The Municipality of Brooke-Alvinston

Brooke Fire Rescue

Modernization and Efficiency Review July 2020

Prepared by FIREHOUSE 33 CONSULTING



1.0 Executive Summary

- **1.1** In December of 2019 the Municipality of Brooke-Alvinston applied for a Province of Ontario Modernization and Efficiency grant from the Ministry of Municipal Affairs and Housing. A review of the Brooke Fire Rescue was requested and in March 2020, the grant was approved. FIREHOUSE 33 CONSULTING was awarded the contract and commenced the review.
- **1.2** Brooke Fire Rescue was created in 2018 when the former Brooke-Alvinston fire departments of Alvinston and Inwood were amalgamated as one fire department for the municipality. As a newly formed and developed organization, the review was asked to determine how efficient the department was and ways to modernize the operation.
- **1.3** The report was developed to assist the Council of the Municipality of Brooke-Alvinston along with senior staff and fire department personnel to address possible gaps in service, allow the fire department to keep current with Public Fire Safety Education, Fire Code enforcement and suppression activities and where possible, lessen the financial impact on the municipality through proactive measures.
- **1.4** This report, while encompassing, cannot address all eventualities and scenarios. Within the report there are a number of recommendations that in some cases can cover various levels of the operation of the fire department. Many of the recommendations have little financial cost but may result in significant impact and will provide service improvements, assist in long range planning which will allow Brooke Fire Rescue to continue its service to the community. Similar recommendations may be seen in different sections of the report.
- **1.5** The Municipality of Brooke-Alvinston is well served by their newly created fire department. With no significant development on the near horizon, a single fire station currently in service in Alvinston should be able to provide emergency coverage to the entire community for the foreseeable future. That service does though requires a dedicated commitment to Public Fire Safety Education for the entire municipality. Further, utilizing a combination of traditional and non-traditional fire service personnel and techniques could result in other municipalities looking to duplicate what is created.



- **1.6** The review and recommendations must be carefully considered and supported by senior municipal staff, fire department leaders and members of the Municipality of Brooke-Alvinston council.
- **1.7** Acting on the recommendations, Brooke Fire Rescue as an integral organization in the municipality has the ability to continue to provide quality and cost effective service to their community.
- **1.8** The recommendations provide an outlook to the potential fiscal future with fund allocation and possible savings that will be required to maintain and enhance the fire department in the municipality.



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2.0 Purpose and Methodology

- **2.1** When the Minister of Municipal Affairs and Housing announced the first round of the investment of provincial funds to small and rural communities in the Spring of 2019, it is quoted "Some of Ontario's small and rural municipalities may have limited capacity to plan, modernize and improve the way they provide services to their communities. With this funding, municipalities can improve service delivery by finding smarter, more efficient ways to spend money that help those who need it most while respecting taxpayer dollars." The second installment of this fund states that "a report by the independent third-party reviewer for the purpose of finding savings and efficiencies," and further the report "provides specific and actionable recommendations for cost savings and improved efficiencies".
- **2.2** The Municipality of Brooke-Alvinston with a population of less than 3000 persons and an area of 311 square kilometres fits within the criteria for the review. More specifically due to the creation of a new fire service, there existed a need to ensure that the residents are receiving quality fire protection service at an affordable cost. When the majority of the former Inwood Fire Department members resigned, the Alvinston station of Brooke Fire Rescue assumed all of the responses and service delivery in the Inwood area. It is important to determine if the entire community continues to receive the best service it can with a fire department that follows modern practices at a reasonable cost.
- 2.3 In order to conduct this review it was important that relevant documentation was reviewed. The Clerk Administrator and the fire chief provided various documents for review as well as research was conducted to determine best industry practices. Under normal circumstances in person interviews would be conducted as well as field inspections. Due to the COVID -19 crisis in Ontario and the world during the time frame, one limited field inspection occurred and video calls were held with senior municipal staff, senior and fire officers who were willing to participate. The research, materials provided and video conference calls provided sufficient information for the basis of the report generated and submitted.



3.0 Administration, Contracts and Agreements, Organization

- **3.1** Under the heading of Administration, Contracts and Agreements, Organization, the review examined the municipal and fire department administration, contracts and agreements that the municipality and fire department are involved in. The Office of the Fire Marshal and Emergency Management (OFMEM) conducted a study of the municipal fire departments in 2016 and as a result most agreements, by-laws and contracts have been updated. Further the administration of the fire department came under one head when the municipality amalgamated the former Alvinston and Inwood fire departments to the new Brooke Fire Rescue. As an organization volunteer firefighter numbers declined when the Inwood firefighters resigned en masse. This decline has not seen a detrimental effect on the delivery of service to the residents of the municipality. Notwithstanding the lower numbers, there is benefit in having a proactive recruitment program that includes auxiliary members to the fire department.
- 3.2 An area that requires immediate fire department and municipal administration review is the contract for fire department dispatch. The agreement encompasses a majority of the fire departments in Lambton County and is held by a third party organization operating an ambulance Central Ambulance Communications Centre for the province, an agency that primary responsibility is for ambulance communications. It was expressed on numerous occasions that there is not a consistent standard of service being provided. Firefighter safety must at all times be a priority for Council as the firefighters are considered employees under the Occupational Health and Safety Act of the province. Accordingly the employer must take every precaution reasonable in the circumstances for the protection of a worker. An organization that dedicates itself to fire communication not only has the best understanding of the fire service needs, it can often anticipate them in advance. There are a number of municipal agencies that provide this service and it is imperative that the administration investigate the opportunities and determine the best source for the fire department. The current contract is held through the County of Lambton and will expire in 2023 and does contain a termination clause



It is recommended that the fire department dispatch agreement be reviewed and options explored as early as possible to ensure that the best service for the firefighters is established.

3.3 The municipality developed a new Establishing and Regulating by-law in 2018. The by-law addresses the pertinent roles of the members of the fire department and the core services provided. It was identified that the fire department uses firefighters who also belong to another fire service. These firefighters are referred to as "contract" firefighters. The Establishing and Regulating by-law does not recognize these individuals. While all firefighters in Lambton County have the benefit of optional disability and life insurance from a third party provider, there is concern that should they become injured while assisting at an emergency there may be issues and concerns with other forms of coverage. Further while there is a guidance note and operational guideline for these firefighters, it is incumbent that there is a consistent guideline and operational guideline with all participating fire departments. These members should be considered either regular or auxiliary members under the current by-law.

Recommendation #2

It is recommended that the use of "contract" firefighters be addressed through revision of the Establishing and regulating by-law and that fire department policies and guidelines are consistent with neighbouring fire departments who share a similar process. Consideration should be given to either consider these individuals as regular or auxiliary members of the fire department and make certain that the duties assigned to them is consistent with the training they are in possession of and with documentation available.

3.4 The Municipality of Brooke-Alvinston, Brooke Fire Rescue, responds into a small area of the Municipality of Southwest Middlesex. As well Southwest Middlesex is represented on the fire board. Brooke-Alvinston has separate agreements with the other municipalities who are represented on the fire board but there does not appear to be an agreement with Southwest Middlesex. Agreements are binding documents that provide the legal permissions to act, detail responsibilities and expectations as well as reimbursement should that be agreed upon. A review of other agreements and by-laws



finds that all language is not consistent from one to another and that terminology does not reflect the meaning required.

Recommendation #3

It is recommended that a formal fire protection agreement be entered into with the Municipality of Southwest Middlesex for the services provided and further that all municipal contracts and agreements be reviewed to ensure language within them is consistent and terminology is correct.

3.5 Opportunities from time to time exist to share resources with other municipalities in an effort to reduce costs and gain expertise. The municipality already is benefited by partnering with the County of Lambton who provide building inspection services as well as planning. The administration of a fire department is an area that has successfully been shared in municipalities of varying sizes throughout the province. Public Fire Safety Education and fire inspection are other areas that are often serviced jointly by two or more municipalities. The municipality has a part time fire chief whose role is primarily administrative. Public Fire Safety Education and fire prevention are areas that the municipality requires to enhance for the safety of all residents. It is imperative that the Clerk Administrator and fire chief when becoming aware of opportunities where administrative resources or Public Fire Safety Education and fire prevention expertise can be shared, that they explore the opportunities which may result in savings for the municipality and a sharing of service.

Recommendation #4

It is recommended that the Clerk Administrator and fire chief watch for and explore opportunities where fire department administration and Public Fire Safety Education and fire prevention can be shared or integrated.

3.6 Technology has made many things that are done easier and convenient. The fire department in 2019 starting using an app for residents to use when they wish to have an open air burn. A review of the open air burning by-law notes that it was approved in 2003 and has not been updated since. Many municipalities in the province have taken proactive steps to ensure that residents may enjoy a backyard outdoor fire while those in the agriculture area have the ability to burn permitted materials when required. These



municipalities also charge a nominal fee for this purpose which will offset the cost associated with the issuing of the open air burn permit along with the necessary tracking. The app which the fire department currently uses has the ability to not only gather the information required but to accept a payment for the permit. Updating the bylaw to make it current and initiating a fee for the opportunity to have an open air burn permit are steps that the municipality should examine as a cost recovery to the municipality.

Recommendation #5

It is recommended that the municipality update the Open Air Burning by-law and examine the opportunity to establish a fee for the permit and utilize the current app to collect the fees associated.

3.7 The administrative duties required to operate and record the functions of a fire department are extensive and necessary. In 2019 the fire department purchased software to assist with this task. The software has capabilities for the officers of the fire department to complete an incident report upon returning to the fire station saving time and confirming the details as they are recalled. At the present time this ability is not functioning at the fire station. To have this ability will see that duplication is not required and speed up the process of recording the firefighters attending the emergency, the apparatus involved and officer notes of the incident.

Recommendation #6

It is recommended that all technology required to utilize the software in use by the fire department be extended to areas where it can be fully taken advantage of.

3.8 Through the review process the annual budget for operations and capital purchases were looked at. It was evident that the process had limited if no future commitments through the allocation of funds to reserves. Through the process of placing a portion of funds into a capital reserve fund, the municipality is preparing for large capital purchases without placing an undue pressure on other departments when the requests are made and the local resident who would not receive unwanted additional tax increase. There are a number of high cost items that will come forward in the next



several years for the fire department. In order to prepare for these purchases it is essential to start placing money into a fire department capital reserve moving forward.

Recommendation #7

It is recommended that during the budget process, there be given due consideration to future capital requirements of the fire department and an appropriate amount of funds be placed into a fire department capital reserve.

3.9 Annually organizations and corporations donate funds or equipment to the fire service. These donations can range from essential but sometimes cost prohibitive equipment to training materials to smoke alarms and carbon monoxide detectors or funds to purchase equipment. Examples of these are Jenny's Hero's which works in partnership with the Ontario Association of Fire Chiefs and the Fire Marshal's Public Fire Safety Council and their partnership with Enbridge. The fire chief should watch for these sponsorship and grant opportunities and apply as needed and appropriate. Receiving the donation or grant will result in tax savings to the municipality and required equipment being put in service in the municipality.

Recommendation #8

It is recommended that the fire chief monitor for potential grants and donations that would be of benefit to the fire department and apply for them as appropriate.

3.10 The fire department has several apparatus that are coming, according to industry standards, their end of life as a first response vehicle. While they may seem satisfactory, they do not meet all the current safety standards for fire apparatus which has improved immensely since these vehicles were built. It can also be anticipated with vehicles over 20 years in age, parts will become more difficult to obtain going forward. Pumper 3 should be replaced in 2023 and Pumper 6 in 2025. Planning for a new apparatus takes time to develop specifications specific to the needs of the department, fund allocation along with time for the unit to be constructed. The usual build time for a new pumper is up to one year and depending on specifications will cost over \$500K. There has been some discussion on developing a capital and truck replacement plan and this should become a reality in the new future. Council can then



ensure that adequate funds are placed in reserves to make the purchases and work can begin on developing the specifications needed for the apparatus.

Recommendation #7

It is recommended that during the budget process, there be given due consideration to future capital requirements of the fire department and an appropriate amount of funds be placed into a fire department capital reserve.

Recommendation #9

It is recommended that the fire department develop a fire apparatus replacement schedule and present it to Council for approval and implementation.

3.11 All active firefighters are outfitted with approved personal protective equipment in the form of bunker gear. On a yearly basis several new sets of gear are budgeted for and purchased. When on an emergency scene, firefighters often are wearing self contained breathing apparatus (scba) and the department has allocated funds for minimal purchases. The scba currently in use are of an older vintage and the bottles have a limited time duration. Some have reached their normal life expectancy. New technology has provided additional safety features over what is currently being used. Replacement of the current scba model and the air bottles used has been considered by the fire department along with discussions on how to achieve it. Any replacement should take into consideration what neighbouring fire departments use so that in the event of a mutual aid call there will be compatibility. The replacement of scba's and bottles is a major investment for the fire department and municipality to consider. With a purchase price in the area of \$9000 per unit, the outlay to replace the current stock is over \$150K. These are examples of several of the high cost pieces of equipment in the fire department and there are others. The fire department should identify items of high value that may require large capital investment and develop a capital equipment replacement plan.



It is recommended that during the budget process, there be given due consideration to future capital requirements of the fire department and an appropriate amount of funds be placed into a fire department capital reserve.

Recommendation #10

It is recommended that the fire department develop a capital equipment replacement plan to present to Council and use at budget time.

3.12 The fire department has enjoyed a stable rate of retention of firefighters in the Alvinston area. That unfortunately has not been the case in the Inwood area with the mass resignation of firefighters and the movement of equipment away from the community. In the past volunteer fire departments were fortunate to have individuals who stayed for sometimes in excess of 30 years. Currently there are a number of firefighters in the department who have 20 plus years of service which is very commendable. This is not the reality of the current fire service in Ontario and beyond with the average volunteer firefighter staying between 5 and 7 years. The fire service has also evolved and no longer is it about just responding to emergencies. Ongoing training is critical to the success of the fire service and that commitment along with the many challenges facing families can result in turnovers. Not all fire department activities require individuals who are willing to enter into emergencies. The fire service has moved in the past decade from one that put out fires, did some fire prevention and public education and enforced the fire code to the new norm of Public Fire Safety Education, Fire Code Enforcement and finally fire suppression. Public Fire Safety Education is key to the success of the fire service in any community. Where in the past it took upwards of 15 minutes for a fire to become fully involved it can now occur in less than 3 minutes. The community must realize that they are responsible for their own fire safety and that they cannot expect the fire service to save them. The fire department Establishing and Regulating bylaw allows auxiliary members. Auxiliary members can be of any age and health and should be recruited to do tasks such as Public Fire Safety Education. Currently the fire department recruits as needed. Conducting an annual recruitment at the same time of the year will keep the fire department roster up to date, find willing persons with skills required and put into the fire department schedule a known time to conduct specific duties.



It is recommended that the fire department develop an annual municipal recruitment drive and to seek individuals who can perform varying and specific tasks which would include regular volunteer firefighters, auxiliary and student members.

- 3.13 When a majority of the firefighters from the former Inwood Fire Department resigned the disappearance of a local fire department may have seemed to occur. The local residents established a fire department in 1949 and sixty years later it ceased to exist. While it may have occurred visually, the result is that the Municipality of Brooke-Alvinston now has a stronger and ready to respond fire department with Brooke Fire Rescue. A review of calls in 2019 illustrated that there is a firm commitment by the members of the fire department to respond to all areas in the municipality. In 2019 the lowest number of firefighters responding to an emergency call in the area formerly covered by Inwood was 10 and the highest was 26. This clearly demonstrates that the members of the Brooke Fire Rescue are community members and are willing to attend at emergencies anywhere in the municipality.
- **3.14** It should also be remembered that by far the firefighters respond to more emergencies annually than fire. Over the years fire conditions in homes have exponentially increased in severity. Due to the increased fuel load in a home manufactured from products derived from a petroleum base, a fire which took up to 15 minutes in the past to become fully involved can now occur in as little as 3 minutes. As a result teaching the public about fire escape planning, ensuring smoke alarms are working and installed, meeting with the public and reinforcement of fire rules and legislation are key components in reducing fire injuries and death.
- **3.15** The key to preventing fires is Public Fire Safety Education and fire prevention inspections. It is not conceivable to build and staff a fire station every 3 minutes away from residential areas and have firefighters that are available to respond at all times. The demographics of the entire municipality show a decrease in population and an increase in age. Currently there are several members in the Brooke Fire Rescue who reside in the Inwood area. Discussions have indicated that it is the desire to engage more people from the area to join the fire department and have up to perhaps 12 fire department members in the next 5 years.



3.16 There is a strong inclination to have a fire department presence in the Inwood area and that desire cannot not be diminished. There has been a fire department for 60 years and once gone, it is difficult to resurrect. The issue is how to maintain that presence in a manner that serves the area residents and is both cost effective and efficient. A physical presence is to have a fire station. A building provides a visible structure but there must be the firefighters in sufficient numbers who can staff it and respond in a timely manner. Without the trained and adequately equipped and numbers of firefighters to respond to the emergency call a fire station becomes a liability and not an asset. Residents could be under the false expectations that help is just around the corner when in actual fact it is not. Until those conditions are met, a practical presence can be achieved through consistent Public Fire Safety Education which would include community visits, public education sessions, sign boards, paper advertisements etc. With a vast majority of calls in the Inwood area being medical in nature, the establishment of an Emergency Medical Response team consisting of regular and auxiliary members appropriately equipped with medical equipment and communication ability would serve the community until sufficient trained members of the fire department are located in the response area. If and when suitable accommodations and manpower exist, a more physical presence could be established.

Recommendation #11

It is recommended that the fire department develop an annual municipal recruitment drive and to seek individuals who can perform varying and specific tasks which would include regular volunteer firefighters, auxiliary and student members.

Recommendation #12

It is recommended that an Emergency Medical Responder Team consisting of regular and auxiliary members of the Brooke Fire Rescue be established in the Inwood area.

3.17 The rural landscape of Lambton County and its municipalities requires that they assist each other in time of need. This is demonstrated through the Mutual Aid Plan and Program as well as automatic aid agreements made with local municipalities. Being rural in nature there is a dependence on water tankers to get water to the scene of a fire emergency in the areas not protected with fire hydrants. A method to assist the fire department and the residents who are not afforded the benefit of hydrants is to become accredited through testing agencies for water tanker service. This involves the delivery



of a set rate of water to a scene within the prescribed time. The benefit of this is that residents and businesses may see a decrease in insurance premiums. This accreditation can be achieved with the assistance of water tankers from another municipality provided there are formal agreements in place. This can be reciprocal and is worth investigating to determine the benefit to the residents.

Recommendation #13

It is recommended that the fire department investigate the opportunities and benefits to obtain water tanker shuttle accreditation to benefit the rural areas not protected by water hydrants.

3.18 The core services of the fire department are outlined in the Establishing and Regulating by-law. Currently this includes limited rescue and none that would be known as technical rescue. With every new service established in a municipality there comes a need for equipment and continued training. The need for low slope technical response training has in the past been discussed. At one time there were county wide discussions in attempts to establish a County of Lambton technical rescue team with participation from member municipalities. In an agriculture community hazardous material incidents can occur along with events that could result in technical rescue. Working with county fire departments to establish a county wide technical rescue group that can respond beyond the awareness level is a definite benefit for all municipalities. The reduction in cost for a single municipality to provide this service is substantially decreased and the benefits of joint participation are obvious.

Recommendation #14

It is recommended that the fire department review the needs for technical rescue beyond the awareness level in the municipality and support the reintroduction of a county wide technical rescue committee with other Lambton County fire departments through the fire chiefs.

3.19 The road forward with a municipal fire department of any size is through future planning. This is achieved with a strategic plan. A strategic plan assists the fire chief and senior officers to step back and examine where they are, where they want to go, and how they are most likely to get there. The plan, with the approval of Council



explains where the fire department wants to be in a specific time period. In the absence of a plan, activities still continue on a day-to-day basis but often lack a sense of purpose and priority. With a vision and mission statement, the members of the fire department have a clear understanding on their purpose and how they will go about achieving their goals. The strategic plan does not need to be complicated or numerous pages in length. It needs to clearly establish what the Brooke Fire Rescue stands for, the priorities of the fire department, the goals they wish to achieve and when and how they will do so. The fire chief with the assistance of the senior and junior officers of the department and in consultation with the firefighters can and should develop a strategic plan for the service.

Recommendation #15

It is recommended that the fire department develop a five year strategic plan and submit it to Council for approval. The plan is to at minimum establish the vision, mission, values and goals of the fire department as well as identify how they can be achieved.



4.0 Fire Station facility condition and location

4.1 An inspection of the fire station in Alvinston found it to be in good repair. Several small updates were scheduled to be completed in 2020. One item that was noted was the lack of a separate shower for female members of the department. Showers ensure that contamination does not follow the firefighter through the facility and home and that potential hazardous materials have been removed from the person. The configuration of the current female washroom does facilitate that a shower could be installed along with a door from the apparatus bay area so that contaminated footwear and clothing does not enter into what should be the clean areas of the building.

Recommendation #15

It is recommended that the fire department modify the female washroom in the Alvinston fire station to permit the install of a shower along with a door from the apparatus area.

4.2 Prior to 2018 there existed in the Municipality of Brooke-Alvinston two separate fire departments. With the amalgamation of the two into the new Brooke Fire Rescue significant rebranding was done. The new crest is prevalent on the front of the building. History is important to most people and human nature is to hold onto the heritage from where it came from. Located on the building in Alvinston and on the large announcement sign located at the roadway entrance, are sign boards with the name of the former fire department on them. This would lead a casual observer to believe that they are not at Brooke Fire Rescue if they did not see the new branding sign. As noted previously history is important. Unification of a new organization is equally as important. It is a meaningful step for firefighters to appreciate that they are part of a new department when signage and branding is consistent. Respecting history should be done in a meaningful manner and in no way diminished.

Recommendation #16

It is recommended that all signage on fire department buildings and property be consistent and it is further recommended that a plan be developed with the Alvinston firefighters to respect the history of the Alvinston Fire Department in a meaningful manner.



4.3 Firefighter gear consisting of bunker pants and coat, along with gloves and hoods are frequently contaminated from the emergencies that firefighters attend. For health and safety reasons that contamination is not spread and to control it, the fire department sends gear out for cleaning as needed. When being cleaned the gear is also inspected and necessary repairs made. This service is beneficial and should continue. There are often times that a complete wash of the ensemble is not required or there are smaller items such as hoods, coveralls or station gear that can be cleaned in house. The fire department does have an older washing machine to handle these tasks. A more efficient way to complete this task would be to have a fire gear washer extractor. These devices are compliant with industry standards and are designed to handle fire gear of all sorts.

Recommendation #17

It is recommended that the fire department conduct research for a fire gear washer extractor suitable for the needs of the fire department and include it for consideration in the 2021 budget.

4.4 With the resignation of a majority of the firefighters from the Inwood station, response to emergencies in that area has been handled by the Alvinston station. Attached as an appendix to this report is the interim report submitted in June of 2020 outlining the various options available to the municipality to provide service to that area. Those options include recommendations on increasing Public Fire Safety Education, establishing an Emergency Medical Response Team as well as moving the money allocated in the 2020 budget to a reserve fund. These steps will demonstrate a continued presence in the Inwood area, allow the fire department to recruit sufficient members to establish a reliable response contingent to the area and permit for a detailed analysis of the type of fire station to be built taking into consideration the necessary health and safety requirements along with the requirements of the Ontario Building Code.

Recommendation #18

It is recommended that items 1,2,3 and 5 of the recommendations made in the interim report dated June 15, 2020 attached as appendix to this report be carried out.



5.0 Equipment, Needs and Training

5.1 There is no question that the fire department is well equipped and the support of Council to the fire department requests over the years has been beneficial. A number of items are coming to the end of their life cycle and will require replacement or refurbishment at a minimum. Some items due to technology change will need to be replaced. Equipment such as self contained breathing apparatus, bunker gear, extrication equipment and thermal imaging cameras as well as fire apparatus all have either a defined life expectancy or through technology changes, requiring updates. In order to not have sticker shock at the time budgets are submitted, the fire department has the ability to prepare a capital replacement plan that Council can consider and thereby budget accordingly. The fire department capital replacement plan should work in conjunction with the Asset Management plan that is in place for the municipality.

Recommendation #10

It is recommended that the fire department develop a capital equipment replacement plan to present to Council for consideration and use at budget time.

Recommendation #9

It is recommended that the fire department develop a fire apparatus replacement schedule and present it to Council for approval and implementation.

Recommendation #7

It is recommended that during the budget process, there be given due consideration to future capital requirements of the fire department and an appropriate amount of funds be placed into a fire department capital reserve.

5.2 The fire department has introduced various technology components to the firefighters to keep them current. The fire department currently uses an app which provides details of what firefighters are in the area, can respond and in the event of an emergency call are responding. This particular app is well used by the fire service in many municipalities and has many more benefits than those noted above. Currently the drawback for the firefighters is that unless they use their own personal mobile device while in fire apparatus, it is not available. Tablets have become more common in fire



apparatus as a means of determining the landscape fabric through satellite imagery, hazards that may be on site, fire hydrant and water source locations, updated weather information and the traffic conditions as examples. Tablets also can provide a secure transmission through email and text messaging to appropriate agencies. The tablet can also work with fire department software.

Recommendation #6

It is recommended that all technology required to utilize the software in use by the fire department be extended to areas where it can be fully taken advantage of.

Recommendation #19

It is recommended that the fire department investigate the benefits of installing tablets for all fire apparatus and integrate them with the fire department software and app currently being used.

5.3 The fire department purchased computer software which provides numerous benefits for record keeping purposes. The program is at this time used by the fire chief in his office. Fire department officers would benefit from having access to the program if it were remotely installed for use at the fire station. They would be able to complete incident reports directly after the call, update inventory and record training. There is significant benefit in using the full components of the program.

Recommendation #6

It is recommended that all technology required to utilize the software in use by the fire department be extended to areas where it can be fully taken advantage of.

Recommendation #20

It is recommended that the fire department explore the full capabilities of the software being used and extend its controlled use to the fire station for fire department officer use.

5.4 Firefighter safety is paramount for Council and the senior officers of the fire department. At this time when responding to an industrial or commercial building or an agriculture setting, the firefighters do so with either their own knowledge of the location,



what they have been informed of by the dispatch centre or nothing at all. This can be resolved through preplanning the location in order that valuable information is available at the time of the call. Software and the app used by the fire department has the ability to make that information available to firefighters as they respond to the emergency and if desired, by the fire dispatch centre. The process of gathering the information can be performed by members of the Public Fire Safety Education team, fire prevention officer, firefighters or summer students as examples only. There are significant benefits to firefighter safety in conducting this work and having preplans available.

Recommendation #20

It is recommended that the fire department conducts fire preplanning on industrial, commercial, institutional, assembly and agriculture industries and makes the information available through the fire department software and app.

Recommendation #6

It is recommended that all technology required to utilize the software in use by the fire department be extended to areas where it can be fully taken advantage of.

5.5 Rescue scenarios that the fire department face can range from motor vehicle accident entrapment, to agriculture equipment incidents to falls down hills to water rescue. The fire department establishing and regulating bylaw lists the core services which the fire department has been approved to conduct. While not an exhaustive list, there are scenarios that require additional training along with a desired willingness to become involved in. All core services must be approved by Council for the fire department to participate in. It is not practical or conceivable for a small department to become fully conversant or engaged in all technical rescue and there exists the ability to become part of a county wide project. In the past discussions were held on the formation of a Lambton County wide technical rescue project and there is much benefit in discussing and reintroducing this again if there are willing participants.

Recommendation #14

It is recommended that the fire department review the needs for technical rescue beyond the awareness level in the municipality and support the reintroduction of a



county wide technical rescue committee with other Lambton County fire departments through the fire chiefs.

5.6 Training and continuous training is key to a fire department's success. The fire department has established and is conducting successful training for their firefighters. Fire department officers of all ranks have reached their success based on years of experience and successful completion of programs. To be truly successful there needs to be continued learning for all persons involved with the fire service. While retaining traditions there are many changes that occur, not only on the fire or emergency scene but in how human resource issues are dealt with. Fire department succession planning depends on the skills that the officers have gained the training and the credentials that go along with it.

Recommendation #21

It is recommended that a training and continuous development plan be devised for all officers of the fire department and that performance appraisal plans incorporate the desired outcome for each officer.



6.0 Public Education

6.1 A key component of a successful fire department is their Public Fire Safety Education and fire prevention work. Educating the public on the dangers of fire and how to successfully escape an emergency with their family save lives and reduce property damage. It can be accepted that there will be fires that are truly accidental or as a result of nature. Human caused fires can be prevented. The size of a fire department or its community should never be a deterrent to what the Public Fire Safety Education team can do. Knocking on doors to gain compliance with smoke alarm and carbon monoxide detectors are easy tasks that can be done during a training evening. Blitzing an area following any type of emergency call demonstrates to the public that there is a concern for resident safety. Placing Public Fire Safety Education messages on the municipal website again is an easy task. It is often thought that firefighters give enough with their training and responses to undertake Public Fire Safety Education. Thinking out of the box can solve that concern. The fire department establishing and regulating bylaw provides for auxiliary and student members of the department. When recruiting new members an effort should be made to open up specific roles that may not require the physical and health requirements of a suppression firefighter. Establishing a Public Fire Safety Education team with goals and objectives will serve the municipality well through reductions in fire responses that are human caused and for the health and safety benefits of the firefighters.

Recommendation #4

It is recommended that the Clerk Administrator and fire chief watch for and explore opportunities where fire department administration and Public Fire Safety Education and Fire Prevention can be shared or integrated.

Recommendation #11

It is recommended that the fire department develop an annual municipal recruitment drive and to seek individuals who can perform varying and specific tasks which would include regular volunteer firefighters, auxiliary and student members.



It is recommended that items 1,2,3 and 5 of the recommendations made in the interim report dated June 15, 2020 attached as appendix to this report be carried out.

Recommendation #20

It is recommended that the fire department conducts fire preplanning on industrial, commercial, institutional, assembly and agriculture industries and makes the information available through the fire department software and app.

6.2 Along with Public Fire Safety Education, fire prevention is a successful component of reducing and eliminating human caused fires in a community. Recognizing deficiencies of the Fire Code and how to remedy them in a proactive and satisfactory manner are essential elements. Fire prevention includes fire preplanning along with education and enforcement. There are times when enforcement is the best remedy to a situation and members of the fire department should not have a concern about doing what is required. It is better to be safe and enforce the Fire Code than to tell a family they have lost someone. Qualified individuals should head the Public Fire Safety Education team and the fire prevention activities and this can be accomplished by becoming certified in these two specific areas.

Recommendation #21

It is recommended that the fire department develop a Public Fire Safety Education team and fire prevention component. It is further recommended that members appointed receive appropriate education to fulfill the duties and requirements. It is further recommended that leaders of the Public Fire Safety Education team and fire prevention have or can receive the education and qualifications required and that it become part of the job description for the position.



7.0 Conclusion

- **7.1** The Fire Protection and Prevention Act establishes the requirements that a municipality must undertake to be compliant with the legislation. Those requirements have currently been met by the Municipality of Brooke-Alvinston.
- **7.2** The Council of the Municipality of Brooke-Alvinston has the responsibility in deciding what core services the fire department will provide to the residents of the municipality and at present they do so through the Establishing and Regulating by-law of the fire department.
- **7.3** There is an obligation by Council of the Municipality of Brooke-Alvinston to inform residents about the services the fire department provides. This information must be clear and concise and is of significant importance if there is any change in the service delivery.
- **7.4**The fire department is well equipped through purchases made over the years however there are major purchases that need to be made in the next several years and following the recommendations, these purchases can be thoughtfully made with proper planning and capital reserve funding.
- **7.5** Through enhanced Public Fire Safety Education, the Municipality of Brooke-Alvinston has the ability to reduce human caused fires that will save lives and protect the assets of the community and their firefighters.
- **7.6** Through the use of the technological tools available, the fire department will be able to respond to emergencies in a timely fashion, be prepared for what is ahead of them as they respond to emergencies and have the ability to save property ensuring that the community continues to thrive.
- **7.7** Taking the proactive steps from the recommendations, the Municipality of Brooke-Alvinston and Brooke Fire Rescue will be fiscally responsible partners ensuring that the taxpayer continues to receive quality service at a reasonable cost.



8.0 Recommendations

Recommendation #1

It is recommended that the fire department dispatch agreement be reviewed to ensure that the best service for the firefighters is established.

Recommendation #2

It is recommended that the use of "contract" firefighters be addressed through revision of the Establishing and regulating by-law and that fire department policies and guidelines are consistent with neighbouring fire departments who share a similar process. Consideration should be given to either consider these individuals as regular or auxiliary members of the fire department and ensure that the duties assigned to them is consistent with the training they are in possession of and with documentation available.

Recommendation #3

It is recommended that a formal fire protection agreement be entered into with the Municipality of Southwest Middlesex for the services provided and further that all municipal contracts and agreements be reviewed to ensure langue within them is consistent and terminology is correct.

Recommendation #4

It is recommended that the Clerk Administrator and fire chief watch for and explore opportunities where fire department administration and Public Fire Safety Education and fire prevention can be shared or integrated.

Recommendation #5

It is recommended that the municipality update the Open Air Burning by-law and examine the opportunity to establish a fee for the permit and utilize the current app to collect the fees associated.



It is recommended that all technology required to utilize the software in use by the fire department be extended to areas where it can be fully taken advantage of.

Recommendation #7

It is recommended that during the budget process, there be given due consideration to future capital requirements of the fire department and an appropriate amount of funds be placed into a fire department capital reserve.

Recommendation #8

It is recommended that the fire chief monitor for potential grants and donations that would be of benefit to the fire department and apply for them as appropriate.

Recommendation #9

It is recommended that the fire department develop a fire apparatus replacement schedule and present it to Council for approval and implementation.

Recommendation #10

It is recommended that the fire department develop a capital equipment replacement plan to present to Council and use at budget time.

Recommendation #11

It is recommended that the fire department develop an annual municipal recruitment drive and to seek individuals who can perform varying and specific tasks which would include regular volunteer firefighters, auxiliary and student members.

Recommendation #12

It is recommended that an Emergency Medical Responder Team consisting of regular and auxiliary members of the Brooke Fire Rescue be established in the Inwood area.

Recommendation #13

It is recommended that the fire department investigate the opportunities and benefits to obtain water tanker shuttle accreditation to benefit the rural areas not protected by water hydrants.



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It is recommended that the fire department review the needs for technical rescue beyond the awareness level in the municipality and support the reintroduction of a county wide technical rescue committee with other Lambton County fire departments through the fire chiefs.

Recommendation #15

It is recommended that the fire department modify the female washroom in the Alvinston fire station to permit the install of a shower along with a door from the apparatus area.

Recommendation #16

It is recommended that all signage on fire department buildings and property be consistent and it is further recommended that a plan be developed with the Alvinston firefighters to respect the history of the Alvinston Fire Department in a meaningful manner.

Recommendation #17

It is recommended that the fire department conduct research for a fire gear washer extractor suitable for the needs of the fire department and include it for consideration in the 2021 budget.

Recommendation #18

It is recommended that items 1,2,3 and 5 of the recommendations made in the interim report dated June 15, 2020 attached as appendix to this report be carried out.

Recommendation #19

It is recommended that the fire department investigate the benefits of tablets for all fire apparatus and integrate them with the fire department software and app currently being used.



It is recommended that the fire department conducts fire preplanning on industrial, commercial, institutional, assembly and agriculture industries and makes the information available through the fire department software and app.

Recommendation #21

It is recommended that a training and continuous development plan be devised for all officers of the fire department and that performance appraisal plans incorporate the desired outcome for each officer.



APPENDIX 1

Brooke-Alvinston Modernization and Efficiency Study Interim Report June 15, 2020

<u>Purpose</u>

This report is submitted to provide an interim update on the Modernization and Efficiency Study currently being conducted by FIREHOUSE 33 CONSULTING. The purpose of this report is to specifically provide comments in respect to the establishment of a fire station in the community of Inwood.

Background

The Municipality of Brooke-Alvinston engaged FIREHOUSE 33 CONSULTING to conduct an analysis of Brooke Fire Rescue as part of the ongoing Modernization and Efficiency Study. The study is to include fire station locations and condition.

When the municipality amalgamated their two previous fire departments into the new Brooke Fire Rescue, a majority of the firefighters in the Inwood community terminated their roles in the fire department. Uniquely, the Inwood Firefighters Association (IFA) owned the building and property where the fire department worked from. The Municipality of Brooke-Alvinston entered into a short term lease agreement with IFA for a small portion of the building to house fire apparatus owned by the municipality. The agreement expired at the end of December 2019 and the apparatus has been moved to a temporary location. Council has noted that they believe a presence is required in the community and have allocated 2020 budget funds for a possible structure. Information provided through this study will assist Council in making a determination on whether to move forward or explore other alternatives.

Legislative Requirements

In Ontario, the Fire Protection and Prevention Act is the guiding legislation under which a municipal government determines the services which they wish to provide. Specifically under Part II, Municipal responsibilities, 2(1), Every municipality shall, (a) establish a program in the municipality which must include public education with respect to fire safety and certain components of fire prevention; and (b) provide such other fire protection services as it determines may be necessary in accordance with its needs and circumstances.



To fulfill their obligations the FFPA states, (2) In discharging its responsibilities under subsection (1), a municipality shall, (a) appoint a community fire safety officer or a community fire safety team; or(b) establish a fire department.

The Municipality of Brooke-Alvinston has a fire department as described in 2,(2)(b) therefore they have met their legislative requirements.

Analysis

While meeting the legislative requirements of having a fire department, there is no requirement as to how many fire stations are required in a community or where they are located. That type of decision is determined through a variety of methods. Primary to the decision making is a community assessment to determine the critical factors of a community and its needs. This includes geography, demographics, emergency response statistics and other factors as determined. To further assist in this important decision, an examination of the needs and circumstances of the entire municipality is considered. Additionally, reference material from industry experts and organizations such as the Office of the Fire Marshal and Emergency Management (OFMEM) and the National Fire Protection Association (NFPA) are utilized. Prior to amalgamation, the two fire departments acted somewhat independently in the municipality. Record keeping was subject to the direction of the fire chief for each department and while reports were made to the OFMEM, they were limited in information. To conduct this review the response information from 2015 to the end of 2019 was reviewed. It should be noted that prior to the implementation of the fire department reporting software in 2019, the area records were separated. For 2019 they are combined.

To evaluate the reporting for clarity, four criteria were used. These were, Fire, Medical, Motor Vehicle Collisions and Other. Fire responses included structure, vehicle, grass and field and alarms other than carbon monoxide.

The following is the breakdown for the period of 2015 to 2018;

YEAR	TYPE	INWOOD	ALVINSTON	TOTAL
2015	Fire	2	11	13
	Medical	2	5	7
	MVC	5	6	11
	Other	3	3	6
Total		12	25	37
2016	Fire	3	14	27
	Medical	3	9	12



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	MVC	4	8	12
	Other	0	2	2
Total		10	33	43
2017	Fire	2	10	12
	Medical	2	10	12
	MVC	2	8	3
	Other	0	3	3
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Total		6	31	37
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2018	Fire	6	20	26
	Medical		13	13
	MVC	4	6	10
	Other	1	6	7
Total		11	45	56
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2019	Fire		18	18
	Medical		11	11
	MVC		16	16
	Other		3	3
Total			48	48
			40	40

As illustrated by the above and as well the maps included as Appendix 1 and 2 of this report, by far a majority of calls for assistance are in the Alvinston area. This is indicative of the nature of the communities as Alvinston has a majority of the residential and commercial properties. The former Inwood station during the four year period averaged 9 calls per year while the Alvinston station averaged 33. Information provided illustrates that Inwood responded to a total of 13 fire responses during that time or 4.25 per year while Alvinston responded to 55 or 13.75 annually. Those numbers appear to be consistent through the 2019 report.

Discussion

There is an old adage within the fire service and that is 100 years of tradition unimpeded by progress. That statement suggests the fire service is either unwilling to change, or a proud statement of traditional values and commitment to service. It may further suggest that despite what is happening in the world, the fire service hasn't kept up. In some ways there is truth to the statement and that is that most firefighters look to the tradition as service for the benefit of their community. They are proud of what they do and often display their commitment in various methods. Regrettably, like most service clubs, organizations and groups, age, commitment and the time to dedicate has significantly diminished the numbers of people willing to make a



commitment. In the case of the volunteer firefighter, there have been compelling changes made to the fire service over the last 25 or so years. Training for the safety of the firefighter and those they are rescuing has had a dramatic increase adding more time to their commitment. Fire responses have declined in large numbers due to changes in building and fire code regulations. Further to that one of the more critical components to all of this is the manner in which a fire service now is required to operate. In days past the fire service and firefighter, in order of importance, responded to and put out fires, did some fire prevention and public education and if the they had the willingness, did enforcement. The modern fire service has evolved and recognized that public education along with fire prevention is the key to saving lives and reducing the number of devastating fires a community suffers. If they cannot educate the public then they should enforce the laws as a tool to educate when cooperation isn't an option. Fires will still occur through mechanical failure, accident and nature therefore there is a continued need to provide fire suppression service.

When a majority of the firefighters from the former Inwood Fire Department resigned the disappearance of a local fire department may have seemed to occur. The local residents established a fire department in 1949 and sixty years later it ceased to exist. While it may have occurred visually, the result is that the Municipality of Brooke-Alvinston now has a stronger and ready to respond fire department with Brooke Fire Rescue. A review of calls in 2019 which provides more detail than previous reports has illustrated that there is a firm commitment by the members of the fire department to respond to all areas in the municipality. In 2019 the lowest number of firefighters responding to an emergency call in the area formerly covered by Inwood was 10 and the highest was 26. This clearly demonstrates that the members of the Brooke Fire Rescue are community members and are willing to attend at emergencies anywhere in the municipality. There can be a discussion about what may be perceived as a longer response time in travelling from Alvinston to the Inwood area. Appendix 3 of this report reveals that within 14 travel minutes or less at the posted speed limit firefighters can be within a majority of the former Inwood station area from Alvinston. This timeframe is within industry standards for a rural community which best describes the Inwood area. It must be remembered that the former Inwood Fire Department members while responding directly to emergencies did so without the benefit of their personal protective gear or all required apparatus and needed equipment. Firefighters now responding from the Alvinston station are doing so in full protective gear, with the apparatus and equipment required and ready to commit to action.

It should also be remembered that by far the firefighters respond to more emergencies annually than fire. Over the years fire conditions in homes have exponentially increased in severity. Due to the increased fuel load in a home manufactured from products derived from a petroleum base, a fire which took up to 15 minutes in the past to become fully involved can now occur in as little as 3 minutes. As a result teaching the public about fire escape planning, ensuring



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smoke alarms are working and installed, meeting with the public and reinforcement of fire rules and legislation are key components in reducing fire injuries and death.

Options

The key to preventing fires is public education and fire prevention inspections. It is not conceivable to build and staff a fire station every 3 minutes away from residential areas and have firefighters that are available to respond at all times. The demographics of the community show a decrease in population and an increase in age. Currently there are several members in the Brooke Fire Rescue who reside in the Inwood area. Discussions have indicated that it is the desire to engage more people from the area to join the fire department and have up to perhaps 12 fire department members in the next 5 years.

Several fundamental factors required when deciding the route to take must be considered. First and foremost is that the municipality has met the requirements of the Fire Protection and Prevention Act as they have a fire department. Second is that the municipality determines the level of service it wishes to provide to its residents and communicates it to them. Third and perhaps pivotal in this decision is that the legislation requires the municipality to deliver Public Education. As discussed earlier, public education combined with enforcement, when required, saves lives. Residents must not depend on the fire service to rescue them, they must have their own plan on how to escape from fire conditions and how to mitigate a fire from starting. There is a strong inclination to have a fire department presence in the Inwood area and that desire cannot not be diminished. There has been a fire department for 60 years and once gone, it is difficult to resurrect. The issue is how to maintain that presence in a manner that serves the area residents and is both cost effective and efficient.

It is recommended that the Council of the Municipality of Brooke-Alvinston along with the senior officers of Brooke Fire Rescue give due consideration to the following;

- That an enhanced Public Education plan and program be developed and delivered throughout the entire Municipality of Brooke-Alvinston with an emphasis on fire escape planning and smoke alarms. The appointment of a Public Education team is critical to the success and must be considered. The initial program delivery to be in the Inwood area.
- 2. That an Emergency Medical Responder Team consisting of regular and auxiliary members of the Brooke Fire Rescue be established in the Inwood area. Properly trained and outfitted, the members will through fire department Operational Policies and Guidelines, respond to medical emergencies, motor vehicle collisions along with other emergencies as determined and provide support to the level for which they are trained for. Establishing a team of Emergency Medical Responders will provide an initial emergency response capability which can stabilize an occurrence.



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- 3. That Brooke Fire Rescue implement a recruiting program with a focus on the Inwood area. The program should emphasize that skills of all types are welcome and that auxiliary members will perform various functions such as Public Education or Emergency Medical Response for which they may be suited to.
- 4. That the Municipality of Brooke-Alvinston relocate any Public Access Automated External Defibrillators that they have to an outdoor location so that the public can access them 24/7/365. Technology now permits such actions to occur in cabinetry suitable for outdoor locations. To support this endeavor, a public awareness program along with free training should be completed.
- 5. That the Municipality annually place funds into a Capital Reserve for a future fire station and equipment if and when development and growth occur to substantiate a fire station. The construction of a fire station takes considerable planning and research. A fire station must according to the Ontario Building Code, be built to post disaster requirements. It must as well contain the necessary amenities such as showers and washrooms to ensure that cross contamination does not occur, storage facilities for bunker gear, engineered exhaust systems, automatic garage doors and at minimum a small office space. The position of the fire station on the property must be established so that there is sufficient space for the largest fire apparatus to be parked safely outdoors and to ensure that it may cautiously exit onto the roadway. The property should also contain sufficient parking for firefighters responding.
- 6. That Brooke-Fire remove reference to the names Alvinston and Inwood on all fire apparatus and buildings. If and when a second or third fire station is constructed, numbering of the stations can be considered. While this may seem radical and unnecessary, as long as the names of the former fire departments are referenced, there will be a lack of unity within the department. Brooke Fire Rescue is new and should be built from the ground up and breakdown previously established barriers.
- 7. That recommendations 1 through 4 be commenced immediately with a report to Council no later than the end of September 2020 on their progress.

Financial Impact and Benefit

Budget deliberations have been concluded for 2020 and the budget established. The recommendations come with minimal impact over what has been established. The largest purchase may be in the form of equipment for the Emergency Medical Response Team. They will require an enhanced first aid kit with oxygen therapy and Automated External Defibrillators as well as communication equipment. The Public Education program derives more benefit than



cost with life saving and reduction in property damage consideration. A significant portion of the money allocated to a possible new fire station can be moved to reserves for a future fire station if and when it is proven to be required.

The Inwood area has received a consistent level of service for the past 18 months with no detriment perceived. Following the recommendations will enhance community fire and medical response for the benefit of not only the Inwood area but all of the Municipality of Brooke-Alvinston.

Conclusion

This report is submitted to assist the members of the Municipality of Brooke-Alvinston council and senior staff to continue their discussions and deliberations on delivery of fire service to the Inwood region of the municipality. Certainly it is recognized that this is not an easy decision and that residents must be treated equally and fairly across the municipality. All recommendations in this interim report have been thoroughly thought out and substantiated. In the coming months a report will be forwarded with additional recommendations on the Modernization and Efficiency of the fire service in Brooke-Alvinstion.



June, 2020

Astop-Ford, Barros, Fardin

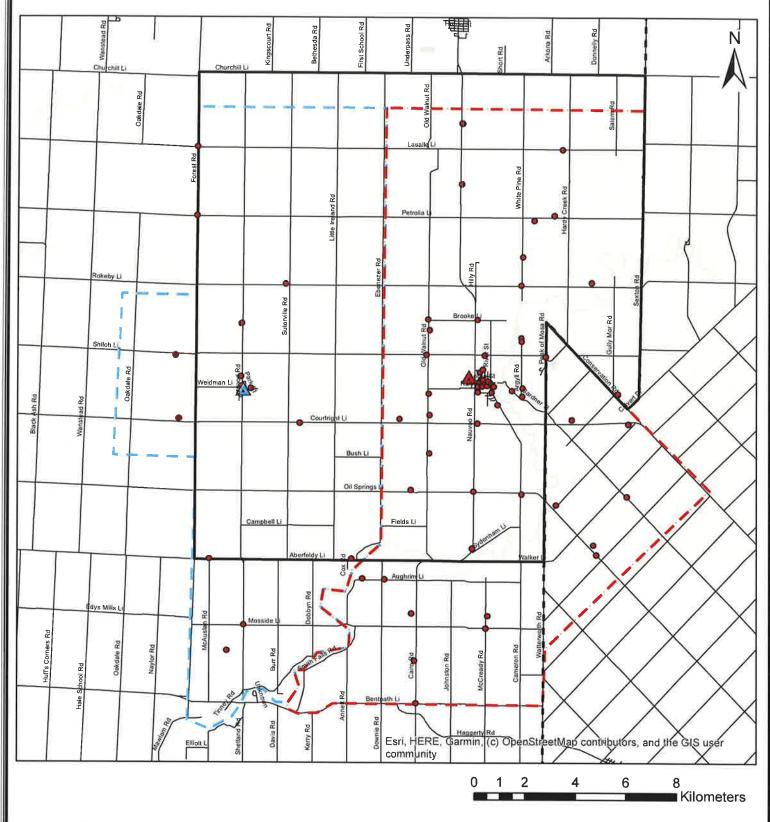
Emergency Calls (2015-2019) in Brooke-Alvinston Bush Li Fields Li Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community Legend ■ Kilometers Proposed Fire Station Brooke-Alvinston Boundary **Existing Fire Station** Lambton County Boundary MVC Emergency Response Alvinston Fire Station Coverage Medical Emergency Inwood Fire Station Coverage NAD 1983 UTM 17N

Road Network

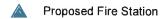
Fire Emergency

Other Emergency

Fire Emergency Calls (2015-2019) in Brooke-Alvinston

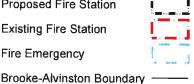


Legend



Existing Fire Station

Fire Emergency



Lambton County Boundary

Alvinston Fire Station Coverage

Inwood Fire Station Coverage

Road Network

NAD 1983 UTM 17N June, 2020 Astop-Ford, Barros, Fardin

Drive Time and Emergency Calls (2015-2019) in Brooke-Alvinston **Existing Fire Station Analysis** Bush Li Source: Esri, DigitalGlobe, GeoEye, Earthstan Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community 1.5 12 Legend ■ Kilometers Proposed Fire Station Road Network Existing Fire Station 2min MVC Emergency Response 4min Medical Emergency 6min Fire Emergency 8min 0 Other Emergency 10min NAD 1983 UTM 17N Brooke-Alvinston Boundary 12min June, 2020 Lambton County Boundary 14min Astop-Ford, Barros, Fardin Alvinston Fire Station Coverage

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