



MONTGOMERY COUNTY FIRE AND RESCUE SERVICE POST-INCIDENT ANALYSIS



Townhouse Fire with 1 Fatality
Box Area 08-02
996 West Side Drive
April 2, 2017
Incident # 17-00500214

THE POST INCIDENT ANALYSIS

The Post Incident Analysis is a critical component in determining the processes used during a major incident and an educational tool for all Montgomery County Fire and Rescue (MCFRS) personnel. Valuable lessons are learned from observations of effective and efficient methods of mitigating a major incident. These include all strategic decisions, operational issues, built-in fire protection devices, and anything else that assisted in mitigating the incident. Montgomery County Fire and Rescue Service (MCFRS) personnel also benefit from learning what has not proven to be effective or efficient.

The Post Incident Analysis requires the incident commander to closely evaluate all conditions, factors, and decisions made during a major incident. This detailed retrospective provides documentation that can be used as an educational tool. Each incident commander should use all available resources to completely and thoroughly describe the incident and the methods used to mitigate it.

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Incident Overview

Note: This post incident analysis is based upon the review of the incident audio tape, interviews with crews who operated at the emergency scene and the review of completed Unit Reports.

On April 2, 2017 at 2009 hours, Montgomery County Fire and Rescue (MCFRS) units responded to 996 West Side Drive, Gaithersburg, Maryland for a report of a house on fire. While units were responding, the Mobile Data Computers (MDCs) were updating information of fire from the roof and the Rapid Intervention Dispatch (RID) was dispatched. Weather at the time of the incident was dry with partly cloudy skies. The temperature was 52 degrees Fahrenheit with 63 percent humidity. The wind was 2 miles per hour from the South. The weather was not a factor in fire behavior or the outcome of the incident.

Although it does not change any facet of the response, there are discrepancies in the spelling of the street name in tax records, street signs, and internet searches. It sometimes is recorded as West Side Drive and sometimes as Westside Drive.

While en route to this incident the Montgomery County Emergency Communication Center (ECC) updated all responding units with a report of one victim trapped. Paramedic Engine 708 advised Engine 753 that they (708) would be arriving first and would take that position, pushing Engine 753 to the second due spot. Paramedic Engine 708 gave lay-out instructions advising they would be laying into the structure from the hydrant located at 950 West Side Drive and Engine 753 should complete their water supply by using that hydrant. While still en route ECC updated the responding units with the location of the victim being in the basement and started the RID. Moments later, ECC changed the location of the victim to the second floor bedroom at the top of the stairs and added information that the front door was open.

Paramedic Engine 708 arrived on scene on side Alpha and gave an initial on-scene report of a two-story end-of-row townhouse with fire through the roof. Paramedic Engine 708 requested a Task Force and initiated command in the "rescue mode". Battalion Chief 703 en route called Paramedic Aerial Tower 708 and attempted to confirm their understanding of a victim trapped on the second floor. Paramedic Aerial Tower 708 did not confirm. ECC reconfirmed with Paramedic Engine 708 of the victim trapped on the

second floor. Paramedic Engine 708 completed a 360 degree check and reported that on Side Charlie there was heavy fire from the second floor on the second unit in, not the end of the row. Paramedic Engine 731 gave lay-out instructions to Paramedic Engine 728 that they were split laying into the scene from the entrance to the complex and Paramedic Engine 728 was to complete the lay to the hydrant at 1084 West Side Drive.

Battalion Chief 703 arrived on scene and asked for an update from Command Paramedic Engine 708. The update was given and Battalion Chief 703 assumed Command in his vehicle on Side Alpha behind Paramedic Aerial Tower 708. Command gave a secondary on scene report. Command assigned Paramedic Engine 708 to the second floor to begin fire attack on the

second floor and the attic space. Paramedic Engine 708 entered the structure on Side Alpha via the front door with an inch and three-quarter hand line. Command assigned Paramedic Aerial Tower 708 to the second floor to complete a search. Engine 753 was assigned to back up Paramedic Engine 708 with a second hose line.

Command asked for an acknowledgment from Aerial Tower 708 on the order to proceed to the second floor and begin a search. Aerial Tower 708 complied with the

order. Command gave Division 2 supervisor to Paramedic Engine 708 with Aerial Tower 708 and Engine 753 in their division. Truck 731 was added to the division to assist with fire extinguishment when they arrived on location.



Paramedic Engine 731 was assigned to Exposure Bravo, 994 West Side Drive, to search, check for extension, and check on smoke conditions. Paramedic Engine 728 was assigned to Exposure Delta exposure, 998 West Side Drive, to perform the same tasks as the Bravo Division. Both Exposure Divisions reported negative search results, negative fire extension, and a small volume of smoke in both units. Rescue Squad 703 was assigned by Command to complete a search in the fire building starting in the basement and completing on the first floor. They were also assigned to control any utilities.

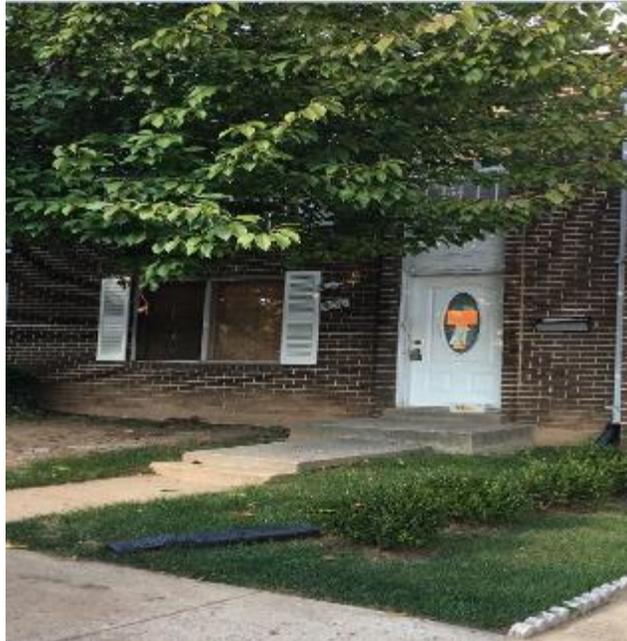
The RID was set up on Side Alpha by Paramedic Engine 732. The Rapid Intervention Group was completed by Aerial Tower 703, Rescue Squad 729, and Ambulance 732. Safety 700 arrived on scene and was assigned as the Incident Scene Safety Officer

Rescue Squad 703 reported that the search was complete on the first floor with negative results. They also reported that they were beginning the secondary search on the second floor and that the electric had been controlled at the panel. Division 2 reported the fire was knocked on the second floor. Command assigned Aerial Tower 708 to complete a detailed search of the second floor bedrooms in search of a bed-ridden victim. After a short time, Paramedic Engine 708 exited the building to do a face-to-face with Command. Their report was they found a priority four victim on the second floor Bravo quadrant in a bed. Command reported this finding to the Fire and Explosives Investigations Section (FEI) on 7 Lima.

Chief 705 Bravo arrived and was assigned to report to Division 2 and became the division supervisor. The division was to complete extinguishment and begin overhaul without affecting the Fire Investigators process.

EMS 703 reported that they requested two additional transport units on 7 Bravo to assist with three patients. Command requested two additional transport units to the scene not understanding EMS 703's request and that two units had already been dispatched. Ambulance 708 and Ambulance 728 were on the scene when Medic 708 Bravo and Medic 731 were dispatched. Both Medic 708 Bravo and Medic 731 were assigned to report to Emergency Medical Supervisor 703 to assist with patient care. Ambulance 708 and Ambulance 728 were never utilized and it was unknown by Command that they were on the incident.

A Personal Accountability Report (PAR) was done by Command with all units reporting they were accounted for. All units were sent through rehab. The fire was declared extinguished and overhaul completed. FEI were on scene to complete the investigation. Two other civilians were transported to local hospitals with priority three injuries.

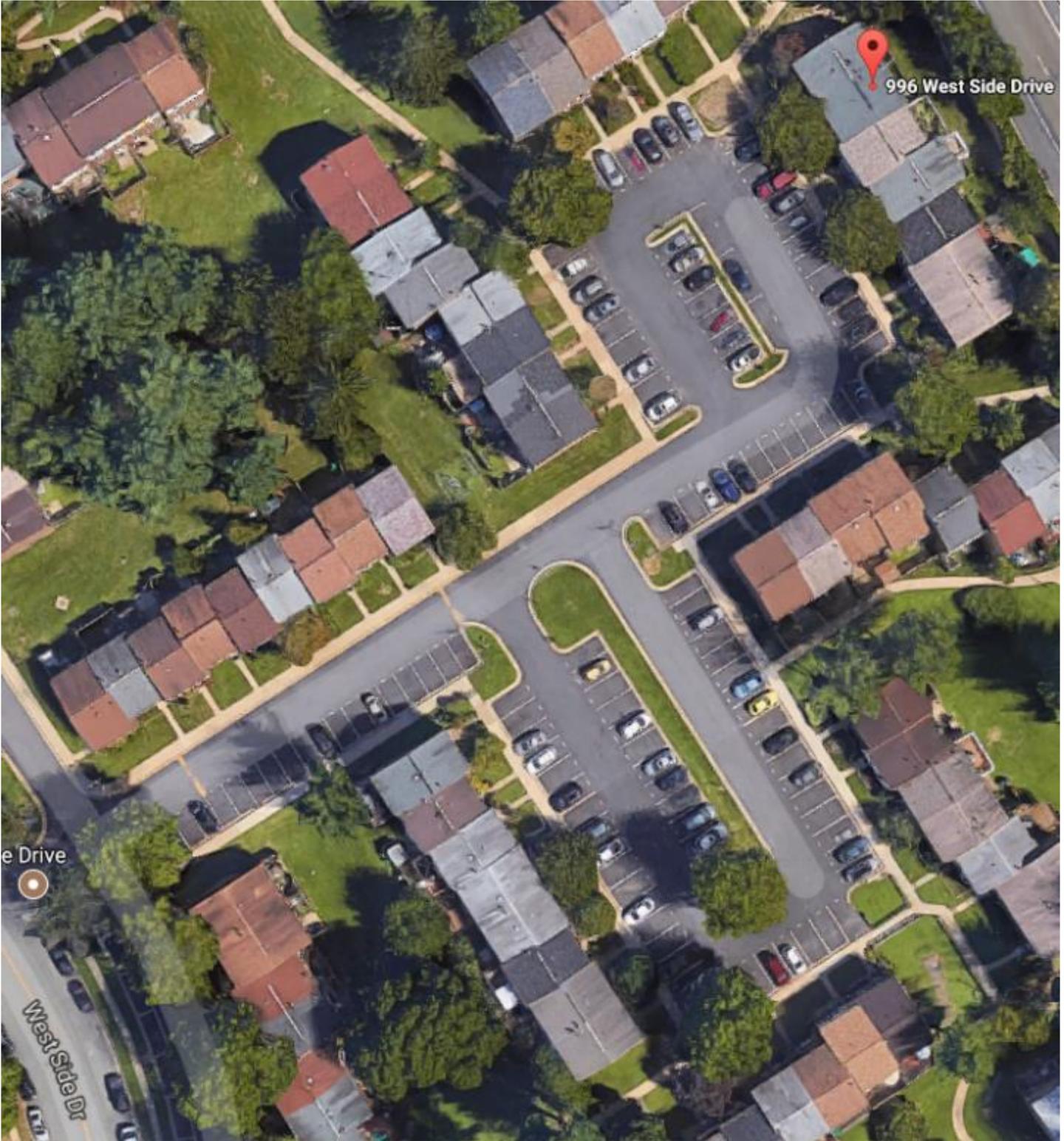


Building Structure/Site Layout

The structure at 996 West Side Drive is part of a residential neighborhood comprised of other similar style and constructed homes. There are no fixed fire suppression systems. The townhouse is a two-story middle of the row dwelling with a basement built in 1994. Side Charlie is two stories without a basement exterior entrance.

The construction is Type Five with brick veneer. The roof covering is asphalt shingles. The home is 1,806 square feet. There is no garage and only street parking on Side Alpha. Both the Bravo and Delta attached exposures were occupied at the time of the incident. There is a concrete patio on Side Charlie with a privacy fence on both the Bravo and Charlie sides.

The closest hydrant was two hundred and forty feet away in the complex. This hydrant was laid out from but not used until late in the incident. Instead the hydrant in the cul-de-sac of West Side Drive was used by the first and fourth due as the main water source. This hydrant is four hundred feet away.



Fire Code History

A review of the past and current fire code requirements for the structure revealed no code compliance issues.

Communications

The incident was assigned to the 7-Golf talkgroup with second alarm and staged units on 7-Hotel. The 7-Golf operator effectively supported a complex incident. Radio reception was good and the Vehicle Repeater System (VRS) was not needed or engaged.

Pre-Emergency Planning

There is no pre-fire plan for the structure other than the current street map prepared by Fire Station 08's personnel. The map was available in all responding fire apparatus and units with operating MDCs. The map was not accessed or required for use by Incident Commander.

Staging

The units dispatched on the Task Force were assigned to operate on 7-Hotel and assigned to stage on West Side Drive. Single units were called up by Command to assist with overhaul and investigation at the request of the Fire Marshalls.

Support Functions

The Emergency Medical Services (EMS) Group was established early and it included a rehabilitation component. EMS 703 was the group supervisor with Medic 708 Bravo, Medic 731, and Ambulance 708. Canteen 708 and Mobile Air Unit 733 worked in unison with the EMS Group to ensure personnel were hydrated and Self Contained Breathing Apparatus cylinders were available for service.

Interactions with outside agencies were coordinated i.e. Montgomery County Police Department (MCPD), American Red Cross, power and gas companies. The outside electrical meter was pulled. There was no natural gas in the structure. Fire Code Compliance posted the home as unfit for occupation. The American Red Cross was utilized by the occupants for assistance.

Safety Considerations

There was no major safety consideration. The two-out was called by Paramedic Engine 708. Safety 700 filled the Incident Scene Safety Officer position.

Safety

Safety 700 was assigned as Incident Scene Safety Officer on the fire ground. He went to the second floor of the townhouse after looking at Side Charlie and the basement. Once on the second floor, he met with Division Two to check on the search status and the units assigned to him. He then Went to rehab and was asked by the Fire Chief about the conditions and contents of the second floor. He assessed Exposure Bravo to see if it was okay to occupy.

MAYDAY

There were no MAYDAYs or firefighter injuries.

Resources

1st Alarm

Paramedic Engine 708
Paramedic 753
Paramedic Engine 732
Paramedic Engine 731
Paramedic Engine 728

Paramedic Tower 708
Truck 731
Rescue Squad 703
Medic 708

Battalion 703
Battalion 705
Duty Chief 700
Volunteer Duty Chief 700
Chief 703
Safety 700

Rapid Intervention Dispatch

Aerial Tower 703
Rescue Squad 729
Ambulance 732
Fire Marshal 740
Fire Marshal 741

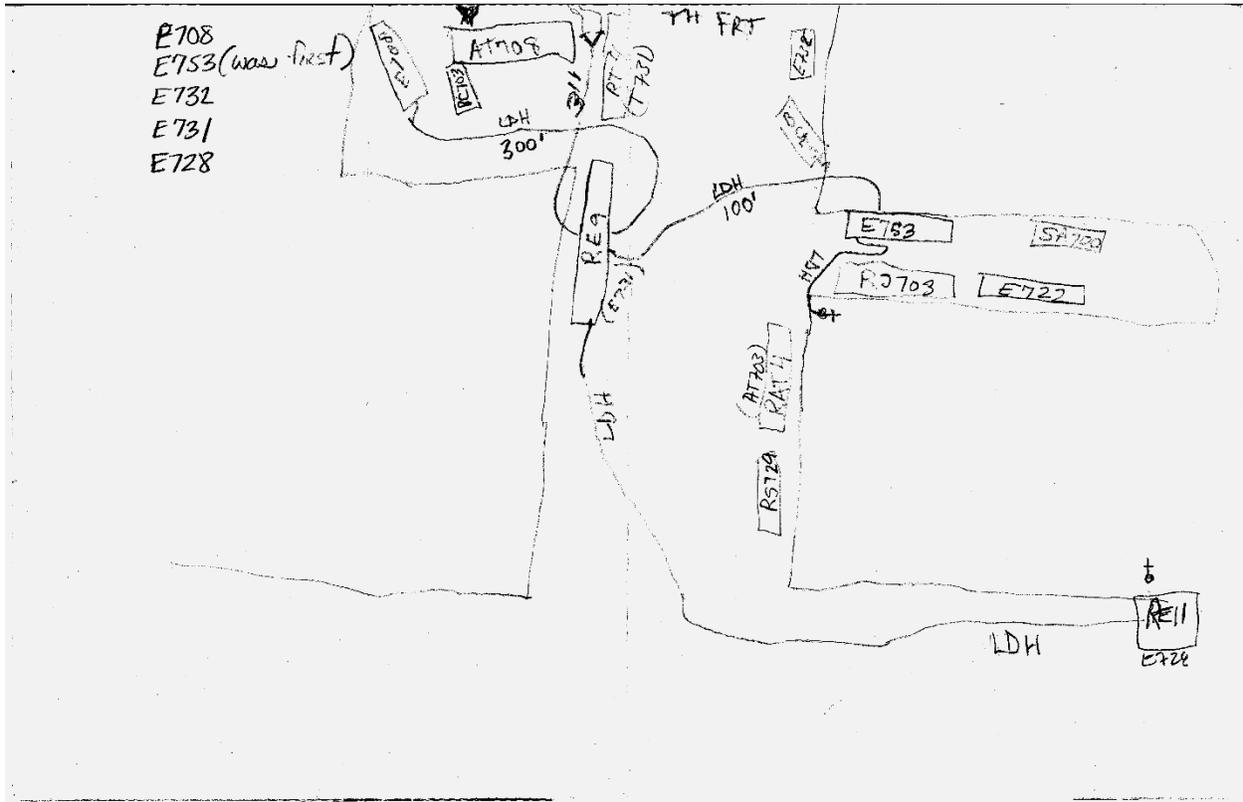
Other

Emergency Medical Service 703
Paramedic Engine 722
Paramedic Engine 734
Truck 734
Ambulance 708
Ambulance 728
Medic 731
Medic 708 Bravo
Operations Chief 700
Chief 705 Charlie
Command Post 700
Mobile Air Unit 733
Canteen 708

Accountability

Crews were accounted for utilizing the Incident Tactical Worksheet and the Daily Lineup form carried in the Battalion 703 vehicle. Additionally, crews were accounted for utilizing the required PAR based on the required Incident Duration Reminders (IDR) timeline. All personnel provided timely reports.

Unit Location Map



Investigation

Personnel from the investigation completed by the MCFRS Fire and Explosives Investigations Section, this fire has been classified as undetermined. The Investigator was unable to determine the specific point of origin nor a first material ignited. The possibility of an electrical ignition source could not be ruled out nor could improperly discarded smoking materials be ruled out.

Lessons Learned

As in all incidents there are lessons to be learned from this incident. Communication plays a large part of the lessons learned.

En route, Paramedic Engine 708, dispatched as the second due engine, verbalized that they would be arriving first and would be taking that position. The positioned and hand-jacked the hose back to the hydrant at 950 West Side Drive. Engine 753, dispatched first due, acknowledged the change in running order and the hydrant location. Engine 753 arrived on location and due to mechanical issues (the parking brake) was unable to connect to and supply water to Paramedic Engine 708. This issue was never communicated via the radio to units and Command. Paramedic Engine 732 arrived on location as the Rapid Intervention Company and the engine was never used in any part of the water supply chain. Paramedic Engine 708 driver communicated several times that the tank water was running low, and at one point was down to half a tank of water. Command assigned Engine 753 to establish the water supply to Paramedic Engine 708. Engine 753 never acknowledged the order and Command never re-checked. At this point Paramedic Engine 731 arrived on location laying in from 1084 West Side drive. They were able to connect to Paramedic Engine 708 thus completing the water supply for most of the incident. At no time did Command know of the water supply issue. Issues that may have an impact on the strategy and tactics need to be communicated to Command so they can either add units to assist to correct the problem or change strategy until the issue has been corrected.

The second lesson dealt with the search of possible victims. This issue has two parts. The first was the physical search, en route ECC updated the units twice. The first update was for a possible victim in the basement, almost immediately they change the location to second floor bedroom with a bedridden victim. Battalion Chief 703 also called Paramedic Tower 708 to confirm that they were OK on the updates. Two separate searches transpired, both with negative results. Command needed to order a third search specifying a detailed search of the bedrooms. After the third search a priority four victim was found in a second-floor bedroom Bravo quadrant in a bed. The victim was severely burned and covered with drywall type material making them difficult to locate.

The second part compounded the confusion about the possibility of a victim. Command was given conflicting reports from units on the outside of the Command Post. At different times Command was told there was a missing person and that all residents were accounted for.

Units must complete the initial search quickly checking all locations that a person could be. The secondary search must be more detailed and thorough, moving any impediments that may hide or obstruct possible victim locations. Command needs to understand the need for communications via the radio. Opening the windows of the command vehicle to communicate to outside units may only add confusion and possible mistakes to the operation.

Overall Analysis

This fire, although not complex from a firefighting standpoint, caused the death of a resident. The issues that have been documented can be learned from and overcome with a better understanding of strategy, tactics, and common terminology. MCFRS will always learn from incidents like this and strive for better performance. Safety first and foremost, disciplined firefighting, and communication should continue to drive emergency incidents to a positive outcome.