

# City of Rogers

## Fire Department



### Fire Department Fleet Assessment and Deployment Plan

December 2009  
Updated July 2011  
Updated December 2013  
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Fire Chief  
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## **Introduction**

The purpose of this plan is to provide a review of the fire and rescue apparatus for the City of Rogers, Arkansas. To complete this plan, all apparatus were inventoried and comparisons made to national standards from the National Fire Protection Association regarding maintenance and replacement. A proposed inventory and replacement schedule is included herein. This proposal further addresses the need to standardize the fleet for future cost reduction.

The findings and suggestions made in this plan are based on the risk found within the City of Rogers as characterized by the Rogers Fire Department Standard of Cover (2011). It must be understood that future growth and changes in strategy for the city, may cause this plan to become partially or totally void. Any decisions relating to funding of the replacement schedule and standardization of the fleet ultimately rest with the Mayor and City Council. This document serves as a tool to help improve public safety for the citizens of Rogers.

## **Apparatus Descriptions**

Some readers may not be familiar with the differences in apparatus within the fire department. Therefore a glossary is provided.

There are three basic types of fire and rescue apparatus:

1. Pumper trucks are responsible for delivering water to the fire and carries hose and other firefighting tools.
2. Ladder trucks are responsible for forcible entry into locked buildings, search and rescue of people trapped, and ventilation of smoke from a structure. They carry portable ground ladders and have at least a 75-foot ladder mounted to the top of the truck.
3. Rescue trucks are responsible for technical rescues and hazardous materials emergencies.

Historically, the Rogers Fire Department has purchased multifunction vehicles to reduce the personnel needed for segregated emergency response units. Specifically, the department's Ladder Trucks are specially designed "quints". Quints are a single chassis that can perform the functions of both pumpers and ladder trucks. These trucks cost more,

but ultimately save the city money in personnel costs.

**Current Apparatus**

The figure below reflects the current fire company apparatus fleet inventory (December 2013).

Type	Assignment	Asset Number	Year / Make / Model
Pumper	Engine 2	182	2013 Rosenbauer Commander
Pumper	Engine 3	175	2012 Spartan Gladiator
Pumper	Engine 4	176	2012 Spartan Gladiator
Pumper	Engine 6	177	2012 Spartan Gladiator
Pumper	Engine 7	183	2013 Rosenbauer Commander
Pumper	Engine 8	122	2010 Spartan Gladiator
Pumper	Engine 20	113	1997 KME Protector
Pumper	Engine 23	115	2003 Pierce Contender
Pumper	Engine 26	116	2004 Pierce Contender (Intl)
Quint	Ladder 1	178	2012 Spartan Gladiator 78'
Quint	Ladder 5	184	2013 Rosenbauer Commander 78'
Quint	Ladder 20	111	2003 Pierce Arrow 75'
Quint	Ladder 21	117	2005 Pierce Dash 75'
Rescue	Rescue 5	123	2010 Spartan/Rosenbauer

**ISO Apparatus Evaluation**

The Insurance Service Office (ISO) evaluated the Rogers Fire Department in July 2008. During that evaluation, it was determined that the city required the following resources to receive maximum credit:

Resource	ISO Recommended	RFD Inventory (2013)
Engine Companies	9	6
Reserve Engine Companies	2	3
Ladder Companies	2	2
Service Companies*	3	3 (Ladders + Rescue)
Reserve Ladder Companies	1	2

\*Service companies perform ventilation and salvage functions in areas where a true ladder truck is not needed. In this ISO evaluation, RFD received only partial credit for service company functions due to lack of equipment on some of the apparatus.

Reducing the ISO rating for the city is important because of the economic development implications it can have. In summary, ISO recommendations determined that two additional companies were needed along with additional equipment on

existing apparatus.

### **Apparatus Deployment**

Over the next five years, the City of Rogers is expected to open only one additional fire station. This fire station, Station 8, is slated to be located in the southwest corridor of the city and only be equipped with a single engine company. This apparatus is included in the assessment. When considering the ISO report of 2008, the fire department should conduct the following strategic actions regarding its fleet:

1. All quints should be outfitted with sufficient equipment to count as both service and engine companies in addition to their primary purpose as ladder companies.
2. A robust and sufficient reserve apparatus fleet should be prioritized to ensure that adequate quantities of apparatus are available for preventative maintenance programs.
3. The heavy rescue unit (Rescue 5) should serve as an additional service company.
4. Automatic aid with Bentonville and Lowell should be utilized where possible to improve response plans and assist with response times.
5. The ideal reserve apparatus fleet should be maintained as two reserve pumpers, two reserve ladders, and a reserve rescue unit.

### **Apparatus Specifications**

The City of Rogers uses customized fire apparatus, designed by rank and file members of the fire department. These customized trucks are more expensive, but produce significantly more dividends throughout their life cycles. Besides fitting the mission of the city better, these custom apparatus also have better performance records and less maintenance cost over their life.

The apparatus purchasing process includes a committee of firefighters and officers working with predefined budget restraints. Specifications include common and consistent apparatus systems and subsystems (engines, brakes, transmissions, warning devices, pumps, valves, etc), which helps to facilitate long-term cost-savings and increased efficiency when repairs are necessary. As of this writing

the design of pumpers in Rogers has undergone two revisions since the first truly customized units were designed in 2009.

### **Fleet Replacement Schedule**

Based on the current growth plan for the Rogers Fire Department, Fire Station 8 is expected to open sometime between 2014 and 2016. It is included in this multi-year assessment of apparatus. Changes in growth patterns or annexations could escalate this replacement schedule.

<b>Action Number</b>	<b>Apparatus (Company Assignment)</b>	<b>Manufacturer Year</b>	<b>Replacement Year</b>
1	Rescue 5	2010	2017
2	Collapse Rescue 1	Consolidate CR1 and CR2 trailers	2017
3	Engine 8	2010	2017
4	Engine 4	2012	2017
5	Ladder 2	New	2018
6	Ladder 1	2012	2019
7	Engine 3	2012	2019
8	Engine 6	2012	2019
9	Engine 9	New	2020

The deployment of fire apparatus as they are purchased will allow for adequate reserves to be maintained improving our ISO rating. The following is an asset breakdown by fiscal year for the next major apparatus acquisition (anticipated to be a 2016-2017 bond issue)

1. FY 2017:
  - a. Delivery of a new heavy rescue, to replace the 2010 Spartan/Rosenbauer Rescue 5 and allow for a reserve heavy rescue unit.
  - b. Old Rescue 5 becomes a reserve rescue unit (Rescue 2X)
  - c. The collapse rescue trailers and pull vehicles (CR1 and CR2) are consolidated with the delivery of a new heavy rescue unit that permits the storage of all applicable equipment.
  - d. Trailers and pull vehicles from the CR1 and CR2 units are remissioned or declared surplus property.

- e. Delivery of new pumpers for Engine 4 and Engine 8 replaces the 2012 and 2010 units, respectively.
  - f. The 1997 and 2004 reserve pumpers are declared surplus.
- 2. FY 2018:
    - a. Delivery of a new aerial ladder to be placed into service as Ladder 2.
- 3. FY 2019:
    - a. Delivery of new pumpers to be placed into service as Engines 3, 6, and 9.
    - b. Old Engines 3 and 6 move to reserve status and the 2003 reserve engine is declared surplus.
    - c. Delivery of a new ladder to be placed into service as Ladder 1.
    - d. Old Ladder 1 will move to reserve status and the 2003 reserve ladder is declared surplus.

## Finalized Fleet Distribution

The fire apparatus fleet in 2019 will consist of the following units:

Type	Assignment	Year / Make / Model
Pumper	Engine 2	2013 Rosenbauer Commander
Pumper	Engine 3	2019 Custom Pumper
Pumper	Engine 4	2017 Custom Pumper
Pumper	Engine 6	2019 Custom Pumper
Pumper	Engine 7	2013 Rosenbauer Commander
Pumper	Engine 8	2017 Custom Pumper
Pumper	Engine 9	2019 Custom Pumper
Pumper	Engine 20	2012 Spartan Gladiator
Pumper	Engine 23	2012 Spartan Gladiator
Pumper	Engine 26	2012 Spartan Gladiator
Quint	Ladder 1	2019 Custom Ladder 78'
Ladder	Ladder 2	2018 Custom Ladder 100'
Quint	Ladder 5	2013 Rosenbauer Commander 78'
Quint	Ladder 20	2005 Pierce Dash 75'
Quint	Ladder 21	2012 Spartan Gladiator 78'
Rescue	Rescue 5	2017 Custom Rescue
Rescue	Rescue 21	2010 Spartan Gladiator
Rescue	Collapse Rescue 1	2017 Custom Rescue

## 15-Year Apparatus Capital Budget

The figure below outlines the 15-year fire apparatus capital replacement program that is presented in this document. The area in grey shows acquisitions that occurred as part of the 2003 and 2011 bond issue programs. Cost estimates for the items included are presented in increments of thousands. Numerous variables can modify the pricing of the apparatus, most notably emission requirements from the Environmental Protection Agency. The replacement dates are flexible by a few years, but take into account not only the age of the apparatus they're replacing, but also the reserve apparatus inventory. Numerous factors, including ongoing preventative maintenance, may substantially extend the usable frontline lifespan of the apparatus.

Company	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Ladder 1			\$850							\$850						
CR-1								\$400								
Engine 2				\$480										\$510		
Ladder 2									\$1200							
Engine 3			\$460							\$510						
Engine 4			\$460					\$510								
Ladder 5				\$900										\$950		
Rescue 5	\$400							\$700 <sup>1</sup>								
Engine 6			\$460							\$510						
Engine 7				\$480										\$510		
Engine 8	\$435							\$510								
Engine 9										\$510						

<sup>1</sup> - Includes replacement equipment for the unit (rescue & hazardous materials)

### Summary

Maintaining a healthy and reliable fleet of fire apparatus is a high priority for the department. The replacement schedule ensures that the citizens who live, work and travel through Rogers will be protected by the finest and most dependable apparatus available. Maintenance costs can be controlled by using modern equipment and standardized systems.