

Master Fire Planning Committee

Minutes

Thursday, February 16, 2017

Station 4 – 427 Merritt Street: Training Room at 4:30 p.m.

Members:

Councillor Sandie Bellows
Councillor Jennifer Stevens
Shelley Chemnitz, Commissioner of Corporate Services
Kristine Douglas, Director of Financial Management Services
Ryan Madill, President St. Catharines Professional Firefighter's Association
Mike Vail, Vice President St. Catharines Professional Firefighter's Association
Fire Chief Dave Wood
Deputy Fire Chief Larry Jones
Deputy Fire Chief Monique Belair
Heather Salter, Interim City Solicitor/ Director Legal & Clerks Services

Absent:

Councillor Bill Phillips
Bryan Shynal, Commissioner of Operations
Maggie Riopelle, Executive Research Assistant

Staff Liaison:

Fire Chief Dave Wood

1. Call meeting to order (Chair) S. Chemnitz

4:38 pm

2. Additions/Deletions to the Agenda

None.

3. Motion to approve the agenda

Motion:

That the Master Fire Planning Committee approve the agenda as presented.

Moved: Chief Wood

Carried.

4. Motion to adopt the minutes of the previous meeting

Motion:

That the Master Fire Planning Committee adopt the minutes of the meeting of February 9, 2017.

Moved: R. Madill

Carried.

5. Business arising from the minutes

None.

6. Declarations of Interest

None.

7. Presentations – Draft Recommendations

Economic Circumstances subcommittee is currently working on applying dollar values to each recommendation.

7.1 Recommendation 17.1 – Suppression Personnel – Deputy Jones

Motion:

That the Master Fire Planning Committee defer Presentation 7.1 to the meeting of February 23, 2017 due to time constraints.

Moved: Chief Wood

Carried.

7.2 Recommendation 19.2 – Training Tower – Deputy Jones

Deputy Jones provided a PowerPoint presentation (Appendix A) outlining the recommendation to perform immediate repairs to the tower to prolong the life expectancy by an additional 2 to 4 years until replacement of the tower can occur. The 2008 Master Fire Plan did not include a recommendation pertaining to the training tower.

Discussion ensued regarding the condition of the tower. The tower has been deemed unsafe for training purposes. Current conditions include sagging floors and stairs and crumbling concrete.

Question was raised regarding the rationale for completing immediate repairs as opposed to replacing or rebuilding the tower. This decision was made as a result of Asset Management prioritization of all City buildings. The short term repairs were requested to allow for the completion of other priorities. Immediate repairs to the training tower will result in savings related to overtime as off-site locations will not be utilized. It would cost approximately \$650,000 annually to complete required training outside the City.

Question was raised regarding training activities while the training tower has been unavailable. Chief Wood noted training previously conducted at the training tower has been relocated to multiple locations including: the Renown Building, GM and other municipalities. Training in other municipalities results in additional costs including overtime for personnel and rental fees for other facilities.

Discussion ensued regarding the potential cost savings and revenue that could be generated from the new training tower. The tower could be used by other Departments for training (i.e. air brake certification). In addition, it could be used as a host site for provincial conferences, generating money for the City and local businesses. The more amenities in the tower (i.e. showers, classrooms), the more revenue which can be generated. Chief Wood noted that this could be a multi-use facility, not just for Fire Services.

Question was raised about the potential to rebuild the training tower at the same location. This may be possible and will be determined in consultation with the City's strategic plan.

Council has approved the short term repairs to the training tower. The contractor has been hired with work commencing in spring 2017. The replacement of the training tower has been added to the Capital Budget forecast for 2019.

Suggestion was made to include savings and estimates of potential revenue which could be generated by the new training tower in the Master Fire Plan. Deputy Jones noted that it is challenging to determine estimates as every training facility is different. A further suggestion was made to include information related to comparator municipalities with training towers in the Master Fire Plan.

7.3 Recommendation 20.1 – Fleet Replacement – Deputy Jones

Deputy Jones provided a PowerPoint presentation (Appendix B) outlining the recommendation to maintain the current fleet vehicle replacement schedule as created by Finance through a depreciation fund which accumulates annually through the Capital Budget. St. Catharines Fire Services is not requesting a change to the current process for fleet replacement, instead this is a review of the current process.

Question was raised about the possibility of leasing vehicles for day staff. This possibility is currently being examined for other Departments in the City and may be extended to Fire Services if deemed to be cost effective.

7.4 Recommendation 20.2 – Fleet Personnel and Facilities – Deputy Jones

Deputy Jones provided a PowerPoint presentation (Appendix C) outlining the recommendation to maintain 2 dedicated mechanics within their own Union

Association and dedicate a standalone facility for the repair and maintenance of Fire apparatus. The 2008 Master Fire Plan did not include a recommendation pertaining to the Mechanical Division.

St. Catharines Fire Services currently utilizes 2 mechanics who work out of the Lake Street Service Centre. These mechanics have completed their Master Emergency Vehicle Technician (EVT) certification. Other mechanics have been certified as EVTs to fill in when the regular mechanics are away. Only certified EVTs are permitted to work on fire apparatus as repairing emergency vehicles requires specialized training and having functioning apparatus is critical for the operation of St. Catharines Fire Services. In addition, testing and certification of various fire equipment is completed by EVTs, resulting in cost savings.

Discussion ensued regarding the recommendation to have a dedicated building for repairs and maintenance of fire apparatus. Currently repairs are conducted at the Lake Street Service Centre. The bays at Lake Street were not designed to house fire apparatus. Aerial trucks have to be parked in the center of the bay. Maneuvering fire apparatus within the Lake Street bays is challenging and fire apparatus takes up so much space that repairs to other vehicles are delayed while fire apparatus are being serviced.

Discussion ensued about the potential of coordinating with St. Catharines Transit. This has been examined and is not a viable option at this time as Transit is currently at capacity. Suggestion was made to discuss the possibility of adding a bay large enough to house fire apparatus to the proposed renovations of the Lake Street Service Centre. Chief Wood noted he would examine this possibility.

7.5 Recommendation 18.1 – Communications Personnel - Computer Aided Dispatch Software – Deputy Belair

Deputy Belair provided a PowerPoint presentation (Appendix D) outlining the recommendation to hire 1 Communicator with Geographic Information Systems (GIS) and Computer Aided Dispatch (CAD) capabilities to bring the staffing complement to 6 persons per platoon. The 2008 Master Fire Plan recommended hiring 2 Communicators. One (1) of the 2 recommended positions has been filled. The addition of GIS capabilities to the Communicator position is required because of changes in technologies. Hiring 1 full time Communicator with GIS qualifications would allow St. Catharines Fire Services to better serve St. Catharines and the 12 other municipalities it dispatches for.

Deputy Belair provided a brief overview of the personnel within the Communications Division and their roles and responsibilities. 2015 call statistics were briefly discussed. 2016 call statistics are currently being compiled.

Questions were raised regarding the potential of hiring part time Communicators and/or utilizing Fire Fighters as additional Communications staff. The hiring of

part time Communicators or utilizing Suppression staff in Communications would require negotiations to alter the Collective Agreement. Chief Wood explained that Communicators complete extensive training and certification requirements prior to taking calls. Communications currently dispatches for 12 municipalities in addition to St. Catharines. Each municipality has different policies and procedures. It would not be prudent to have Fire Fighters act as Communicators due to the amount of training required in addition to the complexity involved in dispatching for multiple municipalities simultaneously. In addition, Fire Fighters complete extensive training for their duties and there is not sufficient time for Fire Fighters to be properly trained for both roles.

Optional recommendations include sharing a GIS professional with Corporate Geomatics to maintain a monthly dataset or providing an educational opportunity for career development to a current Communicator. This opportunity would be funded by the City of St. Catharines and allow a current Communicator to achieve a GIS certificate or diploma. The preferred recommendation option, as presented, is to hire 1 Communicator with GIS and CAD capabilities as this would fulfill the 2008 Master Fire Plan recommendation to hire 2 Communicators. In addition, it would allow both Communication Coordinators to work the day shift, allowing them more time to connect with the Communications Officer and provide training and supervision to Communications staff. Funding for this position would be shared between St. Catharines and our Dispatch Partners in accordance with their respective agreements.

Deputy Belair expressed gratitude to the City of St. Catharines and City Council for ensuring the Communications Division has the technology and equipment required to serve St. Catharines and its municipal partners.

8. Motion:

That the Master Fire Planning Committee receive the presentations by Deputy Jones and Deputy Belair.

Moved: M. Vail

Carried.

9. Date of next meeting

February 23, 2017

10. Motion to Adjourn

6:08 pm

Appendix A

2017 MASTER FIRE PLAN**RECOMMENDATION: 19.2 – TRAINING TOWER (PG. 92)****Recommendation:**

Perform immediate repairs to the Training Tower to prolong the life expectancy (two to three years) until replacement of the tower occurs

FINANCIAL IMPLICATIONS:

Repairs are estimated at approximately \$250,000

BACKGROUND:

The training tower was built in mid-1970 and has served the City and other regional fire departments for more than 40 years. An Engineer's Report was conducted in 2015 to determine the state of the tower as there is obvious wear and deterioration of the structure. The report indicated that the current condition of the tower presents "life safety implications" unless specific repairs were made to the structure

The towers used for annual and mandatory training as required in accordance with NFPA Standards

Utilized for: live fire, search and rescue, technical rope rescue, aerial operations, pump operations, ground ladder, forcible entry, etc.

Utilized by most Niagara Region Fire Departments

Host site for provincial training and conferences in previous years

Centralized location for all Recruit Training Programs

Utilized for Reclassification Testing of Personnel

FINDINGS/ANALYSIS

The 2015 Engineers Report indicated that the building is near the end of its life expectancy and approximate costing for repairs was provided to reutilize the structure

In order to continue utilizing the training tower, the two to three year life expectancy will allow Fire Services the opportunity to investigate alternative Training Tower designs, types and locations. This would benefit the City in determining the best alternatives while building reserves in order to budget for the tower appropriately

Training tower is the main location for all training, testing, certification and officer development programs for FEMS. Currently additional costs are incurred for the utilization of alternate training sites (approximately \$650,000 annually)

FINDINGS/ANALYSIS – (CONT'D)

Current age and continuous required repairs to the structure has prevented FEMS from utilizing the building for FEMS training over the past 2 years.

The current use of the tower for regular/scheduled use by other municipalities results in a small amount of revenue for the City of St. Catharines. Replacing the tower with new/improved features provides the opportunity to increase revenues dramatically

Due to the age of the structure and fuel sources utilized during training, the Training Tower is not environmentally friendly. A new structure will provide alternative solutions thus falling in line with the city's Sustainability Strategy under "Climate Change" and "Natural Resource Scarcity"

Training tower has no classroom facilities to facilitate theory based programs

OPTIONS:

Council had reviewed options presented by FEMS during the 2016 budget process and approved short term repairs of Training Tower for 2017.

The Options included:

Additional repairs and expense to the Training Tower

Conducting all required training outside of the city at another facility at a cost of approximately \$650,000

Replacement of the tower immediately with a replacement cost of between 1.5 – 2 million dollars

As a result, Council has added the decommissioning and replacement of existing tower to the 2019 Capital Budget

CONCLUSION:

Utilizing other municipal training towers would require staff to take fire services apparatus and equipment outside city boundaries, therefore additional costs of travel time, rental of towers and overtime add up to approximately \$650,00 annually

Revenue generator through training tower rental to other municipal fire departments

Replacement of tower will result in reduction of complaints due to extreme smoke and smell (alternative fuel source)

New tower environmentally friendly (less water runoff into 12 mile creek) meets councils mandate for environmental sustainability through the use of artificial water based smoke and use of alternative fuel source

Classrooms/shower facilities, and new training props for both theory/practical based programs will increase revenue

Reduction in cost of maintaining the Training Tower

A blue gradient triangle pointing downwards, located in the upper right quadrant of the slide.

QUESTIONS????

Appendix B

2017 MASTER FIRE PLAN

RECOMMENDATION: 20.1 – FLEET REPLACEMENT (PG. 94)

Recommendation:

Maintain The Current Fleet Vehicle Replacement Schedule As Created By Finance Through A Depreciation Fund Which Accumulates Annually Through The Capital Budget

BACKGROUND:

FEMS has a significant fleet of Apparatus to deliver fire protection – 8 Pumpers, 1 Rescue and 3 Aerials (this does not include day staff vehicles)

A fleet replacement schedule is currently in place that provides for the timely replacement of all Apparatus and Fleet Vehicles (Fire Prevention, Training, Management)

Maintenance requirements for fire apparatus is complex, highly technical and can affect the ability of the fire department to perform their duties. As a result, Fire Apparatus must be maintained to the highest level

FINDINGS/ANALYSIS:

Currently, a Depreciation Fund accumulates annually through our Capital budget. The amount set aside annually varies based on the apparatus due to be replaced in the Fire Fleet Replacement Schedule. Monies set aside varies from \$400,000 to \$900,000 annually.

Currently, Pumpers are to be replaced every 15 years and Aerial devices every 20 years. Cars and Self-Contained Breathing Apparatus are replaced every 10 years while Boats and other designated equipment are replaced on an as needed basis.

When considering apparatus replacement, the following factors are considered in determining appropriate timelines for the lifespan of each vehicle type: *Obsolete parts, Reduced reliability, Increased emissions, Compounded repairs, Vibration, Certification, Safety, Effective Readiness*



CONCLUSION:

Maintaining the current Vehicle Replacement Program will ensure continuity with performance, technology, certification, safety and adherence to Standards



QUESTIONS???

Appendix C

2017 MASTER FIRE PLAN**RECOMMENDATION: 20.2 PERSONNEL AND FACILITIES** (PG. 99)**Recommendation:**

Maintain Two Dedicated Mechanics Within Their Own Association And Dedicate A Standalone Facility Designated Specifically For Repair And Maintenance Of Fire Apparatus

BACKGROUND:

2008 Master Fire Plan Recommendation:

In 2008, no recommendations were put forth in the MFP pertaining to Mechanical Division

Emergency Vehicle Technicians

FEMS does not have its own Mechanical Division. Fire apparatus and small fleet vehicles are maintained by 2 of the City's mechanical staff referred to as Emergency Vehicle Technicians (EVTs). Current practice requires any personnel working on the fleet vehicles to obtain and maintain their Emergency Vehicle Technician certification

The EVT's have obtained specialized training qualifications and are licensed to perform maintenance and repair of ALL Apparatus and Equipment

EVTs are required to perform regular maintenance as well as conduct or coordinate annual testing and certification, such as Pump and Equipment testing or Periodic Mandatory Commercial Vehicle Inspections (PMCVIs) of apparatus – improves efficiency and saves money

EVT's work an On-Call rotation to provide 24 hour service as required for Emergency Vehicles

BACKGROUND (CONT'D)

Mechanical repairs to all FEMS Apparatus is currently conducted at City yards

Due to the size of most fire apparatus, the building does not adequately provide space to house these vehicles and creates both navigational and access issues. This has resulted in accidents occurring while trying to manoeuvre in and among other vehicles when service work is required

It also hinders other vehicles from being repaired due to the size of our apparatus taking up more than one repair bay within the facility itself

FINDINGS/ANALYSIS:

As a result of Technology, additional equipment and combined resources on one vehicle (Pumper Tanker etc.) Fire Apparatus continue to grow in size (height and length)

Apparatus is becoming more complex (electronics etc.) and to ensure a high level of educated and skilled mechanics, the complement of dedicated mechanics needs to remain Status Quo

Currently, two dedicated mechanics (EVTs) ensure that the fleet program for FEMS are overseen 24/7. During vacation, courses or sickness, alternative certified EVT's are available to maintain FEMS fleet.

The current issue is the size and location of the facility utilized to maintain all apparatus. Construction of a larger facility to properly house fire apparatus will simplify and expedite the repair and maintenance program and eliminate potential damage and delays in service repairs.

OPTIONS:

1. Maintain two dedicated mechanics within their own Association and modify the current building to allow for more efficient service and repairs of fire apparatus
2. Two dedicated mechanics remain within their own association, and dedicate a standalone facility designated specifically for repair and maintenance of fire apparatus (possible location – Renown Building at Training Tower)



CONCLUSION:

Maintaining two dedicated Master Emergency Vehicle Technicians (remain within their own association) to oversee the fleet maintenance, testing, and inspection of vehicles in a standalone facility will:

Reduce repair time due to limited space at City Yards

Limit accidents/incidents that have occurred due to difficulties in maneuvering apparatus in the current facility (2 incidents in 2016)

Ensure continuity of repairs based on the knowledge and experience of 2 dedicated mechanics (intimate knowledge of our fleet)

When repairs are required after hours, fire services is ensured of having knowledgeable mechanics on scene thus reducing unnecessary downtime and cost



QUESTIONS???

Appendix D



St. Catharines Fire Services Master Fire Planning Process

2017

Master Fire Plan – Public Education

Recommendation 2008

in 2009 Communication staff should increase by two Communicators (one for each Platoon) in order to maintain a minimum staffing of three on duty during 06:30 to 18:30 working hours

Recommendation 2017

Hire one communication operator with GIS/CAD capabilities to bring the staffing complement to six persons per platoon



Master Fire Plan – Background

- Communications Division is directed by the Deputy Chief of Communications and Fire Prevention
- Communication Division is comprised of:
 - One Chief Communications Officer
 - Two Communication Coordinators
 - Eight Communicators
 - One Day time Communicator (Weekdays only)
 - One Communication Technician



Master Fire Plan – Background

- Duties of the Communication Division
 - 911 call answering
 - Text with 911 call answering
 - Verbal call taking
 - Dispatching
 - Call monitoring
 - Computer Aided Dispatch (CAD) maintenance, and
 - Incident Management (IMS) Support
 - Maintenance of the two way radio system



Master Fire Plan – Background

- FEMS Communications began entering into outside fire agency agreements in the late 1950s. By 2012, the Division had grown to include contracts for the following agencies:
 - The Town of Fort Erie
 - The Town of Grimsby
 - Haldimand County
 - The Town of Lincoln
 - The Town of Niagara-on-the-Lake
 - Norfolk County
 - The Town of Pelham
 - The City of Port Colborne
 - The City of Thorold
 - The Town of Wainfleet
 - The City of Welland
 - The Township of West Lincoln



Master Fire Plan – Background

- Communications Division looks to the Association of Public-Safety Communications Officials (APCO) and National Emergency Number Association (NENA) for regulatory compliance on all aspects of emergency communications
- The Communications Centre is now closer to meeting NFPA 1221 compliance requirements



Master Fire Plan Findings/Analysis

- Communications Division has developed a five year plan to meet these expectations, which include:
 - the physical location of the division
 - business continuity/disaster planning
 - qualifications of personnel



Master Fire Plan Findings/Analysis

- training
- mission critical systems (CAD, two-way radio, telephony)
- secondary systems such as voice recording (NICE)
- records management (FIREHOUSE)



Master Fire Plan Findings/Analysis

- Two Coordinator Supervisor positions are expected to develop, conduct and implement a training program for all communication staff
- Due to the shift schedule, the Coordinators work many night shifts with no interaction with the daytime Division Chief. Also, due to shift rotation and vacation scheduling, Coordinators are not able to train within a reasonable time period
- This results in an inability to provide consistent training with the rest of the Platoon



Master Fire Plan Findings/Analysis

Technology

- Key components essential in a successful call-taking/dispatch process are:
 - a reliable radio communications infrastructure,
 - well trained professional Fire Communicators, and
 - a strongly supported Computer-Aided Dispatch (CAD) system



Master Fire Plan Findings/Analysis

Technology

- Two key standards for fire communications technology:
 - Mission Critical
 - Public Safety Grade



Master Fire Plan Findings/Analysis

- Mission Critical refers to any factor of a system (i.e. components, equipment, personnel, process, procedure, software, etc.)
- These factors are essential for business operations to run properly. Failure or disruption of these mission critical factors will result in serious impact of business operations
- Public Safety Grade is a conceptual term that refers to the expectation of emergency response providers and practitioners that their equipment and systems will remain operational during and immediately following a major disaster on a local, regional and nationwide basis



Master Fire Plan Findings/Analysis

- In 2015, FEMS Communications processed 17,629 active incidents and answered upwards of 62,000 telephone calls, including:
 - 911
 - Fire alarm system notification
 - requests for fire prevention, and
 - information and administration requests



Master Fire Plan Findings/Analysis

Geographic Information Systems (GIS)

- GIS is a powerful information management system with the ability to collect, analyze and visualize information based on location. Fire service mission is location dependent (*emergencies always happen at a place or location*)
- GIS has helped fire departments:
 - Reduce risk
 - Increase efficiency
 - Improve outcomes



Master Fire Plan Findings/Analysis

Geographic Information Systems (GIS)

- GIS provides the capability to FEMS emergency responders to access critical information and data while responding to an incident which will result in a quicker, safer and more knowledgeable response
- Two common fire service uses of GIS:
 - map production
 - response time analysis
- GIS can help develop and customize a detailed fire station deployment analysis for a specific community, which can help reduce response times



Master Fire Plan Findings/Analysis

- A dedicated professional with a GIS skillset would be an asset to not only FEMS but also for the 12 partnerships.
- GIS mapping would provide integration of the mapping and CAD upgrades, including:
 - Response Polygon updates to conform to parcel boundaries and updating Response Polygons and potentially create another GIS dataset with regards to Access Points to properties.
 - Setting up appropriate symbols
 - Labelling of datasets at specific zoom levels



Master Fire Plan Findings/Analysis

- Incorporating additional datasets such as railway lines/water bodies/wetlands/trails
- Building footprints
- Historical data analysis
- Interface with MTO Highway cameras
- Interface with St. Lawrence Seaway cameras for bridge status
- Social Media integration
- Map Code Books



Master Fire Plan – Options

Based on the findings/analysis **3 Options** were provided

Recommended Option #1

- Hire one communication operator with GIS/CAD capabilities to bring the staffing complement to six persons per platoon



Master Fire Plan – Conclusion

The additional communicator will ensure development and training is done in a consistent manner, while having a coordinator scheduled for each day shift. The GIS qualification would allow FEMS to maintain and enhance the CAD mapping platform on a weekly basis (NENA standard) so that data is the most current and up-to-date

GIS mapping would provide the City of St. Catharines and the 12 partnerships the capability for fire emergency responders to access critical information and data while responding to an incident which results in a quicker, safer and more knowledgeable response



Master Fire Plan – Conclusion

The funding for this position would be shared with the partnerships, in accordance with the communication agreements. GIS has emerged as a mission critical technology to assist fire professionals in meeting public safety requirements



Master Fire Plan – Next Steps

- A partnership with the NRPS has been established and approved by council for a voice radio system (P25). This will allow FEMS to utilize a robust network with improved coverage and safety. This new system is engineered by Motorola Solutions to be a mission critical, public safety grade system with 15 years of manufacturer support
- Implementation of Mobile Data Terminals (MDT)
 - computerized device used in emergency vehicles, such as police cars and fire trucks to communicate with central dispatch
 - They are also used to display mapping and information relevant to the tasks and actions performed by the vehicle such as CAD drawings, diagrams & safety information



Master Fire Plan – Next Steps

- Relocation of our Backup Communications Centre will move us closer to meeting NFPA 1221 compliance requirements
- Installation of 4 new radio dispatch consoles due to end of life of existing equipment
- Training of staff to NFPA 1061 Standard and dispatch protocols
- Council has been extremely supportive in ensuring the technology and equipment is state of the art

