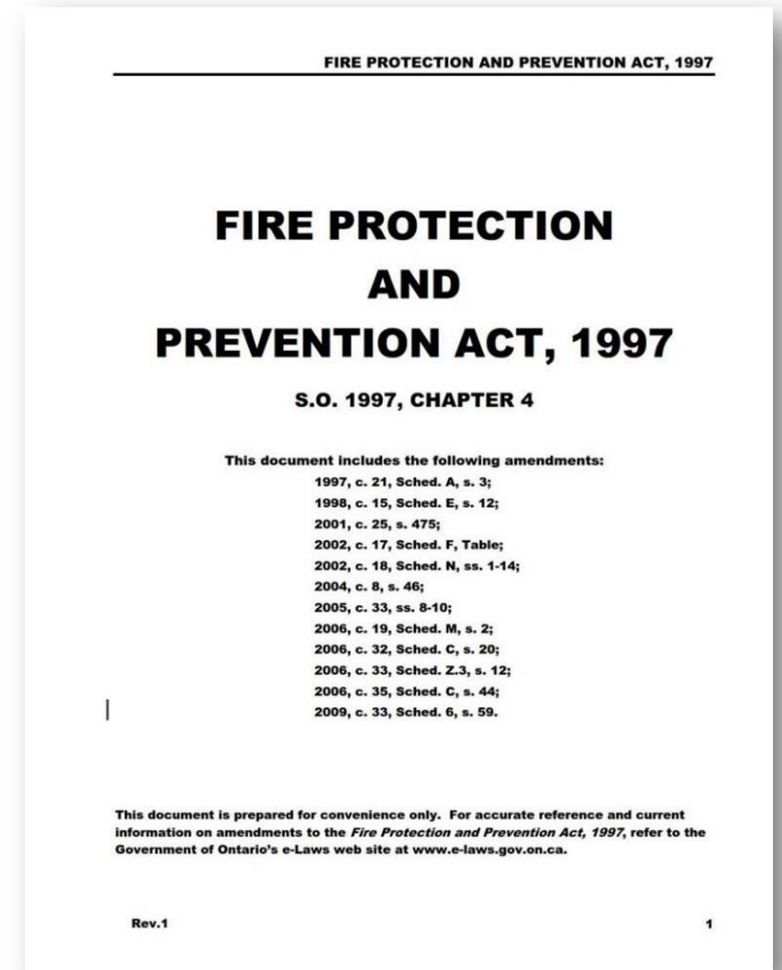


# Agenda

1. Guiding Legislation, Standards and Industry Best Practices
2. Fire Master Planning Process
3. Strategic Priorities for the Burlington Fire Department
4. Goals, Targets and Recommended Actions

# Guiding Legislation, Standards and Industry Best Practices

- Fire Protection and Prevention Act
- Ontario Health and Safety Act
- National Fire Protection Association



# New Legislation – Ontario Regulation 378/18: Community Risk Assessments

- **Ontario Regulation 378/18 (O.Reg. 378/18)** requires every municipality in Ontario to develop a **Community Risk Assessment (C.R.A.)**.
- **O.Reg. 378/18** requires municipalities to use the C.R.A. to inform decisions about the provision of fire protection services
- Came into effect on **July 1, 2019**, municipalities have until **July 1, 2024** to complete a C.R.A.
- Application of O.F.M.E.M. **Technical Guideline** T.G.-02-2019



# Ontario Fire Protection Model: Three Lines of Defence

1

## Public Education and Prevention

- Smoke alarm program, learn not to burn education, home escape planning;
- Identified vulnerable groups such as seniors and children



2

## Fire Safety Standards and Enforcement

- Fire inspection program and regular inspection cycles based on type of occupancy;
- Licensing, and violation enforcement including prosecution



3

## Emergency Response

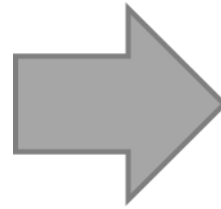
- Ontario Fire Marshal's Office guidance notes; National Fire Protection Association Standards (N.F.P.A.); Ministry of Labour (Section 21 Guidance Notes); Industry best practices



# Fire Master Planning Process

## COMMUNITY RISK ASSESSMENT

- Analyses of 9 mandatory risk profiles
- Identification of Risk Outcomes



## FIRE MASTER PLAN

- 10-Year Strategic Planning Document for the delivery of all fire protection services
- Identify proposed service levels for:
  - Fire Prevention/Public Education
  - Fire Suppression
  - Provide recommendations for Council's consideration/approval

# Strategic Priorities

- I. The City of Burlington is committed to utilizing community fire risk analysis to inform all decisions associated with the delivery of fire protection services.
- II. The BFD will continue to prioritize the optimization of the first two lines of defense, including public education and fire prevention, and the utilization of fire safety standards and fire code enforcement as the foundation of providing a comprehensive fire protection program within the City of Burlington.
- III. The City of Burlington will continue to prioritize strategies that support the sustainability of a 'composite fire department' and the delivery of fire protection services that provide the most effective and efficient level of services resulting in the best value for the community.
- IV. The City of Burlington will continue to prioritize the fire protection needs to meet the planned growth and intensification needs of the City.

# GOAL #1

## Administration

**BFD continues to provide the leadership structure, leadership capabilities, and applicable documentation and systems while meeting the needs of a growing and evolving City.**

### TARGET:

- A. Enhance the existing organizational structure, including additional staff resources within the fire management team to support community growth and expanding workloads.
  - Monitor staffing needs and recommend any changes for approval
  - Conduct a workload analysis for all Divisions to understand current and future needs
  - Review and update the existing Mission and Vision
  - Conduct a comprehensive volunteer firefighter review
- B. Maintain up-to-date documentation and procedures for all by-laws, agreements, Standard Operating Policies (SOP), Standard Operating Guidelines (SOG), and job descriptions.
  - Review and update the existing career path guide
  - Bring forward by-law appointing the Deputy Fire Chiefs for approval
  - Review and update the Establishing and Regulating By-law for approval
  - Review and update the tiered response and other partnering agreements
  - Develop a records management policy



## GOAL #2

### Fire Prevention

The BFD will enhance its fire prevention and public education programs based on the outcomes of a Community Risk Assessment and its Community Risk Reduction Strategies. Consideration should be given to increase resources to the division as the community grows, in support of optimizing the first two lines of defence.

#### TARGET:

- A. Review and update the fire prevention and public education programs and policies in alignment with the community risks reduction strategies and the guidance provided in NFPA 1730.
- Review and update the current inspection cycles based on a building/risk profile vs. an occupancy/building type for approval
  - Review and update existing policies and establish new fire prevention policies for approval.



**Alarm Assistance  
Program**

## GOAL #3 Training

**BFD will maintain a training program that supports all functions of the organization and at the appropriate levels based on the services provided as defined in the Establishing and Regulating By-law.**

### TARGET:

- A. Follow industry best practices regarding training for all department staff and rank structure.
  - Develop a policy referencing professional standards and training, aligned with Establishing and Regulating By-law services levels
  - Develop a five-year training program for achieving and maintaining training targets for full-time and volunteer firefighters
- B. Ensure that there are appropriate training facilities and equipment available to support the defined training needs.
  - Further investigate participating in a regional training centre or the replacement/relocation of the existing facility



## **GOAL #4**

### **Operations**

### **(Fire Suppression)**

**BFD will provide emergency response services in alignment with its local needs and circumstances as confirmed through a Community Risk Assessment and with consideration to health and safety, industry best practices, future growth, and the services that provide the most effective and efficient level of services resulting in the best value for the community.**

#### **TARGET:**

- A. Strive for continuous improvement through monitoring emergency response performance as compared to applicable industry best practice and with consideration to the risk of Group C – Residential occupancies.
- Establish fire suppression performance targets and report to Council:
    - Defined urban area based on NFPA 1710
    - Defined rural area based on NFPA 1720
  - Monitor, update and implement the recommendations of this Fire Master Plan as additional City planning and projects unfold
  - Identify and implement strategies to improve the department's dispatch time and turnout time
  - Ensure automatic aid agreement in place with the neighbouring municipalities reflect the changes proposed in this FMP

## GOAL #4

### Operations (Fire Suppression)

**BFD will provide emergency response services in alignment with its local needs and circumstances as confirmed through a Community Risk Assessment and with consideration to health and safety, industry best practices, future growth, and the services that provide the most effective and efficient level of services resulting in the best value for the community.**

#### TARGET:

- B. Move towards the fire suppression staff resources that reflect the needs and circumstances of the community
- Establish a long-term hiring strategy in alignment with community and station growth, E&R By-law, and performance targets. Increased resource needs to be approved by Council
    - Hiring 8 firefighters to increase the existing total career suppression complement from 172 to 180 firefighters
    - Hiring 8 firefighters to increase the on-duty staffing on the Rescue vehicle in Station 1 from two to four firefighters
    - Hiring 20 firefighters in advance of opening the proposed new Station 9 in downtown Burlington
  - That the BFD investigate increased fire protection in sub-districts currently classified as “unprotected” by the Fire Underwriters’ Survey

## GOAL #4

### Operations (Fire Suppression)

**BFD will provide emergency response services in alignment with its local needs and circumstances as confirmed through a Community Risk Assessment and with consideration to health and safety, industry best practices, future growth, and the services that provide the most effective and efficient level of services resulting in the best value for the community.**

#### TARGET:

- C. Plan for required station replacements and prepare for growth by planning for the need for increased fire suppression resources
- Monitor the timing of growth and develop and implement plans to respond to forecast growth:
    - Identify and potentially acquire a site for the reconstruction or relocation of Station 3 in the vicinity of Waterdown Rd/Plains Rd
    - Identify and acquire a site for the construction of a new downtown Station 9
    - Annually monitor the implementation and recommendations of this FMP, with consideration to the nature of the growth and update the FMP every five years
    - Plan for the longer-term relocation of Station 4 and for a new Station 10 by identifying and acquiring potential sites
    - Monitor growth and development in North Aldershot for the need to add additional resources. Adding a Rescue vehicle to Station 3 would require 12 additional firefighters.

# Predicted Future Emergency Response Deployment Capabilities

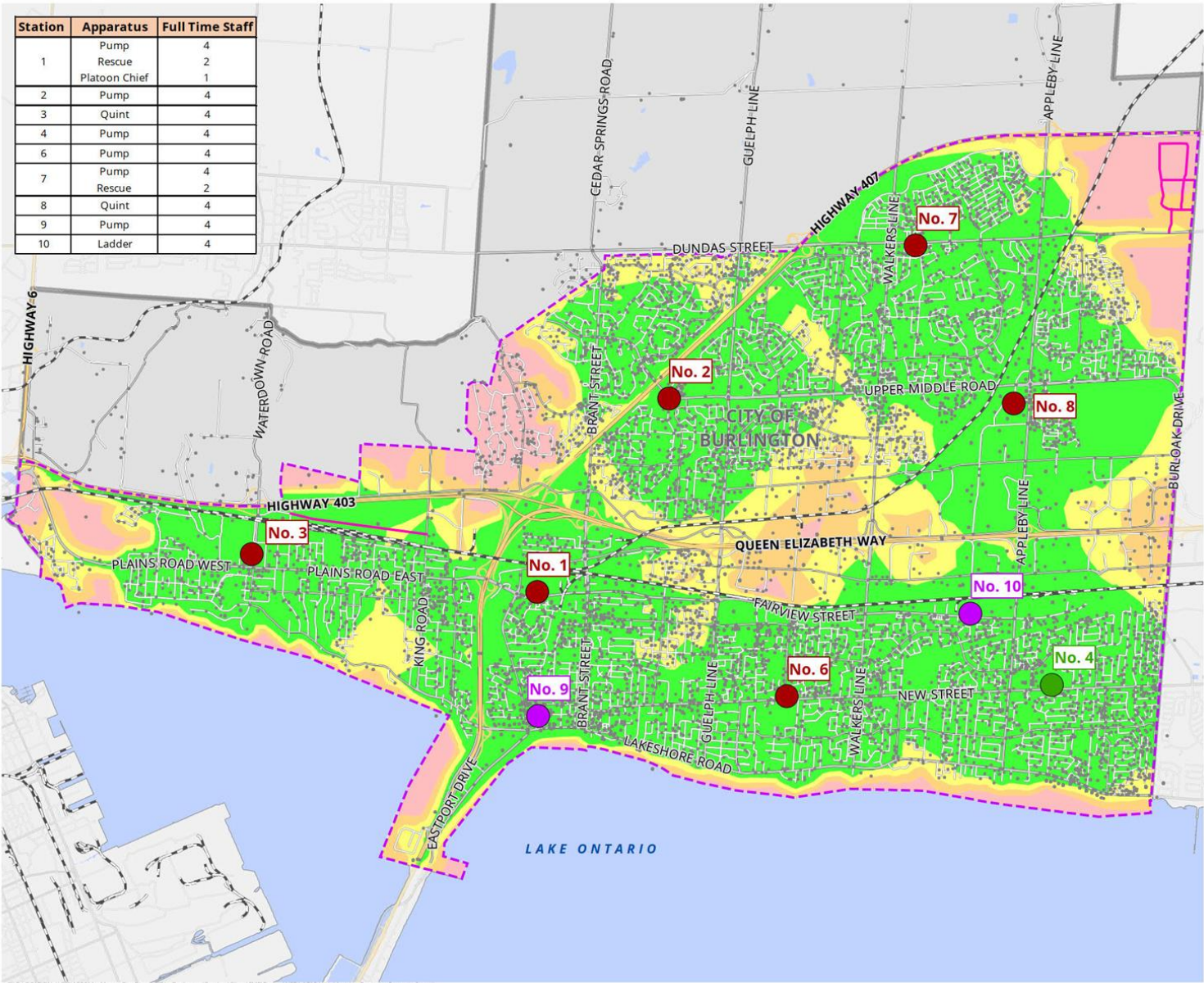
EMERGENCY RESPONSE DEPLOYMENT MODEL	DEFINED URBAN AREA Initial Arriving Company <sup>1</sup> (Min. 4 Firefighters Arriving On-scene in 4 min. or less 90% of the time)	DEFINED URBAN AREA Single Family Dwelling- Initial Full Alarm Assignment <sup>1</sup> (min. 16 Firefighters Arriving On-scene in 8 min. or less 90% of the time)	DEFINED URBAN AREA Initial Full Alarm Assignment (Higher Risk Occupancy) <sup>1</sup> (min. 25 Firefighters Arriving On-Scene in 8 min. or less 90% of the time)	DEFINED RURAL AREA Rural Demand Zone <sup>2</sup> (min. 6 Firefighters Arriving On-scene in 14 min. or less 80% of the time)
	% Urban Calls Covered	% Urban Calls Covered	% Urban Calls Covered	% Rural Calls Covered
Existing Capabilities	69%	17%	1%	53%
Proposed Station 9, Increase Station 1 Staffing	77%	50%	4%	53%
Proposed Station 9, Relocate Station 4, Proposed Station 10, Increase Station 1 Staffing	84%	53%	6%	53%

1. NFPA 1710 Standard for Organization and Deployment of Fire Suppression Operations by Career Fire Departments .

2. NFPA 1720 “Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments



# Recommended Long Term Plan



## CITY OF BURLINGTON

**SCENARIO 6**  
**(RELOCATED STATION 4, PROPOSED STATION 9, PROPOSED STATION 10)**  
**INITIAL ARRIVING COMPANY CAPABILITIES (NFPA 1710)**

- Existing Fire Station
- Proposed Fire Station
- Relocated Fire Station
- Fire and Medical Incident (2016-2020)
- Bridge Restriction
- Railway
- Urban Area
- Future Road

**Travel Time**

- ≤ 4 Minutes at Network Speed
- ≤ 5 Minutes at Network Speed
- ≤ 6 Minutes at Network Speed
- > 6 Minutes at Network Speed

Travel Time (Minutes)	Urban Area Covered	Urban Calls Covered
<=4	67%	84%
<=5	85%	96%
<=6	93%	99%
>6	7%	1%

0 0.5 1 2 km

MAP DRAWING INFORMATION:  
BASE DATA PROVIDED BY MNRF, CITY OF BURLINGTON

MAP CREATED BY: GM  
MAP CHECKED BY: AN  
MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT: 199811  
STATUS: DRAFT  
DATE: 2021-09-27



## GOAL #5 Maintenance

The BFD will provide a maintenance program for apparatus, equipment and facilities that ensures the appropriate quantity, quality, and reliable condition to meet the needs of the community and the operations of the fire department.

### TARGET:

Ongoing initiatives, including the Career Paths program, and plans to implement identified software solutions for enhanced vehicle maintenance record keeping and inventory control for all fleet, equipment and facilities, will serve the department well as part of continuous improvement.





## GOAL #6

# Municipal Emergency Planning

**City of Burlington provides municipal emergency planning services with consideration to its legislative requirements, industry best practices, and future growth.**

### TARGET:

- A. Maintain legislative compliance while preparing for future growth and proactively preparing for potential future emergencies.
- Complete a review of the Business Continuity and Emergency Planning Coordinator's role within the corporation to assess alignment with city-wide emergency planning program.



## GOAL #7 Communications

**BFD provides public safety communications services that continues to meet the need of a growing municipality and for its municipal clients.**

### TARGET:

- A. Improve BFD call answering and call processing times to meet the guidelines of applicable NFPA standards and proposed performance targets, with the ultimate target of reducing overall total response time.
  - Monitor and strive for continuous improvement in alarm handling performance and compliance with NFPA 1221.

# City of Burlington Fire Master Plan

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