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To: Town Manager Jamie Justice, Mayor Rusty Knox, Board of Commissioners

Date: January 4, 2021

Ref: 2020 Davidson Fire Department Annual Report

I am pleased to present the 2020 Annual Report for the Davidson Fire Department. This report highlights the operations, training, accomplishments, and challenges for this past year. To say that 2020 was a challenging year would be an understatement. The fire department, with support from town administration and the board of commissioners, have been able to successfully respond to the current COVID-19 pandemic with minimal interruptions in service delivery. Some of the challenges of this past year were monumental within the scope of emergency service delivery. COVID-19 guidelines designed to safely respond to the pandemic created some challenges throughout the Davidson Fire Department in how other divisions such as administration and training were supported. Fire department staff had to get creative while operating in a new “virtual world” to ensure that normal department business was conducted in an effective and efficient manner. Although there was an abundance of challenges faced throughout this past year, the Davidson Fire Department was able to meet the core responsibility of providing effective emergency service delivery to the town.

In closing, I would like to recognize all town employees who ensured that services were still provided during the height of a global pandemic. The collaboration between all town departments and employees were the highlight of the year for the entire Town of Davidson organization, ensuring that citizen needs were still being met. The dedication that town employees has demonstrated while working within a “new” normal has been nothing short of inspiring. Their commitment to providing effective customer service was highlighted this past year and all should be commended for their efforts.

Should you have any questions about this report, please feel free to reach out.

Respectfully,

J. Ryan Monteith



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COVID-19 Response

The new norm or reality began for the Town of Davidson in early March of 2020 when response planning began for the current COVID-19 pandemic. Town staff quickly began preparing for a collaborative response to this event. Public Safety, to include Davidson Police and Fire Departments, began working together to implement aggressive response plans to maintain responder safety. The town's administration and Public Safety staff worked closely together to make certain that emergency service delivery would not be interrupted while ensuring that personnel were well equipped to respond to the pandemic. By nature of the job and familiarity of the needs, the fire department assumed the lead role for the town in identifying and securing appropriate Personal Protective Equipment (PPE) for not only police and fire, but Public Works staff as well. Since the pandemic began in March, the town has been aggressive in procuring PPE to ensure that we can still safely respond to the pandemic for many months to come.

2020 brought new changes in how the department delivered services during the middle of a global pandemic. During the early stages of the pandemic, response protocols were altered in conjunction with MEDIC to reduce the number of lower priority medical calls that the fire department responded to. The goal was to help prevent exposures between patients and fire department responders. While the intention was good, normal response protocols were re-started back in the summer to ensure effective response times. The pandemic also brought changes in how fire department personnel administered patient care. Additional amounts of personal protective equipment were added to the PPE protocol to ensure responder and patient safety. The usage of N95 masks, wrap around eye goggles, and full body Tyvek suits were utilized while delivering patient care. The resources allocated by the town allowed the fire department to continue to deliver optimal patient care while still protecting the responders and the patients.

The Davidson Fire Department had to adapt to unfamiliar order during 2020, as did every Public Safety agency around the world. The fire service profession is built upon completing the mission while operating in a group setting. That also includes life within a fire station for (24) hours a day. I am proud of how the fire department staff has been able to adapt to the "new normal" while continuing to deliver effective, critical service to the Town of Davidson. This has been an extremely challenging year and we believe that hope is on



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the horizon with the delivery of the vaccines. The Davidson Fire Department remains vigilant on the front lines of this pandemic.

Although 2020 was unique and stressful, the fire department was still able to fulfill the core mission of providing effective and efficient emergency services to the town with minimal impact.

Highlights are listed below:

- Developed COVID related response plans appropriate to the pandemic
 - Worked with Davidson Police Department to develop an appropriate response plan for law enforcement officers
- Identified PPE needs and worked with vendors to secure a sustainable supply chain
 - PPE included N95 masks, isolation suits, half mask respirators, and approved eye protection
 - Began tracking “burn” rates or usage rate for critical PPE
 - Based on current burn rates, the N95 inventory will remain stable for (550) days
 - Davidson Fire and Police personnel began utilizing reusable protective garments in late spring
 - Fire Department was aggressive early in developing the PPE response plan that would be utilized in helping to develop the PPE response plan for Mecklenburg County fire departments
- Identified Basecamp as a virtual platform for the town’s Emergency Operations Center (EOC) to support the response to the pandemic. Basecamp has served as the virtual EOC for not only the response to the pandemic but other significant events that occurred throughout 2020
- Developed robust quarantine and “Return to Work” plans utilizing guidance from the Centers for Disease Control and Prevention (CDC) and coordination with Mecklenburg County Public Health Department
- Worked collaboratively with other town departments to capture expenses for FEMA reimbursement



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EMERGENCY MANAGEMENT

One area that the fire department helps to administer within the town is the function of Emergency Management. The town takes a collaborative approach among all departments fulfilling the Emergency Management role. Planning and preparation over the years allowed the town to respond accordingly to numerous events in 2020. These events included the current pandemic, severe/inclement weather, and community demonstrations/protests. All these events were responded to by the town effectively and efficiently. Highlights for Emergency Management are listed below:

- Identified Basecamp as a new online platform for a virtual Emergency Operations Center (EOC)
- Basecamp has allowed the town to fill the EOC role while operating with limited personnel
- Activated standing EOC for inclement weather that occurred on April 13, 2020
- Activated standing EOC for a community demonstration/vigil that occurred on June 6, 2020
- Activated standing EOC for a community demonstration that occurred on July 4, 2020
- Activated standing EOC for the response to the Hurricane Zeta remnants that occurred on October 29, 2020
- Activated standing EOC for the response to severe flooding that occurred on November 12, 2020
- All standing EOC activations were also supported virtually with Basecamp
- Utilized approved CARES funding to upgrade technology enhancements for town EOC
 - Purchased a new flip chart that will serve as primary interactive display board in EOC
 - Purchased (2) wireless printers that will be dedicated to the EOC
 - Purchased (6) eight-foot tables for the EOC that are wired for power and data; these multi use tables that can be utilized for functions in the boardroom.

2021 GOALS

- Provide refresher training for critical town staff on the Incident Command System and the National Incident Management System
- Administer (1) tabletop exercise specific to the Town of Davidson to test local strengths and identify weaknesses



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- Create line item funding for Emergency Management and identify Emergency Management related expenditures
- Continue to train and enhance personnel capabilities operating within the EOC
- Provide additional training on WEB EOC which provides virtual platform between Town of Davidson and Mecklenburg County Emergency Operations Center

Fire Prevention & Community Service

One of the core missions of the Davidson Fire Department is to educate the citizens of the town regarding emergency preparation and fire safety. This has always been accomplished by the interactions between the citizens and our firefighters. From delivering fire education classes to the town's school aged children or playing competitive games with the residents from Williams Place, the department has always taken pride in the daily interactions with the citizens. Our firefighters have grown accustomed to knowing citizens by name as they see them throughout the town. This is what makes Davidson such a special community and the relationship between the citizens and the fire department remains strong.

Unfortunately, the current COVID-19 pandemic put a tremendous strain on the department's ability to be able to interact with citizens outside of an emergency call. The fire department made the tough decision within the early weeks of the pandemic to suspend any public education and community service events. Some of these decisions were a direct response to executive orders issued by Governor Roy Cooper and other decisions were determined by the fire department. All decisions were made with the safety of the citizens and the fire personnel in mind. The department wanted to ensure that the town's residents were well protected and that our firefighters were protected as much as possible to effectively respond to the pandemic. Suspending these events was not part of the fire department's plan for 2020 but it was the correct decision to ensure the safety of everyone involved.

One item that can be considered a success for residents and the department was the launch of the Community Connect application in November 2020. Community Connect is a secure platform for citizens to provide pertinent information that would be beneficial for fire personnel

responding to an emergency. This information is tied directly to the department's pre-incident planning application of First Due. First Due provides that information to responding firefighters so that they are aware of issues that could be present during that emergency call such as structural instability, utility disconnects, hazardous materials locations, critical medical needs,



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and other pertinent information. To date, the fire department has received positive feedback on the Community Connect program.

We have also collaborated with Davidson College to allow them access to First Due. This partnership will better manage the pre-incident plans related to college specific properties. We look for this collaboration to evolve more efficiently during 2021.

To learn more about Community Connect, please click here
<https://www.communityconnect.io/info/nc-davidson>

2021 GOALS

- Once COVID restrictions allow, re-start in person community engagement events to include fire education and safety discussions
- Continue to advertise and encourage resident participation with the Community Connect platform
- Ensure fire and safety education for elementary school children is delivered in a collaborative effort between Davidson Fire Department and the Mecklenburg County Fire Marshal's Office
- Work with The Pines and Williams Place to deliver more effective fire and safety discussions for the geriatric population

TRAINING

One of the core missions of any organized fire department is to ensure that member(s) are effectively trained to ensure that skillsets are proficient to meet the delivery service model. Since the hiring of part-time staff in 2007, the Davidson Fire Department has always been able to rely on highly skilled and trained employees. The department is blessed with an abundance of qualified and certified personnel that put their qualifications to use while protecting the Town of Davidson. The Davidson Fire Department Training Division is charged with managing the department's training program. Every calendar year, the Training Division is tasked with developing and delivering training classes and programs that help to refine the skills of our employees. The division is also responsible for ensuring that all annual training requirements outlined by the State of North Carolina and OSHA are followed. The State of North Carolina requires that fire department(s) offer a minimum of 36 hours of training for department



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employees. The fire department goes well above this requirement and ensures that the training content is robust. This ensures that member(s) are training on specific needs to the response area. The Training Division delivers annual training in a hybrid platform to include on-line and “hands on” content.

The ongoing pandemic created some issues with how training was delivered throughout 2020. To keep personnel socially distanced, more effort was put on online training as well as gearing training for individual stations. The greatest benefit to training is improving teamwork and working relationships among members. However, to protect the health of the department members, traditional training methods were either restructured or redefined to ensure training was being delivered in the safest manner possible. The Training Division was able to revamp how training data was captured to ensure that all applicable training hours were being recorded. This more streamlined process allowed for better record collection and produced more training opportunities for members.

The total number of training hours for the fire department for the calendar year of 2020 was **11,983.50**. This averages out to **193.28** hours of training hours per member for the department. This was a drastic increase over the last few years and the department’s training program is one of the areas that had a direct result of our current Insurance Services Office (ISO) score.

2020 threw some significant challenges within the training realm, but the department was able to adapt and continue to provide this service to our members while maintaining a high level of efficiency.

OPERATIONS

Operations is the core service that the Davidson Fire Department delivers to Town of Davidson citizens. The department is charged with providing fast, effective, and efficient emergency service delivery. The goal of this department is to mitigate someone’s problem when they are having the worst day of their life. The department accomplishes this by providing services in fire suppression, EMS first responder, hazardous materials mitigation, technical rescue, and many other critical areas. The department provides these services from two staffed engine companies that respond from Fire Station 1, which services the downtown and West Davidson area, and Fire Station 2 which services East Davidson to include River Run, West branch, and Summers Walk. The addition of Fire Station 2 has dramatically lowered response times to those areas. This has ensured that a fire truck with qualified personnel are arriving on scene within minutes of a citizen activating the 911 system.



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Call Volume:

This past year brought a reduction in total calls for service for the Davidson Fire Department. Much of this was centered around the response to the current pandemic. In late March, MEDIC changed response protocols for first responder agencies within the county. These first responder agencies were no longer responding to lower priority medical calls. The goal was to reduce the threat of exposure to first responders. This new protocol stayed consistent until this summer when the protocols went back to normal status. It was the department's opinion that responding to all medical emergencies ensured that citizens were getting early care without having to wait for extended durations for an ambulance. The total call volume for Davidson Fire Department compared to 2019 is listed below:

2020 CALL VOLUME	2019 CALL VOLUME
1370	1624

This represented an overall decrease in calls of 254 calls from 2019.

Call Volume for Response Zones:

To better track response data within our incident reporting software system, the department divides the response jurisdiction into zones so that more definitive data can be tracked. These zones include all of Davidson but also include our mutual aid partners as well. Call volumes for the response zones for 2020 are listed below:

ZONE	NUMBER OF CALLS
Lake Norman VFD	5
Mooresville FD	6
Mount Mourne VFD	68
Cornelius FD	201
Bradford Park	9
CMC – Davidson Behavioral Health	19
Davidson - East	166
Davidson - West	544
Davidson College	61
Davidson Pointe	13
Interstate 77	43
River Run	71



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ZONE	NUMBER OF CALLS
Summers Walk	20
The Pines at Davidson	70
Williams Place	57
Huntersville FD	11

Call Types:

The list for call types for 2020 are listed below. These calls reflect all calls for service that Davidson Fire Department responded to within 2020. The data for 2019 is also listed:

MAJOR INCIDENT TYPE (2020)	# INCIDENTS	% of TOTAL
FIRES	35	2.57%
Overpressure, rupture, explosion, no heat	7	0.51%
Rescue & Emergency Medical Service	618	45.31%
Hazardous Condition (No Fire)	70	5.3%
Service Call	139	10.19%
Good Intent Call	281	20.6%
False Alarm & False Call	211	15.47%
Severe Weather & Natural Disaster	3	0.22%

MAJOR INCIDENT TYPE (2019)	# INCIDENTS	% of TOTAL
FIRES	33	2.03%
Overpressure, rupture, explosion, no heat	5	0.31%
Rescue & Emergency Medical Service	815	50.18%
Hazardous Condition (No Fire)	45	2.77%
Service Call	141	8.68%
Good Intent Call	344	21.18%
False Alarm & False Call	234	14.41%



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MAJOR INCIDENT TYPE (2019)	# INCIDENTS	% of TOTAL
Severe Weather & Natural Disaster	3	0.18%

Concurrent Calls:

As the population of the area continues to grow, so does the number of emergency responses. The fire department deals with concurrent or overlapping calls annually. This is when there are two or more emergencies occurring at the same time. This is not new to the town and the addition of Fire Station 2 with additional staffing has proved beneficial in being able to mitigate multiple calls at once. Data for 2020 is listed below as compared to 2019:

# OVERLAPPING (2020)	% OVERLAPPING (2020)
161	11.8

# OVERLAPPING (2019)	% OVERLAPPING (2019)
257	15.83

Response Times:

Traditionally, the fire department has utilized “average response times” to paint a picture on how quickly apparatus are arriving on the scene. While these numbers may look good from a global perspective, they do not show how efficiently a fire department is responding to calls for service. The department has taken the approach of utilizing aggregate response times to show a true picture of where our response times are at. The goal of this organization has always been to have the first due apparatus on scene within 6:00 minutes, 80% of the time. Response times are determined by multiple factors:

- Call Taking (911 Center)
- Call Processing and Dispatch (911 Center)
- Turnout Time (Time it takes for apparatus to check enroute)
- Travel Time (Time it takes for apparatus to respond to the incident)

Unfortunately, Davidson Fire Department can only control the turnout time and response time as we rely on Mecklenburg County to control the 911 system. If a dispatcher is delayed in processing the call, that delays the response time. Conversely, if our members delay getting on the apparatus and out the door is delayed then that also affects the overall response time.



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The fire department has taken steps over the years to help improve response times such as adding additional technology in the apparatus that records the enroute time. This technology speeds up the process from the officer having to notify the dispatch center that the apparatus is responding. There has been a movement among some of the county fire departments to approach the Charlotte Fire Department about providing dispatch for the county fire departments. This is all in the discussion phases and it would require complete participation from all county fire departments to make this system work. I would anticipate more discussions occurring in 2021.

Until that time comes, Davidson Fire Department is continually looking at ways to lower the response times. The addition of Fire Station 2 has dramatically improved response times in the East Davidson area. Since adding Fire Station 2 with a second staffed company, an additional goal is to have the second due apparatus on scene within 8:00 minutes. This is especially critical during structure fires as the second apparatus is bringing additional personnel which counts towards the Effective Firefighting Force. Currently, the fire department is maintaining a 6:00 minute response time for the first arriving apparatus at 80% of the time. The goal for 2021 is to get to 85% compliancy for the first due apparatus. The department is currently at 75% compliance rate for the second due apparatus arriving within 8:00 minutes. The goal for 2021 is to improve the number to 80% compliance within 8:00 minutes for the second due apparatus.

The department is trying to take a calculated approach with these goals. We want our employees to respond as safely and efficiently as possible so that they can meet the needs of our citizens. We feel that we have put the proper steps and technology in place to improve these compliance numbers. We feel that the 85% mark is bold, but also achievable. The data point for the second due apparatus arriving may be harder to achieve depending on the geographic area where the call is located. For example, if Ladder 1 is responding to Summers Walk on a structure fire then that unit may not arrive on scene within the 8:00 minute benchmark.

The value of looking at the aggregate response times is that it allows the Command Staff to identify pitfalls within our responses. Is the distance too far from the closest station? Was the technology on the apparatus working properly? Did the officer on the apparatus utilize the technology as directed and is it now a training issue? Are road hazards or detours present that is hindering response times? These are just many examples of questions that we can get answers to by looking at the data more collectively.

And if anyone is curious because you are accustomed to seeing average response times given, the department's average response time for 2020 was 5:54 minutes.



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ADMINISTRATION

This past year created some obstacles and challenges for the Command Staff in trying to administer “normal business” of the department while planning and responding to a global pandemic. The focus for this past year was responding to the pandemic, maintaining service levels, and developing a current operating budget that met the needs of the department and the town. Even in the middle of a global pandemic, the department was still able to complete an ISO inspection and lower the ratings in both the town and the ETJ. This was a huge accomplishment for the town that was years in the making. Staff spent numerous time in preparation for this inspection. The result was a significant win for not only the citizens in town but the citizens in East Davidson and the ETJ. The department was able to lower the ISO rating from a Class 5 in town to a Class 2. That was followed by lowering the ISO rating in the North Star District from a Class 9 to a Class 4/9E. To put this into perspective, the score to achieve an ISO Class 1 is 90.00 – 100.00. The department received a Public Protection Classification score of **89.37**. The score to achieve an ISO Class 3 for the North Star District is 70.00 – 79.99. The department received a Public Protection Classification score of **69.61**. Although we were extremely elated with these numbers, the credit goes to the men and women of this department who respond on these trucks every day to make a difference for our citizens. This accomplishment would also not have been possible without the support and assistance from current and former town administration and elected officials.

Moving forward in 2021, the Command Staff is making it the number one priority to look out for the mental health and well being of our members. This past year has been an extremely stressful year for everyone, and we are seeing some anxiety issues, fatigue, and burnout within Public Safety agencies throughout the county. 2020 was a very trying year for our first responders and our goal is to ensure that our members have the adequate resources they need to address any mental health issues that they might encounter.

Finally, I would be remised if I did not recognize the work that retired Fire Chief Bo Fitzgerald has given to the town throughout his many years of service. His legacy within this department will not go unnoticed because he had the vision to transform this department into a model agency for other small towns to look at. Although he will be extremely missed, his contributions to this department and town have led to a fire department that is moving forward progressively.