

PS COMMITTEE #1
February 1, 2016
Worksession

MEMORANDUM

January 28, 2016

TO: Public Safety Committee

FROM: Essie McGuire, Senior Legislative Analyst 

SUBJECT: **Worksession – Review of Montgomery County Fire, Rescue, Emergency Medical Services, and Community Risk Reduction Plan, *continued***

Today the Public Safety Committee will continue its review of the 2016-2022 Fire, Rescue, Emergency Medical Services, and Community Risk Reduction Plan. County Code requires the Fire Chief to develop a master fire, rescue, and emergency service master plan for approval by the County Executive and County Council. On October 23, the County Executive transmitted the new 2016-2022 Fire, Rescue, Emergency Medical Service, and Community Risk Reduction Master Plan to the Council for review.

On November 9, the Committee received an overview of the master plan from Fire Chief Scott Goldstein and identified areas for further discussion and follow up. The full copy of the master plan and appendices can be found at the following link:
<http://www.montgomerycountymd.gov/MCFRS/MasterPlan2015/MasterPlan.html>.

A key operational priority in the plan is the implementation of a modified ALS (Advanced Life Support) delivery model involving use of ALS chase units and increasing ambulance transport capacity. Given that the majority of MCFRS response calls are for Emergency Medical Services, today's worksession will focus on understanding the proposed ALS service delivery model and the impact on the operational structure of MCFRS.

The Committee also expressed interest in discussing the proposed new fire stations in the Master Plan. Today's discussion of the proposed ALS service delivery model will also frame the facility discussion in terms of how these new stations relate to the proposed ALS service delivery model, to fire protection services, and the geographic coverage and response times for both.

ALS Delivery Model

The proposed ALS delivery model changes are outlined on circles 1-3 and 16-19. The model not only increases the number of ALS providers but also maximizes their efficiency by returning ALS providers to service more quickly. A primary way to accomplish this goal is to separate the ALS provider from the patient transport unit, reducing the need for an ALS provider to spend down time at the hospital unless it is medically necessary for the patient. An additional benefit is increasing transport capacity across all EMS service calls, including the BLS (Basic Life Support) or less critical responses.

The model would both redirect existing resources and require the addition of some new resources. It requires:

- **Completion of four-person staffing on engines and expanded four-person staffing to aerial units.** The plan calls for additional paramedics as the fourth person on all remaining engines, which is six current stations, and any new stations. The plan also calls for a paramedic on aerial units at 14 stations. Currently one aerial unit has a fourth person.
- **Increase of 13 ALS chase units.** This adds chase units at 11 stations; some stations would have more than one unit.
- **Increase of 23 ambulances over the FY15 level.** Of these, 13 would be converted from existing medic units.

The initiatives in the Master Plan are identified as priority A, B, or C, with A being the highest priority. The ALS delivery initiatives are all listed as Priority A (circles 16-19). The Fire Chief's presentation estimates that the fiscal impact of fully implementing these ALS service enhancements is approximately \$6 million (circle 46).

Proposed New Fire Stations

The Master Plan calls for four new fire stations to be requested for inclusion in the CIP during this planning period. The four are listed below; further description of the need for the station is attached as identified.

- Shady Grove Station 36, vicinity of Shady Grove Road and Frederick Road
Priority A; description on circle 9; response time maps on circles 58-59.
- Montgomery Village Station 39, vicinity of Goshen Road and Rothbury Drive
Priority A; description on circle 11; response time maps on circles 54-57.
- Eastern County Station 37, vicinity of Columbia Pike and Tech Road
Priority B; description on circle 10; response time maps on circles 60-61.
- Norbeck Station 38, Norbeck Road Corridor
Priority B; description on circle 10.

The justification for each new station relates to the need to improve response times. As seen in the descriptions and in each map comparison, the addition of a new station in each area would bring response times in those areas in line with 6-8 minute response standards (response time benchmarks outlined on circles 31-32). New stations would also alleviate pressure on nearby stations with high call loads.

The Committee expressed interest in discussing whether there are other ways to address response time and service delivery issues without building additional full capacity fire stations. Given the documented need for additional services, the Committee may want to discuss further with the Fire Chief questions such as:

- Is there a different type of facility or service model that can provide the improved service response needed by focusing more specifically on EMS service delivery only?
- Can part of the need be addressed by adding units to existing facilities, such as nearby stations or other County facilities?

Other facility priorities

The other facility improvements that are identified as Priority A in the Master Plan are already included in the FY17-22 CIP (descriptions on circles 27-29):

- Kensington/Glenmont Station 18 Relocation
- White Flint Station 23 Relocation
- Clarksburg Fire Station 35 Relocation
- Kensington Aspen Hill Station 25 Addition

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SECTION 5

ISSUES AND NEEDS

Section 5 addresses fire, rescue and EMS issues and needs identified from within the Fire and Rescue Service as well as those identified by the five Citizen Advisory Boards associated with the County's five Regional Services Centers⁶⁸. The discussion on issues and needs is presented below by broad functional categories including preparedness/readiness, resource deployment, planning and assessment, infrastructure and communications, information technology, data analysis and application, training/wellness, support services, and other issues/needs.

Initiatives related to these issues and needs are presented in Section 6 – Initiatives and Priorities.

PREPAREDNESS/READINESS

Issues, needs and priorities pertaining to Fire and Rescue Service preparedness and readiness is presented below under the categories of operations, fire and explosive investigations, fire code compliance and engineering services, community outreach/public information, and the Community Emergency Response Team.

OPERATIONS

Emergency response-related issues and needs are presented below by emergency response program area. Note: Issues and needs pertaining to emergency response resource deployment and staffing are addressed in a separate heading below by that title.

EMERGENCY MEDICAL SERVICES

1. The ALS delivery model must be modified to improve the availability and reliability⁶⁹ of ALS service. With the County's population increasing at a steady rate and also aging, ALS demand will increase as well. To meet this demand and to deliver ALS services within MCFRS response time goals, additional ALS resources must be deployed throughout the County particularly in the areas of highest population density and areas where stations lack ALS capability on a regular basis.

⁶⁸ The five Citizen Advisory Boards include: Silver Spring, East County, Mid-County, Up-County, and Western Montgomery County.

⁶⁹ Reliability addresses both availability of a specific type of unit and whether its response time is within established 90th percentile goals of the department.

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To maximize efficiency, ALS units should be involved in as few BLS incidents as possible, and ALS units should be returned to service as quickly as possible after each incident response to be ready for the next ALS call. This can be achieved by decreasing or even eliminating the number of ALS and BLS transports handled by ALS units. The best alternative to achieve this goal is to use a vehicle platform that delivers ALS providers and equipment to the incident scene but lacks transport capability. Those vehicles would include ALS chase units and fire suppression and rescue apparatus. Use of paramedic engines and, to a much lesser degree, paramedic aerial units and paramedic rescue squads has been employed since FY07 and should be increased through full implementation of the department's four-person ALS staffing strategy for engines, aerial units and rescue squads. ALS chase units, pilot tested at Stations 3, 8, 25 and 42 during a 12-week period (April 20 – July 12, 2014), proved successful⁷⁰ and should be implemented permanently in place of ALS transport units (i.e., medic units) where practicable.

2. The County's BLS call volume is increasing due to increased total population as well as segments of the overall population (e.g., seniors, persons of low income) that heavily utilize BLS services. With increased BLS demand, additional BLS resources are needed, including BLS providers, ambulances and BLS equipment. By expanding BLS resources, BLS patients will receive faster service and there will be more BLS transport units in service to replace medic units which themselves would be replaced for the most part by ALS chase units (see #1 above). A greater number of BLS units would also result in less BLS responses for ALS units which increases the availability and reliability of ALS units for ALS incidents.

To better address the EMS response to low-severity BLS incidents (i.e., Alpha and Omega categories) and to reduce overcrowding of hospital emergency rooms with patients having this level of BLS need, the MCFRS needs to explore options for delivering assessment and care to these patients which will not involve transport in some cases. An alternative, hybrid type of response capability should be explored for these patients.

3. New-additional fire-rescue stations are needed in several areas of the County as recommended in Phases 3 (Shady Grove), 4 (Northeastern County) and 5 (Eastern County) of the Station Location and Resource Allocation Study. New-additional stations having the highest priority need include the following (listed in sequential station order):
 - "Shady Grove" Station 36 in the vicinity of Shady Grove and Frederick Roads
 - "Eastern County" Station 37 in the vicinity of Columbia Pike and Tech Road
 - "Norbeck" Station 38 along the Norbeck Road corridor (to be determined)
 - "Montgomery Village" Station 39 in the vicinity of Goshen Road and Rothbury Drive.

⁷⁰ Performance results of the pilot test indicate that ALS unit availability and efficiency had improved, ALS response time improved slightly, and the number of ALS responses by engines, aerial units and rescue squads decreased.

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In terms of EMS resources, each of the above new stations would need a paramedic engine and BLS transport unit (ambulance). The "Norbeck" Station, with its anticipated proximity to Leisure World, would need an ALS chase unit as well.

4. The EMS Medical Director's position needs to be converted from a part-time, contract position to a fulltime County-employee within the MCFRS. The existing arrangement has several inherent disadvantages:

- Lack of time to address all of the EMS program's needs
- Professional segregation between contractor and a cohesive group of employees
- Limitations to legal protections for service (i.e., tort claims act, indemnification)
- Access to resources readily available to employees (e.g. support staff)
- Certain applications of appropriate medical authority (surveillance, supervision)

Advantages of having a fulltime, County-employed Medical Director (MD) include:

- Strengthening the commitment of the EMS MD to exclusive needs of MCFRS
 - Opening doors for closer relationships with the Fire Chief and chief officers
 - Creating mechanisms for more real-time field supervision and QA/QI
 - Allowing the Office of the Fire Chief to expand utilization of the EMS Medical Director
 - Providing oversight within the discretion of the Fire Chief
 - Providing the MCFRS the ability to attract and retain a true specialist in EMS Medicine
 - Allowing the Office of Medical Oversight to keep pace with a growing EMS program, including oversight tasks entailed in the PSCC modernization and the accreditation of the Fire-Rescue Training Academy.
5. Improvements are needed to the EMS logistics function to increase cost-efficiency and effectiveness. Needs include improved warehousing of EMS equipment/supplies and development of non-durable EMS supplies management. Specific needs include the hiring of a fulltime warehouse manager, moving the existing operation from the Dover Road Warehouse to the future Southlawn Warehouse, and acquisition and implementation of an automated materials management system. For management of non-durable EMS supplies, a system is needed for shelf-life monitoring and rotation of stock – both at the warehouse and in fire stations.

- **FIRE SUPPRESSION**

1. The MCFRS' four-person staffing strategy has not been fully implemented on all frontline engines, aerial units and rescue squads. Implementation of four-person staffing (i.e., adding of a fourth firefighter, who also has paramedic credentials, to a three-person unit) began in FY07 and has been incrementally phased-in over nine fiscal years, resulting in 29 engines and one aerial unit operating with four-person minimum staffing as of FY16. Twenty six

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frontline heavy apparatus, including 6 engines, 14 aerial units and 6 rescue squads⁷¹, still operate (as of FY15) with three-person staffing and therefore each unit needs to be upgraded with a fourth firefighter.

2. New-additional fire stations are needed in several areas of the County as recommended in Phases 3 (Shady Grove), 4 (Northeastern County) and 5 (Eastern County) of the Station Location and Resource Allocation Study. New-additional stations having the highest priority need include the following (listed in sequential station order):
 - “Shady Grove” Station 36 in the vicinity of Shady Grove and Frederick Roads
 - “Eastern County” Station 37 in the vicinity of Columbia Pike and Tech Road
 - “Norbeck” Station 38 along the Norbeck Road corridor (to be determined)
 - “Montgomery Village” Station 39 in the vicinity of Goshen Road and Rothbury Drive.

In terms of fire suppression apparatus, each of the above new stations would need a four-person paramedic engine. An aerial unit could potentially be deployed at the Shady Grove Station (see #3 below) as well.

3. An aerial unit is needed in the Shady Grove-Derwood area to address aerial services that exceed response time goals in an area where building density has increased greatly since 2000 and will increase further as the area surrounding the Shady Grove Metro Station is redeveloped in accordance with the Shady Grove Sector Plan. An aerial unit located in this area would also alleviate some of the call load from two of the County’s busiest aerial units located at Stations 8 and 3. This new aerial unit would need to be deployed at future Shady Grove Station 36 or at Station 28 following expansion or rebuilding of that station to accommodate additional apparatus, equipment and personnel.
 4. An extrication-capable unit is needed at Station 40 to provide faster extrication service to the ICC and along the Georgia Avenue and Route 108 corridors in the Olney area. Each of these highways experiences high-speed collisions, particularly the ICC which has a 60 mph speed limit. The advantage of having an extrication unit close to the recently opened ICC can be realized by deploying an extrication-capable unit at Station 40. As of FY15, these major highways were served by an extrication-capable unit responding from Aspen Hill (i.e., Truck 725) and/or a Rescue Squad responding from Laytonsville (Station 17), Wheaton (Station 42), or Rockville (Station 3).
- **SPECIAL OPERATIONS**

For the overall readiness of MCFRS Special Operations, the Special Operations Section has staffing needs for several new positions. They are listed under the “Resource Deployment and Staffing” heading below.

⁷¹ The 26 units include: Frontline engines at Stations 2, 5, 10, 11, 20 and 26; aerial units at Stations 3, 6, 10, 15, 16, 18, 19, 23, 24, 25, 31, 34, 35 and 40; and frontline rescue squads at Stations 3, 15, 17, 29, 41 and 42.

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APPARATUS

1. By 2022, MCFRS will need to have the following minimum frontline apparatus in service to meet daily service demands. The list includes apparatus that was in place as of FY15 as well as apparatus required to meet anticipated service demand by 2022, including apparatus to be deployed at a new-additional station (if open by 2022).

- 36 paramedic engines (increase of 1 engine vs. FY15 level)⁷²
- 48 ambulances (increase of 23 ambulances vs. FY15 level)⁷³
- 16 aerial units⁷⁴ (increase of 1 unit over FY15 level)
- 13 ALS chase units (increase of 13 over FY15 level)⁷⁵
- 12 brush units
- 12 rescue boats plus tow vehicles
- 8 tankers
- 6 rescue squads
- 5 all-terrain vehicles (ATVs)
- 4 brush engines
- 4 special operations units (some having tow capability for boats)
- 4 boat support units
- 2 medic units (decrease of 15 units vs. FY15 level)⁷⁶
- 2 hazmat units
- 2 mobile ambulance buses
- 2 medical care support units
- 2 decontamination units
- 2 mobile air units
- 1 bomb unit
- 1 technical rescue unit
- 1 mobile command unit

⁷² One additional engine would be deployed at a new-additional fire station if opened by 2022.

⁷³ Thirteen of the 23 additional ambulances would be former medic units that would be converted to ambulances. Six of the 23 additional ambulances would be deployed at stations lacking a BLS transport unit as of FY15. Three of the 23 additional ambulances would be deployed as second or third ambulances at stations having heavy BLS call loads. One of the 23 new ambulances would be deployed at a new-additional fire station if opened by 2022.

⁷⁴ Six of the 16 aerials are tractor-drawn aerials (Trucks 706, 710, 716, 725, 731, 734) that are extrication equipped.

⁷⁵ Related to the implementation of the new ALS delivery model, 11 medic units would be replaced by ALS chase units, an ALS chase unit would be deployed at Station 28 (which lacked a medic unit in FY15), and an ALS chase unit could be deployed at a new-additional fire-rescue station if opened by 2022.

⁷⁶ The large decrease in medic units would be attributed to their planned replacement by ALS chase units.

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COMMUNITY EMERGENCY RESPONSE TEAM (CERT)

1. MCFRS needs to leverage CERT resources and capabilities to address areas of need such as pre-incident community outreach (e.g., SION Program) and preparedness training (e.g., "Storm Camp" Program) and post-incident operations such as damage assessment, welfare-of-resident checks, accountability of evacuees, triage assistance, and logistics support. Utilization of the hundreds of trained CERT volunteers to address these types of emergency preparedness and response services would be an efficient use of volunteer resources to supplement limited career resources.
2. The CERT Program needs to be periodically evaluated to assess its level of performance and to identify needed improvements. Based on these evaluations, improvements to the program need to be planned and implemented.

RESOURCE DEPLOYMENT AND STAFFING

EMERGENCY MEDICAL SERVICES (EMS)

MCFRS need to expand Emergency Medical Services (EMS) capacity, both Advanced Life Support (ALS) and Basic Life Support (BLS), to meet the needs of an aging population as well as the anticipated increase in overall population county-wide. Every station needs to have at least one guaranteed 24/7 unit that can respond as an ALS unit, whether an ALS first-responder unit (e.g., paramedic engine, paramedic aerial tower), ALS chase unit, or a dedicated medic unit. The number of BLS transport units will also need to be increased to meet BLS service demand county-wide. Specific EMS needs are presented below.

- **ADVANCED LIFE SUPPORT (ALS)**

MCFRS needs to complete the implementation of four-person guaranteed staffing on frontline engines at Stations 2, 5, 10, 11, 20 and 26, where at least one of the four firefighters on the engine must be a paramedic. Also need to complete the implementation of four-person guaranteed staffing on frontline aerial units at Stations 3, 6, 10, 15, 16, 18, 19, 23, 24, 25, 31, 34, 35 and 40 where at least one of the four firefighters on the unit must be a paramedic. Another need is to establish an ALS chase unit at each of the following Stations: 1, 3, 12, 15, 23, 25, 28, and 41. Furthermore, there is the need to establish two ALS chase units at each of existing Stations 8 and 42 as well as one ALS chase unit at a planned additional station.

- **BASIC LIFE SUPPORT (BLS)**

MCFRS needs to establish an ambulance at each of the following existing stations lacking an ambulance as of FY15: Stations 6, 7, 9, 18, 19 and 20. Also need to establish one additional ambulance at each of the following existing stations having one ambulance as of FY15: Stations

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1, 3, 12, 15, and 32. There is a need to establish two additional ambulances at each of existing Stations 23 and 25 having one ambulance as of FY15 as well. In addition, need to establish one ambulance at each of the following planned Stations: 36 – Shady Grove, 37 – East County, 38 – Norbeck, and 39-North Montgomery Village.

There is a need to examine alternatives for delivery of assessment and care for lowest-risk BLS incidents (i.e., Alpha and Omega levels) to reduce service demand on MCFRS ambulances and to reduce hospital emergency department overcrowding. One alternative would be to establish a limited number (e.g., two or three) of “community paramedicine units” staffed, for example, by a paramedic and physician’s assistant or licensed nurse practitioner. These units would respond to frequent/repeat customers reporting chronic, low-risk, medical symptoms requiring assessment but infrequently requiring transport to a hospital. This type of service could be established through a partnership between MCFRS and the County’s Department of Health and Human Services (HHS).

FIRE SUPPRESSION

MCFRS needs to deploy a four-person paramedic engine at each of the new/additional stations to be built and operated in the future, including but not limited to Stations 36 (“Shady Grove”), 37 (“East County”), 38 (“Norbeck”) and 39 (“North Montgomery Village”). One of these stations may be built and opened by the time this master plan sunsets in 2022.

A four-person paramedic aerial unit needs to be deployed at either Station 28 or new-additional Station 36 to serve the contiguous Shady Grove, King Farm, Redland, Derwood and Washington Grove areas. Further analysis is needed to determine the optimal location (i.e., Station 28 or 36) for this unit.

SPECIAL OPERATIONS

The Special Operations Section has staffing needs for several new positions. As of FY15, management of the Special Operations Section is achieved by a limited staff consisting of an Assistant Chief and Battalion Chief. Each staffing need is described below.

1. The need for supervision of Special Operations field personnel through oversight and coordination provided by an on duty Battalion Chief.
2. The need for supervision of Technical Rescue and Swift Water Rescue Teams through oversight and management provided by an on duty Battalion Chief.
3. The need for improving Special Operations training through better coordination and tracking of training activities by a fulltime Captain on day work serving as Special Operations Training Officer.

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4. The need for improving Special Operations logistics by establishing and maintaining a cache of equipment to resupply Special Operations units and by reducing duplicate equipment purchases. This would be the responsibility of a fulltime Master Firefighter on day work serving as Special Operations Logistics Officer.
5. The need for improving planning, coordination and response for special events by a fulltime Master Firefighter on day work serving as Special Operations Events Coordinator.
6. The MCFRS Bomb Squad, a specialized unit within Fire & Explosives Investigations (FEI), is staffed and operated by uniformed FEI investigators. The responsibilities of this discipline have been a collateral duty of FEI personnel who serve as both investigators and certified bomb technicians. Since the inception of the Bomb Squad in 1998, national and regional terrorism has become a greater threat and acts of terrorism have increased significantly. MCFRS Bomb Squad responsibilities have increased over the past decade to a level that requires four fulltime personnel in order to maintain readiness and the ability to mitigate the day- to-day incidents and terrorism-related events.

STAFFING

• OPERATIONAL STAFFING

The plan for four-person staffing on a 24/7 basis has yet to be achieved on all existing suppression units as of FY16, including six frontline engines (located at Stations 2, 5, 10, 11, 20 and 26), 14 aerial units (not including a fifteenth aerial unit - AT708 - which already has four-person staffing), and all six frontline rescue squads. Through a combination of County monies and federal grants, the MCFRS four-person staffing plan needs to be fully implemented at existing stations to increase effectiveness of service delivery, maximize efficiency, and improve firefighter safety.

New-additional stations that will be opened in the future will require four-person staffing on suppression units as well. This will include a four-person engine at each new-additional station and potentially a four-person aerial unit at future Station 36. Ambulances deployed at new-additional stations will each require two-person staffing, and any ALS chase unit to be deployed will require a staff of one.

• ADMINISTRATIVE STAFFING

Additional administrative staff is needed to fill lapsed and unfilled positions as well as new positions in order to keep pace with ever increasing workload related to the MCFRS mission and an increasing number of customers – external and internal – needing services and/or support. Lapsed and unfilled positions resulted from savings plans and hiring freezes initiated by the County during years of reduced County revenues (FY09-11) and reduced expenditures, and many lapsed and unfilled positions have remained through FY15. New positions are needed in certain Sections to address needs created by new or updated responsibilities and mandates.

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the long-term need for an Accreditation Manager and to ensure continuity of leadership, MCFRS needs to create a dedicated fulltime position (i.e., County employee) to serve as Accreditation Manager.

INFRASTRUCTURE, COMMUNICATIONS AND IT

Infrastructure, Communications and IT needs and concerns of MCFRS are presented below under the headings: Facilities; Apparatus Maintenance, Rehab and Replacement; Equipment Maintenance and Replacement; Emergency Communications; and Information Technology.

FACILITIES

Major facility-related needs of the MCFRS are presented below under the subject headings: New-Additional Stations; Station Relocations; Station Renovations, Expansions and Rebuilds; and Other Facility Relocations and Renovations. For some of these, CIP projects had been approved and were underway as this Fire-Rescue Master Plan was being written, while others will be requested during the period of FY17-22. "Level of Effort" CIP Project⁷⁸ needs are not addressed in this master plan.

- **NEW-ADDITIONAL STATIONS**

Several new-additional fire stations are needed in the County for which CIP projects will need to be requested by MCFRS during the 6-year period of this master plan. They are described below and presented in station numerical order.

STATION 36 – SHADY GROVE

As recommended in the MCFRS Station Location and Resource Allocation Study – Phase 3 Report as well as the Shady Grove Sector Plan, a new-additional fire station is needed in the Shady Grove area to address risk associated with existing and future development as well as demographic factors and response times above MCFRS goals. A Shady Grove fire station will also place less demand on surrounding Stations 3, 8 and 32 – among the busiest stations in the County – and place much needed EMS and suppression resources in that immediate area. The Shady Grove Sector Plan likewise recommends that a fire station be located at the intersection of Frederick Road and Shady Grove Road or a nearby suitable site⁷⁹. To serve the fire-rescue needs of the Shady Grove/King Farm area, a paramedic engine, special service (i.e., aerial unit or rescue squad), and two ambulances will be needed at Station 36.

⁷⁸ "Level of Effort" projects include replacement of HVAC systems, generators, roofs, safety systems; addition of female facilities; parking lot resurfacing; etc.

⁷⁹ Reference: *Shady Grove Sector Plan* (adopted by County Council on 1/17/06), pages 26, 101 and 102

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As the Duty Operations Chief and MCFRS Scheduler need to be centrally located within the County and the Battalion Chief, Battalion EMS Duty Officer, and Battalion Code Compliance inspector need to be centrally located within the 3rd Battalion, this station – due to its proximity to the geographical center of the County and 3rd Battalion - would be the logical facility to accommodate these personnel and their vehicles.

The Fire and Explosive Investigations (FEI) Section also needs to be centrally located within the County to allow for strategic deployment of investigators as well as the Bomb Squad. If a sufficiently large property can be identified and acquired, the Shady Grove Fire Station property could also accommodate a separate building⁸⁰ to house FEI in its entirety, including investigators, their vehicles, and Bomb Squad apparatus and equipment.

STATION 37 – “EAST COUNTY”

As recommended in the MCFRS Station Location and Resource Allocation Study – Phase 5 Report as well as the White Oak Science Gateway Master Plan, a new-additional fire-rescue station is needed in the vicinity of Columbia Pike and Tech Road to address risk associated with existing and future development as well as demographic factors and response times above MCFRS goals within portions of the area. An East County fire station would also place less demand on surrounding Stations 12 and 15 – among the busiest stations in the County – and place much needed ALS resources in that immediate area. Resource needs at this new station would include a paramedic engine, ambulance and potentially an ALS chase unit.

STATION 38 – “NORBECK”

There is a need for a new-additional fire-rescue station along the Norbeck Road corridor to address EMS and fire risk, call load and response times along this corridor. One area of high EMS and fire risk and having an exceptionally high EMS demand is the 1.1 square mile, 8500-resident Leisure World senior community (Fire Box Area 25-09) located east of Georgia Avenue and south of Norbeck Road. The Leisure World community averages over five EMS incidents daily (i.e., 3.3 BLS/day and 2.0 ALS) and averages one fire adaptive incident or fire full assignment every two days. While Station 25 units respond to the majority of these incidents, they have a large call load throughout their remaining first-due area as well. Station 25 is typically the third busiest station in the County. While Phase 7 of the Station Location and Resource Allocation Study addressing the Norbeck Road corridor must still be conducted, there is a clear need for a “Norbeck” Fire Station that will help address the EMS/fire risk and associated call load in Leisure World.

A future site evaluation process for the “Norbeck” Fire Station will identify and rank candidate sites. The station will need to accommodate a paramedic engine, ALS chase unit,

⁸⁰ FEI will require a separate building from the fire station to address its unique security requirements regarding safeguarding of investigation records, evidence storage, specialized equipment, etc.

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ambulance, and have space for a potential 2nd EMS transport unit of the future. As this station is not yet in the CIP, there is a clear need for inclusion of a CIP project in the FY17-22 CIP to address site evaluation and facility planning. Until the "Norbeck" Station is built and becomes operational, there is great need for deploying another EMS transport unit at Station 25.

STATION 39 – "MONTGOMERY VILLAGE"

As recommended in the MCFRS Station Location and Resource Allocation Study – Phase 4 Report, Montgomery Village is in need of a fire station in the central-northern portion of the Village. Presently the Village is situated predominantly within Station 8's first-due area and partially within Station 17's and 34's first-due areas. With its diverse population, including many immigrants and seniors, and many of its single-family homes, townhouses and garden apartments lacking sprinkler protection, Montgomery Village has one of the County's highest levels of risk and incident call loads for both EMS and fire incidents. Considering the potential redevelopment of the golf course into a residential community, the high call load present throughout Montgomery Village and Gaithersburg, and the location of Station 8 in Gaithersburg near the southwest boundary of the Village, there is a clear need for a new fire station in the central-northern portion of Montgomery Village.

Resource needs at this new station would include a paramedic engine and ambulance, and there would likely be the need for a 2nd ambulance in the future. With these units deployed at the Montgomery Village Fire Station, response times in the central, northern and eastern portions of the Village would improve significantly and be in line with MCFRS response time goals.

• **STATION RELOCATIONS**

Three fire stations require relocation during the 6-year period of this master plan. An approved CIP project is in place for each of these stations. They are described below and presented in numerical order.

STATION 18 – KENSINGTON-GLENMONT

There is a need for relocating Kensington-Glenmont Station 18 to a site in close proximity to the original Station 18 previously located at the southeast corner of Georgia Avenue and Randolph Road. The relocation is necessary for the reconstruction of the intersection into a wider, grade-separated interchange. Fire and EMS risk as well as the location of surrounding fire-rescue stations dictates that Station 18 be sited near the former location. The new station will need to accommodate existing Paramedic Engine 718 and Aerial Tower 718, plus a future ambulance and reserve apparatus.

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STATION 23 – ROCKVILLE - “PIKE DISTRICT” (formerly “White Flint”)

Rockville Fire Station 23 needs to be relocated to the Pike District (formerly known as “White Flint”) to a County-owned site at the southeast corner of Montrose Parkway and Chapman Avenue (formerly “Maple Avenue”). This new location will position Station 23 in the high-density Pike District which is expected to become its highest incident call load area upon build out. New Station 23 will need to accommodate its present apparatus complement, including a paramedic engine, aerial tower, and two EMS transport units, plus an ALS chase unit and another transport unit. The new station will need to be larger than current Station 23 to accommodate the additional apparatus and personnel. The White Flint Sector Plan has a recommendation to collocate the fire station with other County uses and residential uses in the same building. This project has been included in the County’s FY15-20 CIP.

Future use of existing Station 23, located at 121 Rollins Avenue, will need to be determined. Upon relocation of apparatus and personnel to new Station 23, the existing station could be used for one or more purposes such as storage of reserve apparatus, equipment storage, and/or housing of one or more in-service EMS transport units and personnel to operate them.

STATION 35 - CLARKSBURG

There is a need for a permanent Clarksburg Fire Station that would replace the interim station located in an office park on Gateway Center Drive since 2005. The new station will need to accommodate existing resources, including a paramedic engine, aerial tower, and EMS transport unit, plus a tanker, and brush unit. While a site near the Frederick Road/Clarksburg Road intersection had been purchased by the County for this facility, an alternate site is being pursued at the direction of County elected officials due to new environmental restrictions that were established in 2014 for the Ten Mile Creek watershed with adoption of the Ten Mile Creek Area Limited Amendment to the Clarksburg Master Plan and Hyattstown Special Study Area. The alternate site will need to be centrally located within Clarksburg to address a high-density community that will straddle I-270 upon build out, with approximately 75% of development located east of I-270 and 25% west of I-270.

• **STATION RENOVATIONS, EXPANSIONS AND REBUILDS**

Six fire-rescue stations are in need of renovation, expansion or rebuilding. An approved CIP project is in place for four of these stations. For the other two stations, the need for County CIP projects is not anticipated as the two LFRDs plan to fund the projects on their own. The six station projects are described below and presented in numerical order.

STATION 3 – ROCKVILLE

Station 3, located at 380 Hungerford Drive and owned by the Rockville Volunteer Fire Department (RVFD), is in need of an extensive renovation or rebuilding (possibly

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relocation⁸¹) as determined by the RVFD Board of Directors. This project has been included in the County's FY15-20 CIP. The first-due area covered by Station 3 has a high level of fire, EMS, and hazmat risk and typically has the 2nd highest incident call load in Montgomery County. If relocated, Station 3 will need to be sited in close proximity of the existing site, preferably along Rockville Pike/Hungerford Drive. The renovated or rebuilt (possibly relocated) station will need to accommodate all existing apparatus, equipment, and career and volunteer personnel. Existing apparatus includes a paramedic engine, rescue engine, aerial tower, rescue squad, and two EMS transport units. A future, frontline ALS chase unit will need to be housed at Station 3 as well.

STATION 6 – BETHESDA

Station 6, located at 6600 Wisconsin Avenue and owned by the Bethesda Fire Department (BFD), is in need of renovation or rebuilding on site as determined by the BFD Board of Directors who are considering selling a portion of this property. The first-due area covered by Station 6 has a high level of fire and EMS risk due to its high population density and many high-rise buildings. Density would increase under the Bethesda Downtown Plan which was being written concurrently with this Fire-Rescue Master Plan. The renovated or rebuilt station will need to accommodate all existing frontline and reserve apparatus (i.e., paramedic engine, ladder truck, battalion chief, and reserve engine), equipment, and personnel, plus a future ambulance and potentially an ALS chase unit.

STATION 11 – GLEN ECHO

Station 11, located at 5920 Massachusetts Avenue and owned by the Conduit Road Fire Board and Glen Echo Volunteer Fire Department, is in need of an extensive renovation. This project has been included in the County's FY15-20 CIP. As recommended in the MCFRS Station Location and Resource Allocation Study – Phase 2B Report, Station 11 can best serve the Glen Echo area by remaining at its present site but requires a major renovation to address its size and functionality limitations. The renovated/expanded station will need to accommodate the existing apparatus complement, including an engine, ambulance, ATV, and utility unit. The preparation and signing of an MOU between the County and the Conduit Road Fire Board will need to precede planning and design of the Station 11 renovation.

STATION 25 – KENSINGTON-ASPEN HILL

Station 25, located at 14401 Connecticut Avenue in the Aspen Hill area, is in need of an extensive expansion and renovation. This project has been included in the County's FY15-20 CIP. The first-due area covered by Station 25 has a high level of fire and EMS risk and typically has the 3rd highest incident call load in Montgomery County. The EMS call load is very high due to the large Leisure World retirement village and several other health care facilities located in Station 25's area. The CIP project provides for an additional 13,443 square feet of space for two additional apparatus bays and associated storage, additional

⁸¹ It is possible this project could be a station relocation should a suitable site be found nearby.

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administrative offices, Battalion Chief's office, dormitory space, and living and dining areas. A renovation of the existing interior finishes and a HVAC replacement are also included in the project. The renovated and expanded station will need to accommodate all existing frontline apparatus, including a paramedic engine, ladder truck, battalion chief, two EMS transport units, rescue boat and special operations unit, plus a future ALS chase unit and potentially another EMS transport unit.

STATION 30 – CABIN JOHN

Station 30, located at 9404 Falls Road in Potomac and owned by the Cabin John Park Volunteer Fire Department (CJPVFD), is in need of an expansion and renovation. This project has been included in the County's FY15-20 CIP. As recommended in the MCFRS Station Location and Resource Allocation Study – Phase 2A Report, Station 30 should remain at its present site but requires a major renovation to address its size (smallest station in the County) and functionality limitations. The renovated/expanded station will need to accommodate the existing apparatus complement, including a paramedic engine, EMS transport unit, tanker, brush unit, and rescue boats. The preparation and signing of an MOU between the County and the CJPVFD Board of Directors will need to precede planning and design of the Station 30 renovation.

STATION 41 – BETHESDA-CHEVY CHASE RESCUE SQUAD

Station 41, located at 5020 Battery Lane and owned by the Bethesda-Chevy Chase Rescue Squad (BCCRS), is in need of rebuilding (possibly relocation⁸²) as determined by the BCCRS Board of Directors who are considering selling a portion or all of this property. If relocated, Station 41 will need to be sited in close proximity of the existing site, preferably along a major thoroughfare in Downtown Bethesda. The new station will need to accommodate all existing personnel, equipment, and apparatus, including two rescue squads, a fleet of EMS transport units, command and utility vehicles, plus a future ALS chase unit.

• **OTHER FACILITY RELOCATIONS AND RENOVATIONS**

PUBLIC SAFETY TRAINING ACADEMY

The Public Safety Training Academy (PSTA) needs to be relocated in accordance with the Great Seneca Science Corridor Master Plan which calls for redevelopment of the PSTA property, located at 9710 Great Seneca Highway, with mixed-use development. The County had purchased the Webb Tract located on Snouffer School Road, across from Alliston Hollow Way, to serve as the site for a new PSTA and other County facilities. DGS was managing CIP Project #471102 to construct the new Academy with guidance and oversight provided by MCFRS and MCP. PSTA construction began in FY15Q3 while this master plan was being written. Apparatus, equipment, supplies, etc. will need to be moved from the existing PSTA to the new facility upon its completion in FY17.

⁸² It is possible this project could be a station relocation should a suitable site be found nearby.

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APPARATUS MAINTENANCE AND REPLACEMENT

MCFRS has an ongoing need for the maintenance and replacement of its apparatus fleet as described in the Apparatus Management Plan.

As an integral component of the MCFRS Apparatus Management Plan, the MCFRS Fleet Section has identified the need for annual replacement of apparatus by breed; although the number of each breed to replace varies from year to year based on actual need. Over the six year period of FY15-20, the following units (101 total) had been proposed for replacement through the CIP; although some variation may occur based on actual needs:

- 60 ambulances
- 21 engines
- 10 aerial units
- 4 all-wheel drive brush units
- 4 rescue squads
- 2 tankers

MCFRS Fleet Maintenance has the need to identify and propose a staffing model for performing preventative maintenance and repairs that does not require the need for vendors to perform routine maintenance and repairs. This staffing model should lead to greater cost efficiencies and quicker turnaround on apparatus maintenance and repair. Likewise, Fleet Maintenance needs to examine alternative service delivery models for maintenance performed at Public Safety Logistics as well as road services to improve overall apparatus maintenance services. Fleet Maintenance also needs to determine its overall training needs and related sources and methods of training, followed by the implementation of regular training for Fleet Maintenance staff.

There is also a need for identifying and implementing industry best practices for apparatus parts management to include introduction of a cyclical parts inventory and the execution of contracts for select parts. Associated with this need is the need for creating a Parts Manager position and a Supply Technician position to manage the parts supply function.

EQUIPMENT MAINTENANCE AND REPLACEMENT

The need exists for continuous monitoring and evaluation of new tools, equipment, hose, and appliance ("TEHA") technologies and for regular replacement of obsolete TEHA to meet current standards. There is also need for executing additional TEHA contracts and ensuring that all required testing of TEHA is performed in accordance with NFPA standards.

Replacement of self-contained breathing apparatus (SCBA) for all career and volunteer firefighter-rescuers is another major need of the department. Existing SCBA is collectively in need of replacement due to age/years of use and associated wear and tear. New SCBA will feature the latest technology and will offer greater protection for our firefighter-rescuers. Due to

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SECTION 6

INITIATIVES AND PRIORITIES

Section 6 identifies the initiatives and their corresponding priorities that address the issues and needs described in Section 5. Initiatives are presented below under the subject headings: Preparedness/Readiness, Resource Deployment and Staffing, Planning and Assessment, Infrastructure and Communications, Data Analysis and Application, Training and Health-Wellness, Support Services, and Other Initiatives.

The priorities shown below have been divided into levels A, B and C. Priority A is the highest level, Priority C the lowest, and Priority B in between them. While initiatives identified below as Priority A are of the highest priority and will therefore receive the earliest and greatest attention, Priorities B and C should not be viewed as medium or low priorities as they should all be addressed within the 6-year time frame of this master plan. The table in Appendix I provides a quick reference to the initiatives, in the order presented below, with abbreviated descriptions.

PREPAREDNESS/READINESS

Preparedness/Readiness initiatives are presented below under the subject headings: Operations, Volunteer Services, Fire and Explosives Investigations, Code Compliance, and Community Outreach and Public Information.

Table 5 in Appendix H summarizes facility, resource and staffing initiatives for 2016-2022.

OPERATIONS

EMERGENCY MEDICAL SERVICES

1. [**PRIORITY A**] Implement modified ALS delivery model:
 - A. Replace the majority of medic units with one-person (or, in limited cases, two-person) ALS chase units; thus allowing for the county-wide redistribution of a limited number of ALS providers. ALS chase units will not normally be dispatched on BLS incidents nor will they transport patients; thus improving the availability of ALS units and reliability⁸⁷ of ALS service.

⁸⁷ Reliability addresses both availability of a specific type of unit and whether its response time is within established 90th percentile goals of the department.

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- Replace medic units, except Medic 713 (Damascus) and Medic 714 (Upper Montgomery)⁸⁸, with ALS chase units each operated by one paramedic, or in limited cases two paramedics⁸⁹; thus deploying ALS chase units at Stations 1, 3, 8 (two chase units), 12, 15, 23, 25, 41 and 42 (two chase units). This will involve redeploying the paramedic from each medic unit to an ALS chase unit.
 - Convert medic units, except Medics 713 and 714, to BLS transport units (i.e., ambulances). This will involve adding a second BLS provider (EMT) to the former medic unit; thus creating a two-person ambulance, with the remaining BLS provider from the medic unit paired with the second BLS provider.
- B. Initiate ALS chase unit service at two stations:
- Station 28 – Deploy an ALS chase unit, while having Ambulance 728 remain
 - One of the planned new-additional stations if open by 2022
- C. Continue and upgrade ALS first-responder apparatus (AFRA) service delivery:
- Continue deployment of paramedic engines at 29 stations.
 - Add firefighter-paramedic to remaining six engines lacking ALS capability to create four-person paramedic engines at Stations 2, 5, 10, 11, 20 and 26.
 - Deploy four-person paramedic engines at future stations.
 - Continue deployment of Paramedic Aerial Tower 708 at Station 8.
 - Add firefighter-paramedic to remaining 14 aerial units to create four-person paramedic aerial units at Stations 3, 6, 10, 15, 16, 18, 19, 23, 24, 25, 31, 34, 35 and 40.
 - Add firefighter-paramedic to all six rescue squads to create four-person paramedic rescue squads at Stations 3, 15, 17, 29, 41 and 42.
2. [**PRIORITY A/B**] Increase BLS transport capacity to meet increasing BLS service demand and to transport ALS patients accompanied by a paramedic from an ALS unit.
- [A] Deploy an ambulance at each of Stations 6, 7, 9, 18, 19 and 20 where this type of unit is currently lacking. Consider deployment of a BCCRS ambulance at each of Stations 6, 7 and 20 and a WVRS ambulance at each of Stations 18 and 19.
 - [A] Convert 11 medic units to BLS transport units at 9 stations (i.e., Stations 1, 3, 8, 12, 15, 23, 25, 41 and 42) as a result of the ALS chase unit deployment (see above).
 - [A] Convert four medic units to BLS transport units at four stations (i.e., Stations 29, 30, 31 and 35), with ALS service provided to these station areas by Paramedic

⁸⁸ Medics 713 and 714 will remain to provide ALS transport in their respective rural areas where BLS transport units (i.e., ambulances) are not readily available to handle timely transport of ALS patients.

⁸⁹ A limited number of ALS chase units may be staffed by two paramedics as needs dictate in certain high call volume areas of the County.

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Engines 729, 730, 731 and 735 as well as Rescue Squad 729 upon upgrade to four-person ALS capability.

- [A] Deploy an additional ambulance at each of Stations 8, 15, 23, 25 and 32 to meet increasing EMS service demand.
 - [A] Deploy an ambulance at future Stations 36-39. Prior to “Norbeck” Station 38 becoming operational, deploy an additional ambulance at Station 25. When Station 38 has been completed, an analysis and decision will be needed on whether to move this ambulance to Station 38, or have it remain at Station 25 while deploying a new ambulance at Station 38.
 - [B] Consider and evaluate the potential deployment of one or more EMS transport units at existing Station 23 after the new Station 23 is opened in the Pike District with apparatus relocated from the existing station.
3. [**PRIORITY A**] Enhance EMS management, oversight and supervisory capabilities:
- A. Establish a fulltime, County-employed Medical Director.
 - B. Establish three additional⁹⁰ EMS Duty Officer positions (shift work) at the Captain or Lieutenant rank so that each of the five battalions has an EMS Duty Officer. When the 6th Battalion is created, another EMS Duty Officer position (shift work) will need to be established.
4. [**PRIORITY B**] Examine options to establish and deliver “community paramedicine” service for the assessment and care of low-Alpha/Omega-level BLS patients in order to reduce EMS service demand as well as hospital overcrowding:
- Establish mobile integrated healthcare transport units (optimal number to be determined) staffed with a paramedic and Physician’s Assistant or Licensed Nurse Practitioner to respond to customers having low-severity BLS needs. The approach might involve a partnership with County HHS.
 - Establish the “Emergency Communication Nurse Service”⁹¹ capability at ECC.

⁹⁰ In FY15 when this master plan was being written, there were only two EMS Duty Officer positions (shift work) covering the entire County (i.e., five battalions).

⁹¹ ECNS is a nurse triage system comprised of over 200 protocols designed to be implemented within an EMS communications center and used in conjunction with IAED’s Medical Priority Dispatch System to provide alternative care for callers having low-acuity (Omega-level) determinant codes.

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5. **[PRIORITY B]** Improve EMS logistical functions to improve efficiency and cost effectiveness:
 - A. Improve warehousing of EMS equipment/supplies:
 - Establish central supply at Southlawn Warehouse
 - Obtain automated materials management system
 - Hire fulltime warehouse manager
 - B. Develop non-durable supplies management:
 - Develop system to monitor shelf life
 - Implement program to ensure rotation
 - Rotate stock at stations

FIRE SUPPRESSION AND HEAVY RESCUE

1. **[PRIORITY A]** Complete the implementation of four-person staffing of fire suppression and heavy rescue apparatus. A total of 26 frontline units lack a guaranteed fourth person:
 - Engines at Stations 2, 5, 10, 11, 20 and 26
 - Aerial units at Stations 3, 6, 10, 15, 16, 18, 19, 23, 24, 25, 31, 34, 35 and 40
 - Rescue Squads at Stations 3, 15, 17, 29, 41 and 42
2. **[PRIORITY C]** Implement the following new deployments to improve fire suppression readiness:
 - Paramedic Engines at future Stations 36-39 with 4-person staffing, including a firefighter-paramedic
 - Aerial unit at existing Station 28 or future Shady Grove Station 36
3. **[PRIORITY C]** Establish extrication capability at Station 40 by replacing Truck 740 with a tractor-drawn aerial –the desired platform for extrication equipment - when that truck is scheduled for replacement.

Table 5 in Appendix H summarizes facility, resource and staffing initiatives for 2016-2022.

SPECIAL OPERATIONS

1. **[PRIORITY B]** Improve supervision of Special Operations field personnel through oversight and coordination provided by an on duty Battalion Chief. This will be achieved by funding/staffing a Battalion Chief's position on shift work.
2. **[PRIORITY C]** Improve supervision of Technical Rescue and Swift Water Rescue Teams through oversight and management provided by an on duty Battalion Chief. This will be achieved by funding /staffing a Battalion Chief's position on shift work.

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3. [**PRIORITY C**] Improve Special Operations training through better coordination and tracking of Special Operations training activities. This will be achieved by funding/staffing a fulltime Captain position on day work to serve as Special Operations Training Officer.
4. [**PRIORITY C**] Improve Special Operations logistics by establishing and maintaining a cache of equipment to resupply Special Operations units and by reducing duplicate equipment purchases. This will be achieved by funding/staffing a fulltime Master Firefighter position on day work to serve as Special Operations Logistics Officer.
5. [**PRIORITY C**] Improve planning, coordination and response for special events by funding/staffing a fulltime Master Firefighter position on day work to serve as Special Operations Events Coordinator.
6. [**PRIORITY A**] Ensure rapid and reliable response to hazardous devices and weapons of mass destruction events through the Bomb Squad:
 - A. Ensure all Bomb Squad personnel are proficient in rapid response to events, including equipment use, personal protective equipment selection and donning, SWAT operations, and rapid assessment techniques.
 - B. Ensure adherence to National Bomb Squad Guidelines requirements for training and certifications.
 - C. Ensure adherence to Metropolitan Washington Council of Government-adopted METROTECH guidelines for response and equipment.
 - D. Utilize Bomb Squad staffing to provide:
 - Training to certified MCFRS command officers
 - Training to all MCFRS personnel via the annual recertification/training process
 - Monthly training for all hazardous device technicians
7. [**PRIORITY B**] Increase number of personnel assigned to the Section to create a dedicated, fulltime Bomb Squad. [See “Bomb Squad” under the “Resource Deployment and Staffing” heading for further details.]
8. [**PRIORITY C**] Hire a civilian (non-uniformed) analyst to provide administrative support to the Section to maintain case data, analyze data to assist investigators with case closure, and to handle community and insurance company requests.

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3. [**PRIORITY B**] Evaluate the overall CERT program and make improvements as needed:
 - A. Using best practices and evaluation models, conduct biannual surveys and interviews with stakeholders to determine areas and needs that the CERT Program adequately meets as well as those they could address in the future through program modifications and/or enhancements.
 - B. Evaluate survey results in relation to existing CERT capabilities and formulate recommendations for program modifications and/or improvements.
 - C. Based on these recommendations, make adjustments and/or improvements to the CERT program, including funding requests, training, and program commitments (i.e. CERT class frequency, Storm Camp, etc.) to address the recommendations.

RESOURCE DEPLOYMENT AND STAFFING

Resource Deployment and Staffing initiatives are presented below under the subject headings: Operations, Emergency Medical Services, Fire Suppression, Special Operations, Bomb Squad, Staffing, and Facilities.

Table 5 in Appendix H summarizes facility, resource and staffing initiatives for 2016-2022.

OPERATIONS

1. [**PRIORITY A**] Eliminate current staffing deficiencies by ensuring minimum staffing at all stations on all primary units:
 - A. Correct availability/reliability deficiencies, and prevent future deficiencies in areas of the County with projected growth.
 - B. Ensure minimum staffing on all primary units, including engines, aerial units and rescue squads.
2. [**PRIORITY B**] Correct span-of-control deficiencies at the Battalion Chief level:
 - A. Ensure no Battalion Chief supervises more than 7 stations.
 - B. Reconfigure the County into six battalions (versus current five), staff a 24/7 Battalion Chief position (Battalion 706), and strategically site a battalion office at one of the fire stations in the 6th Battalion.

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EMERGENCY MEDICAL SERVICES (EMS)

1. [**PRIORITY A**] Improve Advanced Life Support (ALS) response time by minimizing the percentage of Basic Life Support (BLS) patient care provided by paramedics and by greatly reducing patient transport via medic units to hospitals:
 - A. Incrementally and strategically replace medic units, except Medics 713 and 714, with ALS chase units staffed by one paramedic, or in certain stations two paramedics, per chase unit.
 - B. Place a total of 13 ALS chase units in service in stations having the highest demand for ALS services, including Stations 1, 3, 8 (two units), 12, 15, 23, 25, 28, 41, 42 (two units) and future "Norbeck" Station 38. This will involve redeploying the paramedic from each of these medic units to a chase unit; although this will not apply in the case of Station 28 which does not presently have a medic unit but will have an ALS chase unit in accordance with the ALS chase unit strategy.
2. [**PRIORITY A**] Further improve ALS capacity and response time by completing the four-person staffing plan which will add a firefighter-paramedic around the clock to six engines, 14 aerial units and six rescue squads⁹⁸ lacking ALS first-responder capability as of FY15.
3. [**PRIORITY C**] Amend Executive Regulation 25-08AM (Apparatus Staffing Policy) to establish one-person staffing (i.e., a paramedic) as the minimum staffing requirement for ALS chase units.
4. [**PRIORITY A**] Improve BLS transport capacity and response time by deploying additional ambulances as follows:
 - A. Ensure that each fire station has at least one BLS transport unit; thus requiring the deployment of an ambulance at Stations 6, 7, 9, 18, 19 and 20 (each station lacking an ambulance as of FY15), including the staffing of two BLS providers per ambulance.
 - B. As medic units are converted to BLS transport units at eleven stations as a result of the ALS chase unit deployment (see above), these eleven additional ambulances will each require one additional BLS provider to complete two-person staffing. This staffing need will be created when the paramedic from the medic unit is reassigned to an ALS chase unit, leaving only one BLS provider on the ambulance (i.e., former medic unit).
 - C. Due to projected service demand, an additional ambulance will be deployed at each of Stations 8, 15, 23, 25 and 32, including the staffing of two BLS providers per ambulance.

⁹⁸ At the time this master plan was being finalized, the following 3-person units designated for 4-person staffing had not yet been upgraded to four-person staffing: Engines 702, 705, 710, 711, 720, 726; Aerial Units 703, 706, 710, 715, 716, 718, 719, 723, 724, 725, 731, 734, 735, 740; and Rescue Squads 703, 715, 717, 729, 741 and 742 - a total of 26 units.

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- D. Prior to future Station 38 (“Norbeck Station”) becoming operational, deploy an additional (i.e., second) ambulance at Station 25, including the staffing of two BLS providers around the clock.
5. [**PRIORITY A**] Ensure adequate supervision and training of EMS responders by staffing an EMS Supervisor position for each battalion. This would require the addition of three EMS Supervisor positions to the current two positions as of FY15 for a total of five positions. Upon the 6th Battalion being established, one additional EMS Supervisor position will be required for a total of six.

FIRE SUPPRESSION

1. [**PRIORITY A**] Implement four-person minimum staffing for primary suppression and heavy rescue units having three-person minimum staffing as of FY16:
 - A. Engines 702, 705, 710, 711, 720, 726;
 - B. Aerial Units 703, 706, 710, 715, 716, 718, 719, 723, 724, 725, 731, 734, 735, 740
 - C. Rescue Squads 703, 715, 717, 729, 741, 742
2. [**PRIORITY B**] Deploy a 4-person paramedic engine at future Stations 36-39.
3. [**PRIORITY C**] Deploy a 4-person paramedic aerial unit at Station 28 or future Shady Grove Station 36 (location to be determined).
4. [**PRIORITY C**] Amend Executive Regulation 25-08AM (Apparatus Staffing Policy) to establish 4-person staffing as the minimum staffing requirement for frontline engines, aerial units and rescue squads.

SPECIAL OPERATIONS

1. [**PRIORITY C**] Create and staff the following positions within the Special Operations Section to improve management, supervision and readiness of Special Operations assets:
 - A. Battalion Chief’s position (shift work) to supervise Special Operations personnel in the field.
 - B. Battalion Chief’s position (shift work) to supervise the Technical Rescue and Swift Water Rescue Teams.
 - C. Fulltime Captain position (day work, M-F) to serve as Special Operations Training Officer.

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- D. Fulltime Master Firefighter position (day work, M-F) to serve as Special Operations Logistics Officer.
 - E. Fulltime Master Firefighter position (day work, M-F) to serve as Special Operations Events Coordinator.
2. [PRIORITY C] Add four fulltime, shift positions to the Fire & Explosives (FEI) Section to establish a fulltime, dedicated Bomb Squad. The four positions would include a Captain and three Lieutenants or Master Firefighters (to be determined). These personnel would be required to have or obtain Bomb Technician certification. A fulltime Bomb Squad will ensure improved readiness, quicker response, and allow FEI investigators to focus solely on investigations without having to devote time to preparing for and responding to bomb incidents.
 3. [PRIORITY C] Provide specialized protective gear and equipment for personnel staffing the four Bomb Squad positions (see above). This gear and equipment will allow Bomb Squad personnel to handle their duties safely and effectively.

FACILITIES

Major facility-related needs of the MCFRS are presented below under the subject headings: New-Additional Stations; Station Relocations; Station Renovations, Expansions and Rebuilds; and Other Facility Relocations and Renovations. For some of these, CIP projects had been approved and were underway as this Fire-Rescue Master Plan was being written, while others will be requested during the period of FY16-21. "Level of Effort" CIP Project needs are not addressed in this master plan.

Table 5 in Appendix H summarizes facility, resource and staffing initiatives for 2016-2022.

PLANNING AND ASSESSMENT

Planning and assessment-related initiatives are presented individually below under those same subject headings.

PLANNING

Planning initiatives are presented below under the headings: Strategic and Long-Range Planning, Succession Planning, Site Evaluation, Land Reservation/Acquisition for Stations, and Geographic Information System (GIS).

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the latest edition of the CFAI *Fire and Emergency Service Self-Assessment Manual (FESSAM)* guidebook as well as the updating of the MCFRS Standards of Cover (SOC) in accordance with the latest edition of the CFAI *Standards of Cover* guidebook. The award of accreditation status would be made by the CPSE/CFAI Board of Directors based largely upon the recommendation of the Team Leader of the Peer Assessment Team that will have performed a site visit and document validation during the Spring of 2018.

- C. [**PRIORITY B**] Create a dedicated fulltime position (i.e., County employee) to serve as Accreditation Manager for the department. This position should be assigned to either the Office of the Fire Chief or Planning Section (to be determined).

INFRASTRUCTURE, COMMUNICATIONS AND IT

Infrastructure and Communications initiatives are presented below under the subject headings: Facilities/CIP; Apparatus Maintenance, Rehab, and Replacement; Equipment Maintenance and Replacement; Emergency Communications; and Information Technology.

FACILITIES

1. [**PRIORITY A**] Provide adequate facilities and associated equipment to effectively and efficiently deliver emergency services from all departmental sites:
 - A. Conduct an initial facilities audit of each worksite to highlight problems such as deferred maintenance and end-of-life-cycle for building systems
 - B. Obtain a reliable data stream from the work order system, being implemented in FY16, for interpreting maintenance needs, determining priorities, and to assist with building a business case for future funding
2. [**PRIORITY B**] Establish and implement CIP projects for facilities on a timely basis. This will involve planning for the addition of capital needs into the 6-year Capital Improvement Program (CIP) for formal recognition and funding.
3. [**PRIORITY B**] Coordinate CIP projects for stations and other facilities, including new-additional stations, station relocations, station renovations and expansions, and other facilities:

• NEW-ADDITIONAL STATIONS

Several new-additional fire stations are needed in the County for which CIP projects will be requested by MCFRS during the 6-year period of this master plan (i.e., FY17-22 CIP and FY19-24 CIP). They are described below and presented in station numerical order.

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STATION 39 – “MONTGOMERY VILLAGE” [PRIORITY A]

Develop a PD and POR for the “Montgomery Village” Fire Station¹³ and request this project be included in the FY17-22 CIP Budget. Assuming this is approved as a CIP Project, conduct (with DGS) a site evaluation by 2022 for this station to be sited in the vicinity of Goshen Road and Rothbury Drive. Also in coordination with DGS, prepare a Program of Requirements (POR) for this station by 2022. The station will need to accommodate a paramedic engine, ambulance and a future 2nd EMS unit.

STATION 36 – SHADY GROVE [PRIORITY A]

Develop a Project Description (PD) and Program of Requirements (POR) for the Shady Grove Fire Station, and request this project be included in the FY17-22 CIP Budget. Assuming this facility is approved as a CIP Project, conduct (with DGS) a site evaluation for this station to be sited in the vicinity of Shady Grove Road and Frederick Road. Also in coordination with DGS, prepare a Program of Requirements (POR) for this station by 2022.

To serve the fire-rescue needs of the local community, Station 36 will need to accommodate a paramedic engine, a special service (aerial unit or rescue squad), and two ambulances. As this station will be centrally located within the County and have excellent access to a network of major north-south and east-west highways (I-370, I-270, MD200, MD355 and Shady Grove Road), this station should be designed to also accommodate the Duty Operations Chief, Scheduler, Battalion Chief, Battalion EMS Duty Officer, and Battalion Code Compliance inspector, including their assigned vehicles (i.e., 3 light-duty command vehicles and a Code Compliance vehicle), plus one heavy-duty special unit (e.g., command post bus, ambulance bus, hazmat unit, etc.). If a sufficiently large property can be identified and acquired, this property should also accommodate a separate building⁹⁹ to house the Fire and Explosive Investigations (FEI) Section in its entirety, including investigators and associated offices, kitchen, dining area, dormitory, living areas, FEI vehicles (i.e., three pickup trucks for on-duty investigators), Bomb Squad apparatus (Bomb Unit 700 and two pickup trucks with trailers), Bomb Squad equipment, and FEI/Bomb Squad storage.

STATION 37 – “EAST COUNTY” [PRIORITY B]

Develop a PD and POR for the “East County” Fire Station¹⁰⁰, and request this project be included in the FY17-22 CIP Budget. Assuming this is approved as a CIP Project, conduct (with DGS) a site evaluation for this station to be sited in the vicinity of Columbia Pike and Tech Road. The station will need to accommodate a paramedic engine and ambulance and have adequate space for a future 2nd EMS unit.

⁹⁹ FEI will require a separate building from the fire station to address its unique security requirements regarding safeguarding of investigation records, evidence storage, specialized equipment, etc.

¹⁰⁰ Actual station name to be determined

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STATION 38 – “NORBECK” [*PRIORITY B*]

Develop a PD and POR for the “Norbeck” Fire Station¹³, and request this project be included in the FY17-22 CIP Budget. Assuming this is approved as a CIP Project, conduct (with DGS) a site evaluation by 2022 for this station to be sited along the Norbeck Road corridor in accordance with recommendations resulting from the future 7th Phase of the Station Location and Resource Allocation Study. The station will need to accommodate a paramedic engine, ALS chase unit, ambulance, and space for a potential 2nd ambulance. Until the “Norbeck” Station is built and becomes operational, a 2nd ambulance should be deployed at Station 25.

• **STATION RELOCATIONS**

Three fire stations require relocation during the 6-year period of this master plan. An approved CIP project is in place for each of these stations. They are described below and presented in numerical order.

STATION 18 – KENSINGTON-GLENMONT [*PRIORITY A*]

In coordination with DGS, oversee the construction of new Station 18 (CIP Project #450900) on the site of the former Glenmont Elementary School located at Georgia Avenue and Randolph Road, across from former Station 18. Construction is scheduled to be completed in early FY17. This project is the 3rd priority among MCFRS FY17-22 CIP projects to be requested.

This project provides for an approximately 22,600 sq ft fire station to replace the current station located at the intersection of Georgia Avenue and Randolph Road. The project includes four apparatus bays, gear storage, decontamination room, day room, kitchen, dining room, dormitory, bathrooms, locker rooms, offices, training room, storage and watch office. An interim station at the former Wheaton Volunteer Rescue Squad on Grandview Avenue will be operated during construction. The station will house existing Paramedic Engine 718 and Aerial Tower 718, plus a future ambulance and reserve apparatus.

STATION 23 – ROCKVILLE - “PIKE DISTRICT” (a.k.a., “White Flint”) [*PRIORITY A*]

In coordination with DGS, coordinate construction of the fire station portion of the mixed-use high-rise building (CIP Project #451502) to be located at Montrose Parkway and Chapman Ave (formerly Maple Avenue) in the Pike District (formerly “White Flint”). This will effectively relocate Station 23 about 0.6-mile south of its existing site on Rollins Avenue near its intersection with Rockville Pike. This project is the 2nd highest priority among MCFRS FY17-22 CIP projects to be requested.

STATION 35 – CLARKSBURG [*PRIORITY A*]

Initiate planning and design for permanent Clarksburg Fire Station #35 (CIP Project #450300) to replace Interim Station 35 at a nearby location. The site will likely have been

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selected by the County by the time this fire-rescue master plan has been approved. This project is the 5th priority among MCFRS FY17-22 CIP projects to be requested.

- **STATION RENOVATIONS, EXPANSIONS, “REBUILDS”**

Six fire-rescue stations require renovation, expansion or rebuilding. An approved CIP project is in place for four of these stations. For the other two stations, the need for County CIP projects is not anticipated as the two LFRDs plan to fund the projects on their own. The six station projects are described below and presented in numerical order.

STATION 3 – ROCKVILLE [*PRIORITY C*]

In coordination with the Rockville Volunteer Fire Department (owner of Station 3), initiate planning and design for an extensive renovation or relocation¹⁰¹ of Station 3 (CIP Project #450105) located at 380 Hungerford Drive at the intersection with Beall Avenue. The renovated or relocated station will accommodate all existing frontline apparatus, equipment, and career and volunteer personnel. This project is the 8th priority among MCFRS FY17-22 CIP projects to be requested.

STATION 6 – BETHESDA [*PRIORITY C*]

Without County involvement or funding, the Bethesda Fire Department will continue its planning and design of an extensive renovation or rebuilding on site of Station 6 located at 6600 Wisconsin Avenue at the intersection with Bradley Boulevard. The renovated station will need to accommodate all existing frontline and reserve apparatus, equipment, and personnel, plus an ambulance and potentially an ALS chase unit if determined to be needed at Station 6.

STATION 11 – GLEN ECHO [*PRIORITY B*]

In coordination with the Conduit Road Fire Board, Glen Echo Volunteer Fire Department, and County departments/agencies, conduct planning and design for an extensive renovation of Station 11 (CIP Project #450702) located at 5920 Massachusetts Avenue at the intersection with Sangamore Road. This project is the 7th priority among MCFRS FY17-22 CIP projects to be requested. The preparation and signing of an MOU between the County and the Conduit Road Fire Board will precede planning and design of the Station 11 renovation.

The project provides for a renovation of the existing 10,800 sq ft station, including complete interior renovation, improvements in all living areas of the station, replacement of all building systems (HVAC, electrical and life safety systems), and correction of code and ADA compliance issues. In addition, the project also provides for a 360 sq ft apparatus bay

¹⁰¹ It is possible this project could be a station relocation should a suitable site be found nearby.

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extension, 500 sq ft gear storage, and a 200 sq ft covered patio. The project also provides for a temporary station during construction.

STATION 25 – KENSINGTON-ASPEN HILL [PRIORITY A]

In coordination with the Kensington Volunteer Fire Department, DGS and other County departments/agencies, complete the planning, design and construction of an extensive renovation /expansion of Station 25 (CIP Project #450903), a 12,000 sq ft fire station located at 14401 Connecticut Avenue at the intersection with Bel Pre Road. This project provides for an additional 13,443 square feet of space for two additional apparatus bays and associated storage, additional administrative offices, Battalion Chief's office, dormitory space, and living and dining areas. A renovation of the existing interior finishes and a HVAC replacement are also included in the project. The Station 25 renovation is scheduled for completion in FY18. This project is the 4th priority among MCFRS FY17-22 CIP projects to be requested.

STATION 30 – CABIN JOHN [PRIORITY B]

In coordination with the Cabin John Park Volunteer Fire Department (CJPVFD), DGS and other County departments/agencies, initiate planning and design for an extensive renovation of Station 30 (CIP Project #450500) located at 9404 Falls Road near the intersection with Oaklyn Drive in Potomac. This project is the 6th priority among MCFRS FY17-22 CIP projects to be requested. The preparation and signing of an MOU between the County and the CJPVFD will precede planning and design of the Station 30 renovation.

This project provides for demolition of 2367 square feet of living and administrative areas, construction of 8485 square feet of new living and administrative spaces, and minor renovation of the existing 4526 sq. ft. apparatus bays. The new construction will provide the functional space requirements for the day room, dining room, fitness room, dormitory, female facilities, administrative offices, training room, storage, and other support rooms. The new construction also includes replacement of mechanical, electrical, and life safety systems. Minor renovations to the existing apparatus bays must be performed for the station to comply with current code and life safety requirements. This includes the installation of sprinklers, alarms, vehicle exhaust removal, and other life safety systems. The new addition will include storage space for rescue boats and water rescue gear and equipment.

STATION 41 – BETHESDA-CHEVY CHASE RESCUE SQUAD [PRIORITY C]

Without County involvement or funding, the Bethesda-Chevy Chase Rescue Squad will continue its planning and design of a new BCCRS station either on its existing property located at the intersection of Battery Lane and Old Georgetown Road or on an alternative site in Bethesda. The new station will need to accommodate all existing frontline apparatus, equipment, and career and volunteer personnel.

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• OTHER FACILITY RELOCATIONS, RENOVATIONS AND REUSES

PUBLIC SAFETY TRAINING ACADEMY [PRIORITY A]

In coordination with DGS, County Police and other applicable County departments/agencies, oversee/monitor the construction of the new Public Safety Training Academy (CIP Project #471102) on the Webb Tract located at 8751 Snouffer School Road, across from Alliston Hollow Way, in Gaithersburg. Construction is scheduled for completion in FY17. Upon completion, apparatus, equipment and supplies will be moved from the existing Training Academy to the new facility.

The project includes an academic building with classrooms/training rooms; EMS training facility; fire training building; simulation area; Cityscape; gymnasium; indoor firing range; canine facility; offices; locker rooms; graphics and video development area; Emergency Vehicle Operation Center (EVOC); driver training classroom, simulation room, skid pan, skills pad, and driver track; and staff and visitor parking. A future phase may include the addition of a lecture hall.

STATION 23 [PRIORITY B]

In coordination with the Rockville Volunteer Fire Department, discuss and evaluate the feasibility of reuse of existing Station 23 upon relocation of apparatus and personnel to new Station 23 in the Pike District (see above). The existing station could be used for one or more purposes such as storage of reserve apparatus, equipment storage, and/or housing of one or more in-service EMS transport units (i.e., 24/7 unit and/or flex unit) and the personnel to operate it/them. The latter use would require an analysis of EMS service demand in 2022 to determine the need at that time for additional EMS resources in south Rockville.

APPARATUS MAINTENANCE AND REPLACEMENT

1. [PRIORITY A] Manage the acquisition of apparatus through the Apparatus Replacement Program (CIP Project 451504) – a program for the ongoing, minimum replacement of fire, rescue and EMS apparatus. Over the six year period of FY15-20 (in accordance with the approved FY15-20 CIP), the following 101 units are proposed for replacement; although some variation may occur based on actual MCFRS needs:

- 60 ambulances
- 21 engines
- 10 aerial units
- 4 all-wheel drive brush engines
- 4 rescue squads
- 2 tankers

**MCFRS RESPONSE TIME GOALS
(From 2009 MCFRS Master Plan)**

	Response Time Benchmark	Urban Goal	Suburban Goal	Rural Goal	NFPA 1710 Goal
1st arriving unit to ALS call:	6 min	90%	75%	50%	90%
1st arriving ALS unit to ALS call:	8 min	90%	75%	50%	90%
1st arriving unit to BLS call:	12 min	98%	95%	90%	N/A
1st arriving transport unit to ALS call:	10 min	90%	75%	50%	N/A
1st arriving Engine to fire	6 min	90%	75%	50%	90%
2nd arriving Engine to fire	8 min	90%	75%	50%	N/A
2nd arriving Truck to fire call:	8 min	90%	75%	50%	90%
2nd arriving Truck to fire call:	12 min	90%	75%	50%	N/A

TABLE 3
MCFRS FIRST-ARRIVING UNIT 2022 BENCHMARK RESPONSE TIMES
BY DENSITY ZONE AT 90th PERCENTILE PERFORMANCE LEVEL

Program	METROPOLITAN				URBAN				SUBURBAN				RURAL			
	PtoD	Turnout	Travel	TRT	PtoD	Turnout	Travel	TRT	PtoD	Turnout	Travel	TRT	PtoD	Turnout	Travel	TRT
Advanced Life Support 1 (ALS1)	2:00	1:30	6:00	9:30	2:00	1:30	6:45	10:15	2:00	1:30	7:30	11:00	2:00	1:30	8:30	12:00
Advanced Life Support 2 (ALS2)	2:00	1:30	6:00	9:30	2:00	1:30	6:45	10:15	2:00	1:30	7:30	11:00	2:00	1:30	8:30	12:00
Basic Life Support (BLS)	2:00	1:30	7:15	10:45	2:00	1:30	7:45	11:30	2:00	1:30	8:30	12:00	2:00	1:30	9:45	13:15
Fire-Full Assignment (FFA)	2:00	1:30	3:45	7:15	2:00	1:30	4:15	7:45	2:00	1:30	5:00	8:30	2:00	1:30	6:15	9:45
Fire-Full Assignment – Non-Hydranted (FFA-NH)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2:00	1:30	5:00	8:30	2:00	1:30	8:00	11:30
Adaptive 1- Fire (A1F)	2:00	1:30	5:45	9:15	2:00	1:30	6:15	9:45	2:00	1:30	7:00	10:30	2:00	1:30	8:15	11:45
Adaptive 1- Non-Fire (A1N)	2:00	1:30	6:45	10:15	2:00	1:30	7:15	10:45	2:00	1:30	8:00	11:30	2:00	1:30	9:15	12:45
Adaptive 2-3 (A2-3)	2:00	1:30	5:00	8:30	2:00	1:30	5:15	8:45	2:00	1:30	6:00	9:30	2:00	1:30	6:45	10:15
Hazmat - Moderate Risk (HM-MR)	3:00	1:30	6:45	11:30	3:00	1:30	7:15	11:45	3:00	1:30	8:00	12:30	3:00	1:30	9:15	13:45
Hazmat – High Risk (HM-HR)	3:00	1:30	6:45	11:30	3:00	1:30	7:15	11:45	3:00	1:30	8:00	12:30	3:00	1:30	9:15	13:45
Hazmat – Special Risk (HM-SR)	3:00	1:30	6:45	11:30	3:00	1:30	7:15	11:45	3:00	1:30	8:00	12:30	3:00	1:30	9:15	13:45
Water/Ice Rescue – Moderate Risk (WIR-MR)	3:00	1:30	6:45	11:30	3:00	1:30	7:15	11:45	3:00	1:30	8:00	12:30	3:00	1:30	9:15	13:45
Water/Ice Rescue – High Risk (WIR-HR)	3:00	1:30	6:45	11:30	3:00	1:30	7:15	11:45	3:00	1:30	8:00	12:30	3:00	1:30	9:15	13:45
Water/Ice Rescue – Special Risk (WIR-SR)	3:00	1:30	6:45	11:30	3:00	1:30	7:15	11:45	3:00	1:30	8:00	12:30	3:00	1:30	9:15	13:45
Technical Rescue – Special Risk (TR-SR)	3:00	1:30	6:45	11:30	3:00	1:30	7:15	11:45	3:00	1:30	8:00	12:30	3:00	1:30	9:15	13:45
Aviation Rescue/Fire –High Risk (ARF-HR)	3:00	1:30	6:45	11:30	3:00	1:30	7:15	11:45	3:00	1:30	8:00	12:30	3:00	1:30	9:15	13:45
Aviation Rescue/Fire – Special Risk (ARF-SR)	3:00	1:30	6:45	11:30	3:00	1:30	7:15	11:45	3:00	1:30	8:00	12:30	3:00	1:30	9:15	13:45

PtoD = Phone to Dispatch

TRT = Total Response Time (PtoD + Turnout + Travel)



Overview of Fire, Rescue, EMS, and Community Risk Master Plan

January 2016





Department Stat's – CY15

~ 116,000 calls for service

~ 90,000 EMS

~ 17,000 Fire

~ 10,000 Other

~ 49,100

BLS

~ 32,000

ALS1

~ 70,100 transports to ER/ED

~ 5,700

ALS2

~ 15,000

Fire – Adaptive

~ 9,000

Service Call

~ 1,000

Fire - Full

~ 4,000

Mutual Aid

~ 800

Other





Trend CY13 - CY15

	CY13	CY14	CY15	% Change
Fire	14,843	15,729	16,571	842 (5.4%)
EMS	83,794	86,378	90,298	3,920 (4.5%)
Other	9,217	10,258	9,557	-701 (-6.8%)
Total	107,854	112,365	116,426	4,061 (3.6%)

	CY13	CY14	CY15	% Change
Transports	63,743	67,369	70,107	2,738 (4.0%)

	CY13	CY14	CY15
ALS1	28,587	30,567	32,021
ALS2	5,207	5,316	5,756
BLS	46,369	47,206	49,147
Fire Full	985	1,039	1,030
Fire Adaptive	13,242	14,097	14,919
Service	8,212	9,303	8,598
Mutual Aid	4,322	3,940	4,073
Other	930	897	882





ALS (Paramedic) Delivery

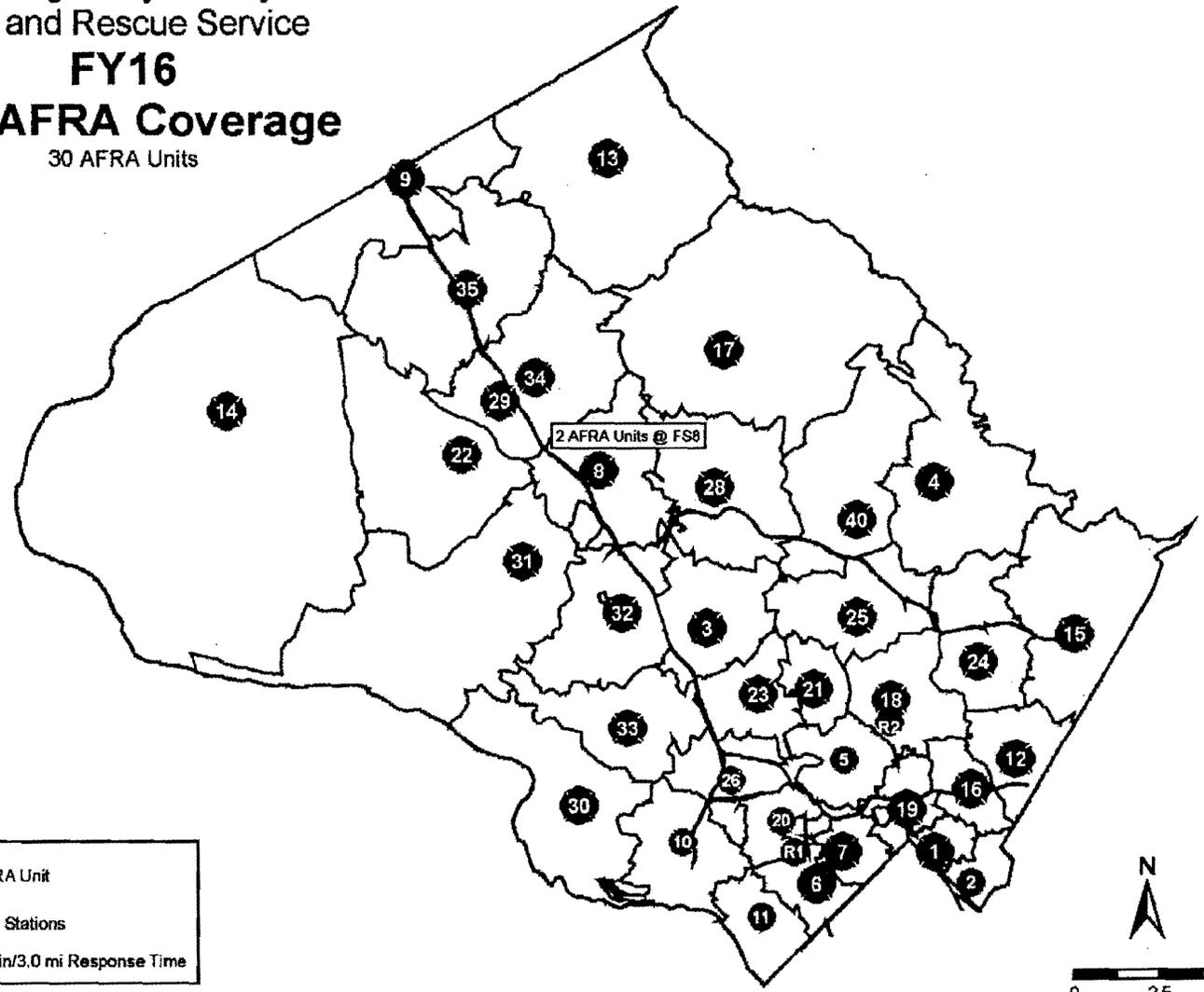
- Prior to 2006 – ALS providers on medic units
- 2006 – first phase for 4-person staffing
- Today – 29 paramedic engines & 17 medic units
- ALS1 – time dependent not immediately life threatening
- ALS2 – time dependent life threatening
- 60% of ALS1 calls do NOT require paramedic care to/during transport to ER ~19,000 calls per year
- Avg turn around time 70 to 80 minutes



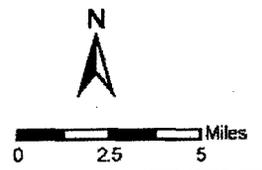


ALS Chart – AFRA

Montgomery County
Fire and Rescue Service
FY16
ALS AFRA Coverage
30 AFRA Units



● AFRA Unit
● Fire Stations
8 Min/3.0 mi Response Time





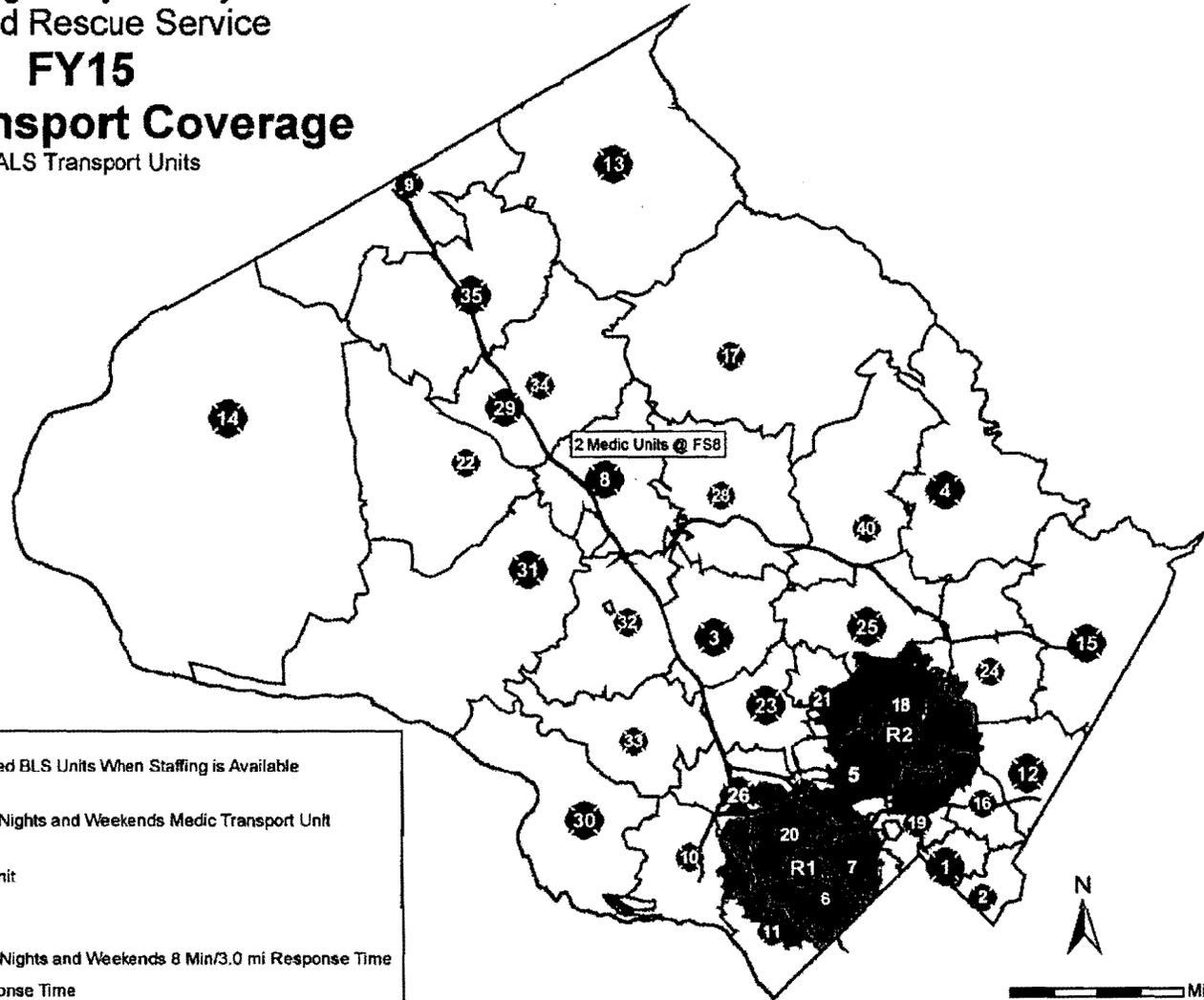
ALS Chart – ALS Transports

Montgomery County
Fire and Rescue Service

FY15

ALS Transport Coverage

17 ALS Transport Units



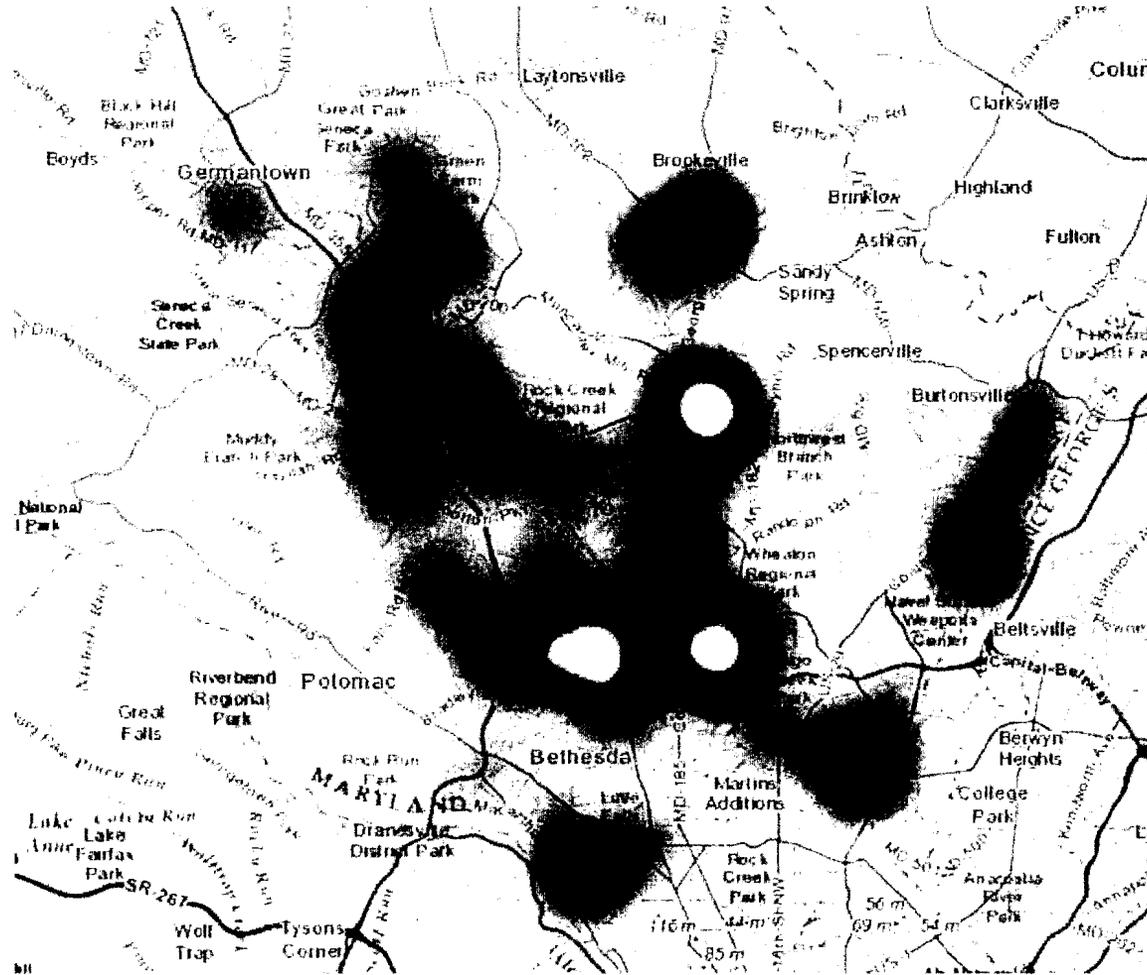
- Volunteer Upgraded BLS Units When Staffing is Available
- Volunteer Staffed Nights and Weekends Medic Transport Unit
- Medic Transport Unit
- Fire Stations
- Volunteer Staffed Nights and Weekends 8 Min/3.0 mi Response Time
- 8 Min/3.0 mi Response Time

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Why? ALS Calls not Meeting Response Time Goals.....



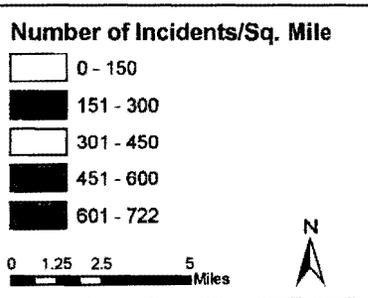
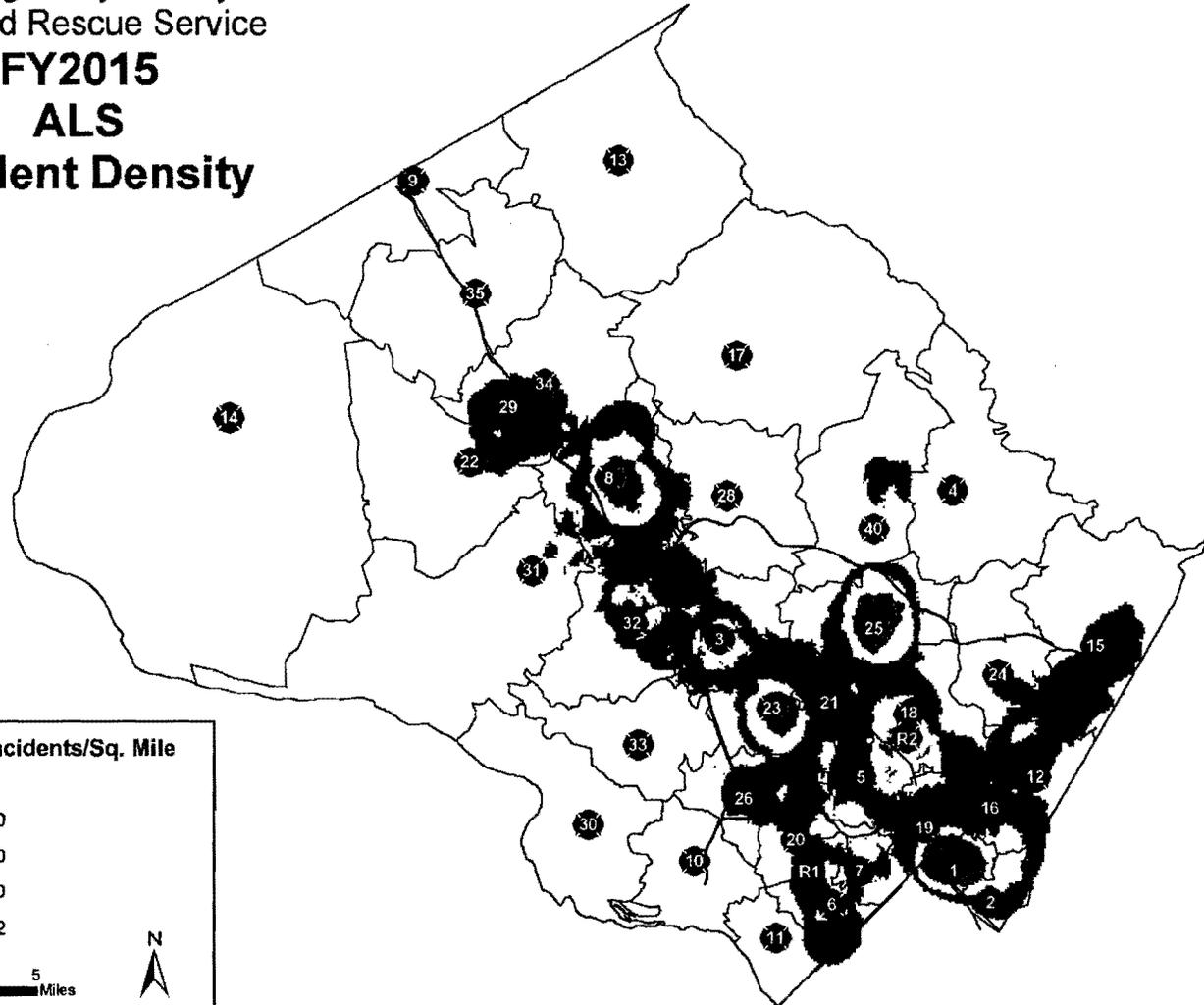
CountyStat "hot spot" map of ALS events – CY2013 data





ALS Density Map

Montgomery County
Fire and Rescue Service
FY2015
ALS
Incident Density

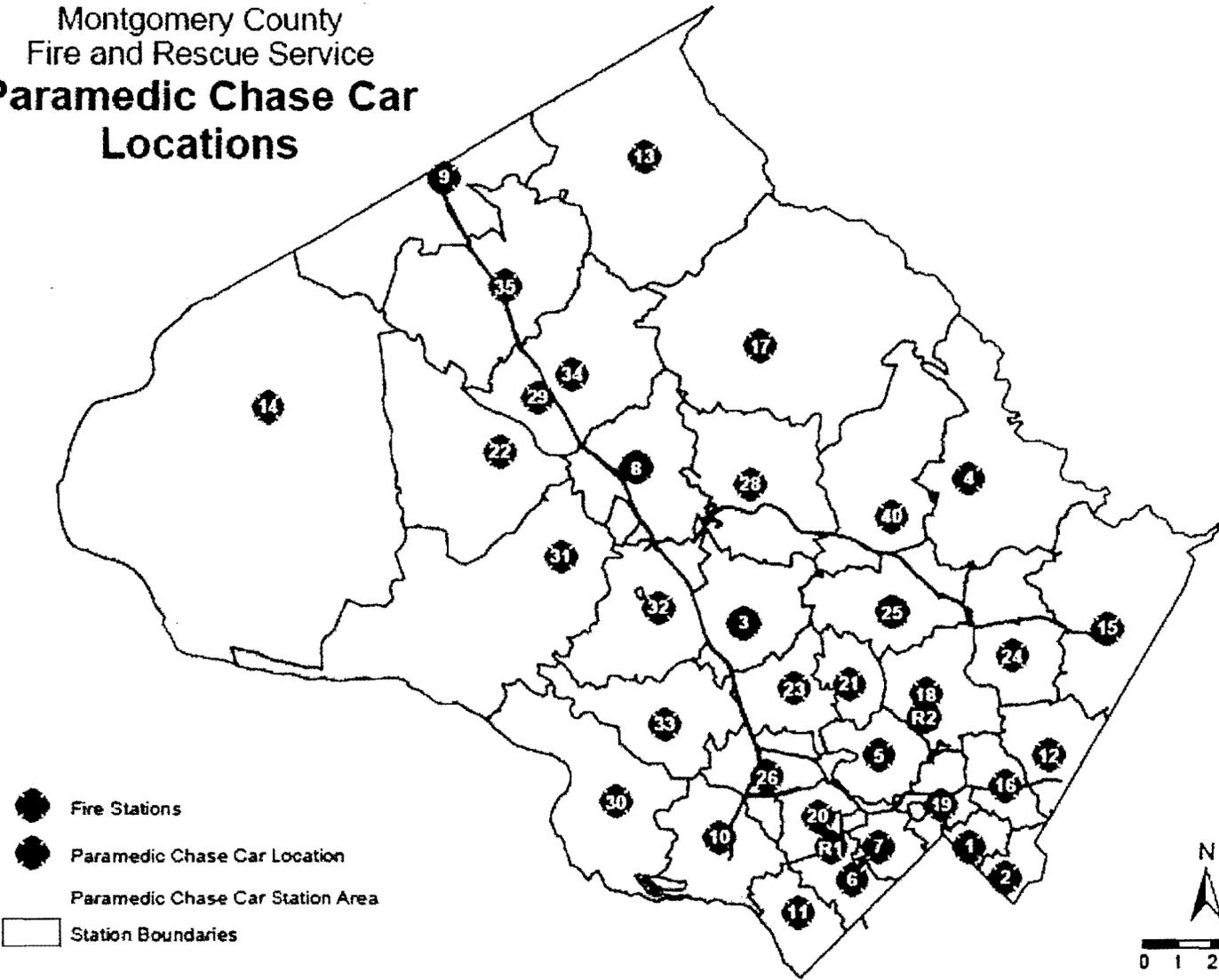


04



Chase Car Pilot Locations

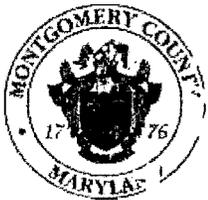
Montgomery County Fire and Rescue Service Paramedic Chase Car Locations





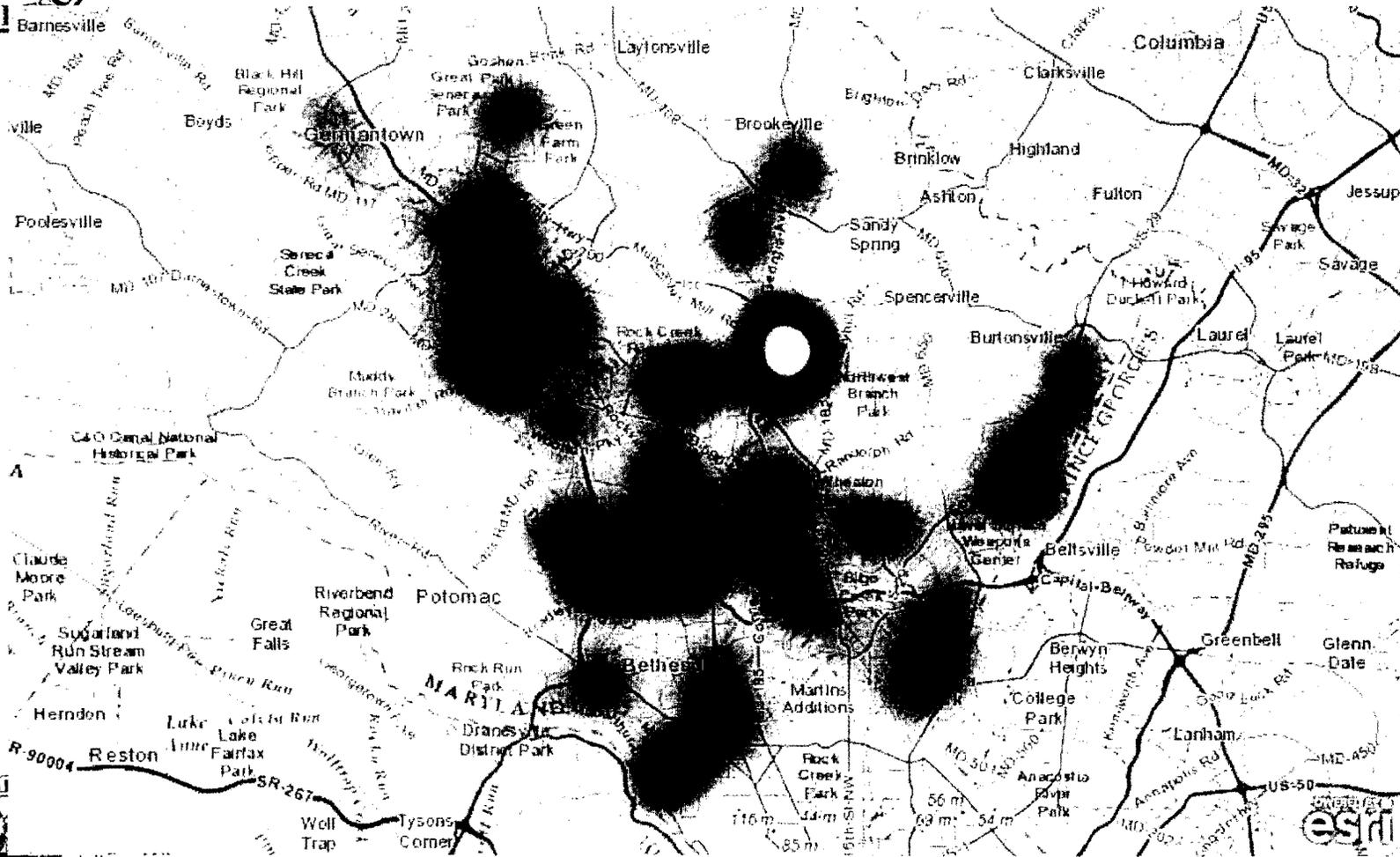
Chase Car Evaluation Assessment

- ↔ ▶ ALS Response Times
- ↑ ▶ ALS Availability
- ↑ ▶ ALS Efficiency
- ↓ ▶ Heavy Apparatus Responses





During Chase Car Test



CountyStat "hot spot" map of ALS events – During Chase Car Test



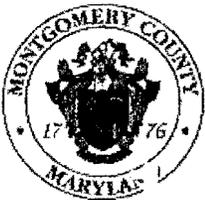
43



Transition of ALS Delivery

- Finish enhancements to 4-person paramedic engine companies - 6 engines remain

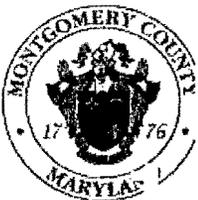
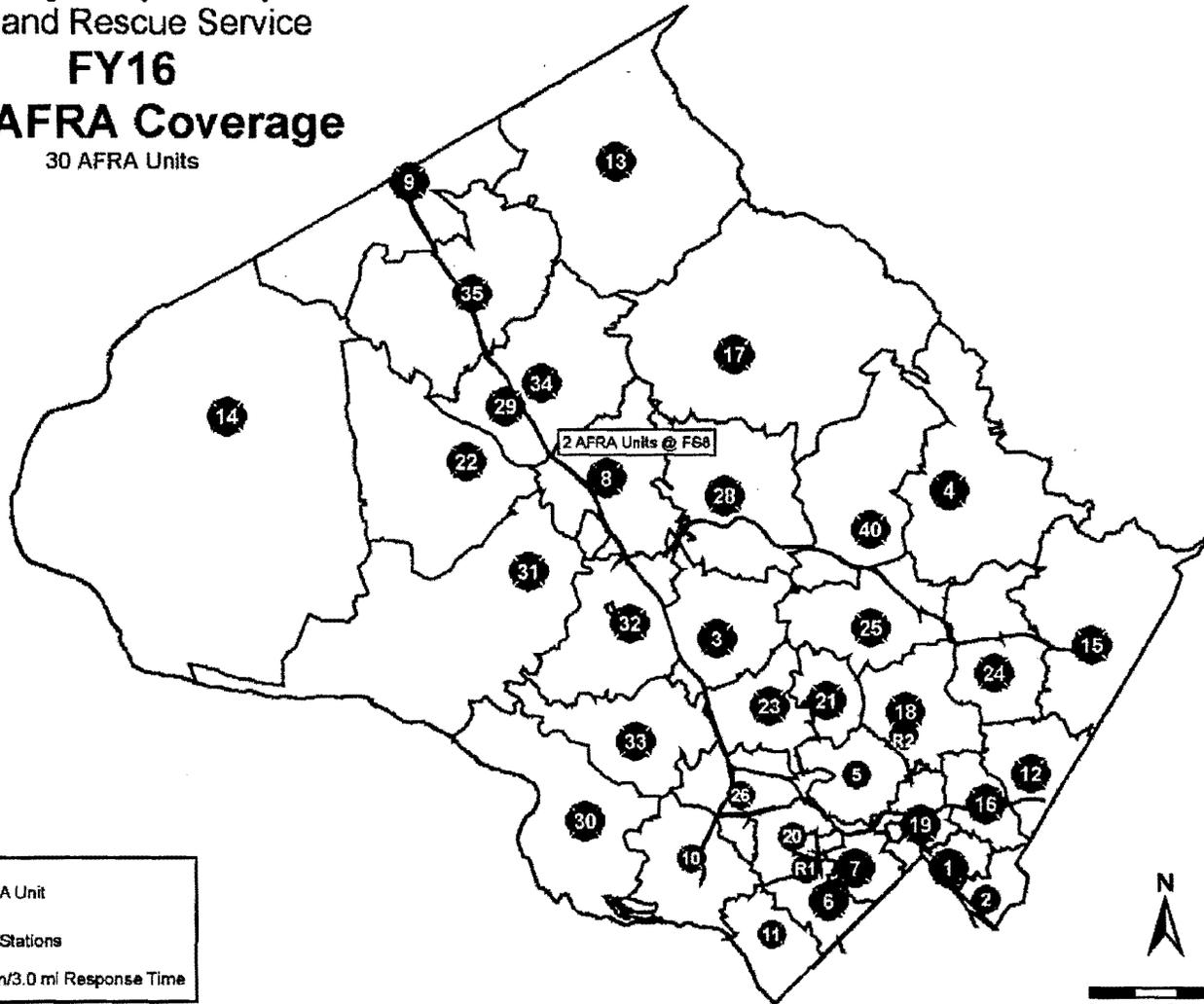
- FS02 Takoma Park
- FS05 Kensington
- FS10 Cabin John
- FS11 Glen Echo
- FS20 Bethesda (Cedar Lane)
- FS26 Bethesda (Democracy)





FY16 ALS Map

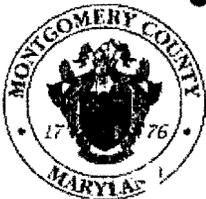
Montgomery County
Fire and Rescue Service
FY16
ALS AFRA Coverage
30 AFRA Units





Transition of ALS Delivery

- Supplement paramedic engines with ALS chase cars in dense / high call volume areas
 - Generally follow the Rockville Pike and Georgia Ave corridors
 - Operate ~8 chase cars (SUVs)
 - Gaithersburg (2), Rockville, Twinbrook, Bethesda
 - Aspen Hill, Wheaton, Silver Spring
- Fiscal Impact ~ \$ 6m
 - including 65 positions (\$ 5.2m) & Operating (\$900k)





Additional EMS Capacity

- Every station to house an ambulance (6 locations – MP 6.3)
 - Bethesda, Chevy Chase, Hyattstown, Glenmont, Montgomery Hills, Cedar Lane
- Additional BLS units to high demand areas (5 locations – MP 6.4)
 - Gaithersburg, Burtonsville, Twinbrook, Aspen Hill, Travilah
 - Most units best targeted to 12-hr peak time





New Stations

- MP calls for new/additional stations (MP 4-42 & 6-21)
 - Montgomery Village
 - Shady Grove
 - East County
 - Norbeck





Why New Stations

- Justifications for New Stations
 - Response times exceed goals:
 - 6 minutes for engine to fire incidents
 - 8 minutes for ALS provider to ALS incident
 - High and increasing incident call volume
 - Planned development leading to higher risk and need for FRS services





Role of Engine Company

- Engine is most versatile & efficient MCFRS breed of apparatus
 - Fire suppression
 - Ground ladders
 - Emergency medical (ALS & BLS)
 - Manpower/support/safety functions
 - 4-person crew supports immediate fire attack (2-in / 2-out)
 - Paramedic drops off for patient care – engine remains in-service in community with 3-person crew





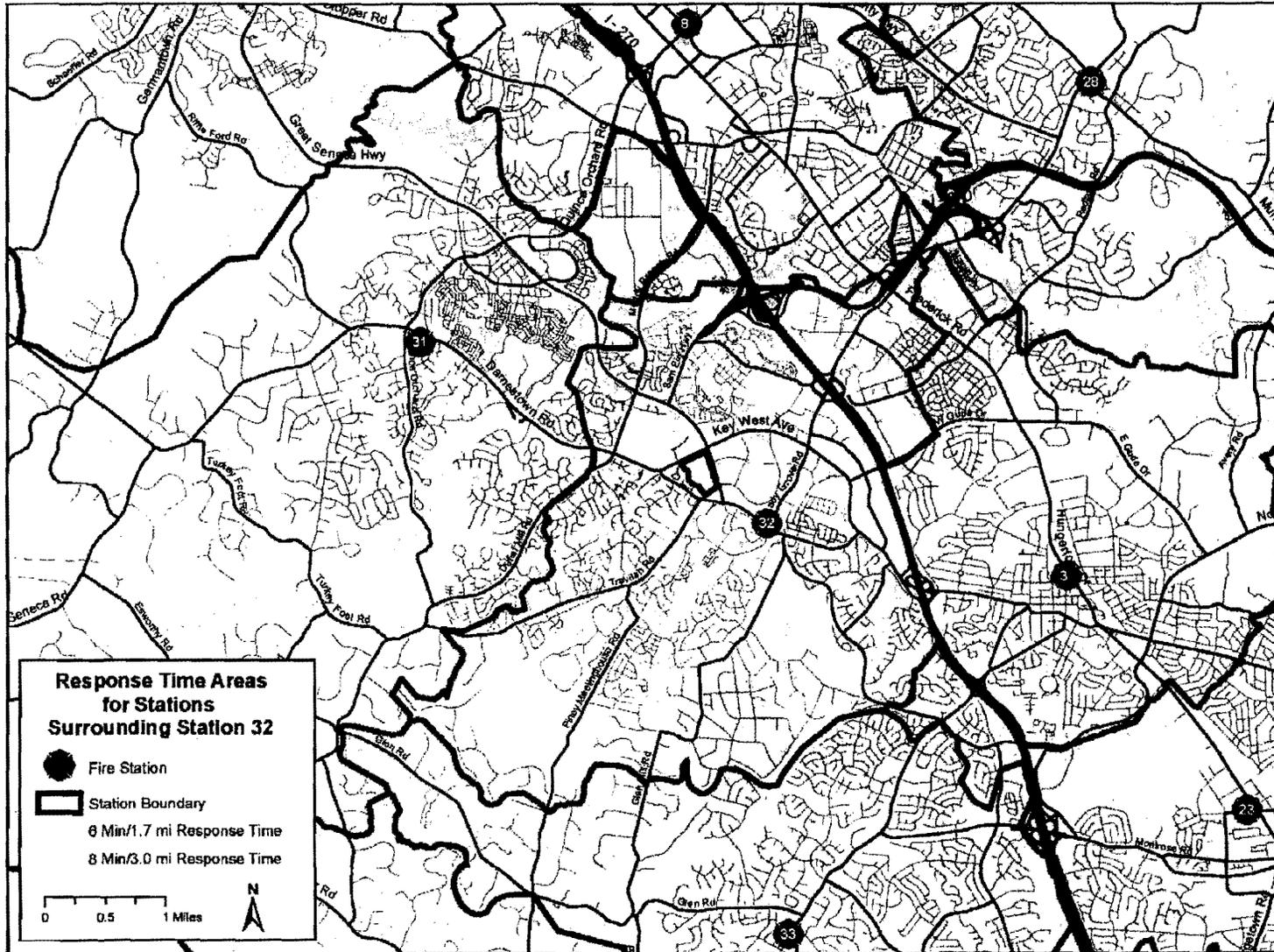
"Old - New Station" – FS32 Travilah

- Planning in 1999 identified need for station near Shady Grove hospital due to:
 - Need identified in Phase 1 – Station Location Study
 - High density residential/ life science / educational / commercial
 - Coverage from 3, 31, and 33 far greater than 6 & 8 minutes
 - "Planned" developments – Crown Farm / JHU-Belward / PSTA re-use / Malory Square
 - Station response area = ~ 5,000 incidents in 2014



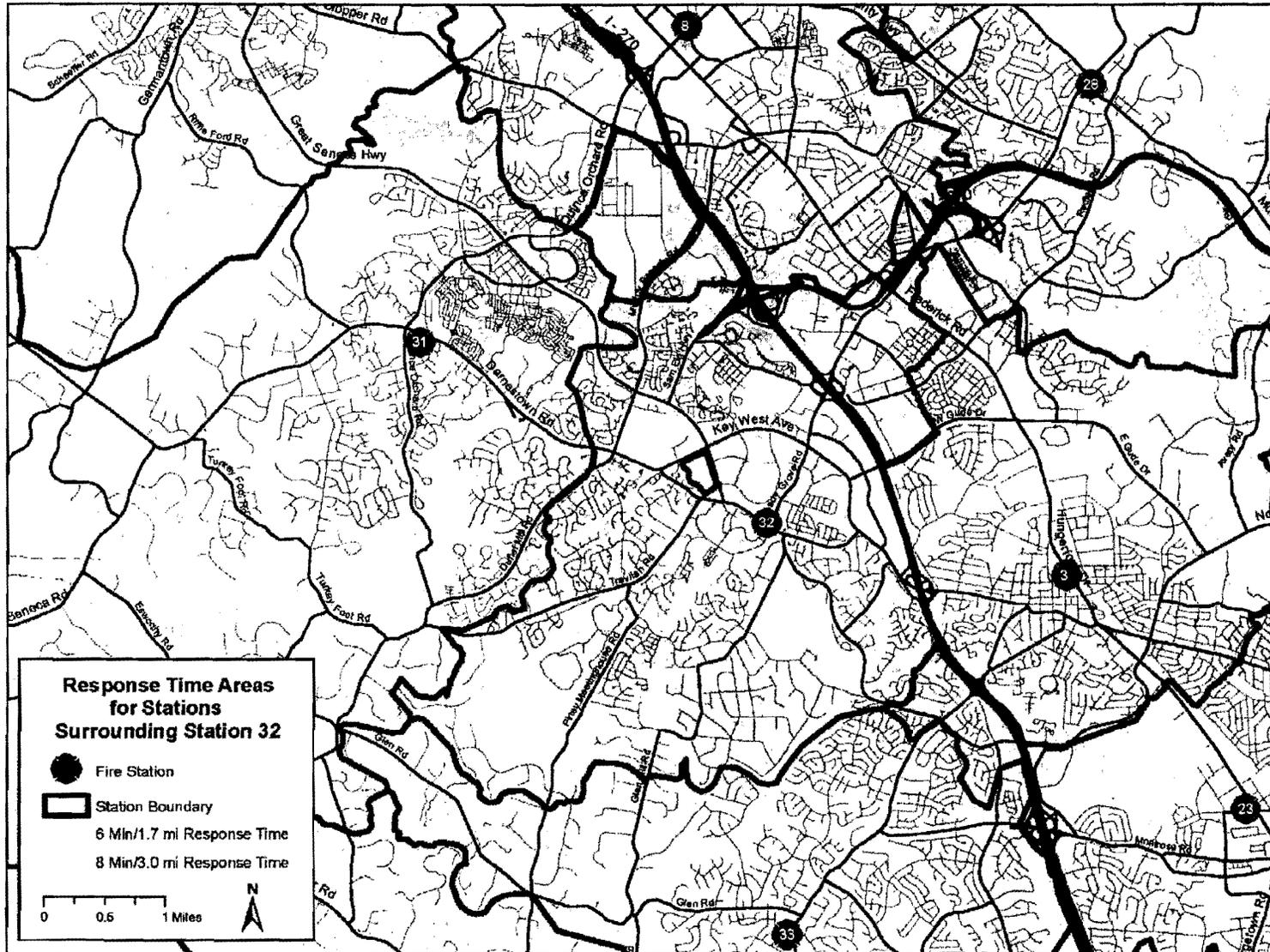


"Old - New Station" – FS32 Travilah





"Old - New Station" – FS32 Travilah

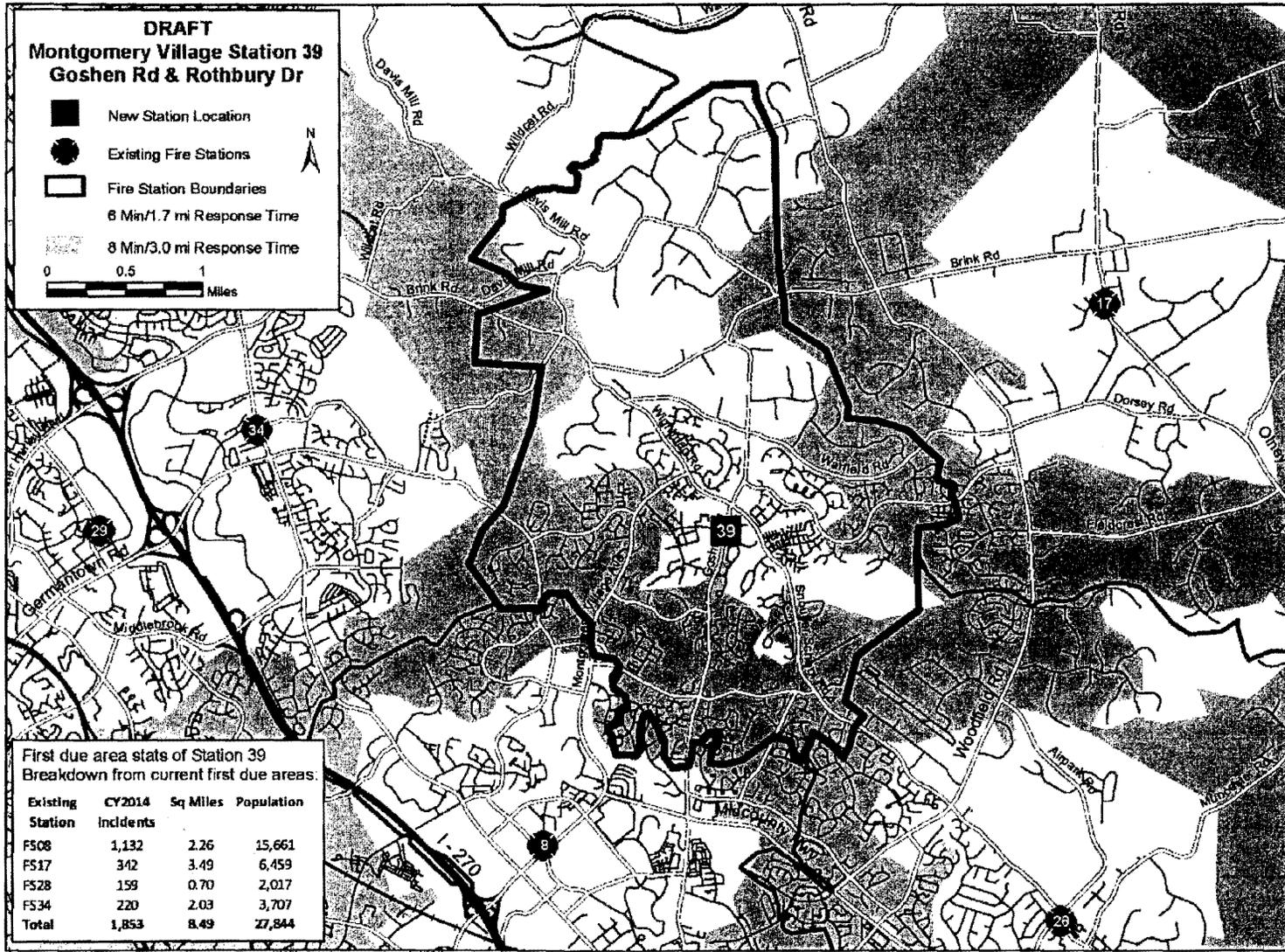


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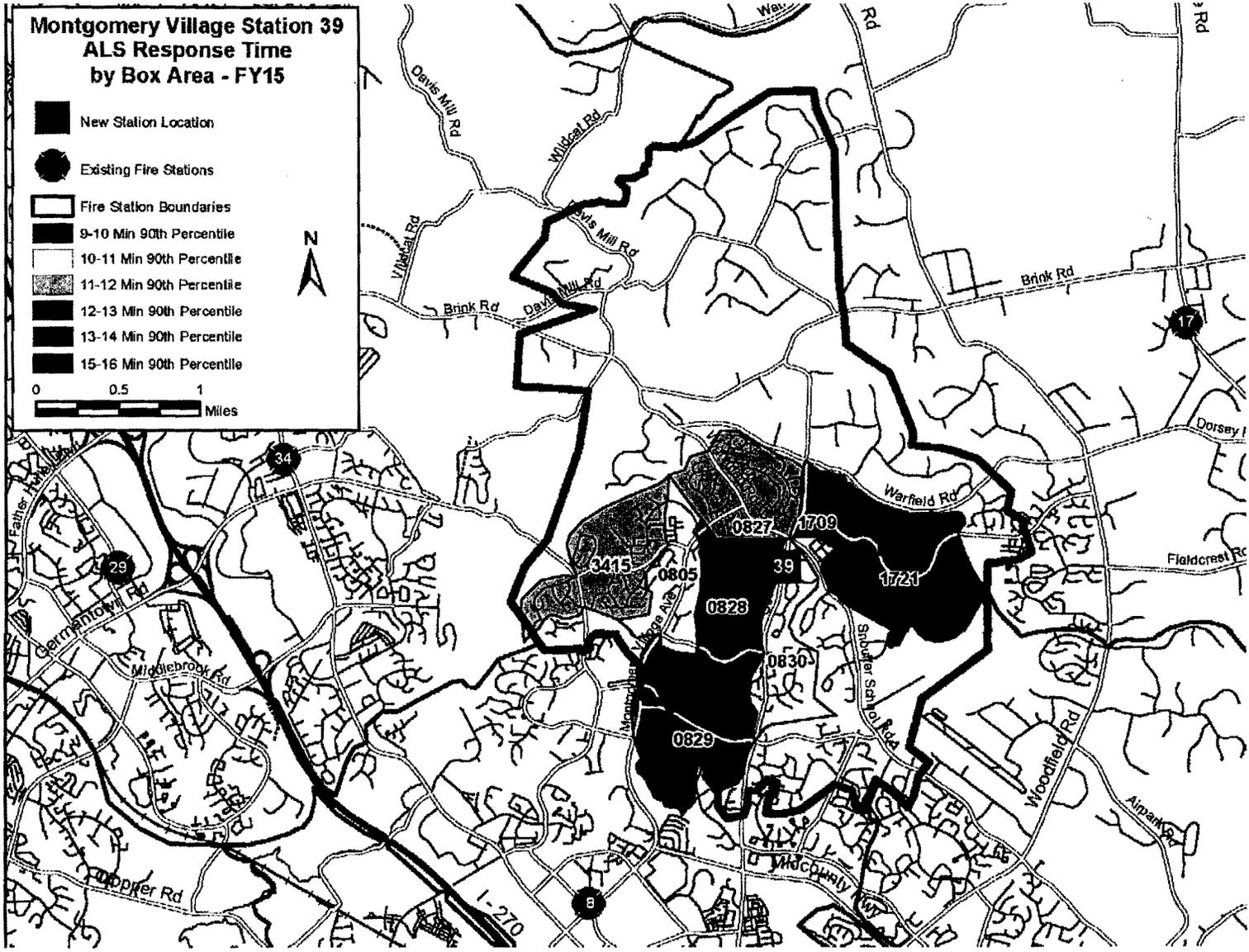
Need - FS39 Montgomery Village



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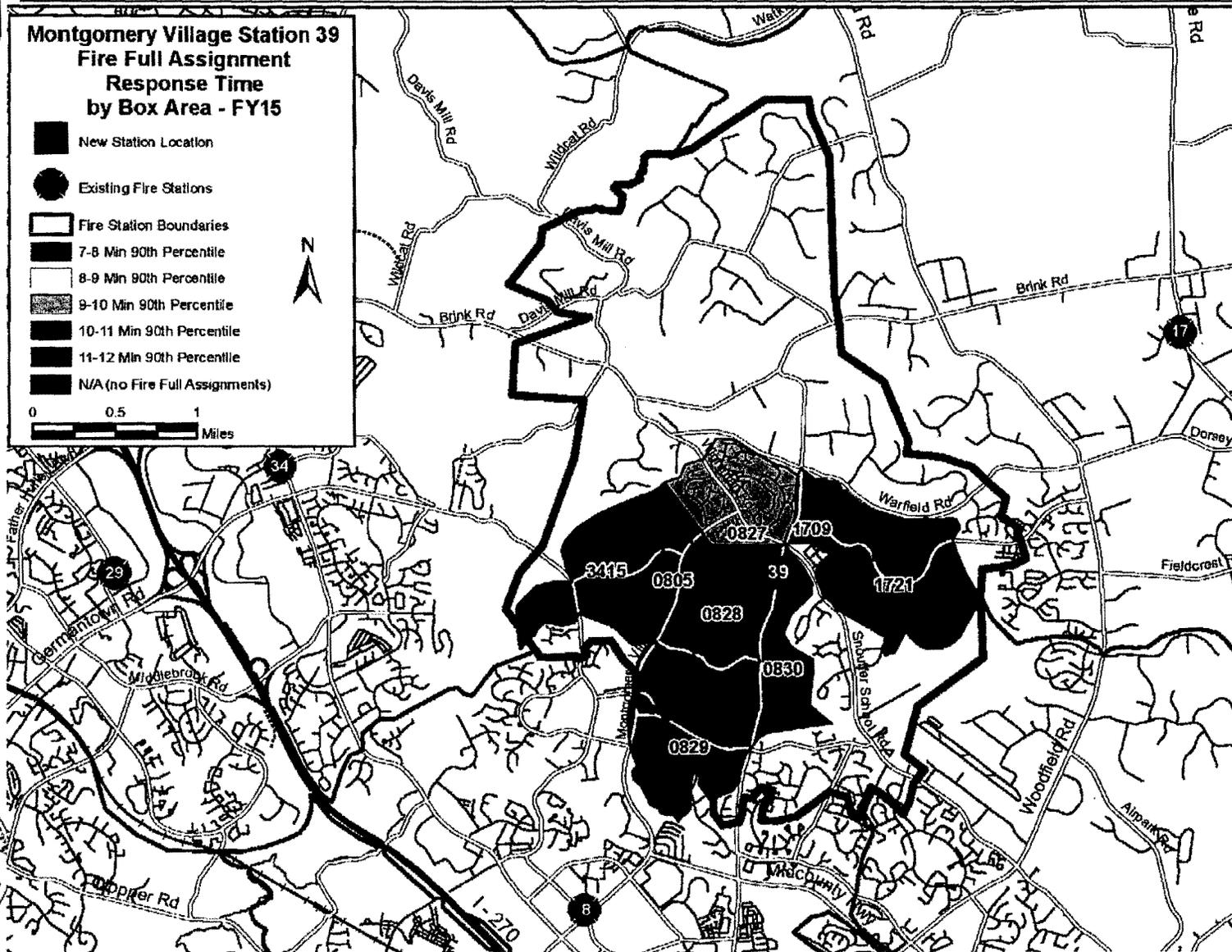


Current Response Times in FS39 Area



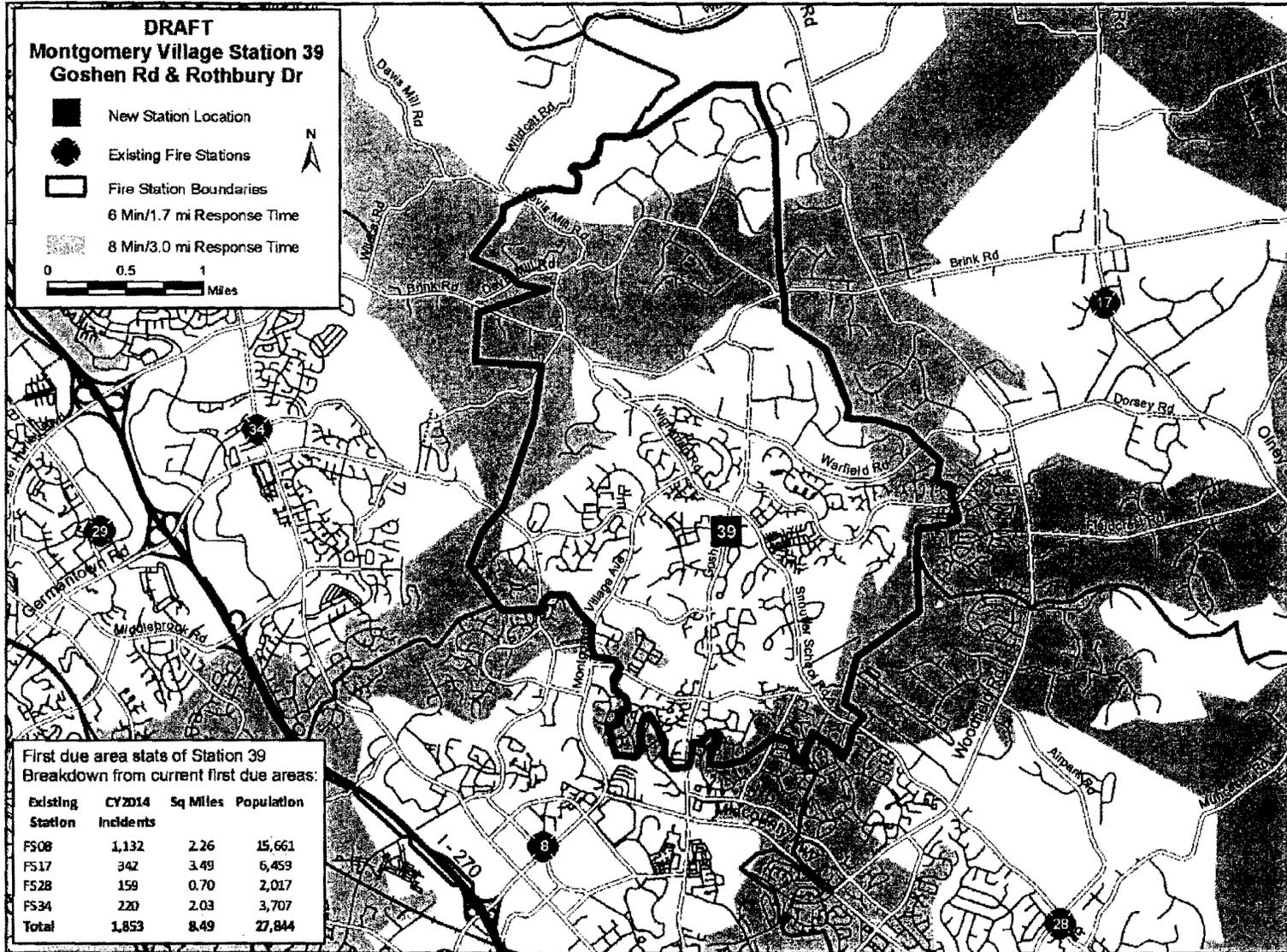


Current Response Times in FS39 Area





Need - FS39 Montgomery Village

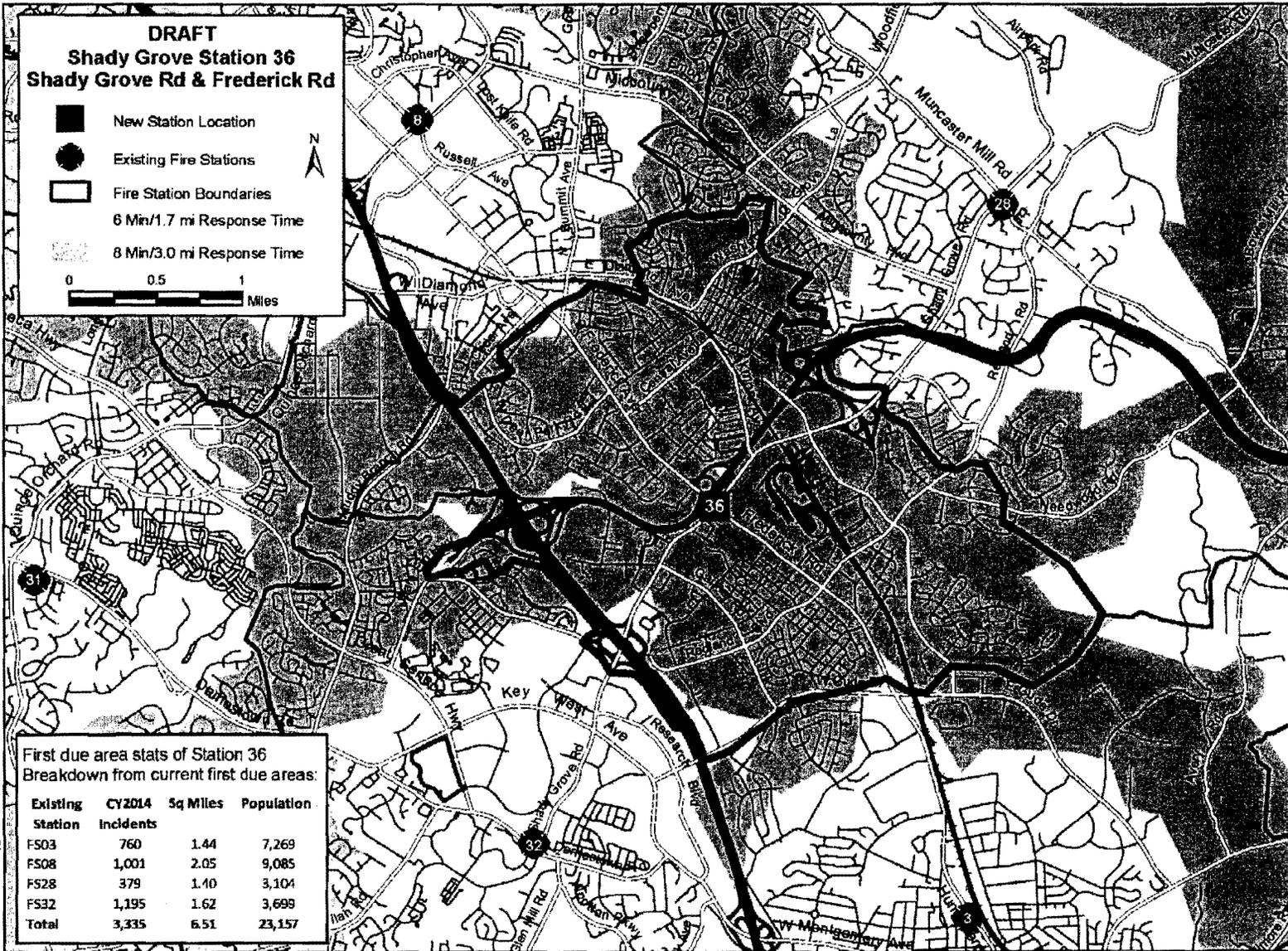


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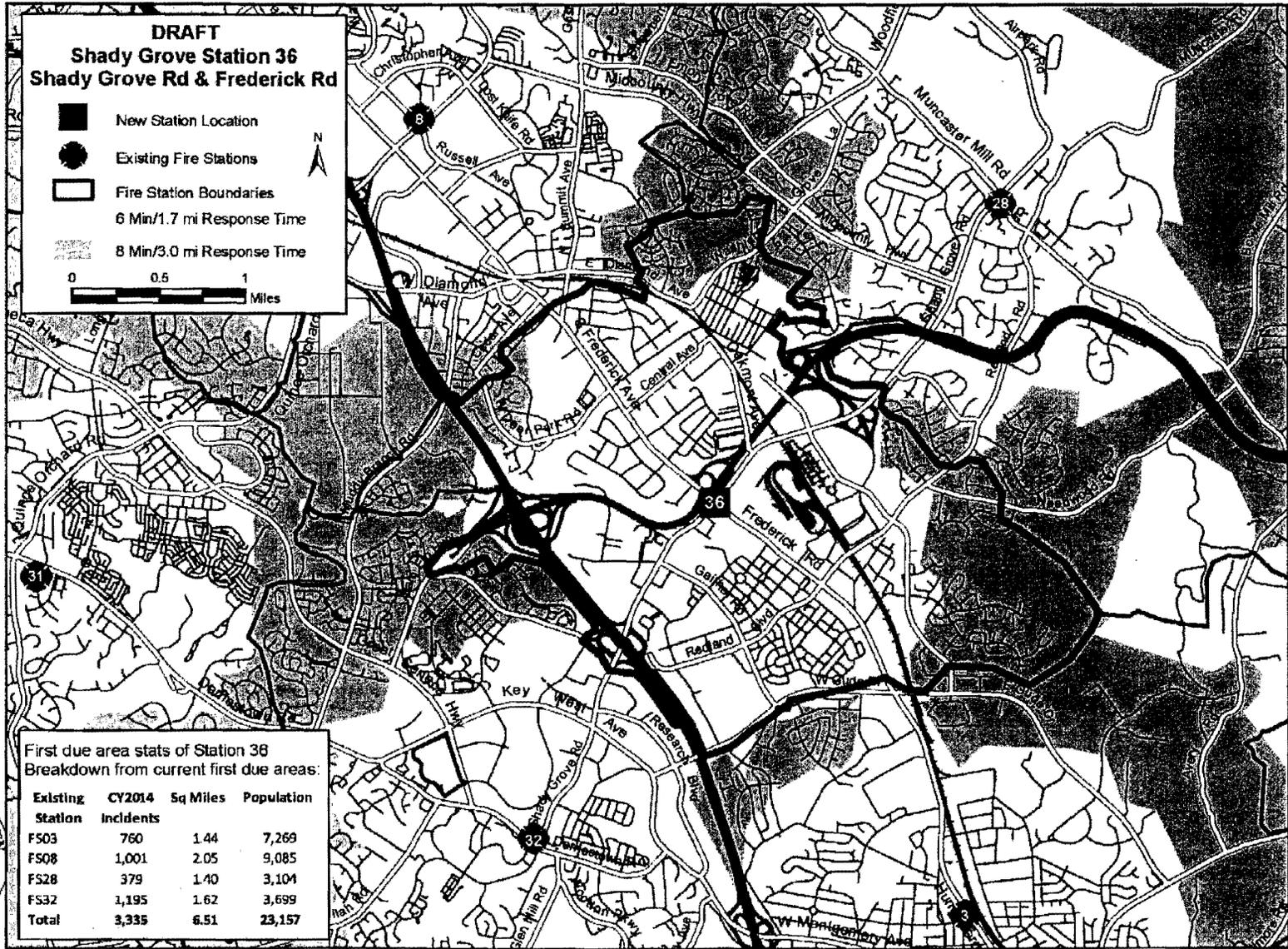


Need - FS36 Shady Grove

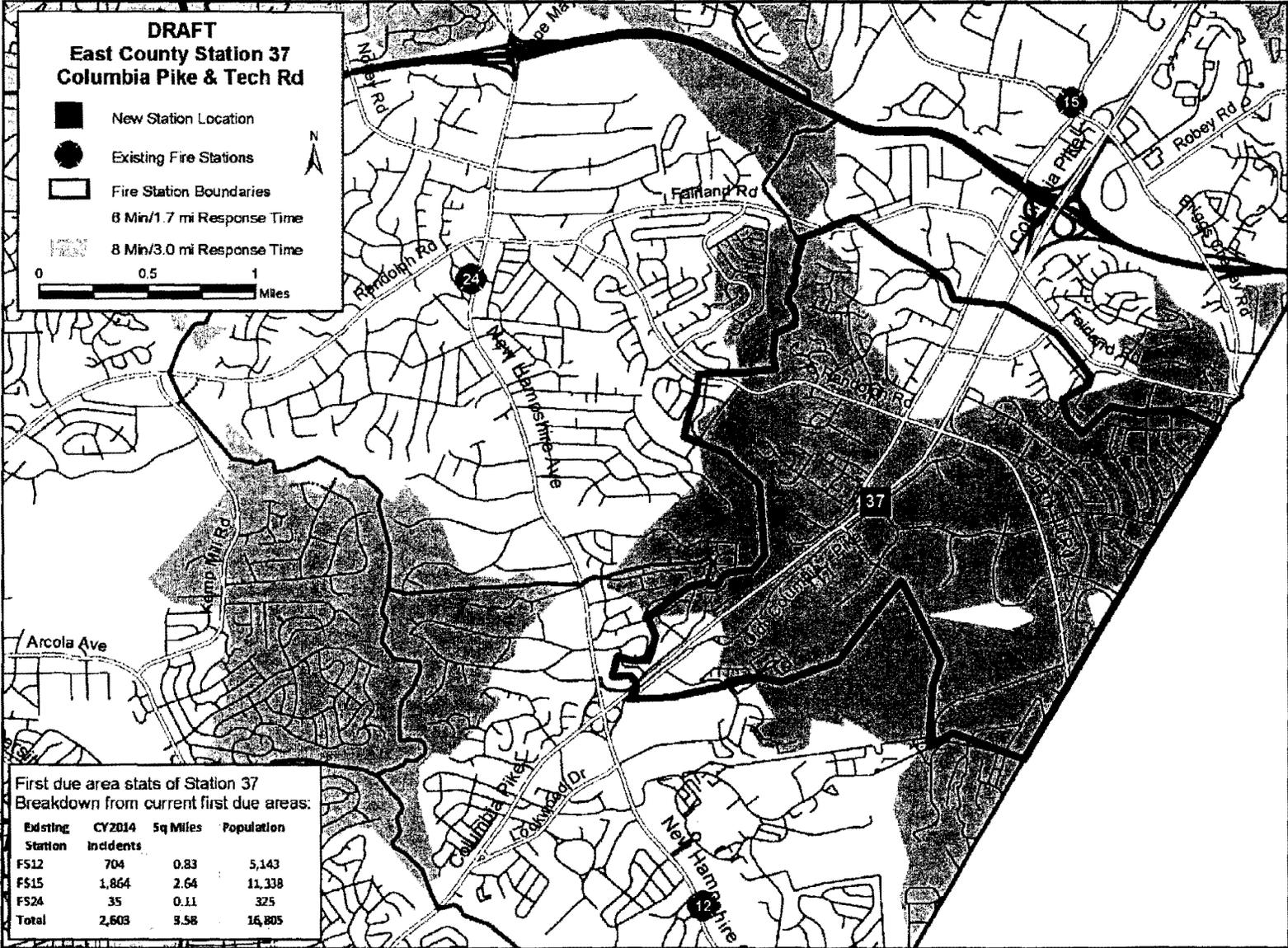




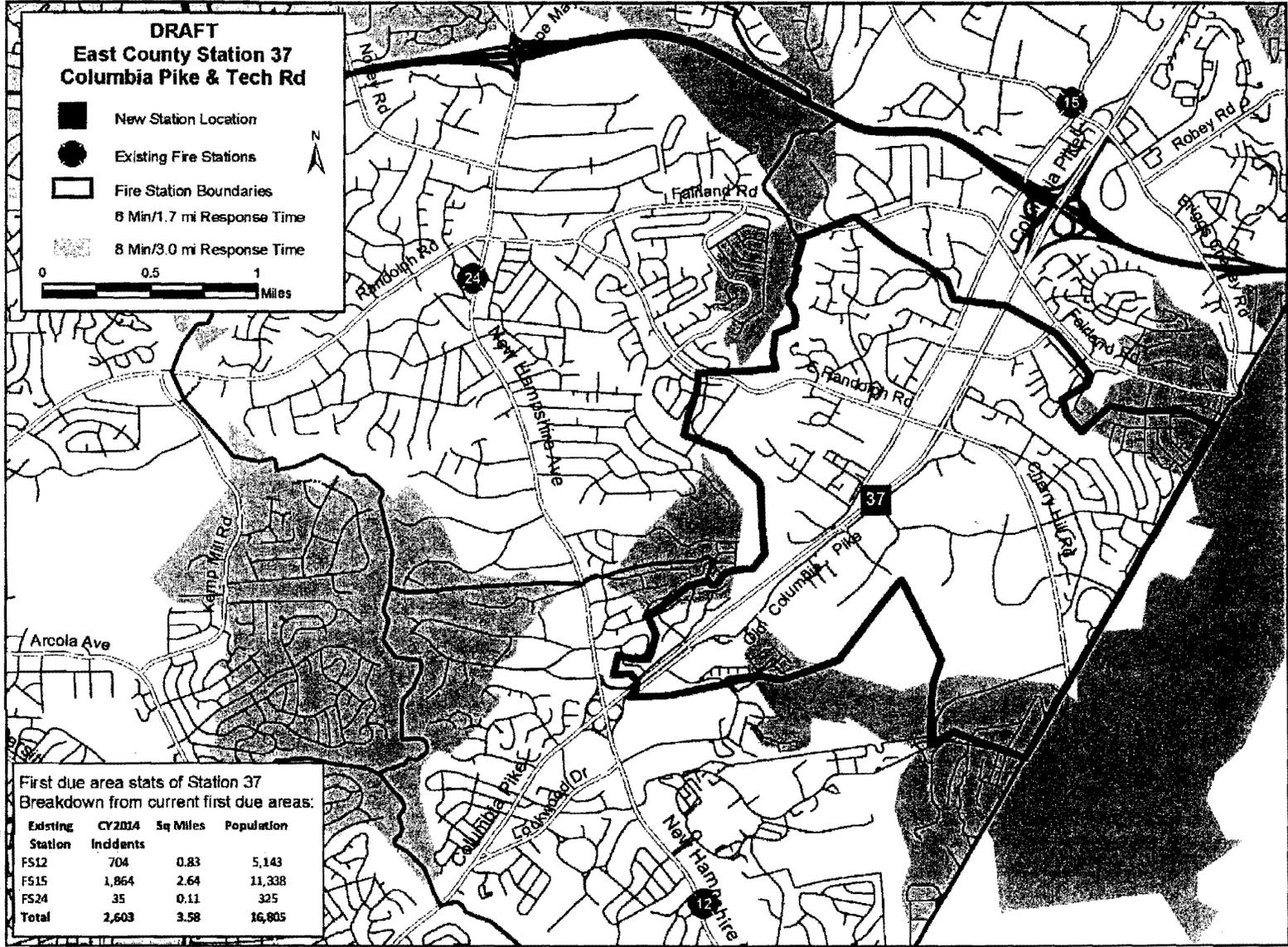
Need - FS36 Shady Grove



Need - FS37 East County



Need - FS37 East County



First due area stats of Station 37
Breakdown from current first due areas:

Existing Station	CY2014 Incidents	Sq Miles	Population
FS12	704	0.83	5,143
FS15	1,864	2.64	11,338
FS24	35	0.11	325
Total	2,603	3.58	16,805





Summary

- ALS Delivery
 - ALS provider in Every Station supported by ALS Chase Cars
- Additional EMS (transport) Capacity
- New Stations to Reduce Response Time

