

TO: James L. App, City Manager
FROM: Ken Johnson, ES Chief/Doug Monn, Director of Public Work
SUBJECT: Fire Engine Replacement
DATE: October 2, 2012

NEEDS: For the City Council to consider replacing one fire engine.

1. The City's Vehicle Replacement Policy establishes a front-line fire engine life expectancy of 10 years or 100,000 odometer miles. When properly maintained, retired front line units can usually provide an additional 10 years of service as reserve engines.
2. Two primary (front-line) fire engines purchased in 2002 have accumulated approximately 90,000 odometer miles; however traditional odometer readings are not indicative of all wear. Run time hours associated with pump operation, on-site idling, etc. account for significant wear on the motor and chassis that cannot be evaluated by odometer readings alone. Metropolitan departments equate one (1) hour of run time equal to 33 miles not shown on the odometer. The two primary engines have an average of 7,654 hours per engine on the meter. Adjusting for the run time, the units have accrued 252,582 equipment (diesel engine, drivetrain and pump) run time miles.
3. A third unit providing back-up capabilities, when a front-line unit is out of service or otherwise unable to respond, was purchased in 1989 (23 years old). As a result of age (323,400 runtime miles), it required extensive repairs. The City spent approximately \$9,000 in repair costs last fiscal year to keep this engine in service. In July 2012, the fire engine suffered additional mechanical problems and was deemed unsafe by City Fleet Maintenance. It was taken out of service.
4. The front-line engines have been out-of-service 231 days for repairs year-to-date. Consequently, the ladder truck has been put into service on a more frequent basis. Increased ladder truck usage will accelerate its needed replacement.
5. The City's two primary front line engines are scheduled for replacement in 2012. The replacement cost per engine is \$500,000.
6. Six to twelve months are required for the manufacture and delivery of a fire engine.

**ANALYSIS &
CONCLUSION:**

The Department of Emergency Services utilizes two fire engines as primary service delivery vehicles. These engines transport personnel and equipment to the scene of emergency calls. The existing engines have reached the end of their expected front-line service life and are experiencing increased component failures. Continuing to work them in this capacity will result in increasing repair cost, down time, and use of the ladder truck.

The reserve engine is twenty-three years old and can no longer be depended on to fill this critical need. As a result of its age, most replacement parts are no longer manufactured.

With no reserve fire engine available, the City's ladder truck serves in this capacity until one of the two existing front-line engines is replaced and moved to reserve status. Using the ladder truck as a reserve vehicle for an extended period will accelerate its wear and shorten service life, requiring earlier than anticipated replacement.

While both engines are due for replacement, financial conditions are such that replacement of two engines would result in a Equipment Replacement Fund shortfall of \$300,000. One replacement should nevertheless be considered now. The cost to replace one front-line engine is \$500,000. The City's Equipment Replacement Fund contains approximately \$2.2 million, of which \$700,000 is attributed to the depreciation of two fire engines.

Two options are available to secure the necessary fire engine. The first is cash purchase, for which the Replacement Fund has enough funds set aside and earmarked for this purpose. The second option is a lease/purchase whereby the City owns the vehicle at the end of the ten-year lease. Lease payment would be made from the Equipment Replacement Fund. Regardless of whether an engine is purchased with cash or through a lease/purchase, a new depreciation expense will be required to assure adequate replacement funds for the new engine ten years hence.

**POLICY
REFERENCE:**

Purchasing and Payment Procedures Manual, Section 7.0, and vehicle replacement schedule.

**FISCAL
IMPACT:**

The Equipment Replacement fund holds a total of \$700,000 in depreciation funds for the purpose of replacing two fire engines.

The lease/purchase of one fire engine may be optimal, as it would allow the fund to hold on to more cash in the short-term, providing time for the local/national economy to recover while facilitating the needed engine replacement. Doing so would retain the Replacement Fund's ability to support unanticipated purchases of other vehicles or equipment (preserve cash for potential emergency purchases). The lease/purchase option would increase acquisition cost by \$88,000 (interest

cost) over the life of the lease. The first payment would be due one year after the lease contract execution date.

Future depreciation funding for the fire engine would continue to be on a 10-year basis, with an inflationary factor built into the schedule. The objective would be to accumulate sufficient funds over 10 years to make a cash purchase for the next replacement.

OPTIONS:

- a. Approve the lease/purchase of one (1) fire engine not to exceed \$500,000 and authorize the City Manager to execute the purchase; or
- b. Amend, modify, or reject above option.

EXHIBIT A

TO: Ken Johnson, Emergency Services Chief
FROM: Wade Hatch, Fleet Supervisor
SUBJECT: Engines 8191 & 8192
DATE: February 14, 2011

Per your request I am offering my opinion regarding the condition of Fire Engines 8191, 8192 and my recommendation regarding retention or replacement.

8191- Unit 220 has been the more expensive of the two units over their nine year history with costs escalating from \$783 in 2002 to \$32,948 in 2010. None of the 2010 repairs were drive train related keeping costs low, but the numbers show a considerable increase and down time related to minor repairs due to age and mileage of the unit. With my retirement this year and the lag time in getting the new mechanic certified, expected rising maintenance costs and down time in 2011, it is my opinion that this unit should be replaced at the earliest convenience.

8192- Although unit 221 has been less expensive to maintain over the years, the costs have also risen from \$412 in 2002 to \$24,648 in 2010. I fully expect the maintenance costs and down time to rise in 2011. I would recommend replacement of the unit at the same time as 8191, but if not possible due to current budget shortfalls, it should be replaced in the following fiscal year. Based purely off of maintenance records and vehicle history, it appears that this unit would be best suited to replace 8190 as the reserve engine. This would provide better reliability than the current unit which is a 1989 Pierce Arrow. Whatever unit is designated as the reserve engine should be retrofitted and brought up to current NFPA standards.

YEAR	#220 (E8191)	#221 (E8192)	TOTAL PER YEAR
2010	\$ 32,948.00	\$ 24,648.00	\$ 57,596.00
2009	\$ 11,544.00	\$ 7,423.00	\$ 18,967.00
2008	\$ 6,104.00	\$ 6,109.00	\$ 12,213.00
2007	\$ 6,117.00	\$ 6,928.00	\$ 13,045.00
2006	\$ 3,993.00	\$ 2,079.00	\$ 6,072.00
2005	\$ 6,521.00	\$ 4,139.00	\$ 10,660.00
2004	\$ 8,753.00	\$ 6,191.00	\$ 14,944.00
2003	\$ 6,486.00	\$ 1,854.00	\$ 8,340.00
2002	\$ 783.00	\$ 412.00	\$ 1,195.00
SUB TOTAL	\$ 83,249.00	\$ 59,783.00	\$ 143,032.00
The above cost represent repairs only (no fuel)			

BURTON'S FIRE, INC.

August 8, 2011

Jace Sonne
City of Paso Robles
625 Riverside Ave.
Paso Robles, Cal 93446

Dear Mr. Sonne:

I would like to thank you for your confidence in Burtons Fire to evaluate your fire apparatus and help come up with a replacement plan.

After performing the inspections on Engine 8190, 8191& 8192, I found that both Engines 8191 & 8192 are overall in good working condition. What I see is just the normal type of wear and tear you see in a fire truck that is 9 years old.

Your Reserve Engine 8190, on the other hand, is a 1989 with numerous hours and 118,119.30 miles. The vehicle has a small outdated body and with the number of hours and miles just isn't a suitable reserve should one of your (2) front line engines go down for a short period of time or a major repair, let alone if something should happen to them both at the same time.

My opinion is with a City the size of Paso Robles you would want a least two (2) reserve Engine to be on the safe side.

What you want to be careful about is not allowing your present front lines Engines to get so many miles and hours that they will not make good reliable reserve units. Once in reserve they will need to last until the new Engines would be cycle through.

With that said, I would recommend at looking to purchase a new Engine this year, which if you started the process now you are a least a year away from seeing it. And then follow that up with another after taking delivery of the first one.

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A year from now when you take delivery of your first new engine, your present front line engines will be a year older with more miles and hours and ready to be cycled into reliable reserve status.

BURTON'S FIRE, INC.

This would do two things for you. First, it gets you on a good replacement rotation that isn't as crippling as trying to replace both at the same time in these tough fiscal times. And second it gives you a good reserve unit that is better in suiting the needs of the city and department when it must be used. After the delivery of the second unit you will then have two reserves that are more than capable of doing the job.

Please feel free to contact me if you have any additional questions or need any additional information.

Sincerely

Ken Burton
President Burtons Fire

RESOLUTION NO. 12-xxx

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PASO ROBLES
AUTHORIZING THE PURCHASE OF ONE (1) REPLACEMENT FIRE ENGINE

WHEREAS, the City has adopted vehicle replacement policies based on the useful life of the vehicles/equipment; and

WHEREAS, prior to being considered for replacement, equipment is examined to determine if the useful life can be extended or has been exhausted; and

WHEREAS, the City's Fleet maintenance staff, and outsource vendor(s) for specialized maintenance have reviewed both primary engines and recommend replacing the front line units and cycling them into reserve roles before they acquire too many hours to serve in this capacity; and

WHEREAS, the current 23 year old reserve unit has been deemed no longer fit for service; and

WHEREAS, acquisition of one replacement fire engine can be accomplished with a (10) ten-year lease purchase; Annual lease payment funded by equipment replacement funds; and

WHEREAS, the cost to replace one fire engine is \$500,000 and the City's Equipment Replacement Fund balance is approximately \$2.2 million, which includes \$700,000 allocated for two fire engines; and

WHEREAS, the replacement fund contains a balance of \$700,000 from prior year(s) contributions for both existing fire trucks, will cover the initial debt service for the fire engine purchase until adjustments to the contribution for replacement can be made;

THEREFORE, BE IT RESOLVED AS FOLLOWS:

SECTION 1. That the City Council of the City of Paso Robles does hereby authorize the lease/purchase of one (1) fire engine in an amount not to exceed \$500,000; and authorizes the City Manager to execute the purchase.

PASSED AND ADOPTED by the City Council of the City of Paso Robles this 2nd day of October 2012 by the following votes:

AYES:
NOES:
ABSTAIN:
ABSENT:

ATTEST:

Duane Picanco, Mayor

Caryn Jackson, Deputy City Clerk