



**A Report to the  
Audit Committee**

**Mayor**  
Freddie O'Connell

**Nashville Fire Department**  
**Director Chief**  
William Swann

**Audit Committee Members**  
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Tom Bates  
Kevin Crumbo  
Angie Henderson  
Courtney Johnston  
Matthew Scanlan

Metropolitan  
Nashville  
Office of  
Internal Audit

**Audit of Nashville Fire Department -  
Fleet Maintenance and Operations**

November 14, 2024

# Audit of Nashville Fire Department - Fleet Maintenance and Operations

## EXECUTIVE SUMMARY

November 14, 2024



### Why We Did This Audit

This audit was performed due to the importance of ensuring safe and reliable vehicles for emergency response personnel.

### What We Recommend

- Evaluate moving certain vehicle maintenance in-house.
- Restructure the budget so maintenance costs are held by the Nashville Fire Department.
- Routinely verify vehicle mileage and hours.
- Explore implementing a real-time fleet management system.
- Retain vehicle status reports on weekends and holidays.
- Establish a lifecycle replacement plan for transitioning vehicles to reserve status and purchasing new vehicles.

## BACKGROUND

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The Nashville Fire Department provides fire, medical, and rescue services to residents and visitors in Nashville and Davidson County. The department has 40 fire stations, which house engines, ladders, heavy rescue trucks and ambulances. Additionally, the department utilizes light fleet vehicles such as pickup trucks and SUVs, as well as special operations vehicles. The Office of Fleet Management within the Department of General Services ensures safe, reliable fleet and related maintenance, repair, and support services are available. The division maintains the expense budgets for new vehicles, maintenance, and vehicle parts for fleet across the Metropolitan Nashville Government.

## OBJECTIVES AND SCOPE

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The objectives of this audit are to determine if:

- Drivers are qualified and effectively trained to operate Nashville Fire Department vehicles.
- Vehicles are maintained timely and effectively.
- The organization is structured to ensure efficiency and accountability.

The scope of this audit includes all Nashville Fire Department vehicle maintenance records and vehicle operations between April 1, 2022, and March 30, 2024.

## WHAT WE FOUND

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The Nashville Fire Department has strong policies and procedures in place to ensure training requirements are met and monitored for all employees who operate department vehicles. Records of training are appropriately maintained, and an effective process is in place to ensure annual trainings are completed.

However, routine maintenance of vehicles was unable to be determined due to data reliability. Triggers for routine maintenance were based on unverified driver entered mileage or hours which were found to vary irregularly. Additionally, Metropolitan Nashville Government's fleet maintenance varies from other cities in organizational and budgetary structure.

## GOVERNANCE

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The Nashville Fire Department is overseen by the Director Chief. A Deputy Chief oversees various divisions of the Nashville Fire Department, including Fire Operations and EMS Operations. A Commander of Logistics oversees the management of the department's fleet and coordinates with the Office of Fleet Management on maintenance needs and fleet replacement apparatus.

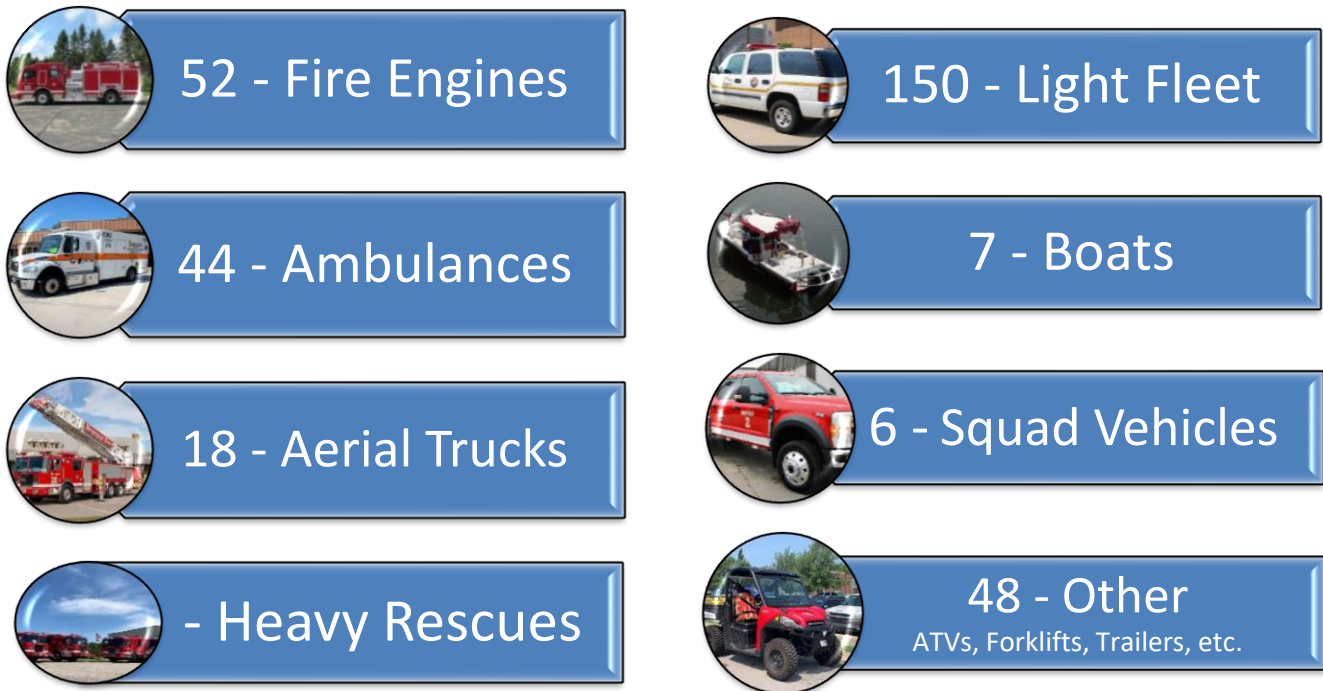
A Director of General Services oversees the Department of General Services. An Assistant Director oversees the Office of Fleet Management, a division of the Department of General Services which manages all Metropolitan Nashville Government vehicles. The Office of Fleet Management works with the Nashville Fire Department to maintain a fleet of reliable vehicles that are necessary for providing emergency services to residents and visitors of Metropolitan Nashville and Davidson County.

## BACKGROUND

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The Nashville Fire Department is the main provider of fire, rescue, and emergency medical services for Metropolitan Nashville and Davidson County. Covering 526 square miles, Davidson County includes both high-density urban areas and wildland interface zones. The department responds to over 150,000 emergency calls each year, many of which require additional alarm responses and multiple resources. Nashville has more than 650 high-rise buildings within the service area which require additional resources.

The Nashville Fire Department utilizes over 300 vehicles including engines, ambulances, light fleet, and specialty vehicles such as boats and ATVs. The Nashville Fire Department maintains 37 reserve vehicles, primarily ambulances and fire engines.



Source: Nashville Fire Department Vehicle List April 2024

Apparatus Training

Nashville Fire Department operations require reliable drivers to operate assigned vehicles safely and correctly. The Nashville Fire Department Training Academy is tasked with ensuring all vehicle operators have completed the required training and hold proper credentials.

Each apparatus requires a specific Driver’s Training Course. The training course only needs to be completed once with a passing grade on the exam. A new Driver’s Training Course will be taken in the event of purchasing and implementing a newer model of the apparatus. Exhibit A details the training requirements for operators of each type of vehicle.

**Exhibit A: Training and Licensure Requirements to Operate Vehicles**

Type of Vehicle	Vehicle Driver's License	Vanessa K. Free Training	Apparatus Specific Drivers Training Course	Active EMS License
Light Fleet	x	x		
Fire Apparatus	x	x	x	
Ambulance	x	x		x

Source: Nashville Fire Department Training Academy

The Vanessa K. Free Emergency Services Training Act of 2005 is a Tennessee law that sets annual training requirements for emergency vehicle drivers. The law was created in response to a 2002 motor vehicle accident that killed Vanessa K. Free, a passenger in a vehicle struck by a police car. The law applies to all emergency services personnel, including law enforcement, firefighters, and rescue personnel.

Apparatus Maintenance

The Nashville Fire Department works in conjunction with the Office of Fleet Management to provide regular and necessary maintenance to Nashville Fire Department vehicles. The Office of Fleet Management manages the budget for vehicle maintenance, repairs, and acquisition. During the audit scope, preventative maintenance of the Nashville Fire Department’s fleet was done by third-party contractors who bill the Office of Fleet Management. After the audit period, light duty preventative maintenance was transitioned in-house to the Office of Fleet Management.

The Office of Fleet Management monitors timelines for each vehicle’s preventative maintenance. When a timeline is reached, the division notifies the Nashville Fire Department. The Nashville Fire Department is responsible for coordinating when a vehicle can go for required service. Vehicles are dropped off at third-party contractors for services, and work orders are created. When services are complete, the Office of Fleet Management ensures the work was performed before the vehicle is picked up. Preventative Maintenance timelines are shown in Exhibit B.

**Exhibit B: Preventative Maintenance Timelines**

Preventative Maintenance Category	Description	Timeline
PMB SERVICE (Light Duty)	Oil change, basic inspections	7,000 Miles or 365 Days
PMC SERVICE (Light Duty)	PMB Service plus more extensive fluid changes and inspections	56,000 Miles or 3,000 Days
PMA SERVICE (Heavy Duty)	Basic inspections and lubrication	7,000 Miles or 60 Days
PMB SERVICE (Heavy Duty)	Oil change, basic inspections	14,000 Miles or 125 Days
PMC SERVICE (Heavy Duty)	PMB Service plus more extensive fluid changes and inspections	56,000 Miles or 365 Days

Source: Nashville Fire Department Logistics Group

The Nashville Fire Department Logistics Division is responsible for coordinating the maintenance needs of Nashville Fire Department vehicles and managing the use and status of reserve vehicles. Determining priority for the use of reserve vehicles when few are available is decided by the Fire Operations division.

## AUDIT OBJECTIVES AND CONCLUSIONS

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1. *Are processes in place to ensure staff are qualified and effectively trained to operate assigned vehicles?*

**Yes.** The Nashville Fire Department had processes in place to monitor training completed and to send alerts when training was due. One vehicle was selected per day for a random sample of 47 days within the audit period. A total of 120 employees were assigned to vehicles for the selected days. For each operator assigned to a vehicle, training documentation was requested and reviewed. Documentation for all 120 employees was provided, including driver's training course test scores for the assigned apparatus and compliance with the Vanessa K. Free annual training requirements. Of these 120 employees, 64 were EMS personnel, all of whom held active EMS licenses on the date reviewed. Out of the 120 employees, 119 met all training requirements, with only one employee having a Vanessa K. Free test that was past due. Based on the sample reviewed, the discrepancy appears to be isolated.

Additionally, an anonymous survey was distributed to all 1,492 Nashville Fire Department employees to gather feedback on fleet vehicle operations and maintenance. A total of 197 responses (13 percent) were received. Of those who responded, 167 employees (85 percent) agreed or strongly agreed that their training had adequately prepared them to confidently operate their vehicles.

2. *Are processes in place to ensure timely and effective vehicle maintenance?*

**No.** Data relied upon by the Office of Fleet Management to determine preventative maintenance timing was inaccurate. A random sample of work orders during the audit period was reviewed for adequate documentation, appropriate costs per vendor contracts, and up to date preventative maintenance. Of the 47 work orders, 19 of the vehicles (40 percent) were behind on preventative maintenance based on the mileage recorded in the fleet management system. However, the mileage in the fleet management system was found to be unreliable due to the frequency of human input errors.

Within the sample of work orders, 14 vehicles logged downtime of one or more days. For each open work order that logged downtime of one or more days, reserve status reports were reviewed to determine if a reserve vehicle was assigned. Only 2 vehicles out of 14 vehicles (14 percent) had an assigned reserve vehicle. However, the Office of Fleet Management confirmed the downtime status was not always accurate. (See Observation A.)

Documentation was lacking in certain areas. Reserve Vehicle Status Reports were not available for requested days due to the dates falling on holidays and weekends when 40-hour personnel were not on duty to document reserve units. Inspection checklists were also requested and not found some requested days. (See Observation D.)

A survey of Nashville Fire Department employees found a majority of respondents were either dissatisfied or strongly dissatisfied with vehicle maintenance. The survey also allowed for written feedback, where 62 comments were submitted. Comments highlighted issues such as the quality of maintenance provided, with 13 specifically noting that preventative maintenance was either insufficient or infrequently carried out.

Reserve vehicles were reviewed to ensure continuous operations during regular vehicle maintenance. For a random sample of 47 days within the audit period, reserve status reports were reviewed to assess vehicle availability. A reserve ambulance was not available on only 1 day out of the 47 days (2 percent). However, a reserve engine was not available on 19 days of the 47 days (41 percent), and a reserve aerial truck was unavailable on 44 days of the 47 days (94 percent).

An anonymous survey of 1,492 department employees revealed significant dissatisfaction with reserve vehicle availability and the timeliness of vehicle maintenance. Specifically, 129 respondents (65 percent) disagreed or strongly disagreed that reserve vehicle availability was adequate. (See Observation C.)

3. *Is fire fleet maintenance organized to ensure efficiency and accountability?*

**Generally, no.** A benchmarking analysis was conducted across nine cities to compare the Nashville Fire Department's fleet maintenance organizational structure and processes with those of other cities. The review revealed significant differences, particularly in the areas of in-house maintenance and departmental control over maintenance budgets. Exhibit C shows the results of the benchmarking.

**Exhibit C: Audit Scope Fire Fleet Maintenance Benchmarking Results**

City	Budget Responsibility	Maintenance Responsibility	Manual or Real Time Data
Nashville	Fleet Management	Outsourced*	Manual
Austin	Fire Department	In-house, with exceptions	Real Time Data Tracking
Charlotte	Fire Department	In-house, with exceptions	Manual
Chattanooga	Fire Department	In-house	Real Time Data Tracking
Louisville	Fire Department	In-house, with exceptions	Manual
Indianapolis	Fire Department	In-house, with exceptions	Manual
Las Vegas	Fire Department	In-house, with exceptions	Manual
Houston	Fire Department	In-house, with exceptions	Manual, obtaining real time data tracking
Raleigh	Fire Department	In-house, with exceptions	Real Time Data Tracking
Memphis	Fire Department	Outsourced	Manual

Source: *Fire Fleet Maintenance Contacts at Each Respective Municipality*

*\*Subsequent to the audit period and audit fieldwork, the Office of Fleet management began performing light fleet preventative maintenance in-house.*

Furthermore, three of the nine cities use a real-time fleet tracking system to monitor vehicle data, while another city is currently in the process of implementing such a system (See Observation F.)

Respondents to an anonymous survey commented on the decline in maintenance services when maintenance was moved to third party contractors. Within the survey, 12 of the 62 comments received from employees (19 percent) mentioned concerns about the timeliness of maintenance. Another 5 of the 62 respondents (8 percent) commented on the efficiency of in-house maintenance as opposed to outside vendors. Management noted during interviews that outside vendors have multiple customers and no incentive to complete work timely. No priority is given to Metropolitan Nashville Government vehicles. (See Observations B.)

Monthly fleet report cards are created by the Office of Fleet Management. The report cards are presented to departmental management and include the costs of vehicle maintenance. However, since the budget is housed within the Office of Fleet Management, budget overages due to delayed maintenance or repairs would not be felt by the Nashville Fire Department. (See Observation E.)

## AUDIT OBSERVATIONS

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Internal control helps ensure entities achieve important objectives to sustain and improve performance. The Committee of Sponsoring Organizations of the Treadway Commission (COSO), Internal Control – Integrated Framework, enables organizations to effectively and efficiently develop systems of internal control that adapt to changing business and operating environments, mitigate risks to acceptable levels, and support sound decision-making and governance of the organization. See **Appendix B** for a description of the observation *Assessed Risk Rating*.

### **Observation A – Data Reliability**

Data used to determine maintenance timing and vehicle status was manually entered and unreliable. Drivers manually enter odometer readings in the Faster Fleet Management System when buying fuel for vehicles. Error controls were in place to alert the Office of Fleet Management when mileage appeared unreasonable, such as excessive miles between fueling or a decrease in mileage from previous entries. However, errors persisted even after corrections were made. The errors significantly undermine the overall quality and reliability of the system.

For instance, one vehicle exhibited considerable fluctuations in odometer readings throughout the audit period. Despite noting and correcting the errors, the inconsistencies continued. In the final 10 weeks of the vehicle's service, 12 input errors were recorded with odometer readings varying between 192,040 miles and 285,710 miles. The vehicle was removed from service in 2023, and the actual odometer reading could not be confirmed at the time of surplus.

Furthermore, vendor invoices often lacked accurate mileage information. Many invoices showed a "0" for the odometer reading, and the information was entered into the Faster Fleet Management System. The invoices were accepted and paid without verification.

Alerts for preventative maintenance are triggered by mileage, engine hours, or time passed since last service. Most commonly, preventative maintenance was due because of mileage. Due to the lack of reliable data, determining whether preventative maintenance was performed according to the recommended mileage could not be done. A random sample of work orders during the audit period was reviewed for adequate documentation, appropriate costs per vendor contracts, and up to date preventative maintenance. Of the 47 work orders, 19 of the vehicles (40 percent) were behind on preventative maintenance based on the mileage recorded in the fleet management system. Without accurate data points to determine preventative maintenance timing, vehicles may not be appropriately maintained leading to safety issues.

Vehicle status data within the Faster Fleet Management System was also determined unreliable. Fourteen vehicles showed downtime of more than one day while an open work order was active. To verify if a reserve vehicle was assigned during maintenance, reserve vehicle status reports were reviewed. Only 2 of the 14 vehicles (14 percent) had a reserve vehicle assigned while the work order was open, indicating potential downtime. However, the Office of Fleet Management stated the recorded downtime status does not always accurately reflect whether a vehicle is in service. Without precise information on a vehicle's status during the work order period, it is impossible to determine the need for a reserve vehicle.

#### *Criteria:*

- *COSO*, Control Activities – Principal 10 – The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.
- *COSO*, Information and Communication – Principal 13- The organization obtains or generates and uses relevant, quality information to support the functioning of internal control.



*Assessed Risk Rating:*

**High**

*Recommendations for management of the Office of Fleet Management:*

1. Determine and utilize a reliable source for mileage and engine hours to track preventative maintenance.
2. Require vendors to record accurate mileage on invoices and ensure mileage is checked when picking up vehicles after service.
3. Create and document processes to routinely verify vehicle mileage and ensure prompt routine maintenance of vehicles.

***Observation B – Maintenance Responsibility***

Utilization of third-party vendors for routine maintenance and repairs was not in line with other cities and caused frustrations with Nashville Fire Department employees.

Benchmarking was conducted with nine peer cities. Eight cities reported most maintenance is conducted in-house, although they will outsource certain repairs like warranty work and significant repairs on heavy apparatus. During the audit period, the Office of Fleet Management outsourced most maintenance through 18 contracts with third party vendors. By outsourcing most maintenance work to vendors, priority and timeliness of vehicle maintenance can be jeopardized.

Interviews noted some staff felt vendors did not prioritize Metropolitan Nashville Government vehicles due to contracted rates being lower than other paying customers. Additionally, multiple Nashville Fire Department staff noted in an anonymous survey that maintenance had decreased since being outsourced. Twelve comments within the survey related to the timeliness of maintenance, including employees stating their hesitancy to report minor issues due to the length of time taken to be fixed.

The Office of Fleet Management monitors and notifies the Nashville Fire Department when routine maintenance is due on vehicles via weekly reports. Nashville Fire Department staff are responsible for taking vehicles into a vendor shop. Lack of trust in vendors could lead to delayed maintenance and vehicle safety issues. Additionally, delayed routine maintenance could lead to most costly repairs later.

*Criteria:*

- COSO, Control Activities – Principal 10 – The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.
- COSO, Control Activities – Principal 12 – The organization deploys control activities through policies that establish what is expected and procedures that put policies into action.

*Assessed Risk Rating:*

**High**

*Recommendation for management of the Office of Fleet Management:*

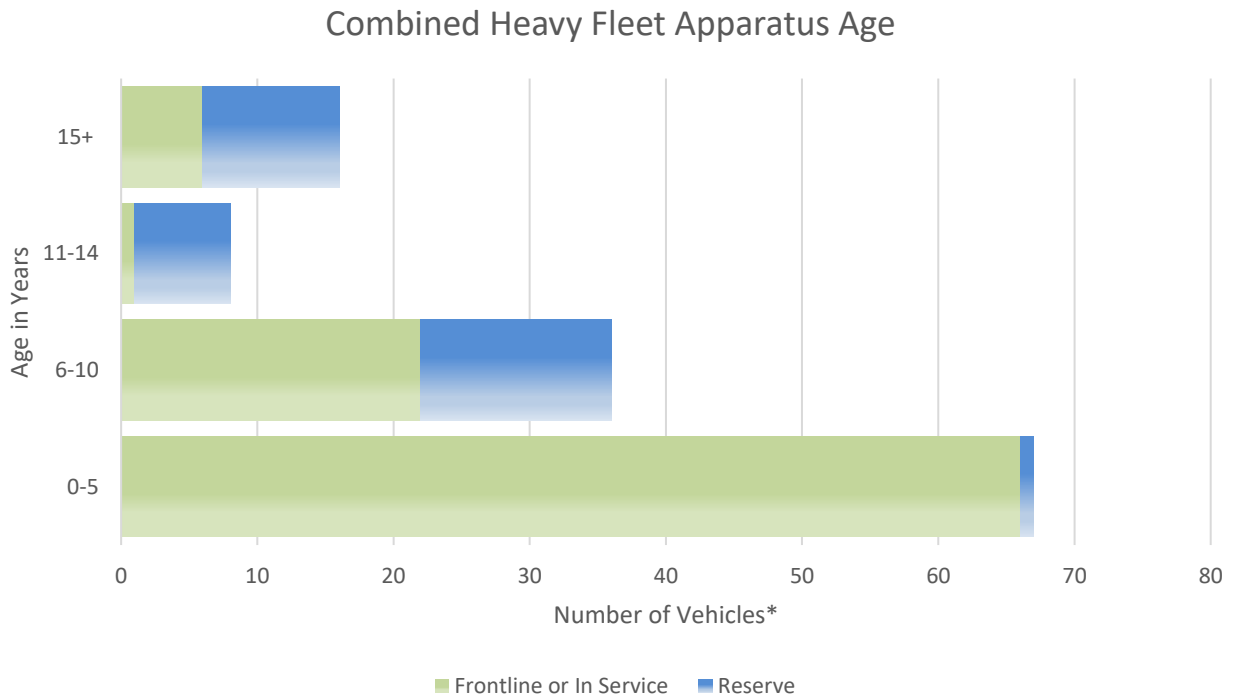
Perform a cost benefit analysis of moving maintenance and repairs in-house.

***Observation C – Reserve Vehicle Quality***

The Nashville Fire Department's heavy apparatus reserves are primarily older in age and of reduced quality. Mileage on reserve vehicles is also high; however, due to data quality issues noted in Observation A, the mileage could not be relied upon.

The Nashville Fire Department’s frontline fleet is skewed towards newer vehicles, with 53 percent being 5 years old or newer. The reliance on reserve vehicles primarily begins at around 6 years, with a sharp increase in reserve status as vehicles age beyond 10 years. Vehicles aged 11 years and older make up 51 percent of the reserve fleet. The National Fire Protection Association (NFPA) recommends transitioning to reserve status vehicles that have been properly maintained and continue to be serviceable at around 15 years. Exhibit D below shows the ages of both front-line and reserve vehicles.

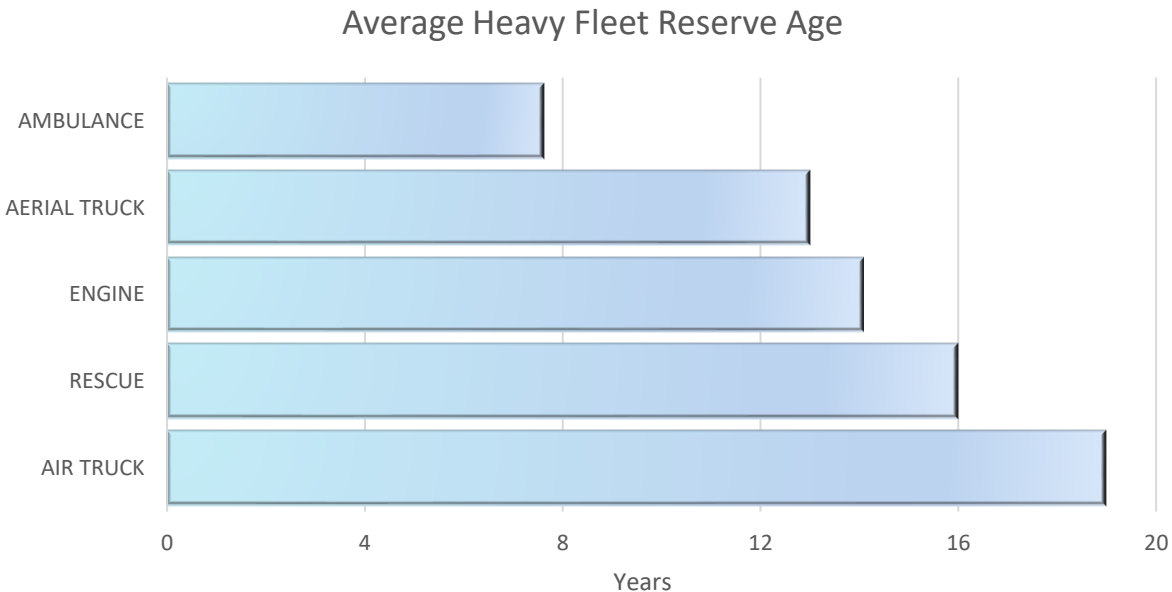
**Exhibit D: Heavy Fleet Active and Reserve Ages in Years**



*\*Includes only engines, ambulances, aerial trucks, heavy rescue, and brush vehicles  
 Source: Nashville Fire Department vehicle list*

Reserve vehicles were reviewed to ensure continuous operations during front-line vehicle maintenance. For a random sample of 47 days within the audit period, reserve status reports were reviewed to assess vehicle availability. Many reserve vehicles were found to be out of service and unavailable on the days reviewed. Of the 47 days reviewed, at least one reserve engine and one reserve aerial truck were out of service on all 47 days. On average over the 47 days, 16 percent of reserve ambulances, 34 percent of reserve engines, and 57 percent of reserve aerial trucks were out of service each day. Management cited the age of the fleet being a factor in the quality and frequent service needs of vehicles. Exhibit E below shows the average age of each type of heavy fleet reserve.

## Exhibit E: Reserve Vehicle Average Age by Type



Source: Nashville Fire Department vehicle list

An anonymous survey was sent to 1,492 Nashville Fire Department employees requesting feedback on the operations and maintenance of Nashville Fire Department fleet vehicles. The survey had 197 responses, accounting for 13 percent of employees. Written comments were provided with 62 survey responses. Vehicle reserves issues were noted in 13 comments. Some comments mentioned safety concerns about the poor condition of the reserve vehicles received.

Utilizing reserve fleet vehicles that are older and near end of life increases the risk of breakdowns and unreliability. Additionally, outdated equipment could increase the risk of staff not feeling safe or being frustrated with lack of reserve availability. Proactive measures, such as regular maintenance and investing in necessary upgrades can help improve employee concerns, operational efficiency, and public trust.

### Criteria:

- COSO, Risk Assessment – Principal 6 – The organization identifies risks to the achievement of its objectives across the entity and analyzes risks as a basis for determining how the risks should be managed.
- COSO, Control Activities – Principal 10 – The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.
- COSO, Control Activities – Principal 12 – The organization deploys control activities through policies that establish what is expected and procedures that put policies into action.
- National Fire Protection Association (NFPA) 1911 Standard for the Inspection, Maintenance, Testing, Retirement of In-Service Emergency Vehicles

### Assessed Risk Rating:

**High**

*Recommendation for management of the Nashville Fire Department:*

Establish a lifecycle replacement plan for transitioning vehicles to reserve status and purchasing new vehicles.

**Observation D– Missing Documentation**

Documentation for vehicle related processes could not be provided for some sample selections.

Nashville Fire Department policy requires vehicle operators to complete inspection checklists at the start of each shift. If followed, each vehicle should have two inspection checklists a day. A random sample of 47 work orders was reviewed. Inspection checklists were requested for each vehicle for the day prior to the maintenance date. Of the sampled vehicles, 14 vehicles (30 percent) did not have corresponding checklists available. Missing completed inspections could lead to significant issues being overlooked, posing safety risks, and potentially disrupting emergency response efficiency.

Reserve status reports were reviewed to assess reserve vehicle availability trends over the audit period. Reports were requested for 47 randomly selected days, including 19 holiday or weekend dates. For the 19 non-business days selected, reserve status reports were not available. The Nashville Fire Department had staff available to assist with reserve vehicle logistics on weekends and holidays. Management noted utilizing staff on holidays and weekends to document reserves may result in overtime if duties are not within the 40-hour week operations. Reports were not maintained on those dates even though maintenance can arise on any day. Failure to maintain accurate reserve vehicle status reports daily increases the risk of outdated data and inefficient logistics processes.

*Criteria:*

- COSO, Control Activities – Principal 10 – The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.
- COSO, Control Activities – Principal 12 – The organization deploys control activities through policies that establish what is expected and procedures that put policies into action.

*Assessed Risk Rating:*

**Medium**

*Recommendation for management of the Nashville Fire Department:*

1. Implement a procedure to create and retain Reserve Vehicle Status Reports every day, including weekends and holidays.
2. Implement procedures to ensure completion and retention of daily inspection checklists.

**Observation E – Maintenance Budget Accountability**

The Metropolitan Nashville Government’s fleet maintenance budget setup was not in line with any other cities reviewed.

Nine peer cities were surveyed about organizational setup areas including maintenance budget placement. All nine cities indicated their fire departments manage their own fleet maintenance budgets. In one city, a separate budget is maintained for heavy apparatus, while a city-wide fleet division oversees the budget for light vehicle maintenance.

In contrast, the Nashville Office of Fleet Management controls the budget for all vehicle maintenance and upgrades. This consolidated budget is based on past expenses and is subject to constraints

depending on the needs of other Metropolitan Nashville Government departments in addition to the Nashville Fire Department.

The Office of Fleet Management created report cards for departments monthly. The report cards included analysis of maintenance costs each month. However, if the Office of Fleet Management noted excessive spending, the division did not have the authority to require the Nashville Fire Department to perform maintenance earlier or other process changes to decrease costs.

Consolidated budgets managed by the Office of Fleet Management increase the risk of maintenance funding uncertainty. Additionally, departmental ownership of maintenance budgets increases accountability and incentivizes routine maintenance to avoid more costly repairs later.

*Criteria:*

- COSO, Control Activities – Principal 10 – The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.
- COSO, Control Activities – Principal 12 – The organization deploys control activities through policies that establish what is expected and procedures that put policies into action.

*Assessed Risk Rating:*

**Medium**

*Recommendations for management of the Office of Fleet Management:*

1. Determine accountability standards for department specific maintenance costs. Establish policies for ensuring vehicles are taken in for routine maintenance within a reasonable time frame with accountability standards if the time frame is not met.
2. Consider moving the budget for maintenance of Nashville Fire Department vehicles from the General Services budget to the Nashville Fire Department budget.

***Observation F – Utilization of Technology***

Opportunities to leverage technology for more accurate data and analysis existed.

Three of the nine cities benchmarked use a real-time fleet tracking system to monitor their vehicles, with a fourth city in the process of contracting such a system. The systems collect real-time data, including GPS location, driver performance, mileage, and fuel levels. By reading data directly from the vehicle, the systems reduce the risk of human error associated with manual data entry, allowing maintenance needs to be identified and addressed more efficiently. The systems also make it easier to monitor driver performance and manage remote assets.

Additionally, during the audit period, employees reported errors in the digital odometer readings for fire apparatus. Though the odometer display was incorrect, the correct mileage and information could be pulled by connecting directly to the vehicle’s computer system. Real-time fleet tracking systems connect directly to the computer system and would avoid recording incorrect information due to display errors. By investing in technology and training, the organization can enhance service quality and improve resource management.

*Criteria:*

- COSO, Control Activities – Principal 10 – The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.

- COSO, Control Activities – Principal 12 – The organization deploys control activities through policies that establish what is expected and procedures that put policies into action.

*Assessed Risk Rating:*

**Medium**

*Recommendation for management of the Office of Fleet Management:*

Explore the option of implementing a real-time fleet management system to track and monitor vehicle data more efficiently.

## **GOVERNMENT AUDITING STANDARDS COMPLIANCE**

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We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our observations and conclusions based on our audit objectives.

## **METHODOLOGY**

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To achieve the audit objectives, auditors performed the following steps:

- Interviewed key personnel within the Nashville Fire Department and the Office of Fleet Management
- Reviewed account ledger reports from Oracle R12.
- Reviewed and analyzed data to determine compliance with best practices.
- Benchmarked peer cities for organizational processes and organizational structure.
- Reviewed work order documentation from the fleet management system.
- Reviewed vehicle lists, status reports, and inspection checklists.
- Sent anonymous survey to 1,492 employees of the Nashville Fire Department.
- Evaluated internal controls currently in place.
- Considered risk of fraud, waste, and abuse.

## **AUDIT TEAM**

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Justine Cunningham, Assisting Auditor

Laura Henry, CFE, In-Charge Auditor

Lauren Riley, CPA, CIA, ACDA, CFE, CMFO, Metropolitan Auditor

## **APPENDIX A – MANAGEMENT RESPONSE AND ACTION PLAN**

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Management response letters provided by the Nashville Fire Department and the Department of General Services may be provided upon request. Requests for the letters should be submitted to [OIA@Nashville.gov](mailto:OIA@Nashville.gov).



## APPENDIX A – MANAGEMENT RESPONSE AND ACTION PLAN

We believe that operational management is in a unique position to understand best their operations and may be able to identify more innovative and effective approaches, and we encourage them to do so when providing their response to our recommendations.

Risk	Recommendation	Concurrence and Action Plan	Expected Completion Date
<i>Recommendations for management of the Nashville Fire Department:</i>			
H	<b>C.1</b> Establish a lifecycle replacement plan for transitioning vehicles to reserve status and purchasing new vehicles.	<b>Accept</b> Accept if supported by OFM: OFM currently manages the replacement schedule for fleet assets. The NFD supports General Service efforts to establish a lifetime replacement plan that considers the factors identified, and also market time from order to actual apparatus delivery.	This would require a reoccurring funding commitment.
M	<b>D.1</b> Implement a procedure to create and retain Reserve Vehicle Status Reports every day, including weekends and holidays.	<b>Reject</b> We do not have sufficient staff to travel to vendors and all reserve staging sites daily as identified.	N/A
M	<b>D.2</b> Implement procedures to ensure completion and retention of daily inspection checklists.	<b>Accept</b> We will work with NFD IT to ensure better procedures are in place for daily report completion.	1 <sup>st</sup> Quarter of 2025.
<i>Recommendations for management of the Office of Fleet Management:</i>			
H	<b>A.1</b> Determine and utilize a reliable source for mileage and engine hours to track preventative maintenance.	<b>Accept</b> Funding will be requested again during the FY26 budget to expand Telematics GPS devices on all Fleet vehicles. Fiscal Year 25 budget request was denied.	Could be installed 1st Quarter of FY26 with approved funding
H	<b>A.2</b> Require vendors to record accurate mileage on invoices and ensure mileage is checked when picking up vehicles after service.	<b>Accept</b> Memo to be provided to all vendors as requirement.	Immediately
H	<b>A.3</b> Create and document processes to routinely verify vehicle mileage and ensure prompt routine maintenance of vehicles.	<b>Accept</b> Telematics will verify vehicle mileage. Fire Department will be responsible for ensuring prompt vehicle delivery for routine maintenance.  OFM will continue to provide weekly PM reports.	Could be installed 1st Quarter of FY26 with approved funding

## APPENDIX A – MANAGEMENT RESPONSE AND ACTION PLAN

Risk	Recommendation	Concurrence and Action Plan	Expected Completion Date
H	<b>B.1</b> Perform a cost benefit analysis of moving maintenance and repairs in-house.	<b>Accept</b>  We can provide a cost benefit analysis to move maintenance in-house, while outside vendors will continue to be utilized for repairs. This option will require additional FTEs.	1 <sup>st</sup> Quarter 2025
M	<b>E.1</b> Determine accountability standards for department specific maintenance costs. Establish policies for ensuring vehicles are taken in for routine maintenance within a reasonable time frame with accountability standards if the time frame is not met.	<b>Accept</b>  OFM will continue to provide weekly PM reports and monthly overall department report cards.  The Fire Department would be responsible for holding their staff accountable if time frames are not met.	Continue
M	<b>E.2</b> Consider moving the budget for maintenance of Nashville Fire Department vehicles from the General Services budget to the Nashville Fire Department budget.	<b>Reject</b>  OFM rejects this recommendation to split consolidation of fleet assets	N/A
M	<b>F.1</b> Explore the option of implementing a real-time fleet management system to track and monitor vehicle data more efficiently.	<b>Accept</b>  Funding will be requested again during the FY26 budget to install Telematics GPS devices on all fleet vehicles.	Could be installed 1 <sup>st</sup> quarter FY26 with approved funding.

## APPENDIX B – ASSESSED RISK RANKING

Observations identified during the course of the audit are assigned a risk rating, as outlined in the table below. The risk rating is based on the financial, operational, compliance or reputational impact the issue identified has on the Metropolitan Nashville Government. Items deemed “Low Risk” will be considered “Emerging Issues” in the final report and do not require a management response and corrective action plan.

Rating	Financial	Internal Controls	Compliance	Public
<b>HIGH</b>	Large financial impact >\$25,000  Remiss in responsibilities of being a custodian of the public trust	Missing, or inadequate key internal controls	Noncompliance with applicable Federal, state, and local laws, or Metro Nashville Government policies	High probability for negative public trust perception
<b>MEDIUM</b>	Moderate financial impact \$25,000 to \$10,000	Partial controls  Not adequate to identify noncompliance or misappropriation timely	Inconsistent compliance with Federal, state, and local laws, or Metro Nashville Government policies	The potential for negative public trust perception
<b>LOW/ Emerging Issues</b>	Low financial impact <\$10,000	Internal controls in place but not consistently efficient or effective  Implementing / enhancing controls could prevent future problems	Generally, complies with Federal, state, and local laws, or Metro Nashville Government policies, but some minor discrepancies exist	Low probability for negative public trust perception
<b>Efficiency Opportunity</b>	An efficiency opportunity is where controls are functioning as intended; however, a modification would make the process more efficient			