Brevard Fire Department
95 West Main Street
Brevard, NC 28712

Bradley Elmore, Interim Fire Chief
(828) 883-3333
Fax: (828) 883-8476

# Engine Replacement

The engine needing to be replaced is a 2004 chassis and body built by American LaFrance that has a 2000 GPM pump, carries 1000 gallons of water and has approximately 40,000 miles on it. The engine is currently 21 years old but will be 25 years old when a new engine arrives. This engine has served its purpose with the fire department and is well passed time for replacement.

We recently updated our Apparatus Replacement Schedule, after we delayed the replacement of the Rescue Truck for six years, making our old Apparatus Replacement Schedule obsolete. The new Apparatus Replacement Schedule is based on a 15-year average/ideal life cycle for frontline apparatus, with the possibility of extending the life cycle another ten years in a reserved status, based on current conditions. Beyond 25 years, large apparatus are obsolete for a municipal department like Brevard, tend to have more frequent repair issues, and it becomes more difficult to find some manufacturer specific replacement parts. For example, American LaFrance has since gone out of business, and manufacturer replacement parts are extremely difficult to find.

The current Apparatus Replacement Schedule allows for a more normalized replacement timeline, helps maintain an up-to-date fleet, and helps to regulate our ongoing long-term debt schedule. It is also important to note that all our large apparatus are considered frontline with the exception of one engine that is designated as a Reserve.

When this Engine is replaced, it will be used more often than the other Engines in the fleet, as they are getting closer to replacement and have much higher mileage on them.

## Issues

This American LaFrance engine is currently 21 years old and will be obsolete in terms of firefighter/public safety, functionality and performance standards when the replacement engine arrives. It has had multiple brake and electrical wiring issues.

Storage space is very limited on the engine. Our goal for many years now has been to standardize the design and layout of our Engines, so that we can carry the same compliment of equipment, and in roughly the same layout.

## Replacement Apparatus

The fire department has spec'd a new apparatus that would meet all current and applicable NFPA 1901 standards. The new apparatus would have the capacity to hold all our needed equipment, now and into the future. It will be a Spartan custom chassis with all the current safety features, roll stability, ABS brakes, knee and head air bags, seat belt warning alarm, and LED display / safety lighting. The current cost of this truck is estimated at $1,000,000. The

replacement of this truck is beneficial to the fire department because it will allow for safer response for fire department members. This truck is instrumental in the department maintaining the City district rating of Class 3, and the SV2 rating of Class 4.

It is important to note that most of the major fire truck manufacturers are estimating future price increases of 5-7%/year. The current estimated build time for fire apparatus is 48 months. If this Engine is approved for FY26, and ordered in July 2025, delivery would not likely be until sometime in the summer of 2029. It would be extremely difficult to delay the replacement of this apparatus any longer.

## NFPA 1911/NCRRS

NFPA 1911 is standard on Fire Department Automotive Apparatus Inspection, Maintenance and Retirement. This standard outlines areas such as firefighter safety, maintenance, design, required equipment, and replacement schedules. NFPA states that the replacement schedule for fire department apparatus is 15 years for first-line apparatus. At 15 years, it can be moved to reserve status and replaced at 25 years. The 1901 standard requires ABS brakes, automatic transmission, secondary breaking, shorter braking distances, a load management system, better firefighter seating/seat belts, air bags, a lower center of gravity, rear reflective striping, and it must be governed to a maximum speed of 60 MPH. Fire department apparatus is just like any other piece of equipment that is in the fire service in that it must be phased out when it has served its purpose.