



Township of Wainfleet

Fire and Emergency Services



Joint Fire & Emergency Services Facility Justification Report

To: Sarah Ivins, Planner
From: Morgan Alcock, Fire Chief/CEMC
Date: September 12, 2019
Re: Joint Emergency Services (Fire & EMS) Facility

Wainfleet Fire and Emergency Services (WFES) along with Niagara Emergency Medical Services (NEMS), have long been in need of modern, safe, appropriate facilities for sustainable and continued delivery of services to the Township of Wainfleet residents and ratepayers.

Current Facilities & Operations

Wainfleet Fire and Emergency Services currently operates four stations. Below is the approximate age, construction type and operational issues each station provide.

Station #	Station Location	Age (Approx. Year Built)	Construction Type	Operational Issues
1	Winger	70+ yrs. (1947)	Concrete Block	Lot size is limited, Failed Septic, undersized utilities and unable to contain full size apparatus. Structure does not provide adequate facilities for the normal and safe operation as a fire station and apparatus. Personnel are not provided space or facilities for cleaning, storage, and decontamination
2	Wainfleet	60+ yrs. (195?)	Concrete Block	Lot size is limited, Undersized utilities, unable to contain full size apparatus. Structure does not provide adequate facilities for the normal and safe operation as a fire station and apparatus. Personnel are not provided space or facilities for cleaning, storage, and decontamination



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Station #	Station Location	Age (Approx. Year Built)	Construction Type	Operational Issues
3	Burnaby	50+ yrs. (1968)	Wood Frame	Failed Septic, and undersized utilities Structure does not provide adequate facilities for the normal and safe operation as a fire station and apparatus. Personnel are not provided space or facilities for cleaning, storage, and decontamination
4	Schwoob	30+ yrs (1984)	Engineered Steel	Lot size is limited, Failed Septic, and undersized utilities Structure does not provide adequate facilities for the normal and safe operation as a fire station and apparatus. Personnel are not provided space or facilities for cleaning, storage, and decontamination

Fire Underwriters Survey (Canadian based independent Insurance grading group) outlines that fire stations must be capable of providing three items for recognition. Those items are:

- 1- Triple Combination Pumper
- 2- Mobile water supply apparatus (Tanker)
- 3- 15 Firefighters

Wainfleet Fire and Emergency Services currently operates four stations with the following capabilities.

Station #	Station Location	Triple Combination Pumper	Mobile Water Supply Apparatus	# of Firefighters	Ability to Meet Minimum Requirements	Current FUS Grading
1	Winger	No	No	9	No	4
2	Wainfleet	Yes	No	15	No	5
3	Burnaby	Yes	Yes	13	Yes	4
4	Schwoob	Yes	Yes	8	No	4

FUS provided the Township a report in August of 2018, detailing the current grading and fire service capabilities (2018 FUS Letter attached). By reassigning personnel to new stations, the FUS requirement of 15 firefighters per station could be attained.

NEMS currently operates a Community Response Unit (CRU) in the Township with its vehicle parked outside of station 2 year round. NEMS personnel use a small room off of the fire station as a standby room and share bathroom facilities with the fire station. (Figure 1)



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Figure 1

Stations 1 & 2 lack the necessary space to conduct modern fire service operations, and do not provide facilities for the health and safety of fire service personnel.

Station 1

Station 1 (Winger) is a single bay station constructed in 1947 of a concrete base with brick walls and metal clad roof over a former tar and gravel roof. This is a very basic building with no accommodations for the volunteers. The main door size of 10 feet by 12 feet makes the building unsuitable to contain any full size Pumper or Tanker (Figure 3) has no administrative areas, the washroom is a shared space for storage and a desk. The property will not support a larger facility, and there is no potential to add onto the lands. (Figure 4)



Figure 3



Figure 4



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Station 2

Station 2 (Wainfleet) is a two bay station constructed in the 1950s of a concrete base with brick walls and metal clad roof over a former tar and gravel roof. This is a very basic building with no accommodations for the volunteers. The apparatus door size and ceiling height makes the building unsuitable to contain any full size Pumper or Tanker (Figure 5, 6 & 7). It is also connected to a library and community hall. The community hall is used as the training and meeting room by the Fire Department. There is limited office and storage space. The office space is shared with the EMS service, where a 12 hour day shift Community Response Unit operates. (Figure 1) Again, there is no available lands for expansion of the facility (Figure 8). In addition, the attached library and community hall are not AODA compliant and do not have space for additional accessible accommodations. Should the fire station be relocated, the space would be made available to the library and community hall for expansion, modernization and accessibility.



Figure 5



Figure 6



Figure 7



Figure 8



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Past Reports & Recommendations

In June of 2013, the Township of Wainfleet was presented a Master Fire Plan (MFP) that was prepared by TL Powell & Associates and Cyril Hare & Associates. Part of that MFP was a review of *Fire Station Location and Suitability* (2013 MFP excerpt attached). Option 'A' of the MFP was to close Station 1 & 2 and locate a new station in the area of Chambers Corners, Option 'E' recommended Locating a new station at the municipally owned site on Highway #3 near Chambers Corners. (Figure 9)

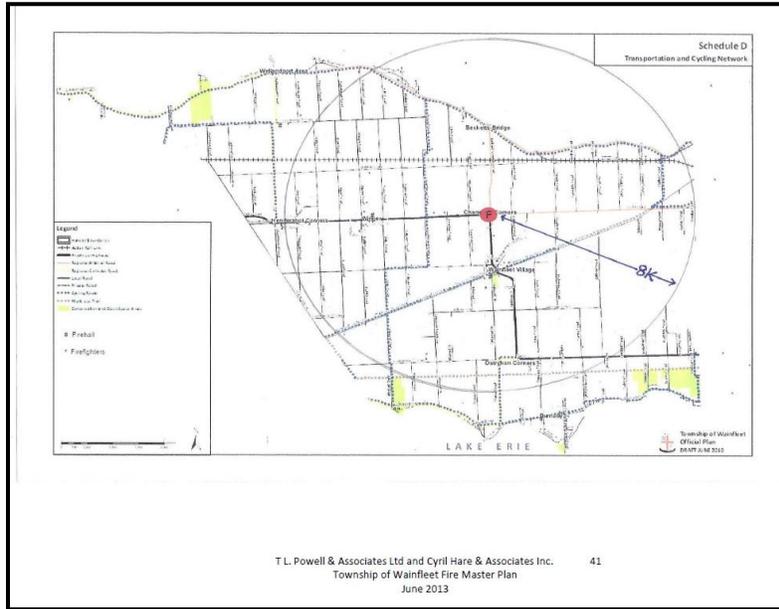


Figure 9

In September of 2016, the Township of Wainfleet was presented a Fire & Emergency Services Operational Review & Supplemental Report by Dillon Consulting. (2016 Dillon Supplement attached) This report reviewed the MFP, the existing 4 station coverage (Figure 10) and the proposed 3 station model and provided an alternate 3 station location model.

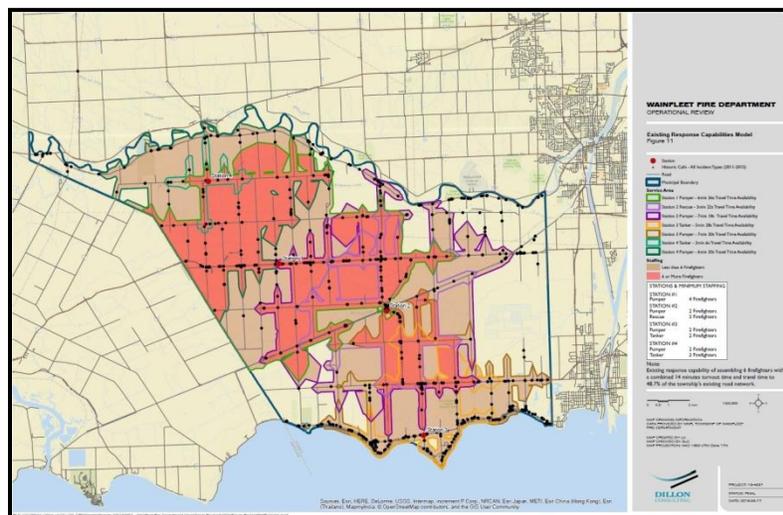


Figure 10



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The primary 3 station model recommends combining stations 1 & 2 along with providing space for NEMS in the area of Chambers Corners. This would increase the level of service provided to the north-east portion of the township, while maintaining current response capabilities of the existing areas. (Figure 11). At the time of the reports the Township owned approximately 2.4 acres of land on Highway 3 in the hamlet of Chambers Corners. Unfortunately, given the proposed shared facility use and spatial requirements, more land would be required for the construction of the facility. At the time, there were no other sufficiently sized lands available within the hamlet to facilitate construction.



Figure 11

The alternate 3 model included combining stations 1 & 4 in a new location near Hendershot Corners. This would reduce the level of service provided to the north-west portion of the township, would not fully service the north-east and would not correct the station constraints existing in station 2, and would require the purchase of suitable land and size not currently available. (Figure 12)

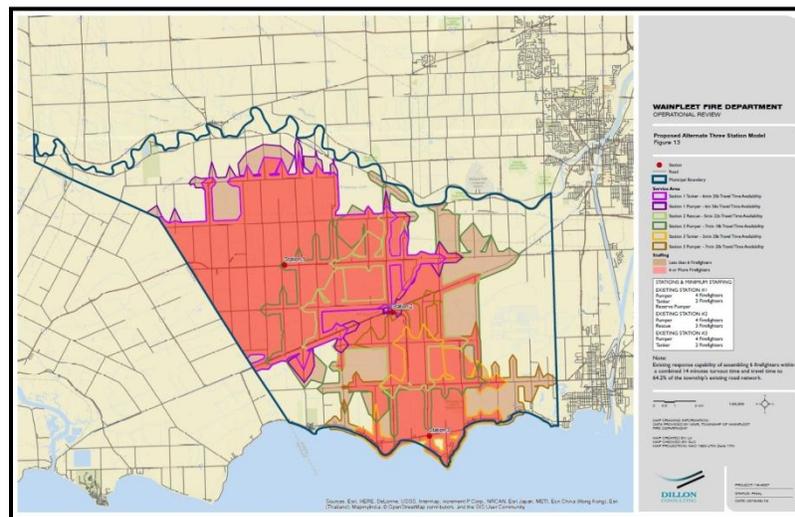


Figure 12



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Both the MFP and the Operational review outlined the need for standardized training, and adequate facilities for practical training to be conducted. Having the training grounds on the same lot as the central station will eliminate the need for secondary facilities (classroom, washroom, showers, etc.)

Land will be required for the future construction of proper training grounds, and is recommended to be near the centre of the Township to facilitate ease of access for all stations use, while keeping an acceptable level of response capabilities. Example- Having station 4 personnel & equipment train near the Port Colborne border would increase response times and reduce coverage. The lands to west of the proposed site could be used for the training centre, and can be addressed at that time (Figure 13- Rough site plan including future training grounds to the west)

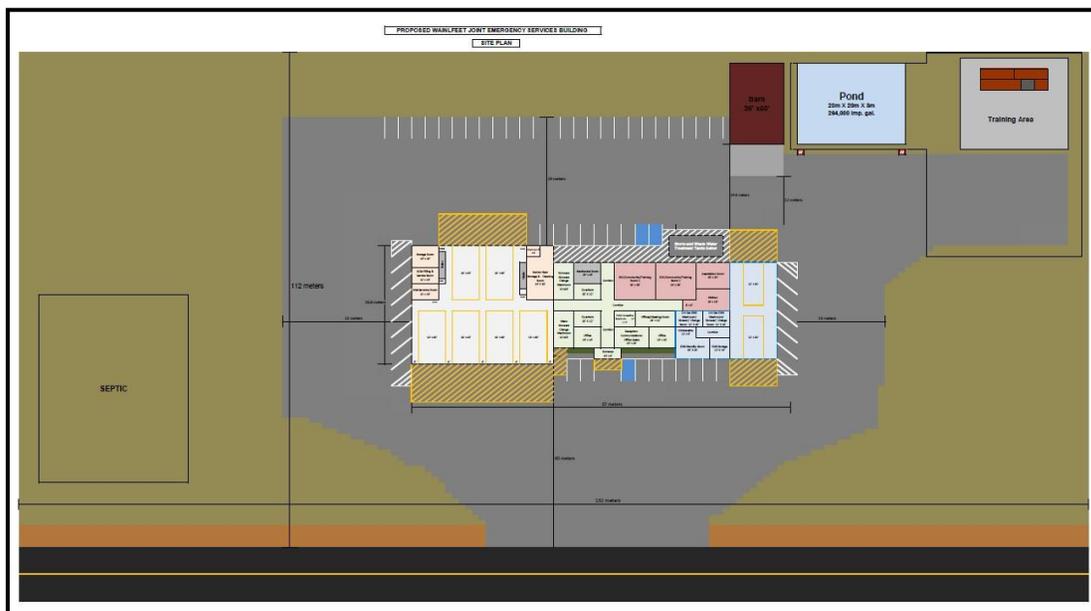


Figure 13

Facility Design Considerations, Spatial & Operational Needs

When considering the overall needs, intended purpose and forecasted use for the shared facility, a review of current and future operations was completed, by both Fire & EMS personnel. In addition, the Office of the Fire Marshal has provided multiple resources for the planning, determining spatial needs and overall design of fire service facilities.

Fire station design was broken into 5 operational areas, each area addressing current use and forecasted needs. Table 1 (attached) outlines the individual usages and needs for each area.

EMS provided township staff their spatial needs based on existing station designs in operation.

Fire & EMS personnel have conducted a minimum spatial needs assessment and have established a draft floor plan addressing the proposed needs. (Draft Floor plan attached)

Township personnel met with the Niagara Region Urban Design team for proposed site plans and land size requirements. (Proposals attached)



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Location Selection

With all of this taken into consideration, the Fire staff recommend utilizing the property that the township currently owns on Hwy 3 in Chambers Corners. Having a shared service facility (Fire, EMS, Training, EOC.) will benefit the entire municipality, while providing greater coverage to the north-east (FUS report- DWP map attached). By reassigning personnel to new stations, the FUS requirement of 15 firefighters per station could be attained.

Station #	Station Location	Triple Combination Pumper	Mobile Water Supply Apparatus	# of Firefighters	Ability to Meet Minimum Requirements	Potential FUS Grading
HQ	Chambers Corners	Yes	To Be Purchased	15+	Yes	3B+
3	Burnaby	Yes	Yes	15	Yes	3B+
4	Schwoob	Yes	Yes	15	Yes	3B+