Analysis of The Fleet Services Bureau

LONG BEACH, CALIFORNIA

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1. INTRODUCTION AND EXECUTIVE SUMMARY

1. INTRODUCTION AND EXECUTIVE SUMMARY

Long Beach retained the Matrix Consulting Group to conduct an analysis of its fleet maintenance and management. The objectives in conducting this study were as follows:

- Evaluate the size of the City's fleet and propose downsizing the fleet, sharing or "pooling" of equipment, and rental of low use equipment rather than ownership.
- Analyze the current fleet replacement criteria and determine optimum five and ten year capital replacement plans and reserve analysis.
- Analyze the status of the Fleet Fund, its capacity for capital replacement, UPST remediation, fueling infrastructure and operations, and recommend a cost recovery model.
- Benchmark the hourly labor charge, determine if the rate is competitive, and recommend a methodology for determining cost allocation and rate calculation for customers.
- Determine the optimum physical use of the main fleet facility, and those functions or service areas that could be considered for in sourcing or sub-leasing to other agencies.
- Analyze and recommend functions or activities as candidates for privatization, estimated cost savings, and the time frame for the process.
- Determine work standards for common preventive maintenance and repair functions for medium duty and particularly for heavy-duty equipment.
- Analyze the fleet organization and recommend an efficient and effective organization and management structure.

A brief description of the methodology used in reviewing the Fleet Services Bureau practices and performance is presented below.

- Management and supervisory staff of the Fleet Services Bureau, and managers and supervisors whose departments are customers of the services provided by the Bureau were interviewed.
- Descriptive and quantitative information was collected and analyzed.

- A comparative survey was conducted of other fleets serving a population comparable to Long Beach.

The information assembled through these methods was used to evaluate the performance of the Fleet Services Bureau and the fleet management and operations in three ways.

- Quantitative measures were developed of those attributes of activity (e.g., vehicle utilization) and performance (e.g., the average turnaround time for completing repairs and maintenance of vehicles) that lend themselves to such measurement and comparing the resulting performance statistics against benchmarks.

- Fleet management, maintenance and repair, and replacement processes were compared to best practices we have observed in public sector fleet operations.

- The appropriateness of certain aspects of fleet management performance were assessed through direct analysis of current fleet conditions and costs.

The important recommendations presented within the report are summarized below.

1. Consolidate the fleet organization including the Water Commission and Harbor Commission within the Fleet Services Bureau.

2. The responsibility for management of underground petroleum storage tank (UPST) remediation should be reassigned to the Public Works Department.

3. The methodology to determine the shop labor rate and the associated mark-ups should be modified and some of these rates reduced. The City should discontinue attempting to ostensibly recover the costs associated with UPST remediation as part of the fuel mark-up and utilize other methods to fund this remediation.

4. The City should rationalize its fleet assignments and reduce the extent of underutilized equipment. The Fleet Services Bureau should meet with affected departments to discuss the proposed reductions, modify the proposed reductions as appropriate based upon this feedback, and present recommendations to the City Manager. The City should modify its policy in its Administrative Regulations regarding minimum levels of utilization for vehicles to warrant permanent assignment based upon the City's costs of ownership. The potential annual cost savings generated by rationalizing fleet assignments and reducing the fleet could be as much as $3.4 million to $3.8 million annually.

   The "refund" of replacement contributions made by departments should not be a byproduct of this reduction in the fleet. The Fleet Fund is in no position

to afford such a "refund" if the replacement of equipment as proposed in the nine-year replacement plan is to be accomplished.

5. The City should increase its efforts to replace equipment by approving the replacement of vehicles recommended by the Fleet Services Bureau in 2003-04 in the nine-year replacement plan, and take aggressive action to reduce the age of the fleet in subsequent fiscal years.

   The average age of the City's fleet – 8.2 years - is the oldest that the Matrix Consulting Group has encountered. The maintenance and repair costs per vehicle equivalent far exceed cost factor benchmarks utilized by the Matrix Consulting Group. Reductions in technician staffing within the Bureau should only be made if the age of the fleet is reduced through replacement of equipment that already exceeds replacement guidelines.

6. The fleet fund has sufficient levels of revenue for replacement of equipment in accordance with the Fleet Service Bureau's nine-year replacement program <u>if</u> the Bureau is no longer required to fund the remediation of underground petroleum storage tanks and <u>if</u> the fleet is reduced as proposed within the City's three-year plan. The Bureau does <u>not</u> have sufficient revenue to fund the nine-year replacement plan, the remediation of underground petroleum storage tanks, and the replacement of the 18% of the fleet that is not currently assessed a replacement charge.

7. The Fleet Services Bureau should implement the use of a swing shift for the packer line and for the sweeper line. The use of a swing shift should be extended to other lines including the safety line and the fire line upon successful implementation of the swing shift for the packer line and for the sweeper line.

8. The Fleet Services Bureau should "contract in" vehicle maintenance for the State, for the U.S. General Services Agency, and for "overflow" repairs and maintenance for the Long Beach Unified School District.

9. The Fleet Services Bureau should seek competitive bids to outsource the Stock Room using a managed competition process. The Matrix Consulting Group believes that the City could achieve annual cost savings by outsourcing its Stock Room in the order of $300,000 to $350,000 annually. In addition, the City would reap a one-time annual revenue of approximately $0.5 to $0.8 million from the sale of its "active" parts to the vendor and additional revenue from the sale of its "inactive" parts.

10. The approach utilized for funding of fleet replacement should be modified.

    - Each vehicles in the same class of vehicles should be charged the same replacement rate. This can be accomplished in the short-term for light and medium classes of equipment, but will be a challenge for some heavy classes of equipment. For some classes of heavy equipment, such as the

twenty-four fire pumpers currently charged a replacement charge for a sixteen-year replacement guideline, the adjustment will be minor. But other classes of heavy equipment will be more problematic.

- The Fleet Services Bureau should evaluate replacement rates for each class of vehicles and modify them to reflect current replacement costs.

- The enterprise funds should reimburse the fleet services fund to redress the imbalance between replacement contributions and replacement costs. The imbalance over the past several years has amounted to $553,000. In other words, replacement costs have exceeded contributions by $553,000.

- The City should utilize tax-exempt lease financing for the acquisition of heavy equipment with long replacement cycles or with high costs per unit such as refuse packers, fire apparatus, and street sweepers, and not for light or medium equipment. The City's own experience with leasing of ambulances for the Fire Department and its initial exploration of leasing of motorcycles for the Police Department indicated that the use of lease purchase financing for light and medium equipment is **not** cost-effective.

11. The Fleet Services Bureau should develop and adopt service level agreements with its major customers.

12. The management of fleet maintenance and repair should be enhanced through a number of measures including:

    - Use of Mitchell on Demand to "flat rate" the estimate of labor hours required to complete work performed by technicians in the light and medium line;

    - Upon successful implementation of Mitchell on Demand in the light and medium line, the Bureau should develop labor estimates for frequent repair types for other repair lines as well;

    - The Bureau should utilize the capabilities of M4 to plan and schedule its work;

    - The Bureau should expand the extent of outsourcing to include "upfitting" of public safety vehicles, welding, and custodial and building maintenance; and

    - The Bureau should be proactive in providing training to its technicians to obtain ASE certification

13. The Fleet Services Bureau should upgrade its fleet management information system from M4 to M5 and replace its automated fuel dispensing system. The

upgrade to M5 will enable the Bureau to better serve its customers, and the replacement of its automated fuel dispensing system should redress information problems.

14. The Fleet Superintendent-Acquisition position, which is vacant and has been for several months, should be filled promptly. The workload demands associated with the development of specifications and other aspects of the replacement of equipment exceed the capacity of the one position currently allocated to this program.

The table, which follows, provides a summary of the recommendations contained within this report.

SUMMARY OF RECOMMENDATIONS IN THE FINAL REPORT AND IMPLEMENTATION PLAN

Analysis of the Fleet Services Bureau

Chapter / Section	Recommendation	Annual Cost Impact	Priority/ Implementation Time Frame
Chapter 4-Customer Services			
4-1	A Fleet Advisory Board should be established to serve as a customer council for the Fleet Services Bureau	$0	High/ December 2004
4-2	To guide its staff in the delivery of customer services, the Bureau should develop and adopt customer service principles.	$0	Medium/ December 2004
4-3	The Fleet Services Bureau should refine and expand its objectives so that its customers will readily be able to assess when the Bureau is providing responsive customer service.	$0	Medium/ December 2004
4-4	The Bureau should report its progress in meeting these objectives to its customers, the Fleet Advisory Board, and to its employees using the performance measurement software being installed by Carolina Software.	$0	Medium/ June 2005
4-5	The Fleet Services Bureau should warranty its maintenance and repair work.	$0	Medium/ December 2005
4-6	The Fleet Services Bureau should assess customer satisfaction with its services on a regular, ongoing basis using a variety of instruments.	$0	Medium/ September 2004
4-7	The Fleet Services Bureau should further leverage its investment in technology to enhance customer service by enhancing its web-site, providing on-line access to M5 to major departments or bureaus, etc.	$0	Low/ October 2005
4-8	The Fleet Services Bureau should develop and adopt service level agreements with its major customers.	$0	High/ December 2005
4-9	The Fleet Services Bureau should provide repair order billing reports to all customers on a monthly basis.	$0	Medium/ July 2004
4-10	The Fleet Services Bureau should adopt a written repair expenditure threshold. Above that threshold, the Fleet Maintenance Supervisor would have to obtain the approval of the customer to proceed with the repair.	$0	High/ March 2004
Chapter 5-Organizational Structure			
5-1	The responsibility for fleet maintenance and management of the fleets assigned to the Harbor Commission and the Water Commission should be assigned to the Fleet Services Bureau.	$(140,000) annually	High/ October 2004

Chapter / Section	Recommendation	Annual Cost Impact	Priority/ Implementation Time Frame
Chapter 5-Organizational Structure (Continued)			
5-2	The responsibility for supervising the Stock Room should be reassigned from the Superintendent-Operations to the Superintendent-Maintenance. However, should the Stock Room be "privatized", the responsibility for management of this contract should be assigned to the Superintendent-Operations.	$0	High/ March 2004
5-3	The vacant Clerk Typist I position should be eliminated.	$(40,000) annually	High/ October 2004
5-4	The Clerk Typist III position, currently allocated to Fleet Maintenance, should be reassigned and relocated to Operations to enable the position to be utilized effectively.	$0	High/ March 2004
5-5	The Fleet Services Supervisor position responsible for Facilities should be reallocated to supervision of a line (i.e., street sweepers).	$0	High/ July 2004
5-6	A Fleet Services Supervisor assigned to alternative fuels, should be reallocated to supervision of an equipment line through attrition given the demands of alternative fuels in the short-term.	$0	High/ January 2005
5-7	Responsibility for managing the remediation of underground petroleum storage tanks should be reassigned from the Fleet Services Bureau to the Public Works Department.	$0	High/ October 2004
Chapter 6-Fleet Funding and Financial Management			
6-1	While the methodology employed by the Fleet Services Bureau is sound, the rate structure should be modified and reduced. The shop labor rate should remain at $73, the markup for parts should be reduced from 41.7% to 23%, the markup for sub-let repairs should remain at 10%, the markup for fuel should be reduced from 40 cents per gallon to 23 cents per gallon, and a fleet acquisition and replacement fee of $132 per vehicle should be charged.	$(570,000) annually	High/ October 2004
6-2	The City should discontinue attempting to ostensibly recover the costs associated with UPST remediation as part of the fuel mark-up and utilize other methods to fund this remediation.	In fiscal year 2003-04, the City will be facing one-time costs of $688,500 to design and install remediation systems for fire stations #7 and #17.	High/ October 2004

Chapter / Section	Recommendation	Annual Cost Impact	Priority/ Implementation Time Frame
Chapter 6-Fleet Funding and Financial Management (Continued)			
6-3	The shop labor rates and the markups should be re-evaluated and adjusted as appropriate by the Fleet Services Bureau annually prior to the initiation of the budget process for the City of Long Beach.	The cost impact was included in recommendation 6-1	Medium/ July 2004
6-4	A few adjustments should be made in the replacement criteria utilized by the Fleet Services Bureau.	$(200,000) annually	High March 2004
6-5	The Bureau, in determining the replacement charge, should include the estimated value that vehicles will bring at auction. The replacement charge should be based upon the net replacement cost for a particular class of vehicles.	$(235,000) annually	High March 2004
6-6	The basis for determining the replacement value for vehicles should include the costs of replacing special equipment.	$75,000 annually	High March 2004
6-7	The Bureau should not charge the regular, ongoing replacement charge for vehicles fleet that have exceeded the replacement criteria in terms of years that have not been replaced. The Bureau should only charge an inflation adjustment designed to assure that the increased cost of equipment is recovered. This recommendation should not be implemented until the much of the 9-year plan has been implemented and the average age of the fleet has been reduced significantly.	Approximately $(1,400,000) if implemented immediately (Not recommended)	Low October 2009
6-8	Each class of vehicles should be charged the same replacement charge. Adjustments should be made annually due to inflationary increases in the cost of vehicles, and these adjustments should be made to all equipment within the class consistently and uniformly.	$0; the net effect should balance as the replacement revenue generated exceeds that required by the 9-year replacement plan	High October 2004
6-9	The enterprise funds should contribute the amount of funds to the Fleet Services Fund necessary to redress the imbalance between replacement contributions and replacement costs for the vehicles replaced on behalf of these enterprise funds over the time frame from April 29, 2000 through March 8, 2003. This amounts to approximately $553,000.	$553,000 in one-time revenues	High October 2004
6-10	The equipment classes utilized by the Fleet Services Bureau need to be refined to reflect the differences in equipment specifications (e.g., compact pickup, compact pickup with extended cab, etc.).	$0	High October 2005
6-11	The Fleet Services Bureau should evaluate the replacement costs for equipment, and make adjustments so that the replacement charges reflect current replacement costs.	$0	High April 2004
6-12	The class of sedans (class 030) should be disaggregated into classes including sub-compacts, compacts, mid-size, and full-size sedans with appropriate and different replacement charges for each class.	$0	High October 2005

Chapter / Section	Recommendation	Annual Cost Impact	Priority/ Implementation Time Frame
Chapter 6-Fleet Funding and Financial Management (Continued)			
6-13	The Fleet Services Bureau should work with departments to reduce that portion of the fleet not charged for replacement or reach agreement with these departments that these vehicles should be designated as "do not replace" (for example, the vehicles were purchased with grant funds and will be replaced with grant funds).	$0	High March 2004
6-14	The City should adopt a policy prohibiting reuse of vehicles after replacement.	$0	High July 2004
6-15	A policy requiring the funding of replacement charges for grant-funded vehicles should also be adopted. This policy should exempt programs that are routinely funded by grants on an ongoing basis such as those in the Health Department.	$200,000 annually	High October 2004
6-16	The Fleet Services Bureau should charge itself for the annual operating and maintenance costs associated with the 57 vehicles assigned to the Bureau and their replacement rather than expensing it from fund balance.	$145,300 annually for operating and maintenance costs; $160,500 annually in replacement charges	Medium October 2004
6-17	The Fleet Services Fund sub-fund 01 should be modified to include two sub-funds: one for operating and maintenance revenue and expenses and the other for replacement revenue and expenses.	$0	High October 2004
6-18	The City should approve the replacement of vehicles recommended by the Fleet Services Bureau in 2003-04 in the nine-year replacement plan, and take aggressive action to reduce the age of the fleet in subsequent fiscal years.	$8.3 million in 2003-04	High April 2004
Chapter 7-Fleet Utilization			
7-1	The Fleet Services Bureau should develop a policy regarding minimum levels of utilization for vehicles to warrant permanent assignment for the consideration and adoption by the City Council.	$0	High July 2004
7-2	The Fleet Services Bureau and the City Auditor's Office should meet with the affected departments to discuss the proposed reductions, modify the proposed reductions as appropriate based upon this feedback, and present recommendations to the City Manager within the context of the reductions already built into the 2003-04 operating budget.	$(3.4 to $3.8 million) annually	High January 2004

Chapter / Section	Recommendation	Annual Cost Impact	Priority/ Implementation Time Frame
Chapter 8-Accident Prevention			
8-1	The Risk Management Bureau should develop a fleet safety policy as part of the Citywide Health and Safety Manual.	$0	High July 2004
8-2	The Risk Management Bureau should expand the measures utilized for its accident prevention program including the analysis of the City's accident rate, establishment of a safe driver recognition program, conducting periodic audits to assure that departments are checking whether their employees have valid drivers licenses and vehicle insurance, and checking the motor vehicle records of all City employees, not just those with CDL.	$0	High October 2005
8-3	The City should authorize an additional professional-level position for the City's safety program to enable the implementation of these measures.	High	October 2004
Chapter 9-Fleet Fueling			
9-1	The Fleet Services Bureau should pursue cooperative procurement of fuel with other local governments.	$10,000 in reduced costs annually	Low January 2005
9-2	The parameters within the E.J. Ward automated fuel dispensing software should be "tightened" to reduce the extent of incorrect entry of odometer readings.	$0	High April 2004
9-3	The Fleet Services Bureau should replace its automated fuel dispensing system.	$300,000 in one-time capital outlay	High September 2004
9-4	The Fleet Services Bureau should develop a formal, written contingency plan for fuel shortages.	$0	Medium September 2004
Chapter 10-Fleet Replacement			
10-1	The City needs to increase its efforts to replace the heavy equipment within its fleet that exceeds replacement guidelines.	Noted in 6-18	High April 2004
10-2	The City should expand the use of lease financing solely for acquisition of heavy equipment, particularly over the next three fiscal years.	$0	High April 2004
10-3	The Fleet Services Bureau should be responsible for administering the leases for equipment within the City's fleet.	$0	Medium April 2004
10-4	The Fleet Services Bureau should expand the criteria utilized for prioritizing equipment that needs to be replaced using the possible criteria identified within the report, sharing the criteria with their customers, and then formally adopt them in a written policy for the Bureau.	$0	Medium October 2004
10-5	The City of Long Beach should utilize the State of California contracts to acquire light and medium equipment as appropriate.	$(370,000) annually	High April 2004
10-6	The users that have retained these 41 "loaners" should be required to submit written justification to the Budget Bureau for the retention of these vehicles in service, and to	$0	High February 2004

	include replacement funding within their operating budget if the vehicle is approved for retention.		
Chapter / Section	**Recommendation**	**Annual Cost Impact**	**Priority/ Implementation Time Frame**
Chapter 10-Fleet Replacement			
10-7	The Fleet Services Bureau should make the Deposit Receipt for revenues received from auctioned City vehicles, and the 10% commission transfer to Technology Services (Special Projects) should be discontinued.	$63,000 in additional annual revenue	High January 2004
10-8	The Fleet Services Bureau should explore alternatives to increase the resale value of vehicles that are "surplused".	$60,000 in additional annual revenue	High September 2004
10-9	The Fleet Services Bureau should utilize a multi-year contract for the acquisition of heavy equipment whenever possible.	$0	High April 2004
Chapter 11-Fleet Maintenance			
11-1	M4 should be utilized to e-mail operating departments when their vehicles are due for preventive maintenance and to enable the Fleet Superintendent-Maintenance and Fleet Supervisors to identify equipment overdue for preventive maintenance.	$0	Medium December 2004
11-2	The Fleet Services Bureau should implement a "quick lube" concept only for light and medium equipment, excluding emergency response vehicles.	$0	Medium December 2004
11-3	The Fleet Services Bureau should implement the use of a swing shift for the packer line and the sweeper line should implement a swing shift that should begin at 3:00 p.m. and end at 11:30 p.m. At least ten mechanics and garage service attendants should be assigned to the swing shift. In addition, a Fleet Supervisor should be assigned to the swing shift.	$30,000 annually for shift differential expenses	High July 2004
11-4	Upon the successful demonstration of the implementation of the swing shift, the Bureau should next expand the use of the swing shift to the safety line and to the fire line.	$30,000 annually for shift differential expenses	High October 2004
11-5	The Fleet Services Bureau should utilize the data within *Mitchell on Demand* to estimate the labor hours required to complete work performed by the mechanics and garage service attendants assigned to the safety line and the light and medium line including the work performed by the mobile technicians.	$0	High July 2004
11-6	Upon successful implementation of Mitchell on Demand within the safety line and the light/medium line, the Bureau should proceed with implementation of labor estimates for the other lines as well.	$0	High July 2005
11-7	The Fleet Services Bureau should utilize the capabilities of M4 to plan and schedule the work of its technicians.	$0	High July 2004

Chapter / Section	Recommendation	Annual Cost Impact	Priority/ Implementation Time Frame
Chapter 11-Fleet Maintenance (Continued)			
11-8	The Fleet Services Bureau should "contract in" vehicle maintenance with the State and the U.S. General Services Agency and complete and return the vehicle maintenance sub-let agreements to the General Service Department of the State of California and the General Services Agency of the United States.	$105,000 to $210,000 in additional annual revenue annually	High December 2004
11-9	The Fleet Services Bureau should enter into discussions with the Long Beach Unified School District regarding the assumption by the Bureau of "overflow" repairs and maintenance on behalf of the District.	$105,000 in additional annual revenue annually	High December 2004
11-10	The "acting" Fleet Superintendent-Maintenance should direct that the Fleet Supervisors immediately implement the Bureau's Quality Control policy.	$0	High January 2004
11-11	The Fleet Services Bureau should reassign the Equipment Mechanics assigned to the Public Works/public services yard, the Energy/gas yard, and the two Garage Service Attendants assigned to the south police substation (Lincoln Park) to the Bureau's main shop.	$0	High April 2004
11-12	The Bureau should continue to assess the value of mobile technicians to the customer versus the productivity of these mobile technicians.	$0	High September 2004
11-13	The Bureau should establish a warranty recovery program using M4 to identify repairs eligible for warranty recovery, and perform those warranty repairs in-house.	$100,000	High September 2004
11-14	The Bureau should begin recording comeback repairs for sub-let work and returning those sub-let repairs to the vendor for repair while under warranty.	$0	High March 2004
11-15	The Bureau should expand the extent of outsourcing to include "upfitting" of public safety vehicles (i.e., light bars, cages, etc.) and welding.	Unknown	Medium October 2005
11-16	The Bureau should be proactive in providing training to its technicians to obtain such ASE certification through the development of a training plan for its technicians and increasing the training budget to $65,000 per year.	$60,000 annually	High October 2004
11-17	Fleet Supervisors should review the monthly direct-billed hours report to ensure accountability for all employees, and the Fleet Superintendent-Maintenance should monitor adherence to these goals and report monthly to the Fleet Services Manager.	$0	High March 2004
11-18	Reductions in the level of technician staffing assigned to the Fleet Services Bureau should only be made if the number of equipment within the City's fleet is reduced and if the age of the fleet is reduced through replacement of equipment that already exceeds replacement guidelines.	$0	High January 2004

Chapter / Section	Recommendation	Annual Cost Impact	Priority/ Implementation Time Frame
Chapter 12-Materials Management and Inventory Practices (Continued)			
12-1	The level of staffing within the Stock Room should be reduced by four positions.	$240,000 annually	High October 2004
12-2	The minimum and maximum reorder points should be reviewed and adjusted based upon actual issuances.	$0	High September 2004
12-3	Dead and antiquated parts should be eliminated from the parts inventory.	Noted in 12-4	High September 2004
12-4	The value of the inventory in the Stock Room should be reduced from $1.1 million to approximately $0.5 million through an analysis of parts issuances versus parts on hand	$600,000 in one-time revenue	High September 2004
12-5	The Fleet Services Bureau should seek competitive bids to outsource the Stock Room including inventory and, staff and supervision using a managed competition process.	$(300,000) to $(350,000) annually	High October 2004
12-6	The parts storage in the main shop for the Fleet Services Bureau should be consolidated into the stock room.	$0	High October 2004
Chapter 13-Fleet Administration			
13-1	The Bureau should utilize its purpose and mission statement as the basis for the development of a formal system of goals, objectives, and performance measures.	$0	High October 2004
13-2	The Bureau should utilize the Carolina Software to report actual versus planned performance in the context of these goals and objectives.	$0	High October 2004
13-3	The Fleet Services Bureau should expand its fleet management policies and procedures and place these policies and procedures on the Bureau's intranet site	$0	Medium December 2004
13-4	The Fleet Services Bureau should upgrade its fleet management information system from M4 to M5.	$150,000 in one-time capital outlay	High September 2004

2. PROFILE OF THE FLEET SERVICES BUREAU

2. PROFILE OF THE FLEET SERVICES BUREAU

This chapter presents a profile of the Fleet Services Bureau. This includes the following:

- The organizational structure of the Fleet Services Bureau including staffing and basic responsibilities of management, supervisory, and line staff;
- The current fleet maintained by the Fleet Services Bureau including the equipment by class, the average age of equipment per class, and operating and maintenance costs over the past twelve months as an average per piece of equipment in each class;
- The nature, scope, and content of M4 the fleet information system utilized by the Fleet Services Bureau to support fleet management and operations;
- Financial data describing operation of the fleet over the past several fiscal years including operating and capital expenditures, and fund balances; and
- The City's fleet maintenance facilities.

1. THE FLEET SERVICES BUREAU WAS AUTHORIZED 137 POSITIONS IN 2002-03.

The first exhibit presented at the end of this chapter contains the organizational structure of the Fleet Services Bureau for the authorized staffing in FY 2002-03. Important points to note concerning the structure of the Bureau are presented below.

- **The Fleet Services Bureau is a bureau of the Energy Department**. Other bureaus within the Energy Department include Business Operations, Energy Services, Gas Services, Engineering/Construction, Electric Generation, and Environmental Services.
- **The Fleet Services Bureau is not the City's sole fleet management organization**. The Water Commission and the Harbor Commission maintain, repair and manage their own fleets.

  The Fleet Services Bureau is responsible for the maintenance and repair of 1,877 pieces of equipment and a fiscal year 2002-03 authorized budget of $26.2 million. This budget excludes Towing and Lien Sales, but includes $9.8 million of capital replacement for equipment. The Fleet Services Bureau is authorized 98.5 positions for fleet management, maintenance, and repair.

  An additional 38.5 full-time equivalent positions are allocated to Towing and Lien Sales.

The Harbor Commission is responsible for 212 pieces of equipment; approximately 64% of this equipment consists of sedans, pickup trucks, sport utility vehicles, and vans. The Harbor Commission has a fiscal year 2002-03 authorized budget of approximately $1,606,000 for fleet maintenance and repair. This does not include additional, unbudgeted operating expenditures in 2002-03 (as of May, 21, 2003) of $241,000 for inventory purchases, departmental and division overhead, but includes capital replacement for equipment in the amount of $1.1 million. The Harbor Commission is allocated 6 staff for equipment maintenance and repair including a Fleet Supervisor.

The Water Commission is responsible for 236 pieces of equipment (excluding concrete saws, arrow boards, chainsaws, tampers, etc.). Approximately 33% of this equipment consists of sedans, pickup trucks, sport utility vehicles, and vans. The Water Commission has a fiscal year 2002-03 authorized budget of approximately $1,083,000 for fleet maintenance and repair. This includes capital replacement for equipment in the amount of $0.4 million. The Water Commission is allocated five staff for equipment maintenance and repair including a Fleet Supervisor.

- **The Manager-Fleet Services is the manager of the Bureau**. The Manager-Fleet Services has five Superintendent positions reporting to him as well as a Secretary and a Fleet Services Supervisor. These four superintendent positions include a Superintendent-Acquisitions, Superintendent-Operations, Superintendent-Maintenance, and Superintendent-Towing Operations.

- **Acquisitions is authorized three positions.** These three positions include a Superintendent-Acquisitions, a Fleet Supervisor, and a Clerk Typist III.

  This unit is responsible for development of specifications for equipment replacement, updating of the nine-year replacement plan for the fleet, receipt of new vehicles and equipment assuring compliance with specifications and entry of new vehicle data into M4, maintenance of the registration for all vehicles within the fleet, pulling titles for vehicles to be auctioned as surplus, etc. From March 9, 2002 to March 8, 2003, 151 pieces of equipment were removed from service from the City's fleet and auctioned, ranging from sedans to fire pumpers.

- **Operations is authorized nineteen positions**. This program is managed by a Superintendent-Operations. The staff within this program and their primary responsibility is portrayed in the paragraphs below.

  - The Superintendent-Operations is responsible for functioning as the chief administrative officer for the Fleet Services Bureau and for managing the support services within the Bureau.
  - The Stock Room is allocated ten positions. The Stock Room is responsible for ensuring adequate supplies of parts for Equipment Mechanics and Garage Service Attendants; ordering, receiving and stocking parts; researching and sourcing parts for Equipment Mechanics

and Garage Service Attendants; processing invoices for payment of vendors for parts received; and maintaining the inventory within M4.

This staff works two shifts: 7:30 AM to 4:00 PM and 11:30 AM to 8:00 PM. However, one of the staff works from 5:30 AM to 1:00 PM, and another works from 6:30 AM to 2:00 PM. This staff is broken into three groups: the heavy equipment line, the light/medium line, and receiving.

The value of the parts as of September 30, 2003 is presented in the table below.

Location	Value of Inventory	% of Total
Stockroom*	$ 983,667	74.1%
North PD mobile	$ 3,144	0.2%
East PD mobile	$ 5,276	0.4%
Beach mobile	$ 421	0.0%
Public Service mobile	$ 2,177	0.2%
West PD mobile	$ 6,659	0.5%
Fire Line Lube truck	$ 2,572	0.2%
Gas/LBE mobile	$ 3,887	0.3%
Lincoln Park garage	$ 18,895	1.4%
Marine mobile	$ 60,021	4.5%
Packer mobile	$ 10,995	0.8%
Tires	$ 83,245	6.3%
Helicopter	$ 146,539	11.0%
Total Value	**$ 1,327,498**	**100%**

As the table indicates, the value of the inventory amounted to a little over $1.3 million, and 74% of the inventory was located in the stockroom (including motorcycles, fire room, and the packer line).

– Accounts Payable is allocated two positions: an Administrative Analyst III and a Mechanical Equipment Stock Clerk II.

The Administrative Analyst III position is responsible for monitoring of actual expenditures versus budget, and preparation of monthly financial reports; contract administration including renewal of blanket purchase orders, maintenance of contract purchase order file and vendor list; and administration of the accounts payable function for the Bureau.

The Mechanical Equipment Stock Clerk II allocates approximately one-half to three-quarters of his time to renewal of the blanket purchase orders utilized by the Fleet Services Bureau. There are 223 blanket purchase orders. This includes reviewing and changing the specifications as necessary (e.g., establishing delivery time requirements) and updating M4 when the blanket purchase order is renewed. The Mechanical Equipment Stock Clerk II allocates the remainder of his time to establishing new blanket purchase orders for new types of vehicles and processing invoices for parts (approximately 10% of the invoices for parts

are processed by this position; the balance are processed by the Stock Room).

- The other Administrative Analyst III position conducts analysis on behalf of the Manager, Fleet Services Bureau, the Superintendent–Operations, and Superintendent-Acquisitions. This has included an analysis of take home vehicles, the stock room operation, etc. This position also provides budget analysis support for the Superintendent–Operations including estimate to close.
- The Clerk Typist III is responsible for ordering fuel, monitoring fuel utilization, reconciling invoices in terms of fuel received versus delivered, monthly and quarterly billing, and other aspects associated with the Bureau's fuel system.
- A Clerk Typist II is responsible for answering the phones for the Fleet Services Bureau; monitoring the front door via closed circuit television and admitting visitors; distribution of mail; ordering supplies, furniture and equipment; maintenance of the copy machine (i.e., toner, staples, etc.); updating the phone lists for the Bureau; etc.
- The Maintenance Assistant III functions as the custodian and fuel site attendant for the Fleet Services Bureau. The Maintenance Assistant III allocates an estimated 70% of his time to the maintenance of the fuel sites including assuring adequate levels of paper, repairing hoses, resetting the fuel pumps when the motherboard locks up, and general cleaning at the station. The Maintenance Assistant III also provides custodial services for the Fleet Services Bureau requiring an estimated 30% of his time, and is on call to reset the fuel pumps after hours.
- A Fleet Supervisor is responsible for facility maintenance including fuel facilities. This supervisor supervises a Maintenance Assistant III, a Clerk Typist III, and the Tire Shop.

- **Lien Sales is authorized eight and one-half positions.** A Fleet Services Supervisor supervises this program. This supervisor reports to the Superintendent-Towing.

  This program is responsible for the sale of vehicles at auction. In fiscal year 2001-02, a total of 6,455 vehicles were sold at auction, resulting in the recovery of $2,448,562 or an average of $379 per vehicle.

- **Alternative Fuels is authorized one position – A Fleet Supervisor**. The responsibilities of the position include working to develop an alternative fuel program that responds to the AQMD emission standard that prohibits any equipment in excess of 14,000 lbs. from utilizing diesel (with the exception of public safety and off-road equipment) as well as preparing and submitting grant applications to build the fueling station infrastructure for LNG and for the cost differences between in capital outlay for equipment associated with LNG engines, etc.

- **Fleet Maintenance is authorized seventy-four positions**. A Superintendent-Maintenance manages this program. This position is vacant. This position is responsible for managing the maintenance and repair of the City's fleet. The position supervises six Fleet Services Supervisors and a Clerk Typist III. The staff assigned to this program and their primary responsibility is portrayed in the paragraphs below.

  - Facility Maintenance is assigned one position: a Fleet Services Supervisor. This position is responsible for assuring the preventive maintenance of the mechanical systems (e.g. HVAC) at the Temple and Willow facility, the AQMD permits for generators, and M4 administration (i.e., new releases, system assistance, equipment upgrades, etc.).
  - The Emergency Vehicles program is assigned twenty positions. A Fleet Services Supervisor supervises this staff. The functions include the the Motorcycle Line, the Electronics/Upfitting Line, the Safety Line, and four decentralized locations. The assignments of these staff are as follows:

    - The Electronics/Upfitting Line is allocated two positions: an Equipment Mechanic II and a Garage Service Attendant I. This staff is responsible for upfitting of safety vehicles including installation of light bars, cages, gun racks, etc. This staff is also responsible for the maintenance and repair of these systems and the removal of these systems prior to sale.
    - Five positions are assigned to decentralized locations serving as "mobile mechanics" for the Police Department. This includes the East Police substation, South Police substation (Lincoln Park), and the West Police substation. This staff has repair bays at each of these locations as well as their mobile repair truck for road calls. Lincoln Park has two repair bays. An Equipment Mechanic I or II is assigned to each of the three functioning decentralized locations. In addition, two Garage Service Attendant I's are assigned to the South Police substation (Lincoln Park).
    - The Safety Line is allocated ten positions: nine Equipment Mechanic I/II's and one Garage Service Attendant. These staff are responsible for the maintenance and repair of police patrol sedans, police/fire solids, and all other safety equipment with the exception of fire apparatus.

    This staff works from 7:30 AM to 4:00 PM Monday through Friday with some exceptions. The South Police substation (Lincoln Park) has a swing shift in addition to a day shift. The swing shift is from 3:30 PM to 12:00 PM midnight. The mobile mechanic at the East Police substation works from 6:00 AM to 2:30 PM.

  - The Light/Medium program is assigned thirteen positions. A Fleet Services Supervisor supervises this staff. The functions include the North Line, and

three decentralized locations. The assignments of these staff are as follows:

- The North Line is responsible for the maintenance and repair of light and medium equipment ranging from sedans to 1 1/2 ton trucks to large trucks with hydraulic brakes and miscellaneous equipment such as air compressors, asphalt crack sealing equipment, etc.
- Three positions are assigned to decentralized locations as "mobile mechanics" for the Public Services Department, the Energy Department, and for the Parks and Recreation Department for beach maintenance equipment.

This staff works from 7:30 AM to 4:00 PM Monday through Friday.

– The Helicopter program is assigned three positions. A Fleet Services Supervisor supervises this staff. The staff of this program is responsible for maintenance and repair of the two helicopters assigned to the Police Department. This staff is based at the Long Beach Airport. This is an FAA-certified repair station. The Fleet Services Supervisor functions as the lead mechanic. These staff work two shifts: the Fleet Services Supervisor works from 5:30 AM to 1:30 PM Monday through Friday, while the Helicopter Mechanic works from 10:00 AM to 6:00 PM Monday through Friday. The Garage Services Attendant II position is vacant.

– The Packer Line is assigned eighteen positions. A Fleet Services Supervisor supervises this staff. The assignments of these staff are as follows:

- Thirteen Equipment Mechanic I/II's and a Garage Service Attendant are assigned to the maintenance and repair of refuse packers, dump trucks, aerial towers, cranes, and large trailers with air brakes.
- Two Welders are assigned to welding repairs of refuse collection equipment.
- An Equipment Mechanic II is assigned to the Biennial Inspection of Terminals (BIT) inspections program. This position spends an estimated 50% of his time on facility maintenance including the wash rack, and 50% on BIT inspection testing the adequacy and rolling resistance of the brake systems of trucks, and performing minor repairs.

Of these thirteen positions assigned to the maintenance and repair of refuse packers, dump trucks, aerial towers, cranes, and large trailers with air brakes, one works from 5:30 AM to 2:00 PM, four work from 7:30 AM to

4:00 PM, and the other eight from 11:30 AM to 8:00 PM. This staff works Monday through Friday

- The Fire/Boats/Sweeper program is assigned fourteen positions. A Fleet Services Supervisor supervises this staff. This program includes the Fire Line, Ambulance Line, Tractor Line, Mobile Lubrication Line, and Sweeper Line. The assignments of the staff are as follows

  - Five Equipment Mechanic I/II's and a Garage Service Attendant II are assigned to the Sweeper Line.
  - Three Equipment Mechanic I/II's are assigned to the Fire Line.
  - One Equipment Mechanic II is assigned to the Ambulance Line.
  - One Equipment Mechanic II is assigned to the Tractor Line.
  - A Garage Service Attendant I is assigned to the Mobile Lubrication Line for tractors, forklifts, dump trucks, etc.
  - One Equipment Mechanic II is assigned to the Fire/Lifeguard Boat Line.

  The staff assigned to street sweepers work 7:30 AM to 4:00 PM with some exceptions. One of these staff works from 5:00 AM to 1:30 PM. The Garage Service Attendant works from 11:30 AM to 8:00 PM Tuesday through Thursday, and 7:30 AM to 4:00 PM Monday and Friday. The staff assigned to the Fire Line, Ambulance Line, Tractor Line, Mobile Lubrication Line, and Fire/Lifeguard Boat Line work from 7:30 AM to 4:00 PM. This staff works Monday through Friday

- **Towing is authorized twenty-nine and one-half positions.** A Superintendent-Towing manages this program.

The second exhibit presented at the end of this chapter identifies the roles and responsibilities of the staff of the Fleet Services Bureau.

2. THE FLEET SERVICES BUREAU IS RESPONSIBLE FOR THE MAINTENANCE AND REPAIR OF A FLEET OF 1,877 PIECES OF EQUIPMENT.

The third exhibit presented at the end of this chapter presents the fleet maintained by the Fleet Services Bureau as of July 2003. Important points to note concerning the exhibit are presented in the paragraphs below.

- Sedans represent 552 pieces of equipment or comprise 29.4% of the fleet. This includes police patrol sedans.

- Sport utility vehicles represent 135 pieces of equipment or 7.2% of the City's fleet. This includes sport utility vehicles assigned to the Police or the Fire departments.

- Vans represent 157 pieces of equipment or 8.4% of the City's fleet.

- Pickup trucks represent 242 pieces of equipment or 12.9% of the City's fleet. This includes pickup trucks to one ton, pickup trucks with service body and animal control trucks.

These four classes of equipment represent almost 60% of the City's fleet.

3. THE ENERGY, POLICE, PARKS AND RECREATION, AND THE PUBLIC WORKS DEPARTMENTS ARE ASSIGNED 82% OF THE CITY'S FLEET.

The table below presents the City's fleet in terms of assignments to each department. Important points regarding the table are presented on the following page.

Department	# of Pieces of Equipment	% of Total
Community Development	11	0.6%
City Manager Citizen Police Department Complaint	1	0.1%
City Prosecutor	2	0.1%
Energy	407	21.8%
Fire	155	8.3%
Financial Management	6	0.3%
Health and Human Services	35	1.9%
Council/Mayor	5	0.3%
Library	3	0.2%
City Attorney	5	0.3%
Oil Properties	6	0.3%
Planning & Building	63	3.4%
Police	564	30.2%
Parks and Recreation	233	12.5%
Public Works	334	17.9%
Technology Services	39	2.1%
TOTAL	**1,869**	**100.0%**

- The number of pieces of equipment within this inventory differs slightly from the inventory identified in the previous page since the inventory data was extracted from M4 at different points in time.

- The Police Department is allocated the largest proportion of equipment. The department is allocated 564 pieces of equipment or 30.2% of the City's fleet. The fleet assigned to the Police Department has more than doubled since 1990.

- The Energy Department is allocated the second largest proportion of equipment. The department is allocated 407 pieces of equipment or 21.8% of the City's fleet. The fleet assigned to the Energy Department has decreased by 5% since 1990.

- The Public Works Department is allocated the third largest proportion of equipment. The department is allocated 334 pieces of equipment or 17.9% of the City's fleet. The fleet assigned to the Public Works Department has decreased by 7% since 1990.

- The Parks and Recreation Department is allocated the fourth largest proportion of equipment. The department is allocated 233 pieces of equipment or 12.5% of the City's fleet. The fleet assigned to the Public Works Department has decreased by 7% since 1990.

Overall, the City's fleet has grown by 25% since 1990. This growth occurred primarily in the Police Department.

4. MANY OF THE CLASSES OF EQUIPMENT MAINTAINED BY THE FLEET SERVICES BUREAU EXCEED REPLACEMENT GUIDELINES.

The third exhibit following this chapter also presents the average age of the City's fleet by class of equipment. Overall, the City's fleet averages 8.2 years of age. This exceeds the weighted average for the replacement criterion of 7.8 years.

The average age of the City's fleet exceeds that of many other fleets evaluated by the Matrix Consulting Group such as Scottsdale, Arizona and Charleston County, South Carolina. In the case of Charleston County, South Carolina, the average fleet age was 4.3 years. The average age of the fleet owned by the City of Scottsdale, Arizona was 4.0 years.

There are a number of classes of equipment with issues regarding their age versus their replacement guidelines. Examples of these classes of equipment are presented in the paragraphs below.

- The average age of police motorcycles is 6.5 years. The replacement guideline is 4 years.

- The average age of police patrol sedans is 4.4 years. It should be noted that this age is somewhat misleading; many of the Chevrolet Caprice police patrol sedans have been rebuilt and the average age, as a consequence, is less than 4.4 years. The replacement guideline is 4 years. The average age of police pursuit sedans-K9 is 5.44 years. The replacement guideline is 4 years.

- The average age of one-ton dump trucks is 9.9 years; the average age of dump trucks-type II is 10.5 years. The replacement guideline for both classes is 10 years.

- The average age of three wheel broom street sweepers is 6.7 years; the average age for three wheel vacuum street sweepers is 6.6 years. The replacement guideline for both classes of equipment is 4 years. Since the analysis of the Bureau began, all twenty front-line street sweepers have been replaced.

- The average age of refuse packer, side loader was 8.1 years. The replacement guideline for both classes of equipment is 7 years. Since the analysis of the Bureau began, 36 refuse packer-side loaders have been replaced or replacements ordered.

The estimated replacement cost for the City's entire fleet is $87,575,700. The City, over the four fiscal years ending 1999 to 2002, averaged $7,367,890 in replacement expenditures annually (excluding encumbrances). Given the estimated replacement cost and the level of replacement funding over the past four fiscal years, the City is approximating a 12-year replacement plan. Although the average age of the City's fleet is 8.2 years, given the level of funding, that average age will increase.

5. OPERATING EXPENDITURES BY THE FLEET SERVICES BUREAU INCREASED BY AN ANNUAL AVERAGE OF 2.9% OVER THE PAST FOUR FISCAL YEARS SINCE 1999.

The fourth exhibit at the end of this chapter presents actual expenditures for the Fleet Services Fund for fiscal years ending 1999 to 2002. Important points to note concerning the data contained within the exhibit are presented below.

- Salaries, Wages, and Benefits increased by 9.6% from $5,518,604 in actual expenditures (excluding encumbrances) in the fiscal year ending 1999 to $6,048,394 in the fiscal year ending 2002.

- Materials, Supplies, and Services increased by 5.3% from $8,091,637 in actual expenditures (excluding encumbrances) in fiscal year ending 1999 to $8,518,725 in the fiscal year ending in 2002. There was a one-time contract services expenditure of $1,380,457 in 1999. Excluding that one-time expenditure, materials, supplies, and services increased by 26.9%. Almost two-thirds of this increase in expenditures results from increases in sub-let repairs.

- Over the four fiscal years, capital outlay expenditures averaged $7,525,951 on an annual basis. This average, however, reflects a one-time peak of capital outlay expenditures in 2001. Excluding that year, capital outlay expenditures averaged $5,275,753.

- Debt service increased almost $2.5 million since fiscal year 1999. This is the result of the new facilities that were constructed and occupied at 2600 Temple Avenue.

- Transfers from other funds decreased by 92%: from $2,281,989 in fiscal year ending 1999 to $174,439 in fiscal year ending 2002. The Fleet Services Fund transferred $2,450,000 to the general fund in fiscal year 1999.

Overall, the operating expenditures in the Fleet Services Fund increased by a total of 2.9% from 1999 to 2002 or an annual average of 1.0%.

The table below presents the fund balances for the Fleet Services Fund for the past four fiscal years.

Fiscal Year	Fund Balance	Encumbrances	Unencumbered Fund Balance	Transfers to UPST
1999	$7,370,471	$2,618,021	$4,752,450	$2,822,052
2000	$6,654,252	$5,312,126	$1,342,126	$750,000
2001	$1,912,345	$998,967	$913,378	$250,000
2002	$7,586,532	$3,193,231	$4,393,301	$250,000

While the fund balance in fiscal year 2002 was almost $7.6 million, encumbrances amounted to almost $3.2 million. In previous fiscal years, the Fleet Services Fund transferred or spent $4.1 million of fund balance to fund mitigation of underground petroleum storage tanks (UPST) from 1999 to 2002.

6. THE FLEET SERVICES BUREAU OCCUPIES A FACILITY OF APPROXIMATELY 66,400 SQUARE FEET.

The Fleet Services Bureau occupies a facility that was constructed within the last several years. This facility comprises approximately 62,400 square feet (excluding Towing and Lien Services). Important points to note concerning the facility are as follows:

- Administration is allocated approximately 6,900 square feet or 10.4% of the facility.
- The Stock Room is allocated approximately 6,200 square feet or 9.3% of the facility.
- The Light and Medium Line is allocated approximately 19,200 square feet or 28.9% of the facility. The Light/Medium Line has 16 repair bays and 4 repair bays for the motorcycle and electronics line.
- The Tire Shop and Storage is allocated approximately 4,000 square feet or 6.0% of the facility. The Tire Shop has one tire repair bay and another bay for smog/emission testing.
- The Heavy Line is allocated approximately 26,500 square feet or 40.0% of the facility. The Heavy Line has 20 repair bays, and 2 repair bays for welding/fabrication.
- The common/support areas are allocated approximately 3,500 square feet or 5.3% of the facility.

In addition, the Fleet Services Bureau is allocated approximately 76,600 square feet for exterior vehicle parking (excluding Towing and Lien Sales), approximately 2,700 square feet of covered parking for the mobile lube and maintenance trucks and the motorcycle trailer, and approximately 4,300 square feet for storage (chemical waste, hazardous material, sweeper brooms, etc).

7. THE REFUSE PACKER-SIDE LOADER, POLICE PATROL SEDAN, AND STREET SWEEPER-3 WHEEL CLASSES OF EQUIPMENT EXPERIENCED THE HIGHEST MAINTENANCE AND REPAIR COSTS.

The fourth exhibit presented at the end of this chapter presents the maintenance and repair costs for fiscal year 2002 by class of vehicles. Important points to note concerning the data contained within the exhibit are presented below.

- **Packer-side loader was the most costly class of equipment to maintain**. On average, each packer-side loader cost $59,200 to maintain and repair. These 32 packer-side loaders, while representing 1.7% of the fleet, represent 17.9% of the costs of maintenance and repair for the fleet. As noted previously, the average age of packer, side loader is 8.1 years. The replacement guideline for this class of equipment is 7 years.

- **Police patrol sedan was the second most costly class of equipment to maintain**. On average, each police patrol sedan cost $6,800 to maintain and repair. These 207 pieces of equipment represent 11% of the fleet, represent 13.2% of the maintenance and repair costs for the fleet. As noted previously, the average age of police pursuit sedans is 4.4 years. It should be noted that this age is somewhat misleading; many of the Chevrolet Caprice police patrol sedans have been rebuilt. The average age, as a consequence, is less than 4.4 years. The replacement guideline is 4 years.

- **Street sweeper-3 wheel was the third most costly class of equipment to maintain**. On average, each street sweeper-3 wheel cost $116,600 to maintain and repair. These 12 pieces of equipment represent 0.6% of the, represent 7.6% of the costs of maintenance and repair for the fleet. As noted previously, the average age of three wheel broom street sweepers is 6.7 years. The replacement guideline for this class of equipment is 4 years.

These three classes of equipment, while representing 13.4% of the fleet in terms of the number of equipment, represented 38.7% of the costs of maintenance and repair for the fleet.

Exhibit 1

Current Plan of Organization Of the Fleet Services Bureau

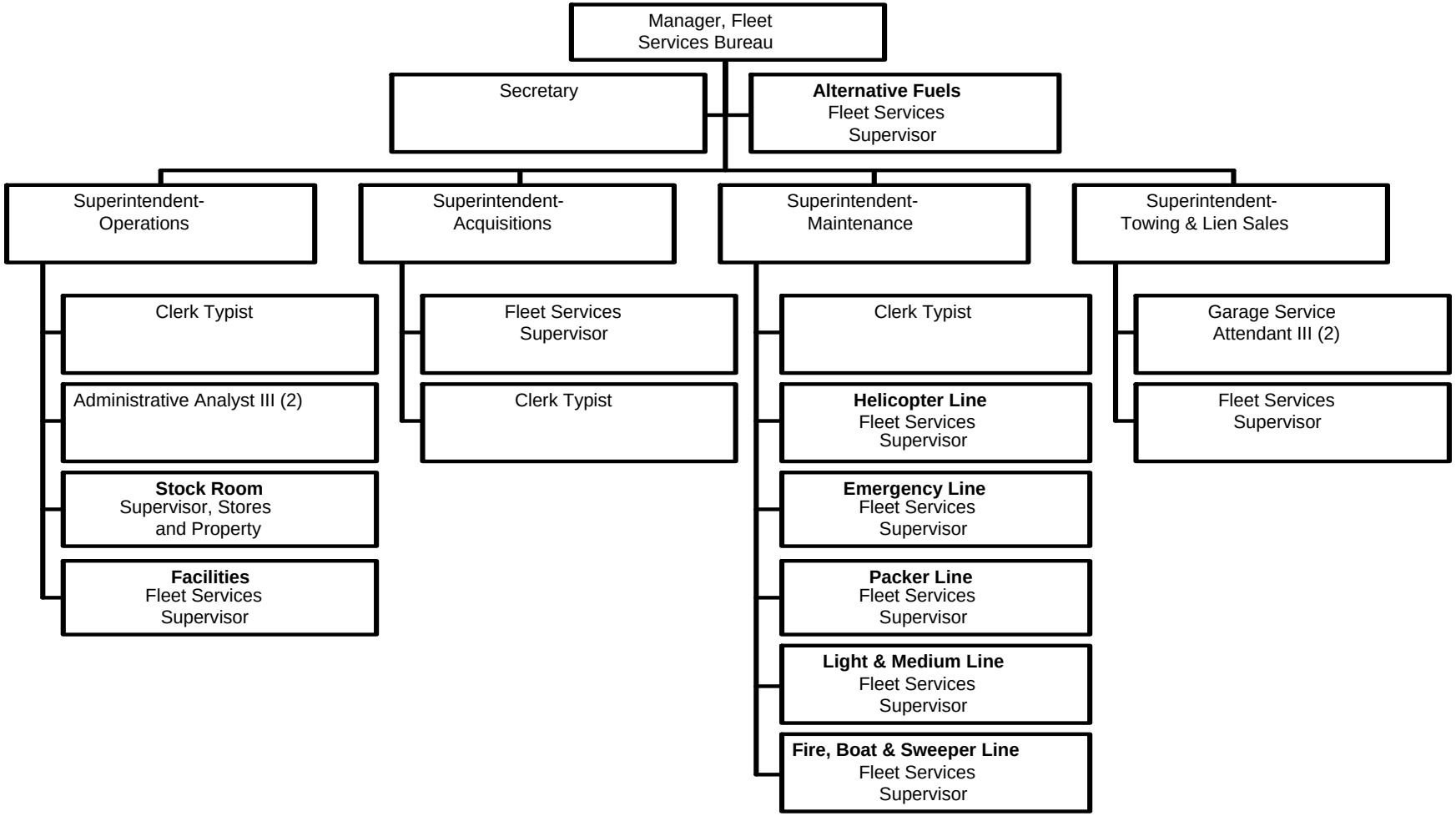


Exhibit 2 (1)

Responsibility Matrix for the Staff Of the Fleet Services Bureau

Class Title	Number of Positions	Responsibility of Position(s)
Administration		
Manager, Fleet Services Bureau	1	This position is responsible for planning, organizing, and directing the work of the Fleet Services Bureau including supervising the Fleet Superintendent – Operations, Fleet Superintendent – Acquisitions, Fleet Superintendent – Maintenance, Fleet Superintendent – Towing, a Fleet Supervisor allocated to Alternative Fuels, and a Secretary. The responsibilities of the position include the following: • Develops and approve short and long-term operating plans for the Fleet Services Bureau. • Develops Bureau goals, objectives, priorities, and policies concerning fleet management, maintenance and repair programs. • Develops service levels for sections within the Bureau and communicates these policies to Fleet Superintendents. Ensures that service levels are incorporated into operating/annual plans. Monitors actual levels of service versus plan. • Primary point of contact for City management, City Council, and citizens regarding fleet service programs, operating, scheduling and financial issues, and other concerns related to Bureau services and activities. • In conjunction with Fleet Superintendents develops operating budgets and presents to the City Manager. Ensures that Bureau operates within budget. • Accomplishes performance evaluations of Fleet Superintendents. • Ensures that fleet management policies and procedures are developed for the Bureau. Ensures that adequate systems are in place to ensure adherence. • Reviews periodic cost and operational reports. • Assure the development and implementation of the nine-year equipment replacement plan.
Secretary	1	• Primary duty is to provide secretarial support to the Manager, Fleet Services Bureau. • Collects time sheets and distributes the paychecks for Fleet Services Bureau Administration. • Serves as the custodian for petty cash for the Bureau. • Responsible for booking and processing all travel and training arrangements within the Bureau. • Collects and deposits revenues received by the Bureau with Central Collections. • Coordinates the preparation and submittal of technical assistance requests to the Information Services Department (i.e., software updates, cell phone breakage, etc.).

Exhibit 2 (2)

Class Title	Number of Positions	Responsibility of Position(s)
Administration (Continued)		
Fleet Services Supervisor (Alternative Fuels)	1	• Alternative fuel coordinator for the Fleet Services Bureau. Responsible for development of an alternative fuel program that responds to the AQMD emission standard that prohibits any equipment in excess of 14,000 lbs. from utilizing diesel (with the exception of public safety and off-road equipment). • Works with equipment manufacturers to develop and acquire a new LNG engine for refuse packers and street sweepers. • Prepares and submits grant applications to build the fueling station infrastructure for LNG and to fund the additional costs associated with capital outlay of equipment equipped with LNG engines • Prepares and maintains an emergency business plan for the LNG fueling facility and the permit application for the facility. • Prepares documentation to lease and permit a temporary LNG fueling station pending construction of the permanent LNG fueling station.
Superintendent –Fleet Services Fleet Services Supervisor	1 1	• Prepares the specifications for replacement of equipment. • Updates the 9-year fleet replacement plan within dBase II. • Receives new vehicles ensuring compliance to specification, contact vendor for corrective repair work as necessary, and certify and submit invoices for corrective repairs. • Assigns asset numbers, collects and develops information for the M4 information system and inputs into the system. • Administer the auction contract for disposal of equipment, including the sale. This includes scheduling the disposal, pulling the necessary title paperwork for the sale, auditing the sale report from the auction vendor, and changing the equipment status in M4,
Clerk Typist III	1	• Provides clerical support for the two staff assigned to acquisition of equipment. • Maintains the vehicle registration records for the City's fleet. • At sale, pulls the title of the vehicles, clears any liens on the vehicles, and forwards the titles to the auctioneer. • Enters asset information for new vehicles into M4.

Exhibit 2 (3)

Class Title	Number of Positions	Responsibility of Position(s)
Administration (Continued)		
Superintendent – Fleet Operations	1	• Supervises a Clerk Typist II, a Clerk Typist III, two Administrative Analyst III's, the Supervisor-Stores/Property, and a Fleet Supervisor responsible for facilities. • Coordinates the budgetary and financial activities of the Fleet Services Bureau including the following: – Coordinates the preparation of annual operating budget for the Bureau; – Monitors the Bureau's budgetary expenditures; – Prepares the Bureau's ten year revenue and expenditure forecasts; – Provides advise and counsel to the Manager, Fleet Services Bureau; – Prepares budget and financial presentations for the City Council; and – Manages contracts, assures insurance requirements for the Bureau are met, and prepares and issues Requests for Proposals as necessary. • Audits the billing and collection of third party billing of accident repairs, assuring Central Collections receives information necessary to bill costs incurred by the City to repair accident damage in which the City is not at fault.
Clerk Typist III	1	• Provides support services associated with the City's fuel supply. • Orders fuel for the fuel storage sites approximately twice a week based upon the extent of usage and fuel levels. Orders fuel based upon comparative shopping from three vendors. • Invoices the Long Beach Unified School District on a quarterly basis for their fuel utilization. • Prints and forwards a report on a weekly basis to the Long Beach Unified School District regarding fuel consumption. There are approximately 215 transactions a week for the District. • Maintains a spreadsheet regarding fuel consumption by the District. • Manually enters data from fuel logs for 4 fuel stations. • Maintains the AQMD files/permits for the fixed generators, fuel sites, fuel tanks, and two mobile fuel tanks. • Maintains the maintenance and setup logs for the E.J. Ward automated fuel system. • Processes tax payments to the State Board of Equalization. • Exports the fuel billing information from the E.J. Ward fuel system into M4. This requires approximately one-quarter of available work time.
Clerk Typist II	1	• Receptionist for the Fleet Services Bureau.

Exhibit 2 (4)

Class Title	Number of Positions	Responsibility of Position(s)
Administration (Continued)		
Administrative Analyst III	1	• Conducts analysis on behalf of the Manager, Fleet Services Bureau, and the Superintendent – Fleet Operations. This has included an analysis of take home vehicles, the stock room operation, etc. • Provides budget analysis support for the Superintendent – Fleet Operations including estimate to close.
Administrative Analyst III	1	• This position is vacant. • The position was responsible for the preparation of financial reports for the Manager, Fleet Services and the Superintendent – Fleet Operations. • The position also prepared and updated specifications for parts, and was responsible for ADPICS/Accounts Payable assuring compliance with the City's purchasing regulations.
Mechanical Equipment Stock Clerk II	1	• Allocates one-half to three-quarters of his time to renewal of blanket purchase orders and establishment of new blanket purchase orders. The Fleet Services Bureau has 223 blanket purchase orders. • Reviews the 223 blanket purchase order specifications to streamline the specifications including elimination of old parts from the blanket purchase orders that the Fleet Services Bureau no longer utilizes, including delivery times for parts, discussing with the Fleet Service Supervisors the part brands and their reliability and whether these types of parts are utilized, communicating with the stock room regarding the timeliness of parts delivery, and updating M4 when the blanket purchase order is renewed. • If a new brand of equipment is received, set up a blanket purchase order for the parts for that brand. • Processes approximately 10% of the invoices (the balance is processed by the stock room).
Maintenance Assistant III	1	• Serves as a custodian and fuel site attendant. • Allocates an estimated 70% of time to the maintenance of the eleven fuel sites including adequate levels of paper, repairing hoses, resetting the fuel pumps when the motherboard locks up, and mowing the grass at the fuel station at the Public Service Yard. • Provides custodial services for the Fleet Services Bureau requiring an estimated 30% of time. • On call to reset the fuel pumps after hours.
Fleet Supervisor	1	• This Fleet Supervisor position is allocated to the supervision of facility maintenance including the fuel islands and associated equipment. He supervises the Maintenance Assistant III and the Clerk Typist III.

Exhibit 2 (5)

Class Title	Number of Positions	Responsibility of Position(s)
Stock Room		
Supervisor-Stores/Property	1	• Supervises the operations of the Stock Room. • Supervises six Mechanical Equipment Stock Clerk I's, and two Garage Service Attendants. • Manages the level of inventory within the Stock Room including setting stocking levels (min/max) for parts in the stock room, assuring that obsolete parts are eliminated from the inventory, and monitoring the turn rate for the inventory. • Assures compliance with the City's purchasing regulations and the annual operating budget of the Stock Room.
Mechanical Equipment Stock Clerk I/II Garage Service Attendant II Stock and Receiving Clerk	6 1 1	• Receives and reviews vendor invoices to ensure that delivery receipt information was input into M4, process vendor invoices for payment, and assure that vendors receive a copy of the ADPICS purchase order.• This staff works two shifts: 7:30 AM to 4:00 PM and 11:30 AM to 8:00 PM. One of the eight positions works from 5:30 AM to 1:00 PM, and another works from 6:30 AM to 2:00 PM. • This staff is broken into three groups: the heavy equipment line, the light/medium line, and receiving. • The Stock and Receiving Clerk position is vacant. The position was intended to enter inventory data into the M4. • The Garage Service Attendant II performs the same duties as the Mechanical Equipment Stock Clerk I/II's. • Special order parts not available via blanket purchase orders and not stocked including identifying the type of part required, the vendor from whom the part is available, and assuring the prompt delivery of the part. • Issues parts over-the-counter to Equipment Mechanics and charges the parts to the appropriate work order within M4. • Orders the Stock Room's inventory of stocked items, and ensures prompt receipt of all supplies. • Restocks parts to the appropriate parts bin location. • Enters data concerning supplies into M4. • Returns parts (e.g., warranty returns) as appropriate to vendors and that these supplies are input into M4. • Orders tools and miscellaneous cleaning supplies.

Exhibit 2 (6)

Class Title	Number of Positions	Responsibility of Position(s)
Lien Sales		
Superintendent-Towing	1	• This position is currently vacant, and recommended for elimination in the FY 03-04 budget. • When the position was filled, the incumbent provided one-over-one supervision for a Fleet Services Supervisor.
Fleet Services Supervisor	1	• Supervises the staff assigned to Lien Sales including two Clerk Typist III, a Customer Services Representative I, and three Garage Services Attendant I's. • Conducts VIN checks of all vehicles to be sold at auction. The Fleet Services Supervisor has been certified by the Police Department to conduct VIN checks. • Completes forms for the State Department of Motor Vehicles for vehicles that do not have sufficient value or worth for auctioning. These vehicles are sent to the junkyard. • Maintains inventory control of vehicles in the yard in terms of incoming and outgoing vehicles including vehicle identification numbers. • Coordinates the vehicle sale every Tuesday. Verifies the vehicles to be sold. Processes paperwork for vehicles not receiving any bids so that these vehicles can be junked. • Verifies accounts receivable from sales and delivers the deposit to the bank.
Clerk Typist III	1	• Provides clerical support for Lien Sales. • Processes all the paperwork associated with lien sales.
Garage Service Attendant I	3	• Gets vehicles ready for sale and place the vehicles for auction. • Marks the vehicles for sale including the sale date, location, etc. • Escorts customers for the sale. • Assists with VIN checks.
Customer Service Representative I	3	• Generates the sale listing, posts the sale, adds and deletes to the sale listing, verifies the VIN number through JDAC.

Exhibit 2 (7)

Class Title	Number of Positions	Responsibility of Position(s)
Fleet Maintenance		
Superintendent-Fleet Maintenance	1	• Supervises multi-shop fleet maintenance and repair including the supervision of six Fleet Supervisors and a Clerk Typist III. • Monitors actual expenditures for Fleet Maintenance versus budget. • Monitors productivity against estimated repair times using such tools as Mitchell on Demand. • Monitors contract repair versus in-house repair. • Assures the effectiveness of the preventive maintenance program. • Determines priorities of work and communicates to Fleet Services Supervisors. • Monitors the quality and responsiveness of Fleet Maintenance through such tools as turnaround time for work orders, comebacks, road calls, etc. • Monitors the actual billable time versus objective. • Completes and reports performance evaluations of Fleet Services Supervisors.
Clerk Typist III	1	• Administers the facility maintenance plan issuing weekly schedules to the various Fleet Services Supervisors. Enters the completed work orders into an Excel spreadsheet. • Acts as the secretary at safety meetings logging the staff in attendance, and maintaining a file regarding safety meetings. Maintain a safety file for each employee of the Fleet Services Bureau regarding safety classes attended and the dates of attendance. • Maintain files regarding city vehicle accidents including the employee and supervisor accident reports, the police report, and photographs. Prepares billing information. • Enter decal reports and work orders into M4. • Type performance appraisals for the Superintendent-Fleet Maintenance and the Fleet Services Supervisors.
Fleet Services Supervisor	1	• Supervises the Safety Line, Electronics Line, three Mobile Mechanics, Motorcycle Line, and Tire Shop. • The Emergency Line shift hours are from 7:30 AM to 4:00 PM Monday through Friday. • Observes, reviews and checks the work of Equipment Mechanics and Garage Service Attendants to ensure conformance to standards. Quality controls repairs. • Explains tasks and assists in diagnosing and solving difficult problems. Evaluates work progress and ensures safe work procedures. • Oversees outside labor repairs, recalls, warranty claims, and related paperwork. • Plans and organizes equipment maintenance, repair and servicing including opening work orders, scheduling of preventive maintenance, the assignment of work orders to Equipment Mechanics and Garage Service Attendants, etc. Interfaces with customers regarding complaints.

Exhibit 2 (8)

Class Title	Number of Positions	Responsibility of Position(s)
Fleet Maintenance (Continued)		
Equipment Mechanic II Equipment Mechanic I Garage Services Attendant I	3 5 1	• These positions are assigned to the Safety Line. This staff maintains and repairs police patrol sedans, police/fire solids, sport utility vehicles assigned to the Police or Fire departments (and to Park Rangers), mobile command units, etc.
Equipment Mechanic II	1	• This Equipment Mechanic is responsible for maintenance and repair of motorcycles, trucksters and all terrain vehicles.
Equipment Mechanic II Garage Services Attendant I	1 1	• These two positions are assigned to the Electronics Line. • These staff is responsible for upfitting of new cars including light bars, cages, gun racks, etc. • This staff also repairs these electronic components, and remove these components prior to auction.
Equipment Mechanic II Equipment Mechanic I Garage Services Attendant I	2 1 2	• These five positions are assigned as mobile mechanics, but are in fact decentralized to fixed sites. With the capacity to respond to road calls. • These five positions are all assigned to Police substations. An Equipment Mechanic is assigned to the East Police substation, another Equipment Mechanic to the West Police substation, and an Equipment Mechanic and two Garage Service Attendants to the South Police substation (Lincoln Park).
Garage Service Attendant I	2	• These two positions are assigned to the Tire Shop. This staff is responsible for changing tires, breaking down tires, mounting tires, balancing tires, etc. One of these two staff also assumes responsibility for coordinating body and paint repairs for City equipment involved in accidents.

Exhibit 2 (9)

Class Title	Number of Positions	Responsibility of Position(s)
Fleet Maintenance (Continued)		
Fleet Services Supervisor	1	• Supervises the operations of the Light/Medium Line, and three Mobile Mechanics. • The Light/Medium Line, and three Mobile Mechanics shift hours are from 7:30 AM to 4:00 PM Monday through Friday. The Garage Service Attendant works from 6:00 AM to 2:30 PM. • Observes, reviews and checks the work of Equipment Mechanics and Garage Service Attendants to ensure conformance to standards. Quality controls repairs. • Explains tasks and assists in diagnosing and solving difficult problems. Evaluates work progress and ensures safe work procedures. • Oversees outside labor repairs, recalls, warranty claims, and related paperwork. • Plans and organizes equipment maintenance, repair and servicing including opening work orders, scheduling of preventive maintenance, the assignment of work orders to Equipment Mechanics and Garage Service Attendants, etc. Interfaces with customers regarding complaints.
Equipment Mechanic II Equipment Mechanic I Garage Services Attendant II	2 4 1	• These positions maintain and repair equipment that range from sedans to 1 and 1 1/2 ton trucks including trucks with hydraulic brakes (but not air brakes). This range of equipment includes air compressors, welders, asphalt crack sealing equipment, etc.
Equipment Mechanic II Equipment Mechanic I	2 1	• These three positions function as mobile mechanics. One is assigned to Beach Maintenance, a second to the Public Service yard, and the third to the Energy Department yard. • Mobile mechanics are responsible for road calls.

Exhibit 2 (10)

Class Title	Number of Positions	Responsibility of Position(s)
Fleet Maintenance (Continued)		
Fleet Services Supervisor	1	• This position leads and participates in the maintenance and repair of two helicopters utilized by the Police Department, and supervises the operations of the Helicopter Line. This is an FAA certified repair station. The Fleet Services Supervisor bills as much time to work orders, as does the Helicopter Mechanic. • Monitors expenditures for maintenance and repair of the two helicopters. Procures parts for the helicopters. Initiates warranty cost recovery for the helicopters. • The Helicopter Line uses two different shifts with the Fleet Supervisor working from 5:30 AM to 1:30 PM, and the helicopter Mechanic and Garage Service Attendant II working from 10:00 AM to 6:00 PM. This staff works Monday through Friday. • Observes, reviews and checks the work of Helicopter Mechanic and Garage Service Attendant to ensure conformance to standards. Quality controls repairs. • Plans and organizes equipment maintenance, repair and servicing including opening work orders, scheduling of preventive maintenance, the assignment of work orders to the Equipment Mechanic and Garage Service Attendant, etc. Interfaces with the Police Department regarding complaints.
Equipment Mechanic II Garage Services Attendant II	1 1	• These positions maintain and repair two helicopters (Eurocopter EC 130).
Fleet Services Supervisor	1	• Supervises the operations of the Packer Line. • The staff work two shifts: one from 7:30 AM to 4:00 PM and the other from 11:30 AM to 8:00 PM. However, one Equipment Mechanic works from 5:30 AM to 2:00 PM. • Monitors refuse packers on the “hold list” and resolves problems. • Observes, reviews and checks the work of Equipment Mechanics and the Garage Service Attendants to ensure conformance to standards. Quality controls repairs. • Explains tasks and assists in diagnosing and solving difficult problems. Evaluates work progress and ensures safe work procedures. • Oversees outside labor repairs, recalls, warranty claims, and related paperwork. • Plans and organizes equipment maintenance, repair and servicing including opening work orders, scheduling of preventive maintenance, the assignment of work orders to Equipment Mechanics and Garage Service Attendants, etc. Interfaces with customers regarding complaints.

Exhibit 2 (11)

Class Title	Number of Positions	Responsibility of Position(s)
Fleet Maintenance (Continued)		
Equipment Mechanic II Equipment Mechanic I Garage Services Attendant I Welder	5 9 1 2	• These staff maintain and repair equipment that ranges from refuse packers (rear loaders, side loaders) to dump trucks to aerial towers to cranes. • The Garage Service Attendant I performs light duty repairs and maintenance such as PM 500's (oil and filter), lights, and assists Equipment Mechanics when necessary. • One of the Equipment Mechanic II's performs BIT inspections including getting trucks and running them through the brake machine to identify rolling resistance, wheels out of tolerance, and where to look for a brake problem. Performs quick fix brake repairs and generates a list of larger repairs that the Equipment Mechanics on the packer line for follow-up. Spends approximately half his time on facilities maintenance including the wash rack. • The two Welders are responsible for welding repairs for refuse packers.
Fleet Services Supervisor	1	• Supervises the operations of the Fire Line, Paramedic Shop, Tractor Repair Line, Fire Rescue Boat Repair, the mobile lube service, and Street Sweeper Repair. • The staff assigned to maintenance and repair of fire apparatus and paramedic/ambulance vehicles work from 7:30 AM to 4:00 PM. The staff assigned to street sweeper repair work different day shifts. • Monitors street sweepers in the shop, and resolves problems. • Observes, reviews and checks the work of Equipment Mechanics and the Garage Service Attendants to ensure conformance to standards. Quality controls repairs. • Explains tasks and assists in diagnosing and solving difficult problems. Evaluates work progress and ensures safe work procedures. • Oversees outside labor repairs, recalls, warranty claims, and related paperwork. • Plans and organizes equipment maintenance, repair and servicing including opening work orders, scheduling of preventive maintenance, the assignment of work orders to Equipment Mechanics and Garage Service Attendants, etc. Interfaces with customers regarding complaints.
Equipment Mechanic II Garage Services Attendant I	5 1	• These positions maintain and repair fire apparatus, tractors, and paramedic/ambulance vehicles and provide mobile lube service. • The Garage Service Attendant I provides the mobile lube service.
Equipment Mechanic II	1	• This Equipment Mechanic maintains the fire/lifeguard boats.

Exhibit 2 (12)

Class Title	Number of Positions	Responsibility of Position(s)
Fleet Maintenance (Continued)		
Equipment Mechanic II Equipment Mechanic I Garage Services Attendant II	3 2 1	• These positions maintain and repair street sweepers. • One of the Equipment Mechanic II's starts at 5:00 AM, starting all of the street sweepers, making sure this equipment is capable of sweeping, checking fluids, assisting the sweeper operators in the morning with any equipment problems, and responds to road calls.
Towing		
Superintendent-Towing	1	• Supervises two Garage Service Attendant III's. • Manages a 24/7 towing operation.
Garage Service Attendant III's	2	• These positions act as shift supervisors for Towing. There is one position for day shift and another for the swing shift. • Supervises Garage Service Attendant's, Security Officers, Clerk Typist's, and a Customer Service Representative. • Conducts damage claim investigations including photographing the vehicle and completing the report. • Checks cash receipts against the automated reporting system. Counts the receipts at the end of the shift and verifies the transactions. Make the daily bank deposit. • Evaluates the productivity of the Garage Service Attendants in completing vehicle tows including response time. • Competes statistical reports. • Monitors the use of contractors to assure the use is appropriate to workload and response time.
Garage Service Attendants	12 7-NC	• Tows vehicles to the yard. • Works one of three shifts: day, swing, or graveyard.
Customer Services Representative II	1	• Functions as cashiers for towing. • This service is provided from 8 AM to 12:00 midnight 7 days a week, 365 days a year.

Exhibit 2 (13)

Class Title	Number of Positions	Responsibility of Position(s)
Towing		
Security Officer I/II	4	• Functions as dispatchers for towing requests. • Monitors security cameras.
Clerk Typist III	2	• Provides clerical support.

Exhibit 3 (1)

Allocation of the Fleet By Class
Including Average Age of the Fleet By Class

Class	Description	Number	Ave. Age Years	Replace Criteria	Under/ <Over>
0050	Motorcycle	51	6.46	4.00	(2.46)
0110	ATV's	14	2.83	6.00	3.17
0150	Truckster	20	6.61	10.00	3.39
0300	Sedan	41	4.90	8.00	3.10
0310	Sedan, CNG	78	4.23	8.00	3.77
0400	Police/Fire Solid	175	3.95	7.00	3.05
0410	Police/Fire Solid, CNG	11	9.07	7.00	(2.07)
0420	Blue & White, Marine	3	3.61	6.00	2.39
0440	Black & White Sedan, CNG	26	7.85	7.00	
0450	Black & White Sedan	207	4.36	4.00	(0.36)
0460	Black & White, K-9	11	5.44	4.00	(1.44)
0600	Utility Large, Fire/K-9	11	7.82	9.00	1.18
0620	Utility Large, Police	13	1.75		
0650	Beach Pickup	4	0.68	4.00	3.32
0660	Utility Vehicle, Small	83	3.28	7.00	3.72
0670	Utility Vehicle, Small, CNG	28	10.69		
0700	Step Van	6	7.55	9.00	1.45
0730	Mini Van, CNG	13	8.55		
0740	Mini Van	36	5.05	8.00	2.95
0750	1/2 Ton Van	24	6.13	8.00	1.87
0760	1/2 Ton Van, CNG	1	12.63		
0800	3/4 Ton Van	13	6.17	8.00	1.83
0810	3/4 Ton Van, CNG	9	5.10	8.00	2.90
0840	1 Ton Van, Diesel	3	13.01		
0850	1 Ton Van	28	3.85	8.00	4.15
0860	1 Ton Van, CNG	24	5.22	8.00	2.78
0900	Mini Pickup	17	5.02	9.00	3.98
0910	Parking Enforcement, Truck	23	4.93	9.00	4.07
0950	Truck, Mini Stake Bed	1	17.52	10.00	(7.52)
1000	1/2 Ton Pickup	30	4.97	9.00	4.03
1010	1/2 Ton Pickup, CNG	10	10.59	9.00	(1.59)
1040	3/4 Ton Pickup, Diesel	2	14.43	9.00	(5.43)
1050	3/4 Ton Pickup	34	5.73	9.00	3.27
1060	3/4 Ton Pickup, CNG	56	5.68	9.00	3.32
1070	1 Ton Crew Cab	5	4.98		

Exhibit 3 (2)

Class	Description	Number	Ave. Age Years	Replace Criteria	Under/ <Over>
1100	1 Ton Pickup	2	2.98	9.00	6.03
1160	Aerial Bucket, Small	14	3.82	9.00	5.18
1200	Truck, Animal Control	11	3.62	6.00	2.38
1240	Large Tow Truck	1	12.44	18.00	5.56
1250	Tow Truck, Wheel Lift, Diesel	4	7.83	4.00	(3.83)
1260	Tow Truck, Wheel Lift, Gas	1	3.38		
1270	Tow Truck, Roll Off, Diesel	3	7.91	8.00	0.09
1280	Tow Truck, Wheel Lift, Med Duty	2	5.32	8.00	2.68
1310	Aerial Bucket, Heavy	6	9.74	15.00	5.26
1350	Truck, 3/4 Ton Service Body	56	5.68	9.00	3.32
1360	Truck, 3/4 Ton Service Body,CNG	7	5.27		
1390	Flat Bed Truck, Diesel	7	11.39		
1400	Flat Bed Truck	26	7.60	12.00	4.40
1450	1 Ton Service Truck	22	6.66	9.00	2.34
1460	1 Ton Service Truck, CNG	2	10.76		
1500	Truck, Line Construction	9	14.46	15.00	0.54
1540	Truck, Meter Diesel	1	16.59		
1550	Truck, Meter	7	7.92	10.00	2.08
1560	Truck, Meter, CNG	2	8.98		
1650	Truck, 2 Ton Service	5	20.21	12.00	(8.21)
1660	Truck, 2 Ton Service, CNG	2	10.97		
1700	Truck, Street Lighting	1	0.70	12.00	11.30
1750	Truck, Tanker	2	4.43	15.00	10.58
1800	Survey Truck	1	15.39	12.00	(3.39)
1810	Survey Truck, Diesel	3	17.76		
1850	Truck, Tractor	8	12.57	18.00	5.43
1950	Truck, Welder	7	6.65	12.00	5.35
1960	Truck, Welder, CNG	2	10.34		
2000	Forklift, Light	13	6.88	20.00	13.12
2010	Forklift, Heavy	6	11.23	10.00	(1.23)
2040	Truck, 1 Ton, Diesel	1	19.18		
2050	Truck, 1 Ton Dump	22	9.86	10.00	0.14
2100	Dump Truck, Type II	10	10.47	10.00	(0.47)
2150	Dump Truck, Type III	18	12.87	15.00	2.13
2250	Sweeper, Three Wheel	12	6.70	4.00	(2.70)
2300	Sweeper, Leaf	7	7.28	7.00	(0.28)
2350	Sweeper, Parking Lot	7	4.05	8.00	3.95

Exhibit 3 (3)

Class	Description	Number	Ave. Age Years	Replace Criteria	Under/ <Over>
2370	Sweeper, 3 Wheel, Vacuum	7	6.60	4.00	(2.60)
2380	Sweeper, 4 Wheel, Vacuum	6	4.71	10.00	5.29
2500	Street Flusher	3	7.87	10.00	2.13
2550	Packer, 17 Yard	9	2.86	9.00	6.14
2600	Packer, 20 Yard	23	4.08	9.00	4.92
2610	Packer, 25 Yard	16	1.94	9.00	7.06
2620	Refuse Packer, Side Loader	32	8.07	7.00	(1.07)
2630	Refuse Packer, Side Loader, CNG	3	6.76	7.00	0.24
2650	Refuse Packer, Beach	2	14.53	12.00	(2.53)
2700	Paramedic, Ambulance	15	7.17	8.00	0.83
2750	Aerial Ladder, Fire	8	13.88	18.00	4.12
2850	Pumper, Fire	29	10.50	16.00	5.50
2860	Pumper, Squirt	3	8.57	20.00	11.43
2900	Airport Crash, Pickup	1	9.13	10.00	0.88
2950	Airport Crash, Large	2	14.14		
3000	Fire/Rescue Boat	3	10.27	20.00	9.73
3040	Patrol Boat	4	8.10	10.00	1.90
3050	Boat I	4	12.78	20.00	7.23
3060	Debris Skimmer Boat	1	4.23	10.00	5.78
3150	Tandem Roller	2	1.23	18.00	16.78
3200	Tractor Mower, Large	2	2.48	8.00	5.53
3250	Mower, Riding, Small	26	3.56	4.00	0.44
3300	Pavement Grinder	3	16.98	30.00	13.02
3350	Crane Type I	6	4.22	15.00	10.78
3400	Tractor, Type II	11	11.30	12.00	0.70
3410	Tractor, Beach	4	6.56	6.00	(0.56)
3420	Tractor, Beach, Type II, Large	3	7.73	6.00	(1.73)
3450	Tractor, Type II A	14	9.44	12.00	2.56
3500	Tractor, Type III	6	13.01	12.00	(1.01)
3700	Trailer	66	11.61	25.00	13.39
3850	Air Compressor	20	9.97	15.00	5.03
3860	Air Compressor, CNG	1	6.05		
3900	Generator	9	15.52	25.00	9.48
3910	Generator, Stationary	29	14.91		
4090	Beach Cleaner, Small	1	6.31	6.00	(0.31)
4100	Beach Cleaner, Large	2	5.90	6.00	0.10
4150	Sand Separator	1	10.09	8.00	(2.09)

Exhibit 3 (4)

Class	Description	Number	Ave. Age Years	Replace Criteria	Under/ <Over>
4200	Bean Sprayer	4	12.96		
4300	Stump Cutter	3	8.08	8.00	(0.08)
4600	Misc. Construction Equipment	44	9.33		
4610	Steam Cleaner, Portable	1	1.83		
4650	Welder	10	8.09	10.00	1.91
4660	Welder, CNG	2	17.35		
4700	Helicopter	5	8.83		
4750	Mobile Command Center	10	6.05		
	TOTAL	**1,877**	**8.17**		

Exhibit 4 (1)

Trends in Expenditures for the Fleet Services Fund

SUB-OBJ.	DESCRIPTION	FY 1999	FY 2000	FY 2001	FY 2002
100001	PERMANENT-FULL-TIME	$2,706,426	$2,935,550	3,170,219	3,455,366
103002	PART-TIME TEMPORARY	10,096	13,370	3,347	6,332
110001	OVERTIME	690,365	763,238	500,532	402,074
110002	STANDBY	3,261	10,181	7,989	15,762
110004	CALL BACK	23,217	39,623	40,120	23,611
110005	BANKED	12,660	18,780	16,792	20,438
110006	FLSA OVERTIME	1,242	1,036	431	654
121001	VACATION/HOLIDAY	370,391	461,135	513,962	565,681
121002	SICK LEAVE -	77,242	82,020	83,910	92,211
130012	AUTO ALLOWANCE	12,985	12,818	13,260	11,100
131001	RETIREMENT PERS	258,873	0	0	0
131002	RETIRE-PENSION BONDS	244,615	279,574	255,567	270,340
131003	RETIREMENT-PARS PSTS	39	122	165	59
131004	FICA	236,812	259,262	254,840	272,507
131005	MEDICARE	56,013	61,868	61,558	65,024
131006	HEALTH/DENTAL/LIFE	456,758	513,366	515,131	541,039
131007	PAYROLL/BENEFITS OVERHEAD	138,861	130,173	137,074	164,539
141001	WORKERS COMPENSATION	218,748	131,969	131,969	141,657
Sub-Total		**5,518,604**	**5,714,085**	**5,706,866**	**6,048,394**
200001	POWER	22,046	114,653	131,535	206,402
200002	TELEPHONE-COMMUNICATIONS	86	63	239	213
200003	GAS	7,020	13,143	15,038	2,351
200004	WATER	0	0	2,078	13,841
200005	SEWER	0	0	243	1,522
200006	REFUSE	0	0	482	1,971
203001	NATURAL GAS	146,674	174,771	186,518	150,837
205004	FINANCIAL SVC.	52,702	16,185	43,570	13,409
205009	ENGINEERING	0	0	42,994	0
205011	OTHER CONTRACTUAL SVC.	0	618,876	1,172,804	489,400
205015	INSPECTIONS	0	0	0	34,866
205036	SECURITY SVC.	0	0	0	2,520
210002	ELECTRICAL CONTRACTS	0	0	539	11
205099	CONSULTING SVC.	41,629	8,057	0	0
210030	FENCING CONTRACTORS	0	0	0	2,475
210008	CONTRACT SVC.	1,380,457	643,370	4,998	0
213001	UNIFORM CLEANING	17,349	16,976	21,539	20,613
220001	OFFICE EQUIPT. & MAINT.	1,245	0	160	0
220002	MACHINERY & EQUIP.	44,412	92,338	74,635	88,460
220003	STRUCTURAL MAINT.	5,247	983	1,020	0

Exhibit 4 (2)

SUB-OBJ.	DESCRIPTION	FY 1999	FY 2000	FY 2001	FY 2002
220004	AUTOMOTIVE REPAIRS	562,208	572,935	483,737	1,711,099
220007	SOFTWARE MAIINT.	0	0	0	1,156
225001	RELOCATION PAYMENTS/MAINT.	1,379	426	0	0
233001	OFFICE MACHINE RENTALS	6,683	339	349	10,766
233002	MACHINERY & EQUIP. - RENTAL	0	0	0	120,070
235001	PRINTING	0	0	674	415
245001	TRAINING	14,409	19,997	5,583	20,392
245004	TRAINING	0	0	1,097	1,825
250001	ELECTRICAL MATERIALS	44	0	0	212
250002	PLUMBING MATERIALS	0	1,918	14	0
250003	PAINT AND PAINTING SUPPLIES	0	0	0	0
250005	JANITORIAL SUPPLIES	25,570	27,113	14,263	31,991
250006	AIR CONDITIONING & HEATING	0	0	0	1,405
250007	OTHER BUILDING MATERIALS	57,280	56,811	112,592	49,987
250008	SMALL TOOLS	105,081	204,373	164,523	96,648
250010	WELDING SUPPLIES	35,969	31,902	10,474	12,677
250018	SAFETY EQUIPT.	0	0	0	29,710
260001	OFFICE SUPPLIES	22,298	26,944	15,059	17,174
260002	EQUIP & FURNITURE <$5,000	1,186	65,607	17,272	5,828
260006	BOOKS	0	385	0	0
265001	POSTAGE	0	17	0	110
265002	DELIVERY SERVICE	0	0	0	104
270001	MACHINERY & EQUIPT. PARTS	901	6,298	15,904	27,738
270002	AUTO EQUIPMENT	1,972,456	2,177,335	1,571,575	1,774,661
270003	MARINE PARTS	134,572	202,716	184,909	33,250
270004	HELICOPTER PARTS	547,217	427,345	522,015	489,815
270006	MOTOR OILS & LUBRICANTS	109,890	93,800	96,562	88,681
270007	TIRES AND TUBES	103,992	288,178	257,025	189,895
270008	STREET SWEEPER PARTS	258,423	461,838	444,384	485,873
271001	MOTOR FUELS	1,485,172	2,149,560	2,262,940	1,820,869
273003	PARKING REIMBURSEMENT	0	0	0	5
275001	SERVICE AWARDS	5,524	7,649	6,740	3,958
275002	INCENTIVE AWARDS	0	0	0	3,220
278001	TRAVEL EXPENSE	12,801	16,028	6,708	16,823
278002	TRAVEL-STATE	0	64	0	0
280001	MEMBERSHIPS	6,177	5,865	4,975	1,681
280002	SUBSCRIPTION	0	0	3,508	6,086
280003	BUSINESS MEALS	0	0	0	64
283003	OTHER GEN. INS. CHARGES	9,849	8,253	0	0
290001	PROPERTY TAXES	0	480	0	0
290002	PERMIT FEES/LICENSES	0	0	0	1,564
290004	OTHER TAXES/ASSESSMENTS	36,526	51,434	33,976	41,885
300001	ELECTRONIC SYSTEM CHARGES	53,566	33,365	19,246	20,376

Exhibit 4 (2)

SUB-OBJ.	DESCRIPTION	FY 1999	FY 2000	FY 2001	FY 2002
300002	ACCOUNTING SYSTEM DEBT	9,464	8,742	0	0
300003	FLEET SVC.	10,597	0	0	0
300004	INFORMATION SERVICES	135,052	138,334	169,186	146,844
300005	VOICE COMMUNICATION SYS.	69,492	48,406	49,325	39,578
300006	REPROGRAPHICS	3,350	3,744	3,015	2,831
300007	MAIL DELIVERY AND SORTING	3,719	3,594	3,594	3,593
300008	POSTAGE	1,141	1,078	1,036	2,289
300009	EMPLOYEE PARKING	0	3,000	3,000	1,850
3000012	PAGERS	0	1,888	2,354	1,979
3000013	CELL PHONES	0	21,245	25,297	18,654
300014	FINANCIAL SYSTEM CHARGES	0	1,502	16,677	16,334
310001	CD PROPERTY MGMT.	16,872	0	0	0
310004	LIABILITY INSURANCE ALLOC.	55,210	76,519	76,519	42,966
310010	MISCELLANEOUS	110,517	99,436	75,492	57,713
310011	PUBLIC SVC.	15,044	12,045	16,440	16,317
310019	PROPERTY/MISC. INS. ALLOC.	0	0	22,084	20,873
330001	GENERAL CITY OVERHEAD	194,988	194,988	291,600	0
330002	DEPARTMENTAL	104,616	0	124,416	0
330003	BUREAU OVERHEAD	0	0	-167,918	0
330006	ADJUSTMENT TO PRIOR YEAR	73,535	0	133,236	0
Sub-Total		**8,091,637**	**9,252,911**	**8,799,849**	**8,518,725**
350007	AUTOMOTIVE MACHINERY	5,344,031	5,838,638	13,680,298	4,644,591
350008	OFFICE MACHINERY	0	0	7,095	0
350009	OTHER MACHINERY	34,714	92,026	98,728	52,466
350011	FURNITURE ANN FIXTURES	0	0	9,187	0
350012	SOFTWARE SYSTEMS	35,414	178,994	82,311	3,869
Sub-Total		**5,414,159**	**6,109,658**	**13,877,619**	**4,700,926**
400001	INTEREST EXPENSE	0	1,857,604	1,832,404	1,806,204
410001	PRINCIPAL EXPENSE	0	630,000	655,000	680,000
420002	FISCAL AGENT FEES	7,950	6,945	3,400	256
Sub-Total		**7,950**	**2,494,549**	**2,490,804**	**2,486,460**
450001	EXP TRSF/PERSONAL	-168,011	-167,918	0	158,188
450003	EXP TRSF/INTER-DEPT.	0	0	0	16,251
455001	TO GENERAL FUND	2,450,000	0	0	0
Sub-Total		**$2,281,989**	**($167,918)**	**$0**	**$174,439**
TOTAL		**$21,314,339**	**$23,403,285**	**$30,875,138**	**$21,928,944**

Exhibit 5 (1)

Maintenance and Repair Expenditures By Class of Vehicles

Class Number	Class	Work Order Labor Hours	Work Order Labor $	Work Order Parts $	Commercial Labor $	Commercial Part $	Commercial Misc. $	Commercial Tax $	Total $
0050	Motorcycle	806.24	$58,855	$88,549.13	$640.00	$523.60	$0.00	$71.59	$148,639.07
0110	ATV's	20.46	$1,543	$423.49	$0.00	$0.00	$0.00	$0.00	$1,966.29
0150	Truckster	293.86	$21,747	$9,475.04	$2,088.19	$723.21	$49.50	$54.99	$34,137.64
0300	Sedan	633.30	$46,483	$8,712.40	$5,531.85	$3,998.07	$272.14	$313.65	$65,310.81
0310	Sedan, CNG	1,207.15	$88,684	$15,228.28	$5,566.99	$3,469.12	$183.10	$265.84	$113,397.62
0400	Police/Fire Solid	2,280.74	$168,316	$37,570.18	$13,783.06	$11,842.21	$970.24	$888.69	$233,369.94
0410	Police/Fire Solid, CNG	135.50	$9,889	$2,960.73	$241.40	$759.68	$144.69	$10.52	$14,006.11
0420	Blue & White, Marine	145.47	$10,644	$5,019.14	$674.96	$799.48	$0.00	$59.97	$17,197.85
0440	Black & White Sedan, CNG	1,698.18	$131,116	$47,729.07	$4,056.61	$5,020.63	$163.38	$351.68	$188,437.78
0450	Black & White Sedan	12,538.19	$967,060	$254,560.02	$80,094.74	$88,587.63	$2,963.56	$6,486.47	$1,399,752.45
0460	Black & White, K-9	424.06	$31,026	$6,356.30	$2,510.03	$1,277.65	$21.95	$84.39	$41,276.36
0600	Utility Large, Fire/K-9	394.14	$29,001	$7,998.80	$5,137.13	$5,918.48	$1,072.55	$559.56	$49,687.87
0620	Utility Large, Police	488.84	$37,590	$8,000.51	$1,747.02	$1,659.96	$11.00	$122.70	$49,131.23
0650	Beach Pickup	37.09	$2,708	$584.30	$0.00	$0.00	$0.00	$0.00	$3,292.59
0660	Utility Vehicle, Small	1,529.06	$112,259	$26,136.38	$12,571.64	$12,177.17	$241.76	$680.69	$164,066.19
0670	Utility Vehicle, Small, CNG	537.64	$39,628	$10,347.33	$656.43	$545.60	$81.53	$46.27	$51,304.93
0700	Step Van	162.26	$12,329	$3,907.22	$1,581.25	$580.80	$6.53	$37.62	$18,442.14
0730	Mini Van, CNG	227.41	$16,706	$2,999.18	$3,818.15	$1,706.36	$8.25	$120.54	$25,358.35
0740	Mini Van	631.82	$46,457	$10,103.43	$2,770.68	$2,646.83	$66.00	$197.57	$62,241.26
0750	1/2 Ton Van	584.96	$43,104	$12,837.82	$1,378.36	$1,698.04	$5.48	$126.02	$59,150.03
0760	1/2 Ton Van, CNG	81.19	$6,071	$954.72	$0.00	$233.97	$0.00	$17.02	$7,276.59
0800	3/4 Ton Van	118.05	$8,726	$1,753.41	$35.15	$0.00	$0.00	$0.00	$10,514.47
0810	3/4 Ton Van, CNG	97.93	$7,220	$3,288.95	$0.00	$162.34	$0.00	$11.81	$10,683.08

Exhibit 5 (2)

Class Number	Class	Work Order Labor Hours	Work Order Labor $	Work Order Parts $	Commercial Labor $	Commercial Part $	Commercial Misc. $	Commercial Tax $	Total $
0840	1 Ton Van, Diesel	38.33	$2,904	$1,038.38	$0.00	$0.00	$0.00	$0.00	$3,942.06
0850	1 Ton Van	504.95	$37,297	$10,332.88	$2,184.60	$2,701.59	$231.47	$201.53	$52,949.04
0860	1 Ton Van, CNG	530.15	$38,837	$10,486.51	$321.15	$409.78	$0.00	$30.73	$50,085.52
0900	Mini Pickup	275.36	$20,251	$5,546.33	$1,641.20	$1,175.05	$11.00	$38.88	$28,663.05
0910	Parking Enforcement, Truck	672.78	$49,191	$9,490.12	$4,330.92	$4,283.73	$142.76	$308.55	$67,746.67
0950	Truck, Mini Stake Bed	22.53	$1,710	$55.15	$0.00	$250.40	$0.00	$18.78	$2,033.86
1000	1/2 Ton Pickup	804.41	$59,016	$18,115.35	$3,286.65	$3,672.79	$173.93	$278.41	$84,543.37
1010	1/2 Ton Pickup, CNG	400.47	$30,186	$5,551.17	$1,243.83	$2,349.93	$0.00	$119.01	$39,449.57
1040	3/4 Ton Pickup, Diesel	29.48	$2,392	$643.79	$0.00	$121.05	$0.00	$8.99	$3,165.56
1050	3/4 Ton Pickup	577.11	$42,766	$11,847.94	$3,014.90	$3,570.89	$154.54	$158.93	$61,513.08
1060	3/4 Ton Pickup, CNG	1,748.84	$130,394	$37,382.93	$8,798.06	$6,042.96	$124.92	$408.62	$183,151.97
1070	1 Ton Crew Cab	1,098.15	$80,362	$2,148.61	$1,505.90	$1,124.17	$0.00	$84.31	$85,225.11
1100	1 Ton Pickup	55.33	$4,039	$2,747.89	$0.00	$0.00	$0.00	$0.00	$6,787.22
1160	Aerial Bucket, Small	383.23	$28,697	$5,386.30	$3,441.63	$4,414.52	$10.56	$321.81	$42,272.28
1200	Truck, Animal Control	310.12	$22,649	$6,505.16	$146.51	$6.05	$0.00	$0.44	$29,307.46
1240	Large Tow Truck	6.47	$472	$266.32	$0.00	$0.00	$0.00	$0.00	$738.48
1250	Tow Truck, Wheel Lift, Diesel	261.42	$19,703	$9,409.39	$3,975.42	$2,981.02	$7.04	$89.44	$36,165.11
1260	Tow Truck, Wheel Lift, Gas	38.68	$3,104	$1,288.94	$0.00	$0.00	$0.00	$0.00	$4,392.49
1270	Tow Truck, Roll Off, Diesel	175.27	$13,381	$6,662.67	$1,426.70	$1,517.12	$392.92	$111.88	$23,492.65
1280	Tow Truck, Wheel Lift, Med Duty	92.69	$7,279	$4,098.97	$2,732.44	$467.50	$0.00	$34.28	$14,612.23
1310	Aerial Bucket, Heavy	518.26	$40,175	$7,080.06	$247.50	$0.00	$495.00	$0.00	$47,997.78
1340		6.18	$468	$0.00	$0.00	$0.00	$0.00	$0.00	$467.58
1350	Truck, 3/4 Ton Service Body	1,162.88	$87,653	$25,286.72	$2,742.98	$4,427.30	$225.59	$294.01	$120,630.00
1360	Truck, 3/4 Ton Service Body, CNG	161.67	$12,024	$2,143.58	$147.95	$696.92	$0.00	$52.15	$15,064.51
1390	Flat Bed Truck, Diesel	224.92	$17,788	$7,105.17	$132.00	$99.00	$0.00	$7.43	$25,131.13

Exhibit 5 (3)

Class Number	Class	Work Order Labor Hours	Work Order Labor $	Work Order Parts $	Commercial Labor $	Commercial Part $	Commercial Misc. $	Commercial Tax $	Total $
1400	Flat Bed Truck	816.76	$62,224	$19,433.94	$3,840.10	$2,851.22	$5.48	$212.74	$88,567.13
1450	1 Ton Service Truck	631.52	$47,346	$15,128.83	$3,333.00	$4,558.40	$226.14	$275.29	$70,867.19
1460	1 Ton Service Truck, CNG	68.65	$5,814	$1,724.98	$0.00	$0.00	$0.00	$0.00	$7,538.99
1500	Truck, Line Construction	196.06	$16,253	$6,019.21	$5,247.00	$23,890.25	$944.22	$1,743.47	$54,097.61
1510		56.24	$4,449	$253.83	$3,761.93	$14,773.00	$632.50	$1,080.47	$24,950.71
1540	Truck, Meter Diesel	51.28	$3,856	$1,256.01	$638.00	$474.94	$5.48	$33.02	$6,263.58
1550	Truck, Meter	164.51	$12,196	$3,662.69	$1,321.05	$407.00	$9.63	$31.24	$17,627.24
1560	Truck, Meter, CNG	148.05	$11,008	$2,776.35	$1,591.70	$1,224.18	$47.55	$94.99	$16,743.17
1650	Truck, 2 Ton Service	175.83	$14,030	$4,332.50	$297.00	$636.27	$0.00	$47.72	$19,343.84
1660	Truck, 2 Ton Service, CNG	91.10	$7,054	$2,316.81	$0.00	$49.50	$0.00	$3.71	$9,423.76
1700	Truck, Street Lighting	30.68	$2,249	$143.95	$35.20	$580.80	$0.00	$43.56	$3,052.04
1750	Truck, Tanker	20.51	$1,497	$18.87	$3,396.25	$557.81	$220.00	$49.52	$5,739.90
1800	Survey Truck	16.69	$1,360	$55.09	$22.00	$275.00	$0.00	$20.63	$1,732.80
1810	Survey Truck, Diesel	51.71	$4,093	$1,602.21	$0.00	$0.00	$0.00	$0.00	$5,695.28
1850	Truck, Tractor	455.43	$34,976	$8,343.07	$619.30	$707.85	$0.00	$4.12	$44,649.94
1950	Truck, Welder	125.91	$9,809	$3,640.59	$0.00	$0.00	$0.00	$0.00	$13,449.50
1960	Truck, Welder, CNG	62.14	$4,917	$1,609.05	$0.00	$0.00	$0.00	$0.00	$6,526.02
2000	Forklift, Light	343.18	$27,128	$7,410.68	$63.80	$148.92	$0.00	$11.17	$34,762.73
2010	Forklift, Heavy	403.76	$30,041	$7,151.33	$3,676.55	$1,792.18	$0.00	$151.24	$42,812.73
2040	Truck, 1 Ton, Diesel	21.18	$1,698	$443.85	$0.00	$0.00	$0.00	$0.00	$2,141.92
2050	Truck, 1 Ton Dump	736.30	$55,310	$20,371.40	$1,920.60	$3,279.76	$47.55	$214.49	$81,143.89
2100	Dump Truck, Type II	555.68	$43,106	$7,410.82	$5,689.34	$1,517.02	$291.50	$112.86	$58,127.29
2150	Dump Truck, Type III	1,975.09	$150,598	$72,583.14	$2,918.30	$3,064.15	$137.95	$195.02	$229,496.89
2250	Sweeper, Three Wheel	4,949.57	$361,469	$435,231.09	$3,456.20	$6,404.93	$0.00	$482.59	$807,043.40
2300	Sweeper, Leaf	99.81	$8,464	$1,445.59	$1,540.00	$607.26	$2.75	$42.78	$12,102.76
2350	Sweeper, Parking Lot	39.36	$3,132	$1,435.37	$0.00	$0.00	$0.00	$0.00	$4,567.33

Exhibit 5 (4)

Class Number	Class	Work Order Labor Hours	Work Order Labor $	Work Order Parts $	Commercial Labor $	Commercial Part $	Commercial Misc. $	Commercial Tax $	Total $
2360		136.46	$10,035	$12,397.69	$0.00	$0.00	$0.00	$0.00	$22,432.52
2370	Sweeper, 3 Wheel, Vacuum	3,014.22	$220,037	$174,273.24	$3,764.75	$2,390.93	$0.00	$164.13	$400,629.67
2380	Sweeper, 4 Wheel, Vacuum	651.36	$47,603	$17,458.74	$1,408.00	$418.00	$0.00	$21.04	$66,909.06
2500	Street Flusher	179.07	$14,181	$2,740.26	$350.90	$506.00	$0.00	$37.95	$17,815.87
2550	Packer, 17 Yard	528.63	$38,692	$16,324.20	$96.25	$69.30	$0.00	$5.20	$55,187.43
2600	Packer, 20 Yard	3,021.34	$220,946	$145,895.95	$20,592.33	$22,528.99	$1,612.38	$1,679.91	$413,255.15
2610	Packer, 25 Yard	2,151.24	$157,155	$91,820.71	$1,793.00	$5,814.56	$385.00	$436.13	$257,404.73
2620	Refuse Packer, Side Loader	11,795.72	$861,339	$732,097.99	$159,127.83	$133,018.01	$761.72	$8,127.36	$1,894,471.50
2630	Refuse Packer, Side Loader, CNG	1,605.81	$117,282	$71,972.13	$1,721.12	$4,524.12	$155.54	$144.81	$195,799.93
2650	Refuse Packer, Beach	256.37	$19,407	$10,447.14	$720.50	$544.50	$0.00	$40.84	$31,159.78
2700	Paramedic, Ambulance	1,584.36	$115,989	$49,244.62	$2,322.98	$4,243.18	$18.32	$318.75	$172,136.54
2750	Aerial Ladder, Fire	767.76	$56,339	$21,907.02	$7,294.97	$9,789.44	$16.50	$738.54	$96,085.34
2850	Pumper, Fire	3,866.88	$283,084	$133,258.61	$50,567.14	$23,579.23	$297.03	$2,767.02	$493,553.26
2860	Pumper, Squirt	668.33	$48,787	$20,206.75	$158.40	$0.00	$0.00	$0.00	$69,152.21
2900	Airport Crash, Pickup	27.07	$2,007	$1,967.74	$0.00	$0.00	$0.00	$0.00	$3,974.45
2950	Airport Crash, Large	277.68	$20,538	$19,783.46	$330.00	$227.15	$0.00	$16.69	$40,894.90
3000	Fire/Rescue Boat	1,228.00	$89,644	$48,841.62	$14,431.56	$7,436.59	$3,773.94	$151.99	$164,279.70
3040	Patrol Boat	22.90	$1,672	$401.44	$0.00	$0.00	$0.00	$0.00	$2,073.15
3050	Boat I	742.00	$54,166	$20,873.41	$2,615.25	$2,249.87	$0.00	$168.75	$80,073.28
3150	Tandem Roller	30.86	$2,253	$237.73	$0.00	$0.00	$0.00	$0.00	$2,491.00
3200	Tractor Mower, Large	146.88	$11,048	$11,364.90	$0.00	$0.00	$0.00	$0.00	$22,413.19
3250	Mower, Riding, Small	61.76	$4,860	$2,685.52	$0.00	$111.71	$0.00	$8.38	$7,665.65
3300	Pavement Grinder	79.10	$6,094	$425.00	$0.00	$21.13	$0.00	$1.16	$6,541.27
3350	Crane Type I	159.90	$12,624	$2,243.03	$90.75	$305.64	$7.26	$23.43	$15,293.73
3400	Tractor, Type II	362.74	$28,928	$11,614.05	$71.50	$27.50	$0.00	$2.06	$40,642.67

Exhibit 5 (5)

Class Number	Class	Work Order Labor Hours	Work Order Labor $	Work Order Parts $	Commercial Labor $	Commercial Part $	Commercial Misc. $	Commercial Tax $	Total $
3410	Tractor, Beach	535.38	$45,415	$43,412.66	$324.50	$311.09	$0.00	$21.05	$89,484.55
3420	Tractor, Beach, Type II, Large	408.68	$34,741	$18,479.10	$1,125.30	$709.57	$536.80	$54.71	$55,646.93
3450	Tractor, Type II A	495.45	$39,160	$11,019.01	$165.00	$411.29	$0.00	$20.77	$50,776.06
3500	Tractor, Type III	699.04	$55,000	$15,334.32	$4,031.50	$11,965.31	$0.00	$896.49	$87,227.53
3700	Trailer	517.75	$39,358	$11,808.05	$0.00	$779.30	$0.00	$58.46	$52,004.30
3850	Air Compressor	332.77	$27,778	$10,293.62	$687.50	$769.88	$6.60	$56.52	$39,592.19
3860	Air Compressor, CNG	21.83	$1,754	$105.06	$0.00	$0.00	$0.00	$0.00	$1,858.72
3900	Generator	87.20	$6,963	$1,698.29	$1,974.28	$8,295.87	$0.00	$619.94	$19,551.68
3910	Generator, Stationary	674.35	$54,612	$764.49	$0.00	$143.00	$0.00	$10.73	$55,530.40
4090	Beach Cleaner, Small	221.23	$18,462	$1,707.34	$94.05	$537.61	$0.00	$39.23	$20,839.90
4100	Beach Cleaner, Large	248.50	$21,124	$5,788.71	$0.00	$0.00	$0.00	$0.00	$26,912.47
4150	Sand Separator	24.23	$2,003	$3.53	$49.50	$0.00	$0.00	$0.00	$2,055.57
4200	Bean Sprayer	36.40	$2,734	$247.10	$0.00	$0.00	$0.00	$0.00	$2,981.31
4300	Stump Cutter	89.78	$7,139	$815.85	$0.00	$93.50	$0.00	$7.01	$8,055.73
4600	Misc. Construction Equipment	248.64	$19,194	$5,243.55	$1,657.70	$1,081.18	$9.67	$79.97	$27,265.83
4610	Steam Cleaner, Portable	0.82	$60	$0.00	$0.00	$0.00	$0.00	$0.00	$59.62
4650	Welder	33.90	$2,663	$471.05	$77.00	$0.00	$0.00	$0.00	$3,211.36
4660	Welder, CNG	1.12	$95	$0.00	$0.00	$0.00	$0.00	$0.00	$95.06
4750	Helicopter	143.56	$11,053	$1,412.20	$593.56	$1,873.70	$1,184.41	$137.19	$16,254.42
	TOTAL	**85,647.29**	**$6,407,992.86**	**$3,131,004.29**	**$507,808.42**	**$497,220.19**	**$19,567.31**	**$34,782.61**	**$10,598,375.68**

3. COMPARISON SURVEY

3. COMPARISON SURVEY

As part of the analysis of the Fleet Services Bureau, the Matrix Consulting Group conducted a survey of fleet service department of cities comparable in population to Long Beach. Of the eleven selected cities, nine opted to participate. The nine cities are listed below.

- Charlotte, North Carolina
- Fresno, California
- Fort Worth, Texas
- Kansas City, Missouri
- Las Vegas, Nevada
- Oklahoma City, Oklahoma
- Sacramento, California
- Virginia Beach, Virginia
- Winston-Salem, North Carolina

Information was collected from the participating cities with regard to the type and level of services provided, staffing levels, equipment replacement criteria, and cost recovery. The following sections highlight the results.

1. STAFFING AND SERVICES COMPARISON

The participating cities provided information about their fleet services department, including fleet customers, total number of full-time equivalent positions, department organization, operating hours, and the overall size and characteristics of the fleet.

City	Services Not Provided by Fleet	Total Staff	Total Fleet Units
Charlotte	Aviation, Transit	85	4,292
Fort Worth	None	127	4,139
Fresno	Fire Apparatus, Transit Buses	70	1,752
Kansas City	Aviation, Police, Water	59	1,448
Las Vegas	Fire Engines, EMS	43	1,204
Long Beach	**Water, Harbor**	**100***	**1,877**
Oklahoma City	Fire, Refuse, Transit / Buses, Water	41	1,326
Sacramento	None	91	2,300
Virginia Beach	None	81	5,800
Winston-Salem	Fire, Transit, Landfill	36	1,672

* Excludes Towing and Lien Sales personnel

Important points to note concerning the table, as well as additional information provided by the responding cities, are provided below.

- Fort Worth, Sacramento, and Virginia Beach provide fleet services to all city departments.
- Virginia Beach had the largest fleet with approximately 5,800 units. Fleets in Charlotte and Fort Worth were approximately 4,100 units.
- Long Beach and Fort Worth had the highest number of full-time equivalent staff.

The table below presents responsibilities of the fleet maintenance and management bureaus in these various cities.

City	Acquisition of Equipment	Specification Development	Equipment Disposal	Receipt and Titling of New Equipment	Underground Storage Tank Remediation and Abatement
Charlotte	No	Yes	Yes	Yes	No
Fort Worth	Yes	Yes	Yes	Yes	Yes
Fresno	Yes	Yes	Yes	Yes	No
Kansas City	Yes	Yes	Yes	Yes	No
Las Vegas	Yes	Yes	Yes	Yes	No
Long Beach	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Oklahoma City	Yes	Yes	Yes	Yes	No
Sacramento	Yes	Yes	Yes	Yes	Yes
Virginia Beach	Yes	Yes	Yes	Yes	No
Winston-Salem	Yes	Yes	Yes	Yes	No

With the exception of Charlotte, all departments are responsible for similar areas including the acquisition of equipment, development of specification for new equipment,

disposal, and receipt and titling of new equipment.

Most of the fleet management and maintenance functions are not responsible for underground storage tank remediation and abatement. In most instances, this role is fulfilled by the Public Works Department as a capital improvement program project. Overall, the majority of fleet services departments are responsible for maintaining (i.e. ordering and dispensing) the fuel, but are not responsible for the permitting or abatement of tanks that have leaked.

2. OPERATING HOURS

These cities provided data concerning the number of maintenance shops as well as hours of operation. The table below provides a summary of the information.

City	Number of Shops	Days per Week	Hours per Week
Charlotte	4	– All Monday to Friday	– 3 Shops 6:00 am to 10:00 pm – 1 Shop 6:00 am to 3:00 pm
Fresno	3	– Two shops Monday to Friday – One shop Monday to Saturday	– The Main Shop operates M (6:00 am to 10:30 pm); T -TH (5:30 am to 12:00 am), F (5:30 am to 10:30 pm) and Sat (6:00 am to 2:30 pm). – 1 shop 7:00 am to 4:30 pm – 1 Shop 6:30 am to 9:00 pm
Fort Worth	6	– All Monday to Friday	– 1 Shop 6:00 am to 1:30 am – 1 Shop 6:00 am to 10:30 pm – 1 Shop 6:30 am to 9:00 pm – 1 Shop 7:00 am to 5:30 pm – 1 Shop 7:00 am to 6:30 pm – 1 Shop 7:00 am to 3:30 pm
Kansas City	3	– All Monday to Friday	– 1 Shop 7:30 am to 11:30 pm – 2 Shops 7:30 am to 4:00 pm
Las Vegas	4	– All Monday to Friday	– 4 Shops 4:00 am to 4:30 pm
Long Beach	**4**	**– All Monday to Friday**	**– 7 Shops 5:30 to 8:00 pm**
Oklahoma City	2	– All Monday to Friday	– 1 Shop 9:00 am to 5:00 pm – 1 Shop 6:00 am to 3:00 pm and 10:00 pm to 7:00 am
Sacramento	8	– 2 Shops 7 Days per Week – 6 Shops Monday to Friday	– 2 Shops 5:30 am to 10:30 pm – 3 Shops 5:30 am to 11:00 pm – 3 Shop 7:30 am to 4:30 pm
Virginia Beach	2	– 3 Shops 5 Days per Week – 1 Shop 4 Days per Week	– 2 Shops 7:00 am to 5;00 pm – 2 Shops 7:00 am to 2:00 am
Winston-Salem	1	– All Monday to Friday	1 Shop 6:30 am to 11:00 pm

The points below further discuss the data contained in the table.

- Charlotte operates four shops, which provide maintenance services to specific classifications of vehicles. One shop is dedicated to heavy equipment, one shop to both heavy equipment and construction equipment, one shop is the small engine shop and the last shop handles light vehicles. The small engine shop is the only shop with staff working one shift from 6:00 am to 3:00 pm. All other shops operated from 6:00 AM to 10:00 PM.

- Fresno operates three shops. The main shop has a variety of hours ranging from 5:30 am to 12:00 am and is open 6 days of the week (Monday through Saturday). One shop handles repair and maintenance on Police Department vehicles. The Water Yard Shop is staffed from 6:30 am to 9:00 pm, Monday through Friday.

- Fort Worth operates six shops, all of which are open Monday through Friday. Each shop has primary customer departments. One shop provides service to the Transportation Department and the Parks and Community Services Department. Another shop services the Police Department, as well as other functions based in City Hall. One service center's primary customers are the Solid Waste Division and the Street Department; while another center services the Water / Sewer Department. A fifth service center handles fire apparatus and equipment. The sixth service center is the tire service center and provides services to all city vehicles. Three of these shops operate two shifts: a day shift and a swing shift.

- Kansas City provides fleet services through one main shop with hours from 7:30 am to 11:30 pm Monday through Friday, and two satellite shops with hours from 7:30 am to 4:00 pm, Monday through Friday.

- Sacramento operates eight shops from four locations within the City. As the City reported, one location includes the following shops: maintenance and repair, fire shop, service shop, and body shop. There are two shops, which are located at- and provide service to police substations. There is also one light duty maintenance shop. Five of these shops operate a day shift and swing shift.

- Many of the surveyed departments are not installing the light bars and other electronic equipment for the Police fleet. Those cities include Fort Worth, Kansas City, Las Vegas, and Virginia Beach. In both Kansas City and Fort Worth, light bar installation is completed by the Police Department. In the City of Long Beach, Fleet Services provides electronics installation and repair.

- Cities are handling tire installation and repairs in different ways. For example, the City of Fort Worth operates two road service trucks that handle all tire repairs and installations during business hours; after hours this service is provided by contract. Kansas City contracts for installation and repair service. The City of Las Vegas operates a tire shop that provides all level of services to all equipment

with the exception of off road equipment and fire apparatus. Sacramento provides tire services to light and medium equipment, but contracts for services for heavy equipment.

The overall operating hours of the cities vary, but on the whole are longer than the operating hours provided by the Fleet Services Bureau of the City of Long Beach. For example, Kansas City and Sacramento both operate their shops until 11:30 pm. Virginia Beach and Forth Worth operate shops until 2:00 am and 1:30 am, respectively.

3. LABOR RATES, PARTS FUEL AND REPAIR MARKUPS

Participating cities were asked to provide data regarding their labor rates, parts, fuel and repair markups, as well as information about cost recovery activities. The following table summarizes this information.

City	Cost of Living Index	Labor Rate	Parts Markup	Commercial Repair Markup	Fuel Markup	Additional Charges
Oklahoma City*	91.0	N / A	N / A	N / A	N / A	N / A
Fresno	110.8	$60.65	20%	5%	20%	N / A
Charlotte	95.7	$46.00	20%	N / A	N / A	– Administration Charge of $24.80 per Vehicle per Month
Virginia Beach	96.9	$61.00	30%	15%	$0.15 for City Site $0.07 Commercial	N / A
Fort Worth	97.4	$45.00	37%	10%	$0.12	– Administration Charge of $225 per Piece of Equipment
Kansas City	103.3	$52.00	35%	10%	30%	– Over the Counter Commodity Markup of 10% – Other Auto Parts Markup of 25%
Las Vegas	105.1	$45.00	25%	N/A	$0.08	N / A
Sacramento	123.8	$62.46	18%	None	$0.17	N / A
Long Beach	**137.8**	**$73.00**	**42%**	**13%**	**$0.42**	**N / A**
Winston-Salem	N / A	$50	26%	13%	$0.15	N / A

The labor rates appear to be related to local cost of living indexes. The cities with the highest labor rates also generally have the highest cost of living indexes as reported

by the American Chamber of Commerce Research Association.

The following points highlight information contained in the table.

- Long Beach had the highest cost of living compared to the surveyed cities. The City also had the highest labor rate ($73.00), parts markup (42%), and fuel markup ($0.42) of the participating cities.

- Sacramento, Fresno, and Virginia Beach had similar labor rates at $62.46, $60.65, and $61.00 per hour, respectively.

- While Long Beach has the highest parts markup (42%), Fort Worth (35%) and Kansas City (37%) had similarly high markup rates. Sacramento's parts markup was the lowest at 18%.

In addition to collecting data from these eight cities, labor rates were collected from private maintenance and repairs shops local to the Long Beach area. These shop labor rates were collected in October 2002, and are presented in the table below. The table provides a comparison of labor rate charges for the local privately run maintenance and repair shops.

Light – Medium Duty Lines	
Local Shop	**Rate**
Worthington Ford	$79.00
Pacific Ford	$82.50
Downey Ford	$80.00
Don Knott Ford	$89.00
S&J Chevrolet	$71.93
Harbor Chevrolet	$72.00
Mike Salta Chrysler	$79.00
Moothart Chrysler	$75.00
Long Beach Honda	$74.00
Norm Reeves Honda	$82.50
Gardena Honda	$70.00
Cabe Toyota	$75.00
Carson Toyota	$75.00
Heavy Duty Lines	
Local Shop	**Rate**
PTO Sales (Truck Body)	$74.00
Peck Road Ford (Truck Body)	$75.00
Detroit Diesel Valley (Truck Engines)	$80.00
Cummins (Truck Engines)	$95.50
Local Shop	**Rate**
CAT Power Systems (Truck Engines)	$81.00
Detroit Diesel Valley (Transmissions)	$80.00
Harbor Diesels	$80.00

Mack Tech of California (Cab / Chassis)	$80.00
Los Angeles Freightliner (Cab / Chassis)	$80.00

As the table illustrates, Long Beach had a lower labor rate than the average labor rates of the private shops. The average labor rate for light – medium duty shops was $77.30. For heavy-duty shops, the average was $80.61.

4. LEASE PURCHASE OF EQUIPMENT

The surveyed cities were asked to provide information relating to current practices of purchasing equipment and vehicles. Cities were also asked to provide information about cost recovery for their departments. The table that follows provides a comparison of cities regarding lease or cash purchase.

City	Lease Purchase
Charlotte	No
Fort Worth	No
Fresno	Yes, primarily for large purchase of new additional equipment (e.g. a group of construction equipment or patrol vehicles).
Kansas City	Cash with the exception of Fire and Codes, which leases light vehicles, SUVs, and Sedans-approximately 40 vehicles.
Las Vegas	No
Long Beach	Yes in limited instances
Oklahoma City	No
Sacramento	No
Virginia Beach	No
Winston-Salem	Yes

As shown in the table above, all of the cities acquire equipment through cash purchases rather than lease with the exception of Fresno, Winston-Salem, and Kansas City. In Kansas City all vehicles are cash purchase except for the Fire and Codes departments, which leases light vehicles. Fresno utilizes lease financing for large purchases of equipment. Winston-Salem uses North Carolina Municipal Leasing. This organization borrows money for capital purchases. Each department budgets 20% of

the payment plus interest to pay for the purchase over a five-year period.

5. CHARGE BACK METHODOLOGY

Additionally, information was collected from cities with regard to approached used to charge back to their customers the costs of their services. Cities were asked to provide responses to questions relating cost recovery methods, replacement cost recovery, and whether the city uses a replacement fund (see table below).

City	Cost Recovery	Replacement or Sinking Fund Concept
Charlotte	Direct bill	No; Operating Budget
Fort Worth	Direct bill, plus fixed charge per vehicle for administration	N / A
Fresno	Direct bill of actual costs	Yes
Kansas City	Direct bill of actual costs	No; CIP
Las Vegas	Fixed monthly rates Charge backs for fuel consumption and preventable accidents	Yes
Long Beach	**Direct bill of actual costs**	**Yes**
Oklahoma City	Flat monthly fee per vehicle by class; Charge backs for fuel consumption	No; CIP
Sacramento	Direct bill of actual costs	Yes
Virginia Beach	Direct bill of actual costs	No; CIP
Winston-Salem	Direct bill	No; Leasing

Most of the cities utilize a direct billing of costs method. As noted in the table, five of the cities do not maintain a replacement fund; equipment that requires replacement is funded on an annual basis through the operating or the capital improvement program budget. Four other cities, including Long Beach maintain replacement funds and replace their equipment using monies from these funds.

6. REPLACEMENT CRITERIA

Cities were asked to provide information regarding baseline replacement criteria for each of the vehicle classifications. The following table presents the baseline replacement criteria for each of the surveyed departments.

City	Sedan	Police Patrol Sedan	Street Sweeper	Refuse Collection Packer	Pickup Truck (2WD)	Dump Truck (8 to 10 Yards)
Charlotte	10 years 80,000 miles	3 years 80,000 miles	5 years 50,000 miles	5 years (automated) 7 years (rear loader)	8 years 100,000 miles	9 years 120,000 miles
Fort Worth	5 years 60,000 miles	3 years 70,000 miles	5 years 5,000 hours	N /A	5 years 70,000 miles	5 years 100,000 miles
Fresno	7 years	5 years	5 to 7 years	7 years	7 years	10 years
Kansas City	6 years 70,000 miles	6 years 70,000 miles	5 years	8 years	6 years 100,000	7 years 150,000 miles
Las Vegas	8 years 100,000 miles	3 years 80,000 miles	8 years 100,000 miles	8 years 100,000 miles	8 years 100,000 miles	8 years 100,000 miles
Long Beach	**8 years 95,000 miles**	**4 years 95,000 miles**	**4 years**	**7 years**	**9 years 90,000 miles**	**15 years**
Oklahoma City	7 years 80,000 miles	5 years 80,000 miles	10 years	5 years 70,000 miles	7 to 10 years 100,000 miles	7 years 100,000
Sacramento	10 years 100,000 miles	5 years 100,000 miles	10 years	7 years 25,000 miles	10 years 120,000 miles	12 years 125,000 miles
Virginia Beach	7 years 100,000 miles	2 years 100,000 miles	8 years	5 years	7 years 100,000 miles	10 years
Winston-Salem	8 years 100,000 miles	6 years 100,000 miles	5 years	8 years (front loader) 10 years (rear loader)	8 years 100,000 miles	10 years

The points that follow discuss the information in the above table.

- The replacement criteria for sedans varied between five and ten years or 60,000 to 100,000 miles. The median replacement criterion was seven years. The City of Long Beach utilizes a replacement criterion for sedans of eight years.

- The replacement criteria for police patrol sedans varied between two and six years or 70,000 to 100,000 miles. The median replacement criterion was five years. The City of Long Beach utilizes a replacement criterion for their police patrol sedans of four years.

- The replacement criteria for street sweepers varied between four and ten years or 70,000 to 100,000 miles. The median replacement criterion was five years. The City of Long Beach utilizes a replacement criterion for sweepers of four years.

- The replacement criteria for refuse collection equipment varied between five and ten years. The median replacement criterion was seven years. The City of Long Beach utilizes a replacement criterion for side loaders of seven years.

- The replacement criteria for pickup trucks two wheel drive varied between five and ten years. The median replacement criterion was seven years. The City of Long Beach utilizes a replacement criterion for pickup trucks of nine years.

- The replacement criteria for dump trucks eight to ten yards varied between 5 and 15 years. The median replacement criterion was nine years. The City of Long Beach utilizes a replacement criterion for dump trucks eight to ten yards of fifteen years.

As this data indicates, the City of Long Beach is largely in step with these other cities as it regards the replacement criterion with some differences. The differences are sedans, sweepers, pickup trucks, and dump trucks. Long Beach has a longer replacement criterion than the median of these other cities for sedans, pickup trucks, and dump trucks. The replacement criterion for sweepers is less than the median.

4. CUSTOMER SERVICES

4. CUSTOMER SERVICES

This chapter presents opportunities to improve the customer services of the City's fleet focusing on the following areas:

- The current satisfaction of the customers of the Bureau with its services.
- The use of service agreements between the Fleet Services Bureau and their customers – the operating departments.
- The definition of goals and objectives for the Bureau regarding the provision of customer service including the use of customer guarantees.
- The tools utilized by the Bureau to make it easy for its customers to do business with the division.
- The use of fleet liaisons within departments to enhance communication between the division and its customers.
- The extent of information the Bureau provides to its customers regarding the costs of the services provided by the Bureau and the performance of the Bureau.

There are a number of measures that can be taken by the Fleet Services Bureau to more effectively serve their customers. The customer satisfaction survey indicates that the Bureau is providing responsive service in a number of areas, but needs to improve its level of service in others.

1. THE FLEET SERVICES BUREAU UTILIZES A NUMBER OF THE BEST PRACTICES FOR CUSTOMER SERVICES, AND HAS A NUMBER OF OPPORTUNITIES FOR IMPROVEMENT.

The first exhibit presented at the end of this chapter presents a comparison of the actual practices of the Fleet Services Bureau against best management practices for customer services. There are a number of strengths within the Bureau related to these best management practices as well as opportunities for improvement. Examples of the strengths of the Bureau include the provision of repair and maintenance cost data in a summarized form to customers beginning in the second quarter of this calendar year,

the use of mobile mechanics to decentralize services to their customers, the provision of loaner vehicles for customers when customers bring their vehicles to the Bureau for maintenance or repair, etc. In addition, the Bureau is in the process of installing an information system that will provide reports to its customers on over fifty measures of performance on a daily basis using data from M4.

There are also opportunities for improvement in the systems that the Fleet Services Bureau utilizes to deliver customer services. These opportunities include the following:

- The Bureau should establish a fleet advisory board consisting of representative customers;
- The Bureau should develop service level agreements (or contracts) with its key customers;
- The Bureau, while it has utilized quality control tools in the past for maintenance and repair of its equipment, should utilize these tools as a routine, ongoing practice;
- The maintenance and cost reports should be provided in repair order detail to customers, and the nine-year replacement plan should be provided to customers when it has been enhanced;
- Customer satisfaction should be measured on a routine, ongoing basis; and
- Customer service objectives should be adopted.

This chapter opens with an analysis of a customer satisfaction survey distributed to top and middle managers within the City of Long Beach.

2. RESPONDENTS TO A SURVEY EXPRESSED SATISFACTION WITH MANY SERVICES PROVIDED BY FLEET SERVICES BUREAU, BUT IDENTIFIED A NUMBER OF CONCERNS.

A customer satisfaction survey was conducted of top and middle managers in the City including the Police Department, Parks and Recreation Department, Energy

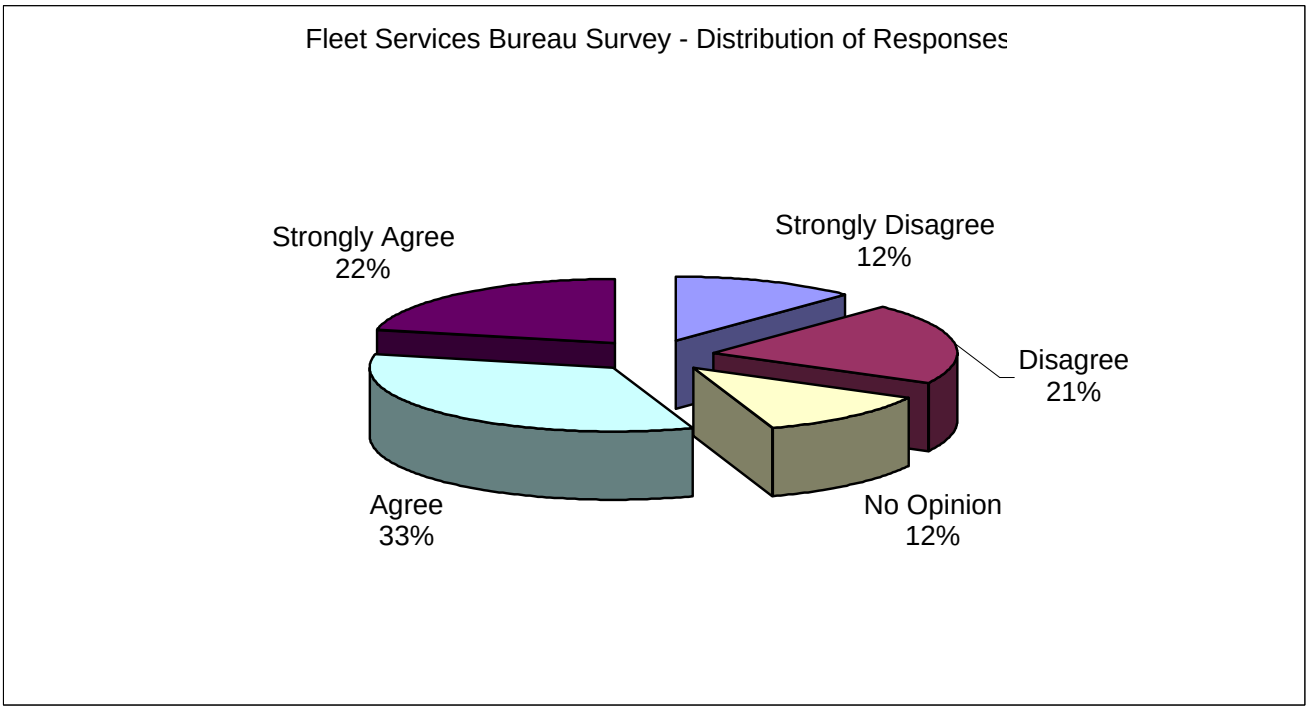
Department, Public Works Department, Fire Department, and the like. A total of twenty-seven responses were received. This represents about a fifty percent response rate.

The following sections summarize the responses.

(1) <u>Respondents Cited a Number of Positive Aspects to the Services Provided by the Fleet Services Bureau As Well As Opportunities for Improvement.</u>

In reviewing the responses to Part I of the Fleet Services Bureau customer satisfaction questionnaire, it is important to look at the pattern of responses for the entire group versus individual responses.

The chart below summarizes the overall distribution of all responses to statements 1 through 18 in Part I of the Fleet Services Bureau customer satisfaction questionnaire.



The response pattern for all statements in Part I of the Fleet Services Bureau customer satisfaction questionnaire indicates a positive opinion of the Bureau by these

customers. Overall, 55% of the responses were positive (strongly agree and agree), 33% were negative (strongly disagree and disagree), and 12% had no opinion.

To gain a more detailed sense of the responses from Part I of the Fleet Services Bureau customer satisfaction survey, it is useful to look in more detail at the statements that elicited the strongest positive and negative responses. The chart, found below, plots the actual number of positive and negative responses for each statement. Question numbers are shown along the bottom of the chart. Neutral responses are excluded.

In the chart above, positive responses (strongly agree and agree) are plotted above the x-axis (0). The negative responses (strongly disagree and disagree) are

plotted below the axis, with disagrees being closer to the axis (0). The more extreme responses are plotted on the extremes of each bar. The chart provides an overall visual representation of the responses to each statement. It allows strongly positive or negative responses to be singled out. As the chart indicates, responses for questions eleven, twelve, thirteen, seventeen, and eighteen were identified by respondents as opportunities for improvement for the Fleet Services Bureau. These questions are portrayed below.

- Question #11: I know what it costs for the Fleet Services Bureau to repair and maintain the vehicles assigned to us
- Question #12: I know when the vehicles assigned to our bureau/department are scheduled to be replaced by the Fleet Services Bureau.
- Question #13: The Fleet Services Bureau provides information to me on a routine, ongoing basis regarding what it costs to maintain and repair vehicles assigned to our bureau/department
- Question #17: I am satisfied with the services provided by the Fleet Services Bureau for the maintenance, repair, and replacement of our equipment.
- Question #18: The repair and maintenance services provided by the Fleet Services Bureau are cost effective.

The sections below present the results of the response to the questionnaire.

(2) <u>Respondents Expressed Satisfaction With Preventive Maintenance and the Quality of Repairs by the Fleet Services Bureau</u>.

Respondents generally indicated satisfaction with preventive maintenance of their equipment and the quality of repairs performed by the Fleet Services Bureau. More specifically:

- 67% of the respondents agreed that the level and frequency of preventive maintenance of vehicles was adequate to keep the vehicles operating safely and effectively. On the other hand, 26% of the respondents did not agree.

- 59% of the respondents agreed that the Fleet Services Bureau does a good job of diagnosing and fixing the problems with their vehicles when they were brought in for repair. On the other hand, 33% of the respondents did not believe the Bureau did a good job.

- 63% of the respondents agreed that the Fleet Services Bureau was effective at understanding their requests for repairs of their vehicles and completing these repairs without the necessity to bring the vehicle back a second time to fix the same problem. On the other hand, 33% of the respondents did not believe the Bureau was effective.

(3) <u>Respondents Expressed Satisfaction with the Courtesy and Helpfulness of the Fleet Services Bureau</u>.

Respondents generally indicated satisfaction with: (a) the helpfulness of the staff of the Fleet Services Bureau in resolving problems, and (b) the courtesy and helpfulness of the staff of the Fleet Services Bureau in responding to requests for repairs and scheduling the repair. More specifically:

- 67% of the customers agreed that the staff of the Fleet Services Bureau were extremely helpful in working with them to resolve problems with the vehicles assigned to their division/department.

- 85% of the respondents agreed that the staff of the Fleet Services Bureau were courteous and helpful in responding to requests for repairs and scheduling the repair.

(4) <u>Respondents Expressed Satisfaction with the Timeliness of the Services provided by the Fleet Services Bureau.</u>

Respondents generally expressed satisfaction regarding the timeliness of the services provided by the Fleet Services Bureau. More specifically:

- 78% of the respondents indicated that they receive timely notice when the repair or preventive maintenance of their vehicle is completed and the vehicle is ready to be picked up.

- 67% of the respondents indicated that the response by the Fleet Services Bureau to emergency road calls is responsive and timely.

- 59% of the respondents indicated that the shop hours of operation of the Fleet Services Bureau – the hours the Bureau is open for business – are convenient to them. 33% of the respondents indicated that these hours were not responsive.

- 59% of the respondents indicated that the Fleet Services Bureau consistently completes the repairs and preventive maintenance in accordance with their promised completion time. 33% of the respondents indicated that the Bureau did not complete the repairs and preventive maintenance in accordance with their promised completion time.

- 63% of the respondents indicated that they were satisfied with the turnaround time for completion of repairs and preventive maintenance by the Fleet Services Bureau. On the other hand, 33% of the respondents indicated that they were not satisfied.

(5) <u>Respondents Expressed Dissatisfaction with Communication Regarding Equipment Replacement Planning and Equipment Operating and Maintenance Costs.</u>

Respondents generally expressed dissatisfaction regarding a number of communication issues. More specifically:

- 52% of the respondents indicated that they did not know what it costs for the Fleet Services Bureau to repair and maintain the vehicles assigned to their bureau/department. 30% of the respondents indicated that they knew what it cost.

- 67% of the respondents indicated that they did not know when the vehicles assigned to their bureau/department were scheduled to be replaced by the Fleet Services Bureau. 22% of the respondents indicated that they knew when their vehicles were scheduled to be replaced.

- 67% of the respondents indicated that the Fleet Services Bureau does not provide information on a routine, ongoing basis regarding what it costs to maintain and repair vehicles assigned to their bureau/department. 39% had no opinion, and 11% agreed.

- 74% of the respondents indicated that the Fleet Services Bureau consults with them in preparing specifications for replacement vehicles for their bureau/department. 11 % indicated that the Bureau does not consult with them.

(6) <u>Respondents Were Split on the Whether the Services Provided by the Fleet Services Bureau Met Their Expectations</u>.

Respondents generally believed that the vehicles purchased on their behalf by the Fleet Services Bureau met their needs, and that the services provided by the Bureau met their expectations. On the other hand, respondents were split regarding whether they were satisfied with the services provided by the Fleet Services Bureau, and did not believe the services were cost effective. More specifically:

- 63% of the respondents agreed that the services provided by the Fleet Services Bureau met their expectations. 33% of the respondents did not agree that these services met their expectations.

- 67% of the respondents agreed that the vehicles purchased by the Fleet Services Bureau on their behalf met their needs and enabled them to efficiently and effectively complete their job responsibilities. 22% of the respondents did not agree.

- 50% of the respondents indicated that they were satisfied with the services provided by the Fleet Services Bureau for the maintenance, repair, and replacement of their equipment. 50% of the respondents indicated that they were not satisfied.

- 52% of the respondents did not believe that the repair and maintenance services provided by the Fleet Services Bureau were cost effective. 11% of the respondents agreed that the services were cost-effective, while 37% had no opinion.

(7) <u>Respondents Made a Number of Written Comments Regarding the Services Provided by the Fleet Services Bureau</u>.

One question in the customer satisfaction questionnaire asked for a written response from the respondent. The question asked the respondent what significant changes in the way the Fleet Services Bureau provides services were needed to make the Fleet Services Bureau more efficient or effective, or to provide better customer service. The most numerous of these written responses, grouped by the theme of the response, are presented below.

- <u>Hours of Operation of the Repair Shops</u>.

  - "Would like to see evening shift."

- "…add a 2nd shift! PM's take forever."
- "Fleet's operating hours seem to be set based on needs of Fleet employees/management rather than needs of customers."
- "Later work hours in the evening after the trucks have been parked for the day!"

• Provision of Information to the Customer.

- "Keep me apprised of the status of repairs on a much more frequent bases (w/o my having to inquire repeatedly), and the cost of same, and the different options available to me regarding what could be done (OEM versus after-market parts, in-house versus outside vendors, re-built versus new parts/materials, etc.) of any maintenance/repair costing over $500."
- "We generally only receive the billing; we are not allowed access to the maintenance history of our vehicles. While we are told in what cycle our vehicles will be replaced and are asked for our input in the vehicles we receive, that doesn't mean that we will get what we ask for or that it will be on a timely basis."
- "Provide reports on what repairs and maintenance were performed. I literally can't track it presently. They should advise as to the most economical option to affect repairs and allow me to make the decision."
- "I believe that Fleet needs to open up a line of communication in the areas of preventive maintenance, fixes, outsourced items, estimated time of repair, fleet observed problems and other related fleet items."
- "Knowing the cost of repairs and service, as well as the monthly vehicle charge, would be of great assistance."
- "Develop a repair sheet so each department can see the cost of each part and labor. Let the department decide if it is no longer cost effective to operate a vehicle, not Fleet."
- "Vehicle replacement schedules are not communicated or met. Fully capitalized equipment replacement is years behind schedule with no explanation or communication to operating departments, while capital recovery charges continue on a monthly basis."

• Replacement of Vehicles.

- "Establish replacement cycles based on wear, repair history/costs and mileage, and industry-wide experience. Don't base such decisions on arbitrary factors such as age or the City's current budget state. Secure the capital replacement funds for vehicles, so it can't be used for any purpose other than replacement of vehicles. Allow lease-purchase of new apparatus and vehicles."
- "Vehicles which are kept beyond capitalized life span tend to experience numerous breakdowns, causing additional operating cost on user departments."

- "The replacement of vehicles needs to be evaluated to ensure on-time delivery."
- "Need to account for the funds that went to the replacement of vehicles."

• Staffing.

- ""There is a great need for more mechanics."
- "The electrical section is critically understaffed. At the end of last year and the beginning of this year, I had eleven vehicles that were waiting to be worked on for over eight weeks."
- "The Fire Line service is poor because they are understaffed. I would like to see 1 or 2 additional mechanics."
- "Hire another fully trained mechanic, who is specialty trained in the areas needed to quickly and cost-effectively maintain my departments vehicles."

* * * * * * *

There are a number of actions that the Fleet Services Bureau should take to address these concerns. These actions are spelled out in this chapter and the remaining chapters of this report.

3. ESTABLISH A FLEET ADVISORY BOARD FOR THE FLEET SERVICES BUREAU.

This Fleet Advisory Board is intended to serve as a customer council for the Fleet Services Bureau. The specific purposes of the Fleet Advisory Board are as follows:

- To consider and recommend policies and strategies for the operation of the Fleet Services Bureau;
- To consider and recommend the annual rates to be charged customers for maintenance and repair as well as for replacement;
- Establish a means of regular communication between customers and the Fleet Services Bureau;
- Create a better understanding of the Fleet Services Bureau through business meetings;
- Provide information to customers necessary to make the most effective and efficient use of the services provided by the Fleet Services Bureau; and
- Review trends and areas of complaints to deal with the root cause.

This Fleet Advisory Board should be comprised of seven to nine members, representing the small and large customers of the Bureau, and should meet at least quarterly.

RECOMMENDATION 4-1: A Fleet Advisory Board should be established to serve as a customer council for the Fleet Services Bureau.

4. THE FLEET SERVICES BUREAU SHOULD DEVELOP PRINCIPLES REGARDING CUSTOMER SERVICE TO GUIDE ITS STAFF.

Improving customer service and focus is an important goal for the Fleet Services Bureau. To guide its staff in the delivery of customer services, the Bureau should develop and adopt customer service principles. Possible principles that the Bureau could consider are presented below.

- **You are the Fleet Services Bureau** – Treat every customer the same way you expect to be treated as a customer.
- **Be Reliable** – Honor your commitments; and provide what was promised on time.
- **Be Responsive** – Meet or exceed your customer's expectations.
- **Be Accountable** – Accept personal responsibility for your customer's satisfaction.
- **Communicate with your Customers** – Communicate repair status/changes to customers regularly.
- **Understand your customer's priorities** - Familiarize ourselves with our customers' goals so that we can better anticipate their needs.
- **Make it easy for our customers to utilize our services** – we will ensure our employees are knowledgeable about Fleet Services Bureau services and work together across functional lines to deliver seamless service to our customers.
- **Understand our impact on our customers' customers** - Our services directly impact the customers of City departments. The more we identify specific impacts of the services we deliver, the more we can help our customers achieve their

goals and meet their constituents' needs.

- **Provide cost-effective services** - We will maintain the best value for customers by continuing an emphasis on the cost effectiveness of the Fleet Services Bureau's operations.

The Fleet Services Bureau should consider these principles, as well as others it may wish to develop, and post these principles prominently in each shop, and utilize these principles to evaluate the performance of its employees.

RECOMMENDATION 4-2: To guide its staff in the delivery of customer services, the Bureau should develop and adopt customer service principles.

5. ADOPT A COMPREHENSIVE SET OF OBJECTIVES THAT WILL ENABLE THE BUREAU TO ASSESS THE RESPONSIVENESS OF THE SERVICE IT PROVIDES TO ITS CUSTOMERS.

The Bureau needs to refine and expand its objectives so that its customers will readily be able to assess when the Bureau is providing responsive customer service. The Bureau planned on setting these objectives as part of the installation of the performance measurement software acquired from Carolina Software.

There are a number of guidelines that the Bureau should utilize in setting these objectives and associated performance measures.

- An objective should be stated in terms of the output or result (e.g., 80% of the repair orders will be completed in one workday; 100% will be completed in three workdays).

- An objective must translatable into quantifiable, specific measures of output (e.g., % of preventive maintenance accomplished within five workdays of schedule).

- The objective should be achievable and feasible within a specific period of time (e.g., customers will receive an electronic copy of their repair order within three work days of the repair order close out).

- An objective should be challenging (e.g., Vehicles returned for the same problems within thirty calendar days are repaired at no charge).

These objectives should be posted in clear view of the Bureau's employees in its facilities and provided to its customers as well.

The Bureau should report its progress it meeting these objectives to its customers, the Fleet Advisory Board, and to its employees using the performance measurement software being installed by Carolina Software.

RECOMMENDATION 4-3: The Fleet Services Bureau should refine and expand its objectives so that its customers will readily be able to assess when the Bureau is providing responsive customer service.

RECOMMENDATION 4-4: The Bureau should report its progress it meeting these objectives to its customers, the Fleet Advisory Board, and to its employees using the performance measurement software being installed by Carolina Software.

6. ADOPT WARRANTIES FOR MAINTENANCE AND REPAIR WORK PERFORMED BY THE FLEET SERVICES BUREAU.

The objectives adopted by the Fleet Services Bureau need consequences to achieve real power with customers. These objectives will help managers and employees understand what is expected, but consequences will give urgency to the task of changing the way the Fleet Services Bureau does business with its customers.

The Fleet Services Bureau should warranty its work. For example, the warranty provided by the Fleet Services Department (FSD) of the City of Winston Salem in its service level agreement with the Sanitation Division is as follows:

Repair Warranties. FSD will provide the following repair warranties:

- *General repair work will be warranted for 90 days or 4,000 miles for defective parts or workmanship.*
- *Parts that have warranty coverage for longer periods will be recouped for Sanitation.*
- *Vendor repairs that fail within their warranty period will be recouped for*

Sanitation.

- *Manufacturer warranties will be recouped for Sanitation.*

The Bureau should develop such warranties in consultation with the Fleet Advisory Board.

RECOMMENDATION 4-5: The Fleet Services Bureau should warranty its maintenance and repair work.

7. USE CUSTOMER FEEDBACK TO ENHANCE CUSTOMER SERVICE.

The Bureau needs to assess customer satisfaction with its services on a regular, ongoing basis using a variety of instruments.

These instruments should include:

- Customer feedback cards attached to each work order.
- Annual customer satisfaction surveys.
- Random phone surveys by Fleet Maintenance Supervisors of customers after these customers recently received service from the Bureau (e.g., street sweeper operators) with these results reported to the Fleet Superintendent-Maintenance and the Manager, Fleet Services.
- Focus groups, consisting of customers, to solicit the kind and quality of services they want and their level of satisfaction with existing services.

The results of these customers' surveys should be regularly shared with the Bureau's customers, the Fleet Advisory Board, and with the Bureau's employees.

RECOMMENDATION 4-6: The Fleet Services Bureau should assess customer satisfaction with its services on a regular, ongoing basis using a variety of instruments.

8. EFFECTIVELY UTILIZE TECHNOLOGY TO ENHANCE CUSTOMER SERVICE AND INFORMATION.

The Bureau already has taken a number of steps to make it easy for the customer to do business with. For example, the Bureau employs mobile mechanics that

have been decentralized to customer work sites to provide maintenance and repair service that is close to the customer. As another example, the Bureau has now established "loaner" vehicles for employees who bring their vehicles in for repair or maintenance.

There are, however, additional steps the Bureau should take. These steps include the following:

- The fleet liaison in each major department or bureau should be provided on-line access to the equipment maintenance information system. The Bureau uses M4. This new system contains a number of on-line modules and reports that could be utilized to answer questions from their own departmental managers and supervisors regarding the services provided by the Bureau.

- The Bureau needs to provide information available at its web site. As an example, the Equipment Services Division of the Arizona Department of Transportation Department includes information at its web site concerning how to make an appointment for repair or maintenance, preventive maintenance schedules, the names and telephone numbers of key contacts at the Division, how to get quick service, loaner vehicles, accident reporting, how to make a complaint, car wash services, vehicle operator responsibility, etc.

The Bureau should leverage the investment it has made in technology to maintain consistently high levels of customer service and leadership.

RECOMMENDATION 4-7: The Fleet Services Bureau should further leverage its investment in technology to enhance customer service by enhancing its web-site, and providing on-line access to M4 to major departments or bureaus, etc.

9. DEVELOP SERVICE AGREEMENTS WITH ALL OF THE BUREAU'S MAJOR CUSTOMERS.

The purpose of service level agreements is to define the responsibilities for doing business with its customers. These service agreements document:

- The services to be provided;

- The funding resources required for acquisitions, maintenance, and repair;

- The terms and conditions under which the customer and the Fleet Services Bureau will operate in order to properly support the City's investment in the fleet.
- The standard business practices including how compliance with the service agreement will be measured, problem (trouble) reporting protocol, how to request services, emergency service priorities, services provided after hours, etc.
- The services provided and not provided.
- The dispute resolution process.

The Fleet Services Bureau should develop service agreements with its customers. The second exhibit following this chapter presents an example of a service level agreement.

RECOMMENDATION 4-8: The Fleet Services Bureau should develop and adopt service level agreements with its major customers.

10. PROVIDE REPAIR ORDER BILLING REPORTS TO ALL CUSTOMERS ON A MONTHLY BASIS.

The Bureau provides a summary of the costs of maintenance and repair as well as replacement charges to its customers on a monthly basis.

One of the key goals of the charge-back system utilized by the Fleet Services Bureau is to provide motivation to City departments to scrutinize the costs of fleet services they consume and evaluate alternatives in order to reduce those costs. Without detailed billing reports, however, such scrutiny is more difficult.

The customers should be provided with billing reports on a monthly basis. These billing reports should provide detail in terms of the costs of providing services to the customer down to the repair order level. These reports should be provided electronically, not in hard copy.

RECOMMENDATION 4-9: The Fleet Services Bureau should provide its customers with detailed billing reports on a monthly basis.

11. ADOPT A FORMAL, WRITTEN REPAIR EXPENDITURE AUTHORIZATION POLICY.

One of the positive aspects in the Fleet Services Bureau raised by customers during interviews by the Matrix Consulting Group was the recent step taken by the Fleet Services Bureau to provide summarized bills of the costs incurred by the Fleet Services Bureau to maintain and repair equipment. One of the opportunities for improvement suggested by some customers was the setting of a repair expenditure threshold. Above that threshold, the Fleet Maintenance Supervisor would have to obtain the approval of the customer to proceed with the repair. The Fleet Services Department of the City of Winston-Salem set the following threshold in their service level agreement with their Sanitation Division. This threshold applies to preventive maintenance and to repairs.

Repair Authorization. Sanitation will be contacted for authorization before any remedial repairs found during a PM inspection that are estimated to cost in excess of $2,500 for heavy equipment and $1,000 for light equipment. Sanitation agrees to provide a decision on repair approval as soon as possible after being contacted by FSD. Downtime and repair turnaround time calculations shall not include time waiting for repair authorization.

RECOMMENDATION 4-10: The Fleet Services Bureau should adopt a formal, written repair expenditure threshold. Above that threshold, the Fleet Maintenance Supervisor would have to obtain the approval of the customer to proceed with the repair.

Exhibit 6

Comparison of the Customer Service Practices Of the Fleet Services Bureau Against Best Practices

Best Practices	Strengths	Opportunities for Improvement
Customers participate in managing the fleet business through a Fleet Advisory Board.		The Bureau should establish a Fleet Advisory Board.
Formal service level agreements have been negotiated with primary customer groups.		Service level agreements should be developed with all major customers.
Technology is effectively utilized to enhance customer service and information.	The Bureau has acquired and is installing performance measurement software from Carolina Software that will enable customers to assess the responsiveness of the Bureau to objectives.	The Bureau should provide additional information at its web-site and provide access to M4 for its major customers.
Customers receive regular and useable fleet costs reports.	The Fleet Services Bureau provides reports to their customers regarding costs of their assets at a summary level on a monthly basis.	Customers should be provided with detailed repair order costs regarding pertaining to their fleet assets on a regular basis.
Customer feedback is utilized to enhance customer service.	Fleet Services has solicited customer satisfaction in the past, but not systematically.	The Bureau should seek customer feedback using a variety of tools on a regular, ongoing basis.
A comprehensive set of objectives and principles have developed and adopted for the provision of customer service.		The Bureau should develop a comprehensive set of objectives and principles.

Exhibit 7 (1)

Sample Service Agreement

OVERVIEW

The Fleet Services Department (FSD) of the City of Winston-Salem is dedicated to providing our customers with high quality, timely and cost-effective fleet services. We recognize that our customers deliver essential services to the citizens of Winston-Salem and must receive a high level of fleet services in order to accomplish their missions. Simply stated, when vehicles are out of service, our customers cannot do their jobs. Therefore, while we are committed to providing services at the lowest price possible, our primary focus will be on activities that lead to maximizing vehicle availability and minimizing the operational impact of repair services. We are also committed to the following principles:

1. We will focus on asset management activities that conserve the value of equipment investments and will provide our customers with value added services that result in lower fleet ownership costs.

2. We will be the low cost provider of the services that we offer.

3. All services that we provide will be of the highest quality available in the equipment industry.

4. We will understand our customers' needs and will meet these needs effectively, responsively and courteously.

Fleet Services is required to provide a stated level of service to all its customers under an overall operating agreement with the City. This Customer Services Agreement provides some customization of the services offered to the Sanitation Division by FSD while staying within the overall agreement with the City. Included are procedures for accessing services, service prices and billing procedures, and a description of FSD's and Sanitation's responsibilities under this agreement.

SERVICES PROVIDED BY FLEET SERVICES

FSD provides a full range of transportation related services as described below:

- Fleet policy development
- Equipment replacement planning
- Equipment specification preparation
- Equipment selection and purchase coordination
- Fuel program development

Exhibit 7 (2)

- Equipment utilization review
- Preventive maintenance program development
- Comprehensive equipment maintenance and repair services
- Vendor repair coordination
- Vehicle towing services
- Roadside tire repair services
- Collision damage repair services
- Loaner vehicle rentals
- Driver and operator training
- Radio equipment installations/de-installations
- Surplus equipment disposal

SCOPE OF SERVICES TO BE PROVIDED TO SANITATION DIVISION

FSD will provide Sanitation with high quality, timely and cost-effective vehicle and equipment services as described below:

1. Preventive maintenance (PM) program.

PM Focus. A comprehensive PM program is the cornerstone of effective fleet maintenance. The objective of a PM program is to minimize equipment failure by maintaining a constant awareness of the condition of equipment and correcting defects before they become serious problems. A PM program minimizes unscheduled repairs by causing most maintenance and repair activities to occur through scheduled inspections. An effective PM program pays dividends not only in improved equipment safety and reliability, but also financially by extending the life of equipment, minimizing the high cost of breakdowns, and reducing lost employee productivity resulting from equipment downtime. FSD will focus efforts on behalf of Sanitation on PM activities as described below:

PM Service Types. Three types of PM services will be provided. PM-A or Lube Oil Inspection service will consist of an oil & filter change, and a comprehensive safety inspection. PM-B or a General Inspection service will consist of a oil & filter change, a brake system inspection, engine performance check, transmission service, electrical, cooling, exhaust system check, overall vehicle check including mounted bodies and accessories. NC Inspection service will consist of the mandated North Carolina State Inspection.

PM Schedule. Sanitation sedans, light trucks and medium duty trucks will be scheduled for PM every 6,000 miles or 6 months whichever occurs first. Refuse trucks will be scheduled every 4 months or according to the manufacturers' recommended service schedule.

Exhibit 7 (3)

Repair Authorization. Sanitation will be contacted for authorization before any remedial repairs found during a PM inspection which are estimated to cost in excess of $2,500 for heavy equipment and $1,000 for light equipment. Sanitation agrees to provide a decision on repair approval as soon as possible after being contacted by FSD. Downtime and repair turnaround time calculations shall not include time waiting for repair authorization.

Scheduling PMs. FSD will track maintenance of Sanitation vehicles in our EMIS system and will call, FAX or E-mail a PM schedule to the appropriate supervisor monthly. FSD will coordinate scheduling of services with the appropriate supervisor for a date and time that is convenient to Sanitation and at a time where workload requirements are such that the above turn around times can be met.

After Hours or While You Wait Service. FSD will provide Sanitation vehicles with the highest priority possible. All PM services will be scheduled at Sanitation's convenience. Sanitation may choose to wait for sedans or light trucks receiving a lube & oil service. These services will be completed in one hour or less, unless needed repairs are discovered during the component inspection of the service. Sanitation may also choose to have PM services completed after hours. Vehicles must be dropped off at the appropriate shop no later than 4:00 pm and will be available for pickup no later than 7:00 am the next morning. All PM services for collection vehicles and medium trucks will be completed after hours or on scheduled idle days. These units must be dropped off by 4:00 pm and will be available for pickup no later than 6:30 am. Hours can be adjusted for seasonal equipment operation. Sanitation agrees that units scheduled for PM will be brought to the Shop rather than parked in the Sanitation lot. Sanitation agrees that FSD will charge one-half hour of labor for retrieving units that are scheduled for PM and are mistakenly parked in Sanitation lot.

PM Compliance Goal. FSD will achieve a PM compliance rate of 95% for Sanitation's vehicles. That is, 95% of scheduled services will be completed before they are overdue. As services will be scheduled on the basis of **miles and/or elapsed time**, upon request, Sanitation will provide FSD with an annual odometer reading report for all vehicles.

Rescheduling PM Services. Sanitation agrees to cooperate in scheduling PM services by responding promptly to PM scheduling requests and by honoring PM appointments. If operational priorities require rescheduling of a PM appointment, then Sanitation agrees to do so at least 24 hours in advance of the original appointment by calling or e-mailing the appropriate Shop Manager. Missed appointments with no call will not count against FSD's achievement of the PM compliance goal.

Exhibit 7 (4)

2. Vehicle repair services

Morning Priority Service. FSD will send a technician to the Sanitation parking lot every morning that the temperature is below 32 degrees at 6:30 am to provide assistance in starting shift operations. Services to be provided will include starting vehicles with dead batteries, trouble shooting brake systems, packing system problems, and performing any other tasks that will expedite vehicle availability.

Pit Stop Service. FSD will provide morning pit stop service at Fleet Services to complete any quick repairs that cannot be completed by the technician at the Sanitation lot. Quick services are those that can be completed in one hour or less. This service will be the highest priority for technicians.

Holiday Service. Upon request FSD will provide service on holidays or Saturdays following holidays when Sanitation is in operation. Hours of service will mirror those worked by Sanitation. Normally, two mechanics will be assigned to work these days. FSD reserves the right to compensate mechanics at time and one half. FSD will focus on Sanitation vehicles on these days. If no Sanitation vehicles are available to work on, then FSD will work on other customers' vehicles and bill their time to those vehicles. However, if no other vehicles are available to work on, then Sanitation agrees that FSD will charge mechanic hours to the Sanitation account.

Road Call Service. FSD will provide roadside services for vehicles that are broken down. The decision to dispatch a field mechanic will be based on FSD's estimate of the severity of the repair problem and the level of effort required to get the vehicle back in service. In general, FSD will provide roadside service when repairs can be clearly diagnosed over the phone or radio and can be handled within an hour of the call. More complex and time consuming repair problems are more cost-effectively handled by towing the vehicle.

Vendor Services. In addition to regular repair services, FSD also will coordinate contract repair services for Sanitation. The decision to use an outside vendor will be based on shop workload and services that require special tools, equipment or expertise. Roadside tire services and towing services are also available through contracts managed by FSD. **If necessary, sanitation drivers will transport vehicles to vendors for warranty repairs and other services in order to expedite the repair process.** FSD must first authorize taking any vehicles to an outside vendor.

Time Promised. FSD will provide Sanitation with a cost and turnaround time estimate for all repairs. If conditions change during the repair process, then FSD will provide the Sanitation fleet coordinator with updated cost and turnaround

Exhibit 7 (5)

time as required. FSD will complete repairs on Sanitation vehicles as quickly as possible. Our goal will be to complete repairs on 70% of Sanitation vehicles in one day or less and 90% in one to three days. Only 10% of repair incidents involving Sanitation vehicles should take more than three days to complete. Estimated turnaround times will be calculated after problem diagnosis has occurred and in cases of exceeding repair limits, Sanitation must give FSD repair authorization. This turnaround time standard will not apply to vehicles requiring repair due to accidents, vandalism, driver responsible incidents, defects covered by manufacturer warranty, or acts of God.

Fleet Availability and Vehicle Downtime. Every effort will be made to limit vehicle downtime. Vehicles are considered out of service when they are not available during Sanitation's normal work schedule. Vehicles requiring repair due to accidents, vandalism, driver responsible incidents, defects covered by manufacturer warranty, or acts of God shall not be included in downtime calculations. However, each vehicle will still get priority attention for reducing downtime. The following benchmarks will apply to Sanitation's fleet. Seasonal work is subject to altered schedules

- **Light vehicles** will have a 95% availability rate. Downtime will be applied when vehicles are not available between the hours of 7:00 am and 5:00 pm, Monday through Friday including holiday schedules
- **Rear loading refuse trucks** will have a 88% availability rate. Downtime will be applied when vehicles are not available between the hours of 6:30 am and 4:00 pm, Monday through Friday including holiday schedules
- **Front-loading trucks** will have a 88% availability rate. Downtime will be applied when vehicles are not available between the hours of 7:00 am and 4:00 pm, Monday through Friday including holiday schedules
- **Scow trucks and other medium duty trucks** will have a 92% availability rate. Downtime will be applied when vehicles are not available between the hours of 6:30 am and 4:00 pm, Monday through Friday excluding holidays

No Routes Standing. It is FSD's goal to have a sufficient number of front-loading and rear-loading trucks available each morning so that Sanitation has no routes standing. The number of trucks required to meet this goal varies by program and by the number of backup units available. If a route is standing, then FSD agrees to rebate Sanitation at the rate of $100 per hour for each hour that there are not a sufficient number of trucks available to cover all routes. Sanitation agrees that a route will not be considered standing if there are backup trucks available, even if the backup available is assigned to another team or program. For example, if a spare mixed trash rear loader is available to the yard waste program, a route will not be considered to be standing even if there are not enough yard waste rear loaders available. Additionally, Sanitation agrees to not park spares

Exhibit 7 (6)

requiring repair in the ready lot. All spares requiring repair must be brought to the shop so that the Shop Manager and Route Managers can plan truck availability and route coverage. If a spare truck requiring repair has been parked in the ready lot, then the impacted route will not be considered to be standing.

Repair Authorization. The same conditions for repair authorizations as described above under the PM program section of this agreement will also apply to general vehicle repairs.

Repair Warranties. FSD will provide the following repair warranties:

- General repair work will be warranted for 90 days or 4,000 miles for defective parts or workmanship.
- Parts that have warranty coverage for longer periods will be recouped for Sanitation.
- Vendor repairs that fail within their warranty period will be recouped for Sanitation.
- Manufacturer warranties will be recouped for Sanitation.

3. Equipment repair services

FSD has extensive experience in the maintenance and repair of a wide variety of construction equipment and specialized equipment such as chain saws, weed trimmers, mowers trailers, aerial devices, blowers, generators and cement mixers. Sanitation will be provided a full range of equipment maintenance and repair services. Billing for services of equipment outside the contract “with purchase value of less than $500" will be on a time and material basis for equipment, at the rates detailed in the "Service Prices and Billing Procedures" section of this agreement.

4. Equipment Modification

FSD will pre-approve all equipment modifications prior to their installation. Departments will submit in writing the type of modification and it’s purpose. This will become a part of the equipment’s permanent folder. FSD will be responsible for making sure the modifications are completed. The modifications are considered non-target work and requesting department will be charged accordingly.

Exhibit 7 (7)

5. Accident Repair Services

FSD assigns a local body shop to pickup, repair and return damaged vehicles. FSD will directly bill these charges in our monthly billings to Sanitation. FSD will send all trucks to vendors for repair of accident damage. FSD will not begin the repair process for vehicles that have been involved in an accident until Risk Management confirms knowledge of the accident. Sanitation is responsible for promptly notifying Risk Management of accident incidents and completing an Accident Report.

6. Equipment Management Information System (EMIS)

FSD has a new computer system to manage vehicle maintenance operations. This system will provide equipment life cycle cost information, shop productivity data, preventive maintenance scheduling, warranty tracking, and other operational information. FSD will use this system to manage maintenance operations for each department. A variety of reports are available from the system to help Sanitation analyze vehicle costs. FSD will provide the following standard reports on a monthly basis:

- Consolidated billing report by cost center
- Ranking of trucks by monthly cost

Copies of work orders are also available for the customers. The new EMIS system will also allow FSD customers to have real-time query capabilities to access the current maintenance/repair status of their vehicles.

7. Equipment Replacement

FSD is responsible for preparing replacement recommendations for most vehicles in the City's fleet including vehicles assigned to Sanitation. Replacement recommendations are prioritized according to a formula that considers vehicle age, life usage, life costs and a condition review. Recommendations are made to Budget and Evaluation who, along with the City Manager's office, determines a final funding level based on the availability of capital funds. Sanitation will be consulted before recommendations for replacement vehicles are forwarded to Budget and Evaluation. FSD will work with Sanitation liaison to prepares specifications for new and replacement vehicles and Purchasing to coordinate acquisitions from equipment vendors. FSD and the Sanitation Superintendent will have final review of all specifications. New vehicles will be prepared for service within one week of meeting final specification review. FSD will strive to purchase vehicles with all necessary equipment already installed in order to expedite delivery to customers. FSD will

Exhibit 7 (8)

be responsible for preparing Sanitation's vehicles for service including installation of decals and other equipment as described below.

8. Radios, Safety Devices and Light Bars

A vendor partnering with the FSD performs installation of radios. FSD will be responsible for arranging equipment installation in new trucks or removal from surplus vehicles. Sanitation will make arrangements when ordering radios for existing trucks. FSD will be responsible for installing strobe lights, rotating lights, backup alarms and other such equipment when not included in the initial equipment specifications.

9. Loaner Cars

FSD maintains an inventory of vehicles that are available for short-term loan to replace vehicles under repair, and for out of town trips. Departments are responsible for any accident or other damage to loaner vehicles while they are in their possession. Departments wishing to reserve loaner cars should contact FSD at 727-2507.

10. Directed Work / Special Projects

FSD is available to provide special project work at the direction of Sanitation. Special projects may include new equipment installation design, custom reports, driver training, and other projects. Billing for these projects will be at our standard hourly rate in effect at the time that services are rendered. If priorities for special projects are such that normal activities will be impacted and production goals affected (e.g. downtime, turnaround time, PM compliance), then Sanitation agrees to waive production goal attainment for the duration of the special project.

SANITATION DRIVER/OPERATOR RESPONSIBILITIES

Refuse trucks are complicated machines that are operated in an adverse environment. Drivers of these units are an important part of the maintenance process and a first line of defense against vehicle breakdowns. At a minimum, all drivers will do a daily visual inspection of their vehicle's condition. Sanitation CDL drivers will have the following daily responsibilities:

- Drivers will perform a daily pre-trip inspection of their trucks before operation as required by the Federal Commercial Driver License regulations. This inspection will include a check of fluid levels, brake function and adjustment, air pressure and tire condition. Also other items such as equipment functions, packing

Exhibit 7 (9)

systems, and knuckle boom operation. All problem areas will be brought to the attention of the appropriate supervisor. Vehicles with safety related defects (e.g. brakes, lights, mirrors, etc) must not be operated.

- Drivers will limit engine idling to a short warm-up period at start of shift and cool down at end of shift. In general, this period should not exceed five minutes (15 minute warm-up in cold weather conditions). At all other times, trucks should be turned off when not in use. Excessive idling wastes fuel and causes engine deposit build-up.

- Sanitation drivers will clean debris from behind the packing system blade on a daily basis. Debris build-up can cause damage to both the packing system and hydraulic components.

- Sanitation employees will report problems discovered during daily operations promptly at the end of shift so that remedial repairs can be made at night and not impact daily operations.

- If necessary sanitation drivers will transport vehicles to vendors for warranty repairs and other services in order to expedite the repair process. FSD must first be contacted prior to taking a vehicle to an outside vendor. Drivers will make every effort to park their collection vehicles empty.

- Whenever possible, Sanitation drivers will dump their collection vehicle before bringing it to the shop for service.

- Sanitation drivers will wash their front loaders every day and rear loaders and scow trucks weekly (unless the vehicle wash facility is not in operation). Scow trucks during leaf season will be washed as necessary.

ACCESSING FSD'S SERVICES

The overall coordinator of this agreement and the main point of contact between FSD and Sanitation will be Larry Anderson, Fleet Maintenance Manager. The shop managers in charge of FSD's repair facilities will manage day-to-day activities. Sandy Barfoot, General Services Director, is ultimately accountable for Sanitation's satisfaction and will be responsible for problem resolution, agreement amendments and quality control.

Appointments are strongly recommended in order to minimize vehicle downtime.

Exhibit 7 (10)

SERVICE PRICES AND BILLING PROCEDURES

Most repair services will be on a time and material basis. For the Fiscal Year ending on June 30, 2000, FSD's labor rate for all customers was $36.00 per hour. This rate will be adjusted on July 1, 2000 to meet the requirements of the operating agreement with the City. Parts will be billed on the basis of FSD's agreement in order to cover inventory carrying costs and the professional services of our parts staff. Vendor services will be billed according to the agreement in order to cover contract administration, invoicing and coordination costs. Prices will be updated on an annual basis and Sanitation will be notified of price changes during the budget preparation process. Price changes will be effective July 1 of each fiscal year.

Time standards are established for common repair procedures based on industry references such as Chiltons labor guide and manufacturer labor times. Any procedures that take more time then the “standard” time will be judged on an individual basis and charged appropriately. Infrequent or unusual repair procedures will not be subject to time standards. FSD will absorb any additional time required by mechanics to complete “standard” repair procedures. Loaner cars are available for a set cost per mile. There will normally be a five-day limit on loaner vehicles.

Invoicing will be on a monthly basis with consolidated statements summarizing activity for all Sanitation vehicles. Individual work orders will be available on request.

FSD’S AND SANITATION’S RESPONSIBILITIES

FSD will have the following responsibilities under this agreement:

A. To recognize that Sanitation is our customer and so has certain rights including:

- The right to complain;
- The right to question cost;
- The right to demand fast service;
- The right to demand quality service;
- The right to shop around to compare cost and/or service; and
- The right to expect courtesy and consideration.

B. To comply with all provisions of this agreement.
C. To have Sanitation's best interests in mind.
D. To assist Sanitation in reducing their transportation costs.

Sanitation will have the following responsibilities under this agreement:

- To designate a fleet liaison;

Exhibit 7 (11)

- To report vehicle malfunctions promptly;
- To honor appointments for preventive maintenance services;
- If rescheduling is necessary, to do so at least 24 hours in advance;
- To provide repair authorizations as soon as possible after being contacted.
- To insure that Sanitation employees make daily inspections of their vehicles before use and check fluids and tire pressure at each fueling; and
- To review billing reports within five business days of receipt and to promptly notify FSD of any problems.

Failure to keep scheduled preventive maintenance appointments will result in the following:

1. The front-line supervisor will be notified after the first missed appointment. The department will be responsible for contacting Fleet Services to reschedule the maintenance.

2. The department head will be notified after the second missed appointment. The department will be charged for one (1) hour of labor.

3. The department head will be notified after the third missed appointment. The department will be charged for an additional hour of labor and the gas key will be cut off.

ADMINISTRATION

This is intended both as the final expression of the agreement between the parties hereto with respect to the included terms, and as a complete and conclusive statement of the terms of the agreement. No modification of this agreement shall be effective unless such modification is evidenced in writing signed by both parties.

The process for modifying this agreement will be for the party requesting the modification to initiate a change order letter detailing the requested change, the reason for the requested change and it's financial impact.

Neither party shall assign or transfer any interest in or duty under this agreement without the written consent of the other, nor shall any assignment be of any force or affect whatsoever unless and until the other party shall have so consented in writing.

Either party may cancel this agreement for any reason with 30 days written notice to the other party.

5. ORGANIZATIONAL STRUCTURE

5. ORGANIZATIONAL STRUCTURE

Organizational structure in local government is often unplanned resulting in a system that is often duplicative, highly fragmented, occasionally inefficient and very difficult to change. While not uncommon, incremental changes without an overall strategy can be detrimental to the organization's overall performance.

1. IN EVALUATING THE PLAN OF ORGANIZATION AND MANAGEMENT SYSTEMS, A NUMBER OF PRINCIPLES SHOULD BE CONSIDERED.

In evaluating the plan of organization and the management systems of the Fleet Services Bureau, the *Matrix Consulting Group* utilized a number of principles for organizational structure. These principles are presented in the paragraphs below.

- **The Fleet Services Bureau should be organized on a 'form follows function' basis** with a clear, distinct and comprehensive sense of purpose or mission for each functional area. Functions are grouped consistent with their periodic interaction, common planning and scheduling systems, delivery of services which are linked in some way, etc. resulting in functional cohesion.

- **The organizational structure should foster accountability.** The organizational structure should foster accountability among management and supervisory staff. The organizational structure itself can facilitate or impede the performance of an organization.

- **The plan of organization should enhance communication and coordination.** The number of handoffs/exchanges required among different departments providing service to the public is minimized. The structure enhances shared knowledge and understanding among divisions and departments. The channels of communication are clear and consistent.

- **Staff resources should be utilized efficiently**. The plan of organization minimizes administrative overhead. Workload can be distributed/shared to maximize the productivity of staff through peaks and valleys and offer cross-functional capabilities (e.g., to balance workload of maintenance staff across the different lines.). Processes can be standardized to enhance the efficiency and customer responsiveness of services (e.g., the preventive maintenance process).

- **The potential of human capital should be enabled**. The plan of organization enhances career development opportunities, training and recruitment and retention.

- **The quality and responsiveness of services provided to customers should be improved**. The plan of organization enables staff to provide better service to the customers in terms of cycle times, user friendliness, performance management, quality control, and consistency of the application of policies and procedures. Customers are the hub – with the Bureau's organization designed around them.

- **Each unit in the Fleet Services Bureau should be placed at a level in accordance with its importance in achieving Bureau goals and objectives**. Units should not be placed too high in the Bureau structure or too low relative to their importance.

- **The span of control for any manager or supervisor should not exceed the number that can be feasibly and effectively supervised**. The trend is to widen span of control. In the last decade, the introduction of information technology spurred the trend toward wider spans of control.

- **The number of layers of management should not result in a tall, narrow configuration for the Bureau**. Organizations with many layers are associated with centralized decision-making. Flatter organizations tend to have decentralized decision-making, as authority for making decisions is given to the front line employees.

- **The plan of organization should enhance the effectiveness of the Manager, Fleet Services Bureau as the chief executive officer of a corporation with annual expenditures of $26 million**. The organizational structure limits the span of control of the Manager, Fleet Services Bureau, provides analytical support to develop goals, objectives, and performance measures, and provides resources to build and connect with the customers to enable the Manager, Fleet Services Bureau to manage a diverse and complex organization.

Reorganization efforts that ignore these principles could create new, unintended consequences for the future.

2. THESE PRINCIPLES FOCUSED THE ANALYSIS OF ALTERNATIVES TO THE BUREAU'S ORGANIZATION STRUCTURE.

Using these criteria to evaluate the present organizational structure leads to a number of conclusions. These conclusions are presented below.

- **The accountability for fleet maintenance and management services within the City of Long Beach is fragmented to an extent**. The Fleet Services

Bureau is responsible for the management of the City's fleet with the exception of the Harbor Commission and the Water Commission.

The Harbor Commission is responsible for 212 pieces of equipment; approximately 64% of this equipment consists of sedans, pickup trucks, sport utility vehicles, and vans. The Harbor Commission has a fiscal year 2002-03 authorized budget of approximately $1,606,000 for fleet maintenance and repair. This does not include additional, unbudgeted operating expenditures in 2002-03 (as of May, 21, 2003) of $241,000 for inventory purchases, departmental and division overhead, but includes capital replacement for equipment in the amount of $1.1 million. The Harbor Commission is allocated 6 staff for equipment maintenance and repair including a Fleet Supervisor.

The Water Commission is responsible for 236 pieces of equipment (excluding concrete saws, arrow boards, chainsaws, tampers, etc.). Approximately 33% of this equipment consists of sedans, pickup trucks, sport utility vehicles, and vans. The Water Commission has a fiscal year 2002-03 authorized budget of approximately $1,083,000 for fleet maintenance and repair. This includes capital replacement for equipment in the amount of $0.4 million. The Water Commission is allocated five staff for equipment maintenance and repair including a Fleet Supervisor.

- **The accountability for fleet maintenance within the Fleet Services Bureau is fragmented**. The Superintendent-Maintenance is not allocated the authority for the Stock Room. The Stock Room reports to the Superintendent-Operations. The Superintendent-Maintenance should be held accountable for the delivery of responsive maintenance and repair services to the Bureau's customers. This includes accountability for a number of key performance indicators such as turnaround time for repairs. The "fill rate" for parts is an important contributor to turnaround time. Yet the Superintendent-Maintenance does not manage the Stock Room.

  In four cities included in the comparative survey, the Stock Room reports to the Superintendent-Maintenance. This includes Charlotte, North Carolina; Sacramento, California; Virginia Beach, Virginia; and Fort Worth, Texas. In two instances, however, the Stock Room reported to a manager other than the Superintendent-Maintenance. These include the cities of Las Vegas (where it reports directly to the Fleet Manager) and Kansas City (where it reports to an Assistant Superintendent responsible for administration).

- **The spans of control are too narrow in some instances and too wide in others**. The span of control for the Superintendent-Towing is two: two Garage Service Attendant III's. The span of Control for the Superintendent-Lien Sales is one: a Fleet Services Supervisor. Two Fleet Services Supervisor positions don't have a span of control. One of these two supervisors is assigned to alternative fuels and the other to Facilities. On the other hand, the span of control for the Fleet Services Supervisor for Emergency Vehicles is nineteen. The span of control for the Fleet Services Supervisor for the Light and Medium line is twelve. The span of control for the Fleet Services Supervisor for the

Fire/Boats/Sweepers Line is thirteen. The span of control for the Fleet Services Supervisor for the Packers Line is seventeen. (The Fleet Services Bureau has proposed the elimination of the Superintendent-Towing position within the fiscal year 2003-04 budget.).

There are a number of strengths in the current plan of organization for the Fleet Services Bureau. For example, the City has largely centralized management responsibility for the City's fleet with the Fleet Services Bureau. The Bureau has decentralized delivery of many of its services to their customers through the use of mobile mechanics. The Fleet Services Bureau has developed the forms and systems for Fleet Services Supervisors to quality control repairs. These strengths provide the foundation for improvements in the plan of organization for the Fleet Services Bureau.

3. FLEET MANAGEMENT WITHIN THE CITY OF LONG BEACH SHOULD BE CENTRALIZED WITHIN THE FLEET SERVICES BUREAU.

Fleet management services should be organized to meet the needs of its customers. Traditionally, it was believed that the effectiveness of fleet management was correlated to its proximity to its customers. The most obvious result was the decentralization of fleet management, each serving the seemingly unique needs of its own department.

Increasingly, however, it has been recognized that fleet management can be more effectively met through a consolidated approach. The move towards consolidation can be traced, in large measure, to the increasing complexity and cost of fleet management over the past twenty years. During this period, developments in such areas as automation, personnel management and professional development, regulation of environmental protection and occupational safety and health, and automotive technology have changed the definition of "effective" fleet management, making it

prohibitively expensive for specialized, but usually small and poor, fleet management organizations to keep up. The Fleet Services Bureau's use of the brake-testing machine for the BIT program is an example of technology that a larger fleet management organization can afford, but that a smaller and poorer organization can not.

A significant advantage of centralizing fleet management was that investment in automation, employee training, facilities, and the like are more likely to be adequately funded for one large organization than for several smaller ones. Another significant advantage is the ability it affords to standardize policies and procedures so as to promote consistent – and consistently sound – operating and service delivery practices and avoid inequities in the distribution of resources that create uneven service levels and impair employee morale. A final advantage of consolidation is that it can improve the utilization of fleet resources and capabilities – such as maintenance personnel or vehicle specification expertise – by permitting the application across organizational lines that might otherwise create barriers to such shared use.

The price of consolidation is the distancing – organizationally if not physically – of fleet management services from their customers. Sacrifices in this area should be acceptable, however, if they are offset by gains in others, and can be compensated by the use of mobile mechanics.

Thus, the key question to be addressed in examining the organization of the fleet management functions in Long Beach is whether different organizational structures will yield improvements in service effectiveness and/or cost control, always keeping in mind that service considerations should take precedence over cost considerations because that is what fleet management is about.

The organizational approach to fleet management in Long Beach is largely centralized, with the exception of the Harbor Commission and the Water Commission.

The responsibility for fleet maintenance and management of the fleets assigned to the Harbor Commission and the Water Commission should be assigned to the Fleet Services Bureau. Briefly, the vision for the fundamental shift in how fleet services in the City of Long Beach would be managed would include:

- Centralizing within a single agency the responsibility and accountability for the delivery of fleet maintenance and management services, and
- Separating support service delivery roles from the governance roles filled by the Harbor Commission and the Water Commission.

The shift of responsibility for fleet maintenance and management from the Harbor Commission and the Water Commission eliminates the fragmentation of responsibility for fleet management processes and technologies that results in inconsistencies, areas of inefficiency, and duplication.

Other cities (e.g., Charlotte, North Carolina) and the private sector have made this shift to centralized support services with clear and positive results. Based on their experience, sharing support services brings down the cost of government and allows line departments such as the Harbor Commission and the Water Commission to focus on core services.

A number of mechanisms should be built-in to assure the adequate delivery of services to the Harbor Commission and the Water Commission. These mechanisms will be presented in more detail in the previous chapter (service level agreements).

The consolidation of responsibility will enable the elimination through attrition of the two Fleet Supervisor positions within the Harbor Commission and the Water

Commission. The elimination of these two positions would generate approximately $140,000 in cost savings annually in salary and fringe benefits at top step

RECOMMENDATION 5-1: The responsibility for fleet maintenance and management of the fleets assigned to the Harbor Commission and the Water Commission should be assigned to the Fleet Services Bureau.

4. THE RESPONSIBILITY FOR SUPERVISION OF THE STOCK ROOM SHOULD BE ASSIGNED TO THE SUPERINTENDENT-MAINTENANCE.

At present, the Stock Room is supervised by the Superintendent-Operations. As noted earlier, the Superintendent-Maintenance should be held accountable for a number of key performance indicators for customers of the maintenance and repair services provided by the fleet. This would include accountability indicators such as turnaround time for repairs. The “fill rate” for parts is an important contributor to responsive turnaround time. Yet the Superintendent-Maintenance does not manage the Stock Room.

In four cities included in the comparative survey, the Stock Room reports to the Superintendent-Maintenance. This includes Charlotte, North Carolina; Sacramento, California; Virginia Beach, Virginia; and Fort Worth, Texas. In two instances, however, the Stock Room reported to a manager other than the Superintendent-Maintenance. These include the cities of Las Vegas (where it reports directly to the Fleet Manager) and Kansas City (where it reports to an Assistant Superintendent responsible for administration).

It is recommended that the responsibility for supervising the Stock Room be reassigned from the Superintendent-Operations to the Superintendent-Maintenance. However, should the Stock Room be “privatized”, the responsibility for management of

this contract should be assigned to the Superintendent-Operations.

RECOMMENDATION 5-2: The responsibility for supervising the Stock Room should be reassigned from the Superintendent-Operations to the Superintendent-Maintenance. However, should the Stock Room be "privatized", the responsibility for management of this contract should be assigned to the Superintendent-Operations.

5. A VACANT CLERK TYPIST I POSITION SHOULD BE ELIMINATED.

One of the keys to the effectiveness of service delivery for the Fleet Services Bureau is to limit the span of control of the Manager, Fleet Services Bureau, provide analytical support to develop goals, objectives, and performance measures, and provides resources to build and connect with the customers to enable the Manager, Fleet Services Bureau to manage this diverse and complex organization. The Superintendent-Operations and the support staff within that program are essential for the Manager, Fleet Services Bureau to accomplish that mission.

However, based upon review of the extent of clerical workload within the Fleet Services Bureau, it appears there are sufficient clerical positions currently filled and available. This includes clerical support for Acquisitions and for Fleet Maintenance.

The vacant Clerk Typist I position should be eliminated.

The Clerk Typist III position, currently allocated to Fleet Maintenance, should be reassigned and relocated to Operations to enable the position to be utilized effectively.

The elimination of this vacant position should enable an annual cost reduction of approximately $40,000 in salaries and fringe benefits at top step.

RECOMMENDATION 5-3: The vacant Clerk Typist I position should be eliminated.

RECOMMENDATION 5-4: The Clerk Typist III position, currently allocated to Fleet

Maintenance, should be reassigned and relocated to Operations to enable the position to be utilized effectively.

6. TWO FLEET SERVICES SUPERVISOR POSITIONS SHOULD BE REASSIGNED TO THE SUPERVISION OF EQUIPMENT MECHANICS AND GARAGE SERVICE ATTENDANTS.

While the spans of control for some Fleet Services Supervisors are too narrow, in other instances it is too broad. The span of control for the Fleet Services Supervisor for the Safety Line is nineteen. The span of control for the Fleet Services Supervisor for the Light and Medium line is twelve. The span of control for the Fleet Services Supervisor for the Fire/Boats/Sweepers Line is thirteen. The span of control for the Fleet Services Supervisor for the Packers Line is seventeen.

The problems with spans of control will be exacerbated for these Fleet Services Supervisors with the expansion of shop hours beyond those currently provided. To address these issues, two Fleet Services Supervisor positions should be reallocated.

The Fleet Services Supervisor position responsible for Facilities should be reallocated to supervision of a line (i.e., street sweepers). The Superintendent-Operations should assume responsibility for assuring the adequacy of maintenance of the facilities.

The other position, a Fleet Services Supervisor assigned to alternative fuels, should be reallocated to supervision of an equipment line through attrition given the demands of alternative fuels in the short-term.

RECOMMENDATION 5-5: The Fleet Services Supervisor position responsible for Facilities should be reallocated to supervision of a line (i.e., street sweepers).

RECOMMENDATION 5-6: A Fleet Services Supervisor assigned to alternative fuels, should be reallocated to supervision of an equipment line through attrition given the demands of alternative fuels in the short-term.

7. THE RESPONSIBILITY FOR MANAGING THE REMEDIATION OF UNDERGROUND PETROLEUM STORAGE TANKS SHOULD BE ASSIGNED TO THE PUBLIC WORKS DEPARTMENT.

The comparative survey clearly indicated that assigning responsibility to a fleet services bureau for remediation of underground petroleum storage tanks is not a prevailing practice. Most of the fleet services bureaus were not responsible for underground storage tank remediation and abatement. In most instances, this role is fulfilled by the Public Works Department as a capital improvement program project. Overall, the majority of fleet services departments are responsible for maintaining (i.e. ordering and dispensing) the fuel aspects of underground storage tanks, but are not responsible for the permitting or remediation of the tanks.

Beyond prevailing practice, the assignment of this responsibility to the Fleet Services Bureau also diverts funds intended for replacement of equipment to remediation of tanks.

In previous fiscal years, the Fleet Services Fund transferred almost $3.8 million of fund balance to the Capital sub-fund (002) to fund mitigation of underground petroleum storage tanks. This significantly exceeds the revenues generated by the fuel markup that are intended to fund remediation.

RECOMMENDATION 5-7: Responsibility for managing the remediation of underground petroleum storage tanks should be reassigned from the Fleet Services Bureau to the Public Works Department.

6. FLEET FUNDING AND FINANCIAL MANAGEMENT

6. FLEET FUNDING AND FINANCIAL MANAGEMENT

This chapter analyzed the methodology for determining cost allocation and rate calculations for customers of the Fleet Services Bureau as well as the status of the Fleet Fund, its capacity for capital replacement, underground petroleum storage tank (UPST) remediation, fueling infrastructure, and operations and maintenance of the fleet.

The characteristics of the existing funding and charge-back system was also analyzed including the approach employed to collect and apportion costs related to operation, maintenance, and replacement of the City's fleet. This analysis included:

- The extent to which maintenance and repair labor costs were recovered through a shop labor rate that recovers both direct and indirect costs;
- The extent to which actual costs of parts put on vehicles were treated as a pass-through charge to fleet users, but would include a mark-up for indirect costs;
- The extent to which sub-let repairs were treated as a pass-through charge to fleet users, but would include a mark-up for indirect costs;
- The extent to which fuel costs were recovered as a pass-through charge to fleet users, but would include a mark-up for indirect costs including an analysis of cost recovery mechanisms for UPST remediation; and
- The extent to which the costs of replacing vehicles were recouped through a flat monthly charge per class of vehicles.

The product of this task included: (1) a description of the existing procedures for capturing the costs of operation as well as vehicle replacement; and (2) documentation of the problems with the funding and billing procedures created in the operation of a cost-effective fleet and maintenance function, and (3) a recommended cost recovery model.

1. THE FLEET SERVICES BUREAU UTILIZES A NUMBER OF THE BEST PRACTICES FOR FLEET FUNDING AND FINANCIAL MANAGEMENT.

The first exhibit presented at the end of this chapter presents a comparison of the actual practices of the Fleet Services Bureau against best management practices for fleet funding and financial management. There are a number of strengths within the Bureau related to these best management practices as well as opportunities for improvement. The strengths of the Bureau include the following:

- The Fleet Services Bureau is established as an Internal Service Fund (ISF);
- The Bureau has developed a 9-year replacement plan for the fleet;
- The Bureau uses a transaction, service based method to charge fleet users for operating and maintenance costs. Operating and maintenance costs are based upon the actual cost of services provided; and
- The Bureau utilizes both operating and capital charge-back rates to recover revenues to support the operation, maintenance and replacement of the Fleet.

On the other hand, there are a number of opportunities for improvement. These opportunities include the following:

- The City is ostensibly recovering the cost of underground petroleum storage tank costs by marking-up the costs of fuel. In fact, the Fleet Services Fund has subsidized the one-time capital outlay costs associated with remediation as well as the ongoing operating and maintenance costs.
- The City does not segregate operating and capital costs. With current financial practices, it is difficult to tell if operating and maintenance rate revenue are being used to subsidize the purchase of new vehicles or vice versa.
- The City has not established a replacement fund where funds are deposited for the express purpose of replacing fleet assets. While the City has a Fleet Services Fund, operating/maintenance revenues as well as replacement revenues are co-mingled in this fund. As previously noted, this makes it difficult to tell if operating and maintenance rate revenue is being used to subsidize the purchase of new vehicles or vice versa.

- The Fleet Services Bureau does not charge itself for operating, maintenance and replacement costs for vehicles assigned to the Bureau. The fund balance within the Fleet Services Fund subsidizes these costs.

- The City has not established replacement rates that are uniform, by class, for each piece of equipment.

- Replacement charges are not assessed for 18% of the City's fleet.

- Replacement rates are based upon the gross purchase price of the equipment, and not the "net" cost.

- Operating and maintenance rates are not calculated annually based upon the actual costs of the Fleet Services Bureau

The strengths of the Fleet Services Bureau in fleet funding and financial management provide a sound foundation to address these opportunities for improvement.

2. <u>THE FLEET SERVICES BUREAU CHARGES ITS CUSTOMERS A TRANSACTION, SERVICE-BASED COST FOR THE MAINTENANCE AND REPAIR OF EQUIPMENT</u>.

The Fleet Services Bureau allocates its maintenance and repair costs to fleet users as they are incurred – on a transaction-by-transaction basis.

Maintenance and repair labor costs are recovered through a fully burdened shop labor rate that is multiplied by the actual number of hours charged to each work order. The costs of parts, and the costs associated with the Stock Room (e.g., staff salaries and benefits), are recovered through charges encompassing the actual costs of the parts put on a vehicle plus a fixed percentage mark-up per part. The costs of fuel, and the costs associated with fuel management such as maintenance and repair of fuel dispensing equipment, the ordering of fuel, etc., are recovered through charges for the actual cost of the fuel plus a fixed percentage mark-up per gallon for fuel management costs.

Each of these charges also recover a portion of the indirect costs incurred by the Fleet Services Bureau for administrative support, materials and supplies, depreciation of office and shop equipment, allocation of City-wide indirect costs, and so forth.

Fleet management costs associated with specifying, buying, making ready, disposing of, and managing the replacement of vehicles and equipment are not recovered through a fixed mark-up on a flat monthly charge for vehicle replacement. These costs are included within the fully burdened shop labor rate.

Charge-back rates for pool vehicles (e.g. the Honda Civic "loaners) are not recovered through a daily rental rate. These costs are also included in the fully burdened labor rate.

The use of a transaction, service-based charge-back system should have the effect of introducing competition into what could be a monopolistic situation. Fleet users should be able to compare the costs of services provided on a transaction-by-transaction basis with those of the private sector. This presumes, however, that the fleet users are provided with their costs of services on an ongoing basis, and are able to monitor and influence these costs.

The specifics of this charge-back system are delineated below.

(1) Maintenance and repair labor costs are recovered through a shop labor rate that recovers both direct and indirect costs.

The Fleet Services Bureau currently utilizes a shop labor rate of $73 per hour. As indicated in a previous chapter of this report, this labor rate is highly competitive with the private sector in Long Beach.

This shop labor rate is the mechanism that the Fleet Services Bureau uses to recover all costs, both direct and indirect, incurred by the Bureau in providing repair and

maintenance services to fleet users (excluding parts). Consumable shop supplies, uniforms, tools, facility maintenance, and utility costs are all examples of indirect costs that, in addition to salaries and fringe benefits, are recovered through the shop labor rate.

The shop labor rate calculation involves using the aggregate cost of maintenance and repair labor as the numerator and the projected number of direct hours billed to work orders for the entire fiscal year for technician staff as the denominator.

It is important to understand that the projected number of billable hours is a critical factor in this calculation. Over the last several years, the Bureau has enhanced the management of billable hours by its technicians and reduced the extent of indirect labor.

(2) <u>The actual costs of parts put on vehicles are treated as a pass-through charge to fleet users, and include a mark-up for indirect costs.</u>

The present mark-up on parts is 41.7% (above and beyond the direct cost of the part charged to the work order).

The parts markup in other fleets typically ranges from 25% to 40%. For example, Chesterfield County, Virginia, in a study of their County's fleet, conducted a survey regarding the mark-ups in ten other fleets ranging from Virginia Beach, Virginia to Gainesville, Florida. The average parts mark-up in the ten other fleets providing parts mark-up data was 22% with a range from a low of 10% to a high of 50%.

The costs of providing parts consists of two major components: (a) the actual cost of parts; and (b) the cost associated with procuring, inventorying, issuing, paying for, and otherwise managing and administering the acquisition and provision of these parts. In order to provide for the recovery of the administrative and managerial costs

associated with these services, including the staff assigned to the Stock Room, an additional mark-up has been added to the Bureau's cost of each part.

(3) <u>Sub-let repairs are treated as a pass-through charge to fleet users, and include a mark-up for indirect costs.</u>

The present mark-up for sub-let repairs is 10% (above and beyond the direct cost of the sub-let repair charged to the work order).

The Fleet Services Bureau charges any time spent examining vehicles requiring sub-let repairs, in obtaining repair estimates and arranging for transportation of vehicles to and from outside shops, and processing invoices and payments directly to work orders for those vehicles at the prevailing shop labor rate.

These included welding services, alternator rebuilds, transmission rebuilds, fuel pump repairs, etc. In order to provide for the recovery of the indirect administrative and managerial costs associated with these services, an additional mark-up was added to the charge for sub-let repairs.

(4) <u>Fuel costs are recovered as a pass-through charge to fleet users, and include a mark-up for indirect costs including UPST remediation.</u>

The present mark-up for fuel is 40 cents per gallon (above and beyond the direct cost of the fuel).

The fuel markup in other fleets is typically substantially less. For example, Chesterfield County, Virginia, in a study of their County's fleet, conducted a survey regarding the mark-ups in ten other fleets ranging from Virginia Beach, Virginia to Gainesville, Florida. The average fuel mark-up in these eleven other fleets providing fuel mark-up data was 21% with a range from a low of 12% to a high of 35%.

Fuel costs are recovered by charging the direct cost of the fuel consumed by

fleet users and the indirect costs incurred by the Fleet Services Bureau in acquiring, storing, managing, and dispensing fuel as well as the costs associated with the maintenance of the fuel islands.

However, costs of underground petroleum storage tank (UPST) remediation have also been ostensibly recovered through this mark-up. The costs of UPST remediation have been significant, and there is every indication they will continue to be significant in the future. In fiscal year 2003-04, the City will be facing one-time costs of $688,500 to design and install remediation systems for fire stations #7 and #17. Subsequently, the City will be facing annual operating and maintenance costs of $303,300 for these two fire stations. This includes costs associated with National Pollution Discharge Elimination System permit compliance, Air Quality Management District permit compliance, system operation and maintenance, liquid and vapor-phase activated carbon change-out, and quarterly monitoring. There are other UPST monitoring and "free product removal" costs at other sites including fire stations #10 and #11 and the tree farm. These ongoing costs amount to $102,660 per year.

This cost of fuel and UPST remediation is ostensibly recovered by a pass-through of the direct fuel cost plus a mark-up on the cost of that fuel.

* * * * * *

Overall, the methodology utilized by the Fleet Services Bureau to determine the shop labor rate and the associated mark-up costs is sound.

3. <u>THE COST OF REPLACING VEHICLES IS RECOUPED THROUGH A FLAT MONTHLY CHARGE PER VEHICLE.</u>

The Fleet Services Bureau, in determining the flat replacement charge per class of vehicles, considers a number of parameters including the following:

- Replacement criterion in years – the number of years a class of vehicles is expected to remain in service;

- Replacement criterion in usage – the upper limit of use (miles or hours) that a vehicle is expected to remain in service;

- Gross purchase price – the estimated purchase price of the unit in current year dollars; and

- Estimated inflation rate – the estimate of the annual increase in the gross purchase price.

This monthly replacement charge is the projected gross replacement cost of the unit amortized over its expected life.

There are a number of issues associated with the methodology utilized by the Fleet Services Bureau to calculate these replacement charges. These issues are delineated below.

- The estimated residual value – the revenue the typical unit in the class will bring at auction is not factored into the replacement charge. The replacement charge is based upon the gross purchase cost of the vehicle, not the net replacement cost.

- Make-ready costs – the capital cost of services required to put a unit in service (the costs incurred to remove and install light bars, cages, etc) are charged to a work order and not capitalized. In addition, the capital cost of upfitting some equipment (light bars, cages, etc.) such as police patrol sedans is not included within the replacement charge. In the case of police patrol sedans, the Police Department is invoiced separately when this equipment needs to be replaced (since it will not always need to be replaced each time the police patrol sedan is replaced).

- A total of 1,533 vehicles within the City's fleet are being charged a replacement charge, which means that approximately 340 pieces of equipment are not included within the City's replacement fund. This includes primarily, but is not limited to, vehicles that are assigned to the Fleet Services Bureau (57 vehicles), equipment acquired from the U.S. Navy (26 vehicles), stationary generators (28 generators), transferred and donated equipment (36 vehicles), vehicles acquired through grants (92 vehicles), and "loaners" or vehicles that have already been replaced, but that are still being utilized (41 vehicles).

- The monthly replacement charge, as mentioned earlier in this chapter, does not include a management fee to recover costs incurred by the Division in specifying, procuring, placing in service, administering, and disposing of vehicles.

- If vehicles have already exceeded their replacement criterion, either in years or usage, the department to which this vehicle is assigned continues to be charged a full replacement charge rather than the cost of the vehicles estimated annual inflation. At one time, the Bureau utilized this procedure.

- The monthly replacement charges within each class of vehicles are inconsistent. For example, the monthly replacement charge for general-purpose sedans, class 030, ranges from $177 per month to $386 per month.

- The class for general purpose sedans has been aggregated into a single class, and not separated into sub-compact, compact, mid-size, and full-size sedan classes. This distorts the replacement charges for sedans; sub-compact and compact sedans are charged a higher than necessary replacement charge. Pick up trucks are separated into variety of different classes of vehicles ranging from compact pick up trucks to 1/2 ton to 3/4 ton to 1 ton.

These issues need to be addressed by the City and the Fleet Services Bureau in the development of the nine-year fleet replacement plan. Other issues were considered in the development of revised replacement charges for the various classes within the City's fleet as presented later in this chapter.

4. THE SHOP LABOR RATE AND THE ASSOCIATED MARK UPS FOR PARTS, FUEL, AND SUB-LET REPAIRS SHOULD BE REDUCED.

Rate calculation is the process of converting the total costs attributable to the Fleet Services Bureau operating and maintenance costs to a charge back rate that will recover the full cost of providing these services. This is accomplished by dividing the costs in each cost center (i.e., fleet acquisition, fleet maintenance, stock room, etc.) by the total number of units that are anticipated to be consumed or provided in the next fiscal year (i.e., number of vehicles in the fleet, hours billed to work orders, parts billed to work orders, etc.).

In calculating the rates for the Fleet Services Bureau, the actual fiscal year 2002-03 costs for the Fleet Services Fund were utilized. These costs were allocated to various cost centers corresponding to the principal types of goods and services the Bureau sells, and then the sum of the costs in each cost center were divided by the annual volume of services (i.e., direct labor hours billed to work orders). These unit rate costs were then compared to the rates currently employed by the Bureau to assess their reasonableness.

Charge back rates should be designed so as to promote cost recognition and control. In general, this means that rates should be tied to discrete goods and services that are recognizable to the average fleet user and they should differentiate the goods and services provided insofar as the costs of these goods and services are significantly different. One of the best indicators of the appropriateness of a rate structure is that the rates employed are logical and intuitively acceptable.

While the methodology employed by the Bureau is sound, the rate structure should be modified and reduced. Each of the recommendations regarding the rate structure is discussed in more detail below.

(1) <u>The Hourly Shop Labor Rate Should Remain at $73</u>.

The hourly shop labor rate employed by the Bureau is based upon the costs for the fleet maintenance cost center divided by the billable hours as identified within M4. The costs for the fleet maintenance cost center include a number of components.

- Salaries and fringe benefits.
- Services and supply costs attributable to the fleet maintenance cost center such as uniforms, small tools and equipment, welding supplies, etc.

- Internal support charges that were specifically allocated to this cost center by the Fleet Services Bureau (such as Information Services).
- Capital outlay that was specifically allocated to this cost center by the Fleet Services Bureau (such as software systems and other machinery and equipment).
- The "net" debt service that is paid by the Fleet Services Fund.
- A proportion of overhead and facility maintenance.

The shop labor rate should be $67. However, the number of billable hours has been dropping significantly since 2001. In 2001, 100,000 hours were billed by technicians to work orders. The trend suggested by the first two months of this fiscal years would suggest approximately 76,200 hours would be billed by technicians to repair orders. Until this situation stabilizes, the Matrix Consulting Group recommends that the shop labor rate not be reduced.

(2) <u>The Mark-Up for Parts should be Reduced From 41.7% to 23%.</u>

The parts mark-up is based upon the costs for the Stock Room cost center divided by the value of the parts billed to work orders as identified within M4 (excluding helicopter parts). The mark-up represents a number of components including the following:

- The costs associated with the staff that operates the Stock Room.
- Services and supply costs attributable to the Stock Room cost center such as financial services, etc.
- Internal support charges that were specifically allocated to this cost center by the Fleet Services Bureau (such as postage).
- A proportion of overhead and facility maintenance.

Given this cost structure, the mark-up for parts should proximate 23% (that would not be charged to helicopter parts since these are ordered directly by the staff assigned to helicopter repair).

(3) The Mark-Up for Commercial Repairs Should Remain at 10%.

Commercial or sub-let repairs represents the cost of the commercial repair cost center divided by the cost of commercial repairs as identified within FAMIS. The mark-up represents a number of components including the following:

- The costs associated with Fleet Supervisors that request and obtain repair estimates and monitor these sub-let repairs. This was estimated at 15% of the total annual labor hours of each Fleet Supervisor.
- Services and supply costs attributable to the sub-let repairs including other contractual services, inspections, and automotive repairs and maintenance.
- A proportion of overhead and facility maintenance.

The mark-up rate should remain at 10%.

(4) The Mark-Up for Fuel Should be Reduced From 40 Cents Per Gallon to 23 Cents Per Gallon and Should not be Utilized to Recover Costs of UPST Remediation.

The objective of this mark-up is to recover the cost the Bureau incurs in acquiring, storing, managing, and dispensing fuel, but not the costs associated with UPST remediation. The Matrix Consulting Group recommends that the City discontinue attempting to ostensibly recover the costs associated with UPST remediation as part of the fuel mark-up.

The fuel mark-up represents a number of components including the following:

- The costs associated with staff ordering fuel and the costs associated with the maintenance and repair of fuel islands.
- Services and supply costs attributable to the fuel including the cost of the fuel, the costs of commercial repair of the fuel islands, the cost of parts for the fuel

dispensing equipment, the costs of taxes and assessments of fuel dispensing, etc.

- Internal support charges that were specifically allocated to this cost center by the Fleet Services Bureau (i.e., information services, voice communication, etc).
- A proportion of overhead and facility maintenance.

The mark-up rate should be 23 cents per gallon. This is less than the markup suggested by the financial analysis. However, the markup suggested by the financial analysis – 30 cents per gallon - would result in a markup that would exceed the market cost for unleaded gasoline.

There were a number of factors at play in fiscal year 2002-03 that impacted markups such as the extent of vacant technician positions that would have unreasonably increased the markup for fuel. As the workforce stabilizes in the Fleet Services Bureau and a number of important management positions in the Bureau are filled, the fuel markup should be re-assessed.

The cost difference between the 30 cents per gallon markup suggested by the financial analysis and the 23 cents markup recommended by the Matrix Consulting Group amounts to $120,000 in revenue. In the financial analysis, this was treated as an expense and included within the shop labor rate.

(5) <u>A Fleet Acquisition and Replacement Fee of $132 Per Vehicle Should Be Charged</u>

The objective of this fee is to recover the staff, services and supply costs the Bureau incurs in vehicle specification, procurement, disposal, and titling and registration. The fleet acquisition and replacement fee was determined by dividing the total operating costs associated with fleet acquisition and replacement by the total number of vehicles within the fleet.

The Bureau added a $20 fee for fleet acquisition and replacement in 1999-00, but the revenue was not tracked separately.

The fleet acquisition and replacement fee represents a number of components including the following:

- The costs associated with staff allocated to vehicle specification, procurement, disposal, and titling and registration.
- Services and supply costs attributable to vehicle specification, procurement, disposal, and titling and registration such as travel, training, memberships, etc.
- Internal support charges that were specifically allocated to this cost center by the Fleet Services Bureau (i.e., information services, voice communication, etc).
- A proportion of overhead and facility maintenance.

The fleet acquisition and replacement fee should be $132 per vehicle per year.

RECOMMENDATION 6-1: While the methodology employed by the Fleet Services Bureau is sound, the rate structure should be modified and reduced. The shop labor rate should remain at $73, the markup for parts should be reduced from 41.7% to 23%, the markup for sub-let repairs should remain at 10%, the markup for fuel should be reduced from 40 cents per gallon to 23 cents per gallon, and a fleet acquisition and replacement fee of $132 per vehicle should be charged.

RECOMMENDATION 6-2: The City should discontinue attempting to ostensibly recover the costs associated with UPST remediation as part of the fuel mark-up.

RECOMMENDATION 6-3: The shop labor rates and the markups should be re-evaluated and adjusted as appropriate by the Fleet Services Bureau annually prior to the initiation of the budget process for the City of Long Beach.

5. THE FLEET REPLACEMENT CRITERIA, FUNDING, AND REPLACEMENT COSTS SHOULD BE MODIFIED.

Owning and operating a large fleet of vehicles is expensive. The fleet assets themselves require large capital expenditures for initial purchase and replacement. The cost of administering, maintaining, repairing, and fueling the fleet requires a large fleet operating budget. One goal of cost-effective fleet management is to minimize the total capital and operating costs for the fleet. This demands that a proper balance be achieved between these two components, as they most often move in opposite directions as fleet's age.

In addition to the inverse relationship between capital and operating costs as fleet's age, fleet managers must also consider the effect of vehicle age on its actual or perceived reliability. There is a loss of employee productivity when an older, less reliable vehicle is out of service for more frequent maintenance and repair. There must be a larger number of vehicles in the fleet to provide a spare vehicle for the affected employee, provisions must be in place to use loaner or rental vehicles, or the employee is left without a vehicle and is unable to perform his or her job.

Older vehicles also tend to be under-utilized because employees are pre-disposed against operating them when younger vehicles are available. Both of these situations result in higher overall costs, either due to lost employee productivity or a larger than necessary fleet.

Fleet replacement planning, the process of determining when fleet assets should be retired and replaced with new vehicles, and how the purchase of those assets will be funded, is therefore a critically important aspect of fleet management.

(1) A Few Adjustments Should Be Made in the Replacement Criteria Utilized by the Fleet Services Bureau.

Replacement planning criteria are most typically expressed as the age and/or odometer reading at which particular classes of vehicles and equipment are targeted for replacement. This is the approach utilized by the Fleet Services Bureau. A few adjustments should be made in the replacement criteria utilized by the Fleet Services Bureau. These adjustments include the following:

- Police/Fire Solids should be replaced at eight years and 95,000 miles, not the seven years within the current replacement schedule. These vehicles are not reaching 95,000 miles of life-to-date use in seven years. As a consequence, this class of vehicles should not be charged a replacement charge based upon seven years.

- The sedan class should be disaggregated into four classes of sedans: subcompact, compact, mid-size, and full-size.

- Utility vehicle-compact should be replaced at eight years and 95,000 miles, not at seven years as reflected within the current replacement schedule. This eight-year schedule is the same replacement schedule as sedans. These vehicles are not reaching 95,000 miles of life-to-date use in seven years. As a consequence, this class of vehicles should not be charged a replacement charge based upon seven years.

- Sweeper vacuum three-wheel and street sweeper three wheel should be replaced at five years, not at four years as reflected within the current replacement schedule. This is a more common replacement guideline in other cities.

- Police motorcycles should be replaced at five years, not at four years as reflected within the current replacement schedule. This is a more common replacement guideline in other cities.

The fleet replacement criteria utilized by the Fleet Services Bureau are comparable to other fleets and are sound.

RECOMMENDATION 6-4: A few adjustments should be made in the replacement criteria utilized by the Fleet Services Bureau.

(2) <u>The Basis for Determining the Replacement Value for Vehicles Should Include the Salvage Value</u>.

In the four fiscal years from 1998-99 to 2001-02, the Fleet Services Bureau received revenue for the sale of motorized equipment. The amount of revenue is presented in the table below. As the table indicates, the Bureau has recovered as little as $157,809 in 1998-99 to as much as $293,112 in 2000-01.

1998-99	1999-00	2000-01	2001-02
$157,809	$274,615	$293,112	$236,788

The Bureau does not utilize this salvage value or revenue when determining the replacement charge for a particular class of vehicles. The Bureau utilizes the gross purchase price for the vehicle.

RECOMMENDATION 6-5: The Bureau, in determining the replacement charge, should include the estimated value the class of vehicles will bring at auction less the percentage to Property Sales. The replacement charge should be based upon the net replacement cost for a particular class of vehicles.

(3) <u>The Basis for Determining the Replacement Value for Vehicles Should Include the Costs of Replacing Special Equipment (e.g., Light Bars)</u>.

The Bureau, in a number of instances, includes the costs of special equipment associated with vehicles that it acquires for its customers. For example, pickup trucks with utility beds are charged a different replacement value than pickup trucks without utility beds. This type of pickup truck is charged as a service truck class of vehicles.

However, for other classes of vehicles, such as police patrol sedans, the cost of this special equipment is not included. A police patrol sedan will include a number of different pieces of equipment that are installed by the Fleet Services Bureau such as

light bars, cages, etc. While this equipment will not be replaced every time the police patrol sedan is replaced, the cost of replacing the equipment should be included even if the equipment is replaced on a different schedule than the class of vehicles.

RECOMMENDATION 6-6: The basis for determining the replacement value for vehicles should include the costs of replacing special equipment.

(4) Vehicles That Have Exceeded Replacement Criteria Should Be Charged an Inflation Adjustment, Not the Regular Replacement Charge.

There are a number of pieces of equipment within the City's fleet that have exceeded their replacement criteria. The Bureau has already ostensibly recovered their replacement value (although this is not always the case particularly for heavy equipment). The Bureau should not charge the regular, ongoing replacement charge for vehicles that have exceeded the replacement criteria.

However, the Bureau is in no position to implement this recommendation in the short-term. The average age of the City's fleet is the oldest that has been observed by the Matrix Consulting Group. Implementation of this recommendation would reduce the replacement revenue by an estimated 20% or $1.4 million annually, at a time when a significant proportion of the fleet needs to be replaced. Implementation of this policy should be delayed until a significant proportion of the 9-year replacement plan developed by the Fleet Services Bureau has been implemented (or approximately in 2009).

RECOMMENDATION 6-7: The Bureau should not charge the regular, ongoing replacement charge for vehicles that have exceeded the replacement criteria. The Bureau should only charge an inflation adjustment designed to assure that the increased cost of equipment is recovered. This recommendation should be delayed until

a significant proportion of the 9-year replacement plan developed by the Fleet Services Bureau has been implemented (or approximately in 2009) given the significant short-term need for replacement revenue.

(5) <u>All Equipment Within A Class Should Be Charged the Same Replacement Value</u>.

As previously noted, the Bureau is utilizing different replacement charges for equipment within the same class. For example:

- There are 78 utility vehicle-compact (e.g., Ford Escape) that are currently being charged a replacement charge (class 066). The replacement charge varies from a low of $176.96 per month to a high of $937.63 per month. The median monthly replacement charge is $406.56.

- There are 189 police patrol sedans being charged a monthly replacement charge (class 045). The replacement charge varies from a low of $316 per month to a high of $709.16 per month. The median monthly replacement charge is $602.50.

- There are 159 police/fire solid sedans being charged a monthly replacement charge (class 040). The monthly replacement charge varies from a low of $171.57 to a high of $503.54. The median is $391.48.

- There are 42 police motorcycles being charged a monthly replacement charge (class 005). The replacement charge varies from a low of $74.69 per month to a high of $295.42 per month. The median monthly replacement charge is $147.70.

- There are 34 general-purpose sedans being charged a monthly replacement charge (class 030). The replacement charge varies from a low of $177.34 per month to a high of $385.95 per month. The median monthly replacement charge is $245.26.

- There are 38 compact pickup trucks being charged a monthly replacement charge (class 090 and 091). The replacement charge varies from a low of $149.97 per month to a high of $332.75 per month. The median monthly replacement charge is $190.19.

- There are 30 three-quarter ton pickup trucks being charged a monthly replacement charge (class 105). The replacement charge varies from a low of $154.87 per month to a high of $555.41 per month. The median monthly replacement charge is $305.76.

- There are 30 side loader refuse packers being charged a monthly replacement charge (class 262). The replacement charge varies from a low of $1,885.20 per month to a high of $3,251.61 per month. The median monthly replacement charge is $1,959.18.

This is a highly unusual practice. The practice has serious negative financial ramifications for the Fleet Services Fund. Vehicles are replaced without being fully funded for replacement. The Bureau is, in essence, borrowing from its future to pay for present replacement obligations. This is clearly evident in the second exhibit presented at the end of this chapter. As the exhibit indicates, the vehicles replaced over the time frame from April 29, 2000 through March 8, 2003 were under funded for replacement by a total of almost $3.2 million. The Fire Department contributed $1.2 million life-to-date for replacement of vehicles that cost $2.7 million to replace during this three-year period. An enterprise fund, the refuse collection fund - contributed almost $2.4 million life-to-date for replacement of vehicles that cost almost $2.8 million to replace during this three-year period.

RECOMMENDATION 6-8: Each class of vehicles should be charged the same replacement charge. Adjustments should be made annually due to inflationary increases in the cost of vehicles, and these adjustments should be made to all equipment within the class consistently and uniformly.

RECOMMENDATION 6-9: The enterprise funds should contribute the amount of funds to the Fleet Services Fund necessary to redress the imbalance between replacement contributions and replacement costs for the vehicles replaced on behalf of these enterprise funds over the time frame from April 29, 2000 through March 8, 2003. This amounts to approximately $553,000.

RECOMMENDATION 6-10: The equipment classes utilized by the Fleet Services Bureau need to be refined to reflect the differences in equipment specifications (e.g., compact pickup, compact pickup with extended cab, etc.).

(6) <u>The Monthly Replacement Charges For All Classes of Equipment Should Be Evaluated and Adjusted to Reflect Current Replacement Costs</u>.

A review of the monthly replacement charge for some classes of equipment indicates that the median replacement charge for these classes of vehicles is set at a level that should be changed. In some instances, the median replacement charge can be reduced; in other instances, it should be increased. Examples of these adjustments are delineated below.

- The utility vehicle-compact class of vehicles is being charged a median monthly replacement charge of $406.56. This class of vehicle is being replaced on a seven-year schedule (although it is recommended that the class be replaced on an eight year schedule). Over seven years, a total of $34,151 will have been collected for replacement. Compact sport utility vehicles (e.g., Jeep Liberty) can be purchased through the State for approximately $19,400.

- The police motorcycle class of vehicles is being charged a median monthly replacement charge of $147.70. This class of vehicle is being replaced on a four-year schedule although it is recommended that this class be replaced on a five-year schedule). Over four years, a total of $7,090 will have been collected for replacement. The City is currently in the process of acquiring replacement police motorcycles. The replacement cost per motorcycle is $19,000.

- The police/fire solid class of vehicles is being is being charged a median monthly replacement charge of $391.48. This class of vehicle is being replaced on a seven-year schedule (although it is recommended that the class be replaced on an eight year schedule). Over four years, a total of $32,884 will have been collected for replacement. The replacement cost of full-size sedans (e.g., Ford Crown Victoria) should proximate $18,000 to $20,000. As noted within this chapter, it is recommended that this class of vehicles be downsized to a mid-size sedan. Mid-size sedans (e.g., Ford Taurus) can be purchased through the State for approximately $15,100.

- The general-purpose sedan class of vehicles is being charged a median monthly replacement charge of $245.26. This class of vehicle is being replaced on an eight-year schedule. Over eight years, a total of $23,544 will have been collected

for replacement. Mid-size sedans (e.g., Ford Taurus) can be purchased through the State for approximately $15,100.

- The compact pickup truck class of vehicles is being charged a median monthly replacement charge of $190.19. This class of vehicle is being replaced on a nine-year schedule. Over nine years, a total of $20,540 will have been collected for replacement. Compact pickup trucks (e.g., Ford Ranger with a V-6) can be purchased through the State for approximately $12,200.

- The three-quarter ton pickup truck class of vehicles is being charged a median monthly replacement charge of $305.76. This class of vehicle is being replaced on a nine-year schedule. Over nine years, a total of $33,022 will have been collected for replacement. The three-quarter ton pickup truck (e.g., Ford F250 with 8,800 GVW) can be purchased through the State for approximately $20,500.

- The side loader refuse truck class of vehicles is being charged a median monthly replacement charge of $1,959.18. This class of vehicle is being replaced on a seven-year schedule. Over seven years, a total of $164,571 will have been collected for replacement. The LNG side loader refuse trucks recently ordered by the City cost an average of $210,740 each.

- The police patrol sedan class of vehicles is being charged a median monthly replacement charge of $602.50. This class of vehicle is being replaced on a four-year schedule. Over four years, a total of $28,920 will have been collected for replacement. Police patrol sedans can be purchased through the State for approximately $26,000.

- The street sweeper three wheel (class 225) is being charged a median monthly replacement charge of $1,645.31. This class of vehicles is being replaced on a four-year schedule (although it is recommended that this schedule be adjusted to five years). Over four years, a total of $78,975 will have been collected for replacement. The LNG street sweepers recently ordered by the City cost an average of $148,837.53.

RECOMMENDATION 6-11: The Fleet Services Bureau should evaluate the replacement costs for equipment, and make adjustments so that the replacement charges reflect current replacement costs.

(7) <u>The Class for General Purpose Sedans should be Disaggregated into Sub-Compact, Compact, Mid-Size, and Full-Size Sedans.</u>

At present, these various classes of sedans are “lumped together” into a single class: sedan (class 030). This distorts the replacement charges for sedans; sub-

compact and compact sedans are charged a higher than necessary replacement charge. Pick up trucks are separated into variety of different classes of vehicles ranging from compact pick up trucks to 1/2 ton to 3/4 ton to 1 ton.

RECOMMENDATION 6-12: The class of sedans (class 030) should be disaggregated into classes including sub-compacts, compacts, mid-size, and full-size sedans with appropriate and different replacement charges for each class.

(8) The City Can Ill Afford the Ongoing Expense of Replacement for the 18% of the Fleet That Is Not Charged for Replacement.

A total of 1,533 vehicles within the City's fleet are being charged for their replacement. The Bureau collects approximately $9.6 million annually for the replacement of these 1,533 vehicles.

There are approximately 340 pieces of equipment, or 18% of the City's fleet, that are not charged for their replacement. This includes primarily, but is not limited to, vehicles that are assigned to the Fleet Services Bureau (57 vehicles), equipment acquired from the U.S. Navy (26 vehicles), stationary generators (28 generators), transferred and donated equipment (36 vehicles), vehicles acquired through grants (92 vehicles), and "loaners" or vehicles that have already been replaced, but are still being utilized (41 vehicles).

If the 340 pieces of equipment were charged a replacement charge, the costs of fleet replacement would increase by some $2 million annually. In the City's current fiscal condition, the City can ill afford such a cost increase.

The City's fleet already faces significant financial problems. The average age of City's fleet is older than any analyzed by the Matrix Consulting Group. As a consequence, the repair and maintenance costs are significantly higher than

appropriate.

RECOMMENDATION 6-13: The Fleet Services Bureau should work with operating departments to reduce that portion of the fleet not charged for replacement to enable a sustainable ongoing replacement program or reach agreement with the departments that these vehicles should be designated as "do not replace" (for example, the vehicles were purchased with grant funds and will be replaced with grant funds).

6. THE CITY SHOULD ADOPT POLICIES REGARDING RETENTION OF VEHICLES THAT HAVE BEEN REPLACED AND THE LEVYING OF REPLACEMENT CHARGES FOR VEHICLES ACQUIRED THROUGH GRANTS.

As noted previously, a significant proportion of vehicles that are not included within the replacement fund are vehicles acquired through grants and loaners or vehicles that have already been replaced, but are still being utilized.

RECOMMENDATION 6-14: The City should adopt a policy prohibiting reuse of vehicles after replacement. A possible policy is presented below.

"*Fleet equipment replaced will be removed from service and will not be reactivated and returned to service in a new assignment unless approved by the Budget Bureau. All retired vehicles will be disposed of as surplus property. A secondary use or similar program will not be used to augment the regular fleet unless approved by the Budget Bureau*."

This policy, in essence, would prohibit the reuse of a vehicle already replaced. The exceptions would include fire apparatus reserves, and police patrol sedans and motorcycles used for training.

RECOMMENDATION 6-15: A policy requiring the funding of replacement charges for grant-funded vehicles should also be adopted. This policy should exempt programs that are routinely funded by grants on an ongoing basis such as those in the Health Department. This possible policy is presented as follows:

"Funds shall be reserved annually for replacement of City vehicles, including grant-funded acquisition of vehicles, and these costs will be reflected in the operating expenditures of the activity using the vehicle, to facilitate accurate costing of service delivery unless otherwise approved by the Budget Bureau."

These policies should be integrated into a set of fleet management policies that are approved by the City Manager's Office.

7. THE FLEET SERVICES BUREAU SHOULD CHARGE ITSELF FOR OPERATING AND MAINTENANCE COSTS AND REPLACEMENT CHARGES FOR EQUIPMENT ASSIGNED TO THE BUREAU.

At present, the Fleet Services Bureau does not charge itself for the annual operating and maintenance costs associated with the 57 vehicles assigned to the Bureau, nor replacement.

These costs are funded through fund balance of the Fleet Services Fund. This results in the understating of the shop labor rate, since these costs represent overhead that should be charged to the customers of the Fleet Services Bureau.

RECOMMENDATION 6-16: The Fleet Services Bureau should charge itself for the costs associated with the annual operating and maintenance costs associated with the 57 vehicles assigned to the Bureau and their replacement.

8. THE CITY SHOULD ESTABLISH SUB-FUNDS FOR EQUIPMENT OPERATING/MAINTENANCE AND REPLACEMENT REVENUES AND EXPENSES.

At present, revenue received from City departments for the operating and maintenance costs for assigned equipment and the replacement for this equipment is mixed in one fund.

With this practice, it is difficult to determine the financial condition of the fund and makes it more difficult to determine if operating revenue is being used to subsidize the acquisition of new vehicles or vice versa.

Two sub-funds should be established.

One sub-fund should be utilized for operating and maintenance expenses and revenue. Given annual operating and maintenance expenditures, approximately $2.5 million in reserves would be required in this sub-fund. This is equivalent to a reserve of 15%. This would result in 18% of the sub-fund 01 year-end balance for 2002-03 should be allocated as this reserve.

The other sub-fund should be utilized for replacement revenue and expenses. A total of $11,250,178 in sub-fund 01 year-end 2002-03 fund balance should be allocated for this purpose. This is sufficient to meet 2004-05 replacement needs.

RECOMMENDATION 6-17: The Fleet Services Fund sub-fund 01 should be modified to include two sub-funds: one for operating and maintenance revenue and expenses and the other for replacement revenue and expenses.

9. IF FUNDING FOR REMEDIATION OF UNDERGROUND PETROLEUM STORAGE TANKS IS NO LONGER PROVIDED BY THE FLEET FUND, THE FLEET FUND SHOULD HAVE SUFFICIENT LEVELS OF REVENUES TO MEET ITS OPERATING AND CAPITAL REQUIREMENTS.

As noted earlier, the City's average age for its fleet is far more than other fleets the Matrix Consulting Group has worked with – twice as old in fact. This has serious and expensive impacts on maintenance and repair expenditures. In fact, unless the City increases the level of expenditures beyond the historical pattern over the four fiscal years from 1999 – 2002, this situation will likely get worse, not better.

In our assessment of the impact of the extreme age of the City's fleet on maintenance and repair costs, the Matrix Consulting Group utilized some common competitive benchmarks. We use a technique known as Vehicle Equivalent Unit (VEU) analysis to benchmark fleet organization costs. This technique produces a common unit

of measure by which to compare dissimilar fleets. More information on this technique and how we apply it to compare fleet operations is provided in a later section of this report. The following table provides the results of our analysis of maintenance and repair costs:

Cost Factor	Benchmark	Long Beach
Labor Cost/VEU	$400-$600	$1,180
Parts Cost/VEU	$300-$500	$580
Sub-Let Cost/VEU	$100-$200	$195
Total M&R Cost/VEU	**$900-$1,200**	**$1,955**

As the data indicates, the City of Long Beach is spending almost two-thirds more for maintenance and repair of its present fleet than these competitive benchmarks would suggest is appropriate. This is a particular problem with labor costs and parts costs.

While it will be addressed in more detail in the next chapter, the City needs to initiate an aggressive program to reduce the age of the fleet. Over the next nine years, the City will need to spend an annual average of $9.2 million annually to meet replacement criteria (given the current size of the fleet and including those vehicles charged for replacement at present). Lease purchase financing will be necessary for some of the peak expenditures during this nine-year replacement plan for heavy equipment, however.

The Fleet Services Bureau is collecting sufficient revenue in replacement charges to meet this requirement. The Fund is collecting approximately $9.6 million in replacement charges annually. This level of funding is sufficient to meet the requirements of the nine-year replacement plan (for those vehicles that are currently being charged a replacement charge and are part of the nine-year replacement plan).

In the past, however, the Bureau has had to divert these revenues to funding of

the remediation of underground petroleum storage tank: $4.1 million from 1999 to 2002. This practice has resulted in an increase in the age of the fleet and significant increases in the maintenance and repair costs of the fleet. As recommended elsewhere in the report, a separate and different funding source should be developed for the remediation of underground petroleum storage tanks.

The City should approve the first year of the nine-year replacement plan for 2004-05. Once the City begins to reduce the average age of its fleet, it should be capable of reducing its parts costs and either reducing the amount of labor or contracting in significant amounts of additional work (such as the Harbor Commission and Water Commission) without the addition of staff.

The analysis within this report has developed recommendations for the shop labor rate and associated markups. Their implementation should enable the Fleet Fund to recover operating and maintenance costs for the Fleet Fund.

RECOMMENDATION 6-18: The City should approve the replacement of vehicles recommended by the Fleet Services Bureau in 2004-05 of the nine year replacement plan, and take aggressive action to reduce the age of its fleet in subsequent fiscal years.

Exhibit 8

Comparison of the Actual Fleet Funding and Financial Management Practices Against Best Management Practices

BEST MANAGEMENT PRACTICE	STRENGTHS OF THE FLEET SERVICES BUREAU	OPPORTUNITIES FOR IMPROVEMENT
An Internal Service Fund (ISF) is in place for the fleet program.	The Fleet Services Bureau is established as an ISF.	
Operating and capital costs are segregated within the fleet ISF.		The City is not segregating operating and capital costs. With current financial practices, it is difficult to tell if operating rate revenue is being used to subsidize the purchase of new vehicles or vice versa.
A replacement reserve or sinking fund is used to insure the timely replacement of fleet assets.	The Bureau has developed a 9-year replacement plan.	The City has not established a replacement fund where funds are deposited for the express purpose of replacing fleet assets.
A charge-back system is in place.	The Bureau uses a transaction, service based method to charge fleet users for operating and maintenance costs. The Bureau utilizes both operating and capital charge-back rates to recover revenues to support the operation. Operating and maintenance costs are based upon the actual cost of services provided.	The Fleet Services does not charge itself for operating, maintenance and replacement costs for vehicles assigned to the Bureau. Replacement rates are not uniform for each class. Replacement charges are not charged for 18% of the fleet. The replacement rates are based upon the gross purchase price of the equipment, and not the “net”.
Charge-back rates are empirically calculated and updated on at least an annual basis.		Rates are not calculated based upon the actual budget of the Fleet Services Bureau. The operating charge-back rates should be calculated annually and adjusted to accommodate for under or over recovery of revenue from the previous year.

Exhibit 9 (1)

Vehicle Acquisition
Fleet Fund Subsidy by Fund
April 29, 2000 through March 8, 2003

Fund	Department	Original Purchase	Department Contribution	Replacement Cost	Fleet Fund Revenue/ (Subsidy)
General Fund	City Prosecutor	$ 12,738	$ 17,655	$ 22,043	**$ (4,388)**
	LB Energy	$ 174,025	$ 250,472	$ 292,112	**$ (41,640)**
	Fire	$ 1,082,975	$ 1,219,300	$ 2,747,542	**$ (1,528,242)**
	Financial Management	$ 14,177	$ 19,211	$ 20,223	**$ (1,012)**
	Health	$ 82,771	$ 109,736	$ 136,044	**$ (26,308)**
	Library	$ 14,709	$ 19,731	$ 31,055	**$ (11,324)**
	Planning & Building	$ 119,299	$ 176,866	$ 200,359	**$ (23,493)**
	Police	$ 614,985	$ 760,186	$ 929,587	**$ (169,401)**
	Parks, Rec & Marine	$ 200,994	$ 237,334	$ 310,311	**$ (72,977)**
	Public Works	$ 1,038,055	$ 1,337,282	$ 1,806,866	**$ (469,584)**
TOTAL GP		**$ 3,354,728**	**$ 4,147,773**	**$ 6,496,142**	**$ (2,348,369)**
SR 182	PW	$ 53,710	$ 74,665	$ 84,282	**$ (9,617)**
TOTAL SR		**$ 53,710**	**$ 74,665**	**$ 84,282**	**$ (9,617)**
EF 301 (Gas)	LBE	$ 376,418	$ 452,081	$ 566,844	**$ (114,763)**
EF 320 (Airport)	PW	$ 12,554	$ 18,367	$ 24,064	**$ (5,697)**
EF 330 (Refuse)	LBE	$ 2,020,745	$ 2,356,197	$ 2,788,588	**$ (432,391)**
TOTAL EF		**$ 2,409,717**	**$ 2,826,645**	**$ 3,379,496**	**$ (552,851)**

Exhibit 9 (2)

Fund	Department	Original Purchase	Department Contribution	Replacement Cost	Fleet Fund Revenue/ (Subsidy)
IS 380 (CC)	TS	$ 75,360	$ 79,750	$ 101,114	$ (21,364)
IS 385-003 (Gen Srv)	TS	$ 16,304	$ 21,236	$ 24,784	$ (3,548)
IS 385-003 (Gen Srv)	TS	$ 65,911	$ 87,173	$ 62,238	$ 24,935
IS 386 (Fleet)	LBE	$ 71,961	$ 73,469	$ 75,524	$ (2,055)
IS 390	PB	$ 13,768	$ 15,346	$ 24,064	$ (8,718)
TOTAL IS		**$ 243,304**	**$ 276,974**	**$ 287,724**	**$ (10,750)**
TF 401 (TOF)	PRM	$ 137,648	$ 159,191	$ 219,486	$ (60,295)
TF 403 (Marina)	PRM	$ 242,310	$ 297,418	$ 503,654	$ (206,236)
TF 411 (Rainbow)	PRM	$ 13,765	$ 17,030	$ 19,872	$ (2,842)
TOTAL TF		**$ 393,723**	**$ 473,639**	**$ 743,012**	**$ (269,373)**
GRAND TOTAL		**$ 6,455,182**	**$ 7,799,696**	**$ 10,990,656**	**$ (3,190,960)**

7. FLEET UTILIZATION

7. FLEET UTILIZATION

The City's fleet has an approximate replacement value of $87 million. This is a significant investment of taxpayer dollars. Every dollar invested in the City's fleet is a dollar that can't be used elsewhere to provide services to the public. It is important that the need for vehicles within the City's fleet meet usage guidelines and that no other alternatives exist to provide transportation for City employees in those situations where usage falls below those guidelines.

The basic steps involved in the analysis of opportunities for evaluating the number of vehicles within the City's fleet included the following:

- Interviewed managers in departments to whom the vehicles are assigned to gain an understanding regarding how each vehicle is utilized and assigned.
- Established criteria (i.e., annual mileage, the frequency with which vehicles are found parked during a normal business day, etc.) to test the cost-effectiveness of the fleet.
- Identified opportunities to increase utilization and/or reduce costs through a variety of approaches such as "pools" of vehicles, mileage reimbursement, etc.
- Developed a preliminary list of specific units that are candidates for either elimination.

As part of this analysis, the size of equipment (e.g., mid-size versus full-size sedans) acquired for customers by the Fleet Services Bureau was evaluated as well as the extent to which vehicles are rotated to avoid over or under utilization.

1. THE FLEET SERVICES BUREAU UTILIZES A NUMBER OF THE BEST PRACTICES FOR FLEET UTILIZATION.

The first exhibit presented at the end of this chapter presents a comparison of the actual practices of the Fleet Services Bureau against best management practices for fleet utilization. There are a number of strengths within the Bureau related to these best

management practices as well as opportunities for improvement. The strengths of the Bureau include the following:

- The Fleet Services Bureau has a number of Honda Civics available as a short term motor "pool" for City staff that bring in their vehicles for repair or preventive maintenance; and

- Fleet users are charged for the operating and maintenance costs for their equipment and a replacement charge, which provides economic incentives to fleet users to maximize their use of permanently assigned units;

On the other hand, there are a number of opportunities for improvement. These opportunities include the following:

- The City has not developed a policy regarding alternatives to assignment of City-owned vehicles. Alternatives to City-owned vehicles are not being promoted.

- Short-term rental and motor "pools" are not available for medium and heavy equipment.

- The City is not continually monitoring vehicle utilization and identifying opportunities to reassign or rotate underutilized equipment.

- The City has not developed policies regarding the criteria or basis for permanent assignment of vehicles to staff.

- The City does not compile a "watch list" of vehicles with low annual mileage.

- The City does not require justification for the continued assignment of low utilization vehicles.

The strengths of the City in fleet utilization management provide a sound foundation to address these opportunities for improvement.

2. THE CITY SHOULD MODIFY ITS ADMINISTRATIVE REGULATION REGARDING THE MINIMUM LEVEL OF UTILIZATION FOR PERMANENT ASSIGNMENT OF VEHICLES.

Administrative Regulation 4-2 states "a City employee may be assigned a City-owned vehicle only when total mileage incurred on City business exceeds 500 miles a month."

The City should modify this policy, increasing the mileage that must be driven on City business to be assigned a City owned vehicle. It costs the City approximately $1,600 annually for maintenance and repair of a sedan; it costs another $3,000 annually in terms of replacement charges for that sedan (based upon existing replacement charges). The cost to the City for providing that sedan to an employee approximates $4,600 annually. An employee would have to drive his or her own personal vehicle in excess of 13,000 miles annually before the cost of mileage reimbursement would exceed the cost to the City of providing that sedan.

It is for this reason that many public agencies have begun to utilize a financial analysis, based on the operating, maintenance, and replacement costs of a sedan, to determine when a sedan should be assigned to an employee.

Florida Statutes, for example, authorized agency heads to assign state-owned vehicles only to employees who are projected to drive the vehicle a minimum of 10,000 miles annually for official business. This requirement may be waived on an annual basis if the agency head provides written justification for the need of the assignment. Priority in assigning state vehicles is to be given to those employees who drive over 15,000 miles annually. Commuting mileage incidental to the use of the vehicle must be excluded from calculating official mileage.

The State of Texas, for example, set minimum mileage criteria that will be increased over a three-year period beginning September 1, 2000. The criteria were as follows:

- Sept. 1, 2000 – Aug. 31, 2001: 1,750 miles every 3 months (7,000 annual miles)
- Sept. 1, 2001 – Aug. 31, 2002: 2,250 miles every 3 months (9,000 annual miles)

- Sept. 1, 2002 – Aug. 31, 2003: 2,750 miles every 3 months (11,000 annual miles)

The King County Department of Transportation in the State of Washington assigned a minimum of 10,000 miles per year for permanent assignment of vehicles. Those departments unable to meet those standards must use "pool" vehicles.

RECOMMENDATION 7-1: The Fleet Services Bureau should modify Administrative Regulation 4-2 increasing the minimum levels of utilization for vehicles to warrant permanent assignment based upon the operating, maintenance, and replacement costs of providing a sedan.

3. THE EXTENT OF UNDERUTILIZED EQUIPMENT WITHIN THE CITY'S FLEET CREATES SIGNIFICANT PROBLEMS FOR THE CITY'S REPLACEMENT POLICY.

An appropriate replacement policy utilizes a combination of age and mileage to determine replacement **eligibility**. A vehicle that meets the established age parameter for its class or its established mileage parameter should become eligible for replacement. The Fleet Services Bureau would need to then conduct specific analysis to determine whether the vehicle, in fact, warranted replacement based upon other facts such as maintenance costs, downtime, etc.

This approach works well when there is a reasonably predictable utilization pattern. But it breaks down completely when no such pattern is discernable, as is the case with many classes of vehicles for the City's fleet. In these instances, much of the fleet has already crossed the replacement threshold on either an age or a mileage basis. However, it is unlikely that the equipment that is underutilized warrants replacement based upon maintenance costs, downtime, etc. Yet the equipment will also

face problems with obsolescence and the ease with which replacement parts can be obtained.

4. WITHOUT REDUCTIONS IN THE CITY'S FLEET, THE CITY WILL BE EXPENDING SIGNIFICANT AMOUNTS OF MONIES IN REPLACING UNDERUTILIZED EQUIPMENT OVER THE NEXT NINE YEARS.

Overall, the City's fleet averages 8.2 years of age. The weighted average for the replacement criterion is 7.8 years. The average age of the City's fleet exceeds that of many other fleets evaluated such as Scottsdale, Arizona and Charleston County, South Carolina. In the case of Charleston County, South Carolina, the average fleet age was 4.3 years. The average age of the fleet owned by the City of Scottsdale, Arizona was 4.0 years.

There are a number of classes of equipment with issues regarding their age versus their replacement guidelines. These classes of equipment are presented in the paragraphs below.

- The average age of police motorcycles is 6.5 years. The replacement guideline is 4 years.
- The average age of police pursuit sedans is 4.4 years. The replacement guideline is 4 years. The average age of police pursuit sedans-K9 is 5.44 years. The replacement guideline is 4 years.
- The average age of one ton dump trucks is 9.9 years; the average age of dump trucks-type II is 10.5 years. The replacement guideline for both classes is 10 years.
- The average age of three wheel broom street sweepers is 6.7 years; the average age for three wheel vacuum street sweepers is 6.6 years. The replacement guideline for both classes of equipment is 4 years.
- The average age of refuse packer, side loader is 8.1 years. The replacement guideline for both classes of equipment is 7 years.

The estimated replacement cost for the City's fleet is $87,575,700. The City, over the four fiscal years from fiscal year ending 1999 to 2002 averaged $7,367,890 for replacement of equipment. Given the estimated replacement cost and the level of replacement funding over the past four fiscal years, the City is approximating a 12-year replacement plan. Although the average age of the City's fleet is 8.2 years, given the level of funding that average age will increase over the next nine years.

5. THE CITY SHOULD RATIONALIZE ITS FLEET ASSIGNMENTS AND ELIMINATE UNDERUTILIZED VEHICLES AND EQUIPMENT FROM ITS FLEET.

As discussed in the section above, as currently constituted, a disproportionate share of the current City fleet already exceeds recommended age and mileage parameters. This will require the City to replace a disproportionate number of vehicles over the next several years. The annual funding requirements for the next nine years are likely to be untenable. To see this, we compared the fleet-wide nine-year requirements with the City's past levels of fleet replacement spending. Important points to note concerning the City's replacement funding requirements are presented in the paragraphs below.

- Based on the City's existing replacement guidelines, the City will need to replace an average of 199 pieces of equipment each year over the next nine years.
- The City will need to expend an average of $9.2 million annually over the next nine years based upon the existing replacement guidelines.
- The City has expended an average of $7.4 million over the past four fiscal years from 1999 to 2002.

There is a significant variance between the actual level of expenditures over the past four years for replacement and that required over the next nine fiscal years. Unless the City reduces its fleet, it will need to increase the level of replacement funding above

historical levels by 24%. Since 18% of the fleet is not charged a replacement charge, the extent of this funding requirement is likely to be all the greater.

This is untenable given the City's existing financial position as well as inappropriate given the extent of underutilized equipment. But the extent of the problem should be addressed in tandem with a fleet size reduction effort in order to establish a sustainable ongoing replacement program. In fact, the City has already built a reduction of 230 pieces of equipment into fiscal year 2003-04 operating budget.

The City should rationalize the size of the fleet. The fleet should be reduced to reflect the actual ongoing demands to provide services to residents of the residents and businesses of the City of Long Beach. The sections below discuss the process utilized to identify equipment that should be eliminated and the equipment recommended for elimination.

(1) A Multi-Faceted Approach Was Utilized To Identify Equipment That Could Be Eliminated.

The extent to which a piece of equipment is utilized – the annual mileage- is an indicator of utilization. However, there may be valid reasons for low mileage. For this reason, mileage for a particular piece of equipment was utilized as a "red flag" by the Matrix Consulting Group to identify equipment that required further analysis. The further analysis included the following techniques:

- Equipment allocation and assignments were documented through interviews with managers and supervisors.
- Fuel consumed by equipment for a year was documented as an indicator of utilization.
- Observations of equipment at various locations were conducted to identify equipment that was consistently parked during normal business hours.

- An economic threshold was established using the City's mileage reimbursement to identify the point at which it would be more beneficial for the City to reimburse employees for use of their own vehicles focusing on sedans.

Utilizing these techniques, the Matrix Consulting Group identified a number of equipment within the City's fleet that should be eliminated. **It should be noted that this analysis was based upon the City's fleet, as it existed in March 2003**.

(2) While No Vehicles Should Be Eliminated In the City Attorney's Office, The Four Full-Size Sedans Should Be Downsized to Mid-Size Sedans.

All of the five sedans within the City Attorneys Office appear to have high levels of utilization. However, four of these five sedans are Ford Crown Victoria's. This size of vehicle is unwarranted given that only one employee usually occupies these vehicles. These sedans should be downsized to midsize sedans; this would reduce the purchase price by approximately $10,000 per sedan.

This would affect the vehicles identified in the table below.

Vehicle #	Type of Vehicle	Model Year	Class of Vehicle	Recommended Action
17495	Ford Crown Victoria	03	Police / Fire Solid	Downsize to mid-size sedan
17496	Ford Crown Victoria	03	Police / Fire Solid	Downsize to mid-size sedan
17440	Ford Crown Victoria	99	Police / Fire Solid	Downsize to mid-size sedan
17378	Ford Crown Victoria	94	Police / Fire Solid	Downsize to mid-size sedan

The annual replacement savings would approximate $4,000 annually assuming an eight-year replacement schedule.

(3) Six Vehicles Assigned to the Community Development Department Should Be Eliminated and the Flatbed Truck Should Be "Pooled".

The Community Development Department has already reduced its fleet by two sedans: #10691 was returned to the Fleet Services Bureau and #10009 was reassigned to the Health Department.

However, six remaining pieces of equipment should be eliminated and one piece

of equipment reallocated to a "pool" administered by the Fleet Services Bureau. These vehicles accumulate anywhere from 1,700 to 4,000 miles of utilization annually; these six pieces of equipment average 3,500 miles of utilization annually. Many of these vehicles were found parked during observations. Only the two sedans - #1168 and #10056 – should continue to be assigned to the Community Development Department.

Staff within the department should utilize their own vehicles. This is an approach already utilized systematically within the Health Department.

Six of the vehicles – five sedans and a pickup truck – should be eliminated. The flatbed truck (13158) should be reassigned to the Fleet Services Bureau for use by all City departments as a "pool" vehicle for construction projects.

The vehicles recommended for elimination are identified in the table below.

Vehicle Number	Number of Vehicles Recommended for Elimination	Class of Vehicle
10008	1	Sedan
10678, 10645, 10648, 10637	4	Sedan, CNG
12306	1	1/2 Ton Pickup Truck

The annual cost savings generated by the elimination of these six vehicles would approximate $25,000 annually in operating and maintenance costs as well as capital replacement costs. These savings would be offset by mileage reimbursement for employee usage of their own personal vehicles; this would amount to approximately $7,500 annually. The "net" cost savings would approximate $17,500 annually.

(4) <u>Two Pieces of Equipment Assigned to Financial Management Should Be Eliminated</u>.

Two sedans should be eliminated: #10612 and #10647. These vehicles accumulate anywhere from 4,300 to 5,700 miles of utilization annually. Many of the

vehicles assigned to Financial Management were found parked during observations, particularly vehicles #10612 and #10436.

The two vehicles recommended for elimination are two of four vehicles assigned to four positions responsible for field inspection of business licenses including the following:

- Contacting delinquent accounts;
- Issuing citations;
- Contacting street vendors;
- Responding to citizen complaints; and
- Posting entertainment hearing notices.

Three of the positions work regular business hours and one provides coverage on the weekends — nine hours on Saturday and four hours on Sunday. These four positions could be required to utilize their personal vehicles at times and be reimbursed for mileage. This is an approach already utilized systematically within the Health Department.

This would affect the vehicles identified in the table below.

Vehicle Number	Number of Vehicles Recommended for Elimination	Class of Vehicle
10612	1	Sedan
10647	1	Sedan, CNG

The annual cost savings generated by the elimination of these two vehicles would approximate $6,000 annually in operating and maintenance costs as well as capital replacement costs. These savings would be offset by mileage reimbursement for employee usage of their own personal vehicles; this would amount to approximately $4,400 annually. The “net” cost savings would approximate $1,600 annually.

(5) <u>Three Animal Control Trucks and a Sport Utility Vehicle Assigned to Animal Control/Health Department Should Be Eliminated</u>.

Animal Control provides a variety of services, including safety, investigations, and kennel services. Staff is assigned to three shifts (day, swing, and graveyard). In general, there are three supervisors during the day shift (8:00 am to 4:30 pm) Tuesday through Friday. Saturday through Monday, the supervisors rotate. There are six specific districts to which staff patrol and respond to calls, although current staffing levels permit four Animal Control Officers for the day shift, excluding supervisors. The allocation of Animal Control Officers (filled positions) by shift is presented in the table below.

Shift	ACO
Day (0800 – 1630)	4
Swing (1530 – 0000)	1
Grave (0000 – 0800)	1

There are three supervisors that oversee functions: field services, investigations, and admissions / kennels. While Tuesday through Fridays there are three supervisors during the day shift, they generally are all not responding to calls or working in the field. At current staffing, five vehicles are in use at one time (as a result of overlapping shifts between 1530 and 1630). Swing and grave shift staff only responds to calls. Vehicle 10452 is assigned to the License Canvassing Group. There are three staff responsible for targeting an area and ensuring pets are licensed.

Vehicle 12314 is the Chevy Silverado that has a long bed for specialized animal traps and equipment.

Three of the animal control trucks and the sport utility vehicle should be eliminated.

With the elimination of three animal control trucks, Animal Control would be left with five front line and two reserve vehicles in which staff can respond to calls and patrol

the districts.

It is recommended that the three oldest animal control trucks be eliminated.

The sport utility vehicle is used for license canvassing. This is a 1993 sport utility vehicle with 67,000 life-to-date miles; it was utilized approximately 7,000 miles annually. For license canvassing, either the employee's personal vehicles should be utilized or the 3/4 ton pickup truck (#12314). This vehicle is shared among the supervisory staff of animal control. This 3/4-ton pickup truck, assigned to a supervisor, should be downsized to a compact pickup truck upon replacement.

The four vehicles that should be eliminated are presented in the table below.

Vehicle Number	Number of Vehicles Recommended for Elimination	Class of Vehicle
10451	1	Utility Vehicle, Small
12680, 12682, 12683	3	Truck, Animal Control

The annual cost savings generated by the elimination of these three Animal Control trucks and the sport utility vehicle would approximate $33,000 annually in operating and maintenance costs as well as capital replacement costs. These savings would be offset by mileage reimbursement for employee usage of their own personal vehicles for license canvassing; this would amount to approximately $3,000 annually. Downsizing the 3/4-ton pickup truck to a compact pickup truck would generate approximately $500 annually in reduced capital outlay expenses. The "net" cost savings would approximate $30,500.

(6) <u>One Vehicle within Hazardous Materials/Health Department Should Be Eliminated</u>.

Hazardous Materials/Health is assigned three vehicles: a sport utility vehicle assigned to the supervisor, a 3/4-ton service truck utilized for hazardous material spills response, and another a 3/4-ton service truck utilized as a backup for hazardous

material spills response.

The Hazardous Materials Division oversees permitting and inspections of business with hazardous materials. The Division ensures all businesses with hazardous materials have an emergency plan. Additionally, the Division oversees the cleanup of underground storage tanks. Hazardous materials inspectors drive their vehicles for inspections and are reimbursed for mileage.

The sport utility vehicle assigned to the supervisor should be eliminated. This vehicle is utilized a total of 8,900 miles annually. The supervisor should utilize his/her own vehicle, as is the case with the hazardous materials inspectors.

This would affect the vehicles identified in the table below.

Vehicle Number	Number of Vehicles Recommended for Elimination	Class of Vehicle
10464	1	Utility Vehicle, Small

The annual cost savings generated by the elimination of this sport utility vehicle would approximate $6,900 annually in operating and maintenance costs as well as capital replacement costs. These savings would be offset by mileage reimbursement for employee usage of his/her own personal vehicles; this would amount to approximately $3,100 annually. The “net” cost savings would approximate $3,800 annually.

(7) <u>One Vehicle Assigned to Vector Control/Health Department Should Be Eliminated</u>.

Vector Control/Health is assigned seven vehicles (excluding a trailer); this includes an all terrain vehicle. This staff is responsible for a number of tasks including mosquito abatement, Africanized honeybee abatement, etc.

One vehicle assigned to vector control should be eliminated: an aerial bucket, small. Vector Control has already indicated their willingness to “surplus” the aerial

bucket, small if another aerial bucket is available when needed to abate Africanized honeybees. The sedan receives approximately 6,900 miles of use annually.

This would affect the vehicles identified in the table below.

Vehicle Number	Number of Vehicles Recommended for Elimination	Class of Vehicle
12970	1	Aerial Bucket, Small

The annual cost savings generated by the elimination of this vehicle would approximate $4,900 annually in operating and maintenance costs as well as capital replacement costs.

(8) <u>The Sedan Assigned to the Social Services Manager/Health Department Should Be Eliminated</u>.

The Social Services Manager is assigned a sedan. Social Services/Health is responsible for overseeing services provided to City residents, in particular, homeless services, as well as monitoring programs funded through HUD grants. Human/Social services staff uses vehicle #10012, but It is primarily used by the Bureau Manager to attend off-site meetings and inspect program sites.

This sedan was utilized approximately 2,000 miles annually. The sedan should be eliminated. These staff should utilize their personal vehicles and be reimbursed for mileage. This is an approach already utilized systematically within the Health Department.

This would affect the vehicles identified in the table below.

Vehicle Number	Number of Vehicles Recommended for Elimination	Class of Vehicle
10012	1	Sedan

The annual cost savings generated by the elimination of this sedan would approximate $4,600 annually in operating and maintenance costs as well as capital

replacement costs. These savings would be offset by mileage reimbursement for employee usage of his/her own personal vehicles; this would amount to approximately $700 annually. The "net" cost savings would approximate $3,900 annually.

(8) <u>One Sedan Assigned to the Preventive Health/Health Department Should Be Eliminated</u>.

Preventive Health is assigned seven vehicles. These vehicles are utilized primarily to provide outreach health services to the community. However, there is one sedan.

This sedan was utilized approximately 7,900 miles annually. The sedan should be eliminated. These staff should utilize their personal vehicles and be reimbursed for mileage. This is an approach already utilized systematically within the Health Department.

This would affect the vehicles identified in the table below.

Vehicle Number	Number of Vehicles Recommended for Elimination	Class of Vehicle
10009	1	Sedan

The annual cost savings generated by the elimination of this sedan would approximate $4,600 annually in operating and maintenance costs as well as capital replacement costs. These savings would be offset by mileage reimbursement for employee usage of his/her own personal vehicles; this would amount to approximately $2,700 annually. The "net" cost savings would approximate $1,900 annually.

(9) <u>The Number of Vehicles Assigned to the Gas Bureau should be Reduced by Twelve, and the 3/4-Ton Pickup Trucks should be Downsized</u>.

The Gas Services Bureau oversees two primary functions: Meters and Regulations and Field Operations/Customer Service Center. There are 26 authorized positions in Meters and Regulation of which 4 positions are vacant. There are 49

authorized positions in the Field Operations/Customer Service Center Division of which there are 10 vacancies.

Bureau staff works in the field providing variety of services to customers, including responding to gas leaks, usage investigation (e.g., unusually high bills), and repairing meters.

Meter and telemeter shop personnel work one-person crews and respond to calls and work orders. Staff generally work Monday through Friday 7:30 am to 4:00 pm, with the exception of 5 staff persons that work from 3:00 pm to 11:00 pm. Additionally, there is 1 person who works a graveyard shift.

The basis for recommending the elimination of the twelve pieces of equipment is portrayed in the two tables below.

- The table below shows the seven vehicles assigned to this Bureau, which are not assigned to a specific individual and/or function, or did not appear on the Bureau's inventory list. These vehicles should be eliminated.

Vehicle Number	Number of Vehicles Recommended for Elimination	Class of Vehicle
12274	1	1/2 Ton Pickup, CNG
10493	1	Utility Vehicle, Small
12316, 12312	2	3/4 Ton Pickup, CNG
12772	1	Truck, 3/4 Ton Service
12857	1	Truck, Meter
10663	1	Sedan, CNG

- In addition, as noted above, five staff work the swing shift and one person works the graveyard shift. These staff is assigned their own vehicles. Rather than assign this staff their own vehicles, these staff should “hot seat” vehicles used by the previous shift. This will require adjustments in their shift schedule to eliminate or reduce overlaps. The table below presents the six 3/4-ton pickup trucks that should be eliminated as a result of this change in approach.

Vehicle Number	Number of Vehicles Recommended for Elimination	Class of Vehicle
12575, 12574	2	3/4 Ton Pickup
12579, 12578, 12576	3	3/4 Ton Pickup, CNG

In addition, the Bureau is assigned 3/4-ton pickup trucks. Given the load

requirements and the number of passengers, these vehicles should be downsized to compact pickup trucks. Excluding the 3/4-ton pickup trucks that were previously recommended for elimination, there are 27 3/4-ton pickup trucks that should be downsized to compact pickup trucks. The annual cost savings generated by the elimination of these twelve vehicles and downsizing the 3/4-ton pickup truck to a compact pickup truck would generate approximately $98,000 in cost savings annually in operating, maintenance, and replacement charges.

(10) The Number of Vehicles Assigned to the Construction Division, Engineering and Construction Bureau, within the Energy Department Should be Reduced by Twenty, and Another Two Vehicles Should be "Pooled."

This Division is part of the Engineering and Construction Bureau, and is responsible for the installation, maintenance and repair of the underground gas distribution systems for the City, as well as Signal Hill.

This Division operates the following crews: 2 five-person service crews, 2 three-person emergency response/leak crew, 1 seven-person construction crew, 1 six-person construction crew, 4 one-person leak crews, 1 five-person corrosion crew, and 1 two-person valve crew.

The second exhibit at the end of this chapter (exhibit 11) presents the basis for recommending the elimination for twenty pieces of equipment assigned to this Division. The table at the top of the next page summarizes the equipment recommended for elimination.

Vehicle Number	Number of Vehicles Recommended for Elimination	Class of Vehicle
1136,	1	Flatbed Truck Diesel
1212, 1392	2	2 Ton Service Truck
1268, 1297	2	Dump Truck Type III
1397, 13204	2	Truck, Line Construction
12250	1	3/4 Ton Service Truck
2006	1	Tractor Type III
2137, 14462, 14465, 14472	4	Air Compressor
2414, 2419	2	Crane Type I
10638, 10653	2	Sedan, CNG
12618	1	3/4 Ton Pickup, CNG
12899, 12905	2	Truck, Welder

Two vehicles should be “pooled” at the Fleet Services Bureau and available for use by all departments within the City. These vehicles are noted in the table below.

Vehicle #	Type of Vehicle	Model Year	Class of Vehicle
2135	Ingersoll	98	Air Compressor
14263	Cat 416	89	Tractor Type II

Eight other vehicles within the Division should be downsized to compact pickup trucks. These vehicles are presented below.

Vehicle #	Type of Vehicle	Model Year	Assignment
24016	Utility Vehicle, Small-CNG	01	R. Chavez
10490	Utility Vehicle, Small	99	G. Mickey, Corrosion Crew
13352	Mini Van-CNG	96	D. Colunga, Superintendent
13341	Mini van	94	T. Hodge, Leaks Supervisor
12561	3/4-Ton Pickup Truck-CNG	92	D. Orkin, Construction Crew
12552	3/4-Ton Pickup Truck-CNG	90	D. McKewen
12312	3/4-Ton Pickup Truck-CNG	00	L. Dudley, Leak Survey
12316	3/4-Ton Pickup Truck-CNG	00	L. Williams, Leak Survey

The annual cost savings generated by the elimination of these twenty vehicles assigned to the Construction Division and the downsizing of the various eight pieces of equipment to compact pickup trucks would generate approximately $197,000 annually in reduced operating, maintenance, and replacement charges.

(11) <u>The Number of Vehicles Assigned to the Engineering Division, Engineering and Construction Bureau within the Energy Department Should Be Reduced by One Sedan</u>.

According to the inventory supplied by the Fleet Services Bureau, Engineering and Construction is assigned eight vehicles. Seven of these eight vehicles are assigned to Construction Inspectors. There is one other "pool" sedan; this sedan should be eliminated. This sedan has low annual mileage (3,900 miles), and was found parked for 37% of the observations. The table below presents the equipment recommended for elimination.

Vehicle Number	Number of Vehicles Recommended for Elimination	Class of Vehicle
10629	1	Sedan CNG

In addition, the two 3/4-ton pickup trucks and a utility vehicle, compact that are assigned to three construction inspectors should be downsized to compact pickup trucks.

The annual cost savings generated by the elimination of this sedan would approximate $5,000 annually in operating and maintenance costs as well as capital replacement costs. These savings would be offset by mileage reimbursement for employee usage of his/her own personal vehicles; this would amount to approximately $1,500 annually. Downsizing the various three pieces of equipment to compact pickup trucks would generate approximately $3,500 annually in reduced capital outlay expenses. The total cost savings within Engineering and Construction would approximate $7,000 annually.

(12) <u>The Number of Vehicles Assigned to Towing and Lien Sales/Energy should be Reduced by Eight</u>.

Towing and Lien Sales is assigned twenty-two vehicles. This Division provides all towing services to the City. Staff is responsible for responding to calls primarily from the Police Department as well as other City departments. As the table below shows, the number of staff assigned to each shift varies by day; the maximum number of staff is typically seven to eight, excluding shift overlaps. Additionally staff work staggered hours within the shifts. In general, the hours for each shift range as follows: 0630 – 1630 (day), 1530 – 2400 (swing), and 2330 – 0800 (grave). There was one vacant position on the grave shift that is not included in the grave shift number below.

Shift	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
Day	5	3	7	8	8	7	7
Swing	4	4	5	6	7	7	7
Grave	3	3	3	2	3	3	3
Total	**12**	**10**	**15**	**16**	**18**	**17**	**17**

The vehicles that are recommended for elimination are presented in the table below.

Vehicle Number	Number of Vehicles Recommended for Elimination	Class of Vehicle
10684	1	Sedan, CNG
12550, 12616	2	3 / 4 Ton Pickup
14013, 14014	2	Forklift, Heavy
3914	1	Trailer
13019, 13018	2	Tow Truck, Wheel Lift, Diesel

The annual cost savings generated by the elimination of these eight pieces of equipment would approximate $83,500 annually in operating and maintenance costs as well as capital replacement costs. This will be offset by the one-time capital outlay costs for the two electric carts of approximately $15,000, the annual capital replacement costs of approximately $2,000, and the approximate annual operating and maintenance costs of $500.

The total cost savings within Towing and Lien Sales, on an annual ongoing basis, would approximate $66,500 annually.

(13) <u>The Number of Equipment Assigned to Fleet Services/Energy Should Be Reduced By Twenty-Three.</u>

The Fleet Services Bureau is assigned 54 pieces of equipment. This includes 17 "loaner" vehicles that are available to customers when they bring their vehicles into Fleet Services for repair and/or maintenance.

The equipment recommended for elimination is presented in the third exhibit at the end of this chapter (exhibit 12). The table below summarizes the equipment recommended for elimination.

Vehicle Number	Number of Vehicles Recommended for Elimination	Class of Vehicle
10014	1	Sedan
17360, 17346	2	Police/Fire Solid
12832, 1481	2	3/4 Ton Pickup
1284	1	2 Ton Service Truck
14617	1	Steam Cleaner, Portable
1154	1	3/4 Ton Service Truck
12223	1	1/2 Ton Pickup
3562	1	Portable Welder
2035, 2036	2	Tractor Type IIA
17154	1	Truckster
10459, 10438	2	Utility Vehicle, Small
13317, 13340	2	Mini Van
1401	1	3/4 Ton Van
12091, 12092	2	3/4 Ton Van, CNG
8916	1	Truck, Mini Stake Bed
14003	1	Forklift, Light
12035	1	1/2 Ton Van

The annual cost savings generated by the elimination of these twenty-three pieces of equipment would approximate $43,000 annually in operating and maintenance costs. Fleet Services does not charge itself replacement charges; as a consequence, there will not be any cost savings for capital replacement.

(14) <u>Six Vehicles Should Be Eliminated within Parking Enforcement/Energy</u>.

This Division oversees parking control activities on street sweeping routes. Staff is responsible for ticketing vehicles parked along street sweeping routes. Staff works the 4/10 shift. Routes are patrolled in three "time zones" from 4:00 am to 8:00 am; 8:00 am to 12:00 pm; and 12:00 pm to 4:00 pm. There are 13 routes to which at least one officer is assigned. The Division is allocated twenty-three compact pickup trucks as well as four sedans; this includes a spare - #12256 (this vehicle was "loaned" to parking Enforcement by Fleet Services). Two of these four sedans were assigned to Parking Enforcement Officers; the other two are assigned to supervisors

At the time of the interview with the Parking Control Supervisor by the Matrix Consulting Group, there were only 19 Parking Enforcement Officers available with 4 other positions being vacant or with long-term injuries. In addition, three to four Parking Enforcement Officers were being utilized as street sweeper operators. Staff assigned to parking control provide backup to street sweeping. If a sweeper route needs coverage due to absence or vacancy, parking control staff will operate street sweepers and complete the route.

A significant proportion of these vehicles were found parked during observations of vehicles: as many as thirteen pickup trucks. The annual utilization for 11 of the 23 compact pickup trucks was less than 7,000 miles.

Six vehicles should be eliminated. The table below summarizes the equipment recommended for elimination.

Vehicle Number	Number of Vehicles Recommended for Elimination	Class of Vehicle
12256, 12262, 12264, 12265, 12266, 12267	6	Compact Pickup Truck

The annual cost savings generated by the elimination of these six pieces of equipment would approximate $28,400 annually in operating and maintenance costs as well as capital replacement costs.

(15) <u>One Vehicle Assigned to Street Sweeping/Energy Should Be Eliminated and One Should Be "Pooled"</u>.

One vehicle within Street Sweeping – the street flusher - should be eliminated. Street Sweeping has 16 residential routes, one route within Signal Hill, and a "night" route. The Division is in the process of replacing 20 street sweepers with Elgin 3 wheel LNG broom sweeper. These twenty sweepers will be allocated to the 16 residential routes; this represents a 25% backup factor. In addition, the Division will have 3 Tymco 4 wheel vacuum sweepers. These vacuum sweepers are utilized for Signal Hill, the "night" route, with one spare. In addition, the Division is also allocated a street flusher (Navy-Donated), and a truck tractor.

The street flusher is Navy-donated and should be eliminated. This equipment was driven 200 miles annually. If a street flusher is required, the Division should arrange a rental.

The truck tractor should be "pooled" within the Fleet Services Bureau for use citywide. It is used for public education events. This vehicle should be available for use on a citywide basis in a central pool administered by the Fleet Services Bureau.

One vehicle should be eliminated. The table below summarizes the equipment recommended for elimination.

Vehicle Number	Number of Vehicles Recommended for Elimination	Class of Vehicle
13646	1	Street Flusher

The annual cost savings generated by the elimination of this piece of equipment

would approximate $5,900 annually in operating and maintenance costs.

(16) <u>Seven Vehicles Assigned to Refuse Collection/Energy Should Be Eliminated</u>.

Overall, there are a total of four 17-yard refuse packers, twenty-one twenty-yard packers, fifteen twenty-five yard packers, and 32 side loaders. Based upon an analysis of the daily route report provided by Refuse Collection, there are seven to eight of these packers are sitting idle in the yard, serving as spares or backups. However, there is a range of different sized packers from 17 yards to 25 yards to side loaders. This complicates and increases the extent of spares required. There are a number of factors that suggest, however, that this fleet can be reduced. These include the following:

- There were a number of packers found idle frequently such as #15001 and #15028.
- Furthermore, as will be recommended in a subsequent chapter, it is recommended that a swing shift be established in the Fleet Services Bureau. This will reduce turnaround time and, as a consequence, the number of spares required.
- The side loader fleet exceeds their replacement guideline. These trucks are due to be replaced in their entirety over the next twelve months. As these vehicles are replaced, the downtime should be reduced dramatically.

The table below and at the top of the next page presents the basis for the recommended reduction in the fleet assigned to Refuse Collection/Energy.

Vehicle Number	Number of Vehicles	Basis for Elimination
13174	Flat Bed Truck	This Division has three flat bed trucks assigned to it. This vehicle was observed parked during 40% of field observations. If a flat bed is required, a “pooled” flatbed should be utilized.”
13657	Packer, 17 Yard	There are four 17-yard packers assigned to this Division. Use of each of the four packers varies significantly. One Packer-17 yard was typically parked and idle.
13789	Packer, 20 Yard	There are twenty-one 20-yard packers assigned to this Division. Of those twenty, four were observed parked more frequently. One of the 20-yard packers was typically parked and idle. Eliminate one of the 20-yard packers.

Vehicle Number	Number of Vehicles	Basis for Elimination
15003 15015 15028	Refuse Packer, Side Loader	There are 32 side loaders assigned to this Division, all with varying levels of utilization. Four side loaders were observed parked 40% of field observations. An additional 5 were observed parked 20% of the time. Typically three side loaders were parked and idle. Eliminate 3 side loaders.
12935	Truck, 1 Ton Dump	The average annual mileage for this vehicle is 5,900. This vehicle should be eliminated and a pooled vehicle from the Fleet Services Bureau used as needed.

In addition, a number of vehicles assigned to Refuse Collection should be downsized. These include the vehicles in the table below.

Vehicle Number	Class of Vehicle	Basis for Downsizing
24002	Utility Vehicle, Small	This vehicle should be downsized to a compact pickup truck.
12600 12607 12615 12617	3 / 4 Ton Pickup, CNG	These vehicles are assigned to Supervisors. Other supervisors performing similar functions are assigned compact pickups. These vehicles should be downsized to a compact pickup truck.

The annual cost savings generated by the elimination of these seven pieces of equipment would approximate $270,000 to $320,000 annually in operating and maintenance costs as well as capital replacement costs. The cost savings generated by the downsizing of the equipment noted in the table above would approximate $10,000 annually in reduced capital outlay requirements. The total annual cost savings would approximate $280,000 to $330,000.

(17) <u>Four of the Six Vehicles Assigned to Oil Properties Should Be Eliminated</u>.

This Department is responsible for the Oil Properties owned and operated by the City, including the operation of oil fields as well as overseeing all environmental aspects. Of the 41 authorized positions, 38 are filled.

- There are two gaugers who are each assigned a vehicle and rotate on-calls status during which they take home their vehicles.
- There are two vehicles (small utility vehicles), which are shared among the 5 field coordinator positions.

- Vehicles 10642 and 12277 are shared by all Department staff.

Four of the six vehicles assigned to Oil Properties should be eliminated. The table below summarizes the equipment recommended for elimination.

<table>
<tr><th>Vehicle Number</th><th>Class of Vehicle</th><th>Basis for Elimination</th></tr>
<tr><td>24003
10453</td><td>Utility Vehicle, Small</td><td>There are four Utility Vehicles assigned to this Department.
<table>
<tr><th>Vehicle</th><th>Yr.</th><th>Mileage</th><th>Assignment</th></tr>
<tr><td>10453</td><td>93</td><td>5,600</td><td>Field Coordinator</td></tr>
<tr><td>10468</td><td>94</td><td>9,300</td><td>Field Coordinator</td></tr>
<tr><td>10488</td><td>99</td><td>13,300</td><td>Gauger</td></tr>
<tr><td>24003</td><td>98</td><td>3,100</td><td>Gauger</td></tr>
</table>
There are two gaugers who are each assigned a vehicle and rotate on-call status that requires them to take a vehicle home. There are five field coordinators who share two vehicles.
Two vehicles should be eliminated. The field coordinators and gaugers should share the remaining two Utility Vehicles.</td></tr>
<tr><td>10642</td><td>Sedan, CNG</td><td>This vehicle is a pool vehicle shared by staff within this Department.
The average annual mileage is 1,500.
This vehicle should be eliminated and staff reimbursed for mileage.</td></tr>
<tr><td>12277</td><td>Mini Pickup</td><td>This vehicle is a pool vehicle shared by staff within this Department.
The average annual mileage is 4,400.
This vehicle should be eliminated and staff reimbursed for mileage. If a pickup truck is needed, staff should use a pool vehicle.</td></tr>
</table>

The annual cost savings generated by the elimination of these four vehicles would approximate $23,400 annually in operating and maintenance costs as well as capital replacement costs. These savings would be offset by mileage reimbursement for employee usage of his/her own personal vehicles; this would amount to approximately $2,000 annually. The net annual cost savings would approximate $21,400 annually.

(18) <u>The Number of Equipment Assigned to the Parks and Recreation Department Should be Reduced by Sixty-Six</u>.

The equipment recommended for elimination is presented in the fourth exhibit at the end of this chapter (exhibit 13). The table at the top of the next page summarizes the sixty-eight pieces of equipment recommended for elimination. It should be noted that the reduction of some of this equipment results from the recommendation to

outsource ball field maintenance, weed abatement, parking lot sweeping, and park refuse collection.

Vehicle Number	Number of Vehicles Recommended for Elimination	Class of Vehicle
17114, 14351	2	All Terrain Vehicle
1314, 13164	2	Flatbed Truck
1315	1	Dump Truck Type II
13404	1	Dump Truck Type III
12941, 12954, 12943,	3	1 Ton Dump Truck
12297, 12261, 12286	3	Compact Pickup Truck
14260, 14342, 14348, 14345, 14350, 14343	6	Tractor Type IIA
14027, 14025, 14024	3	Leaf Sweeper
14592	1	Broadcast Spreader
2200	1	Flail Mower
10520	1	Truckster
14154, 14167, 14174, 14184	4	Mower, Riding Small
14388, 14401	2	Trailer
13749, 13747, 13865, 13864	4	Packer 17 Yard
13348, 13355	2	Mini Van
TOO 150, 151, 152	3	Electric Cart
13860	1	Refuse Packer, Beach
14302	1	Tractor Beach
14640, 14645	2	Sweeper Parking Lot
13479	1	3 Wheel Sweeper
3898	1	Boat
12167	1	1 Ton Van
10662	1	Sedan
8923, 8924, 8930	3	Gator
12300, 12301	2	1/2 Ton Pickup Truck
12037, 12036, 12032, 12027, 1137	5	1/2 Ton Van
12752, 12744	2	3/4 Ton Service Truck
12549, 12560, 12564	3	3/4 Ton Pickup Truck
12003, 12099, 19788, 12081	4	3/4 Ton Van

In addition, some of the equipment assigned to the Parks and Recreation Department can be downsized. The table below and on the next page presents the equipment recommended for downsizing.

Division	Vehicle Number	Class of Vehicle	Reason For Downsizing
Parks – Grounds Maintenance	12964	1 Ton Service	This vehicle is assigned to a gardener. Staff performing similar functions are assigned smaller vehicles. This vehicle should be downsized to a compact pickup truck.

Division	Vehicle Number	Class of Vehicle	Reason For Downsizing
Parks – Grounds Maintenance	12004	3 / 4 Ton Truck	Staff performing similar functions are assigned 1 / 2 ton vehicles. Upon replacement, this vehicle should be downsized to a compact pickup truck.
Parks – Grounds Maintenance	12573 12609	3 / 4 Ton Truck	These vehicles are assigned to gardeners, who monitor landscape contracts. These vehicles should be downsized upon replacement to 1 / 2 ton trucks with liftgates.
Parks – Grounds Maintenance	12562	3 / 4 Ton Truck	This vehicle is assigned the position that oversees contracts at Chavez. This vehicle should be downsized upon replacement.
Parks – Facility and Custodial Maintenance	13365	Mini Van	This vehicle is assigned to a supervisor (Contreras) This vehicle should be downsized to a compact pickup truck.
Parks – Facility and Custodial Maintenance	24012	Utility Vehicle, Small	This vehicle is assigned to a supervisor (Owens). This vehicle should be downsized to a compact pickup truck.
Parks – Facility and Custodial Maintenance	10487	Utility Vehicle, Small	This vehicle is assigned to a supervisor (Perez). This vehicle should be downsized to a compact pickup truck.
Parks – Grounds Maintenance	12936	1 Ton Dump Truck	This vehicle is assigned to a maintenance assistant II. The primary function of this vehicle is to provide transportation for staff that maintains El Dorado Park. This vehicle should be downsized to an electric vehicle when replaced,
Parks – Facility and Custodial Maintenance	10476	Utility Vehicle, Small	This vehicle is assigned to a supervisor (Pratt). This vehicle should be downsized to a compact pickup truck.

The annual cost savings generated by the elimination of these sixty-six pieces of equipment would approximate $490,000 to $580,000 annually in operating and maintenance costs as well as capital replacement costs (excluding operating and maintenance costs and capital replacement costs for the broadcast spreader, flail mower, electric carts, and the gators since these vehicles do not appear in M4 of the Fleet Services Bureau replacement charges). Almost half of the savings would result from the elimination of thirteen of these seventy-one pieces of equipment: the four refuse packers, two tractors- beach, the 3-wheel sweeper, and the six tractor type II's.

The downsizing of the equipment identified in the table above would generate approximately $10,000 annually in reduced costs.

The total cost savings generated by the reduction and downsizing of this fleet would approximate $500,000 to $590,000 annually. These cost savings would be offset to some extent by the contract costs associated with the outsourcing of ball field maintenance, weed abatement, parking lot sweeping, and park refuse collection.

(19) <u>The Number of Equipment Assigned to the Planning and Building Department should be Reduced by Twenty-Six</u>.

The equipment recommended for elimination is presented in the fifth exhibit at the end of this chapter (exhibit 14). The table below summarizes the twenty-six pieces of equipment recommended for elimination.

Vehicle Number	Number of Vehicles Recommended for Elimination	Class of Vehicle
10668, 10698, 10669, 10651	4	Sedan, CNG
17322, 17349, 17378	3	Police/Fire Solid
10614, 10615, 10611, 10666, 10643, 10622, 10674, 17322, 17349, 10649, 11518	11	Sedan
10424, 24018, 10421, 24032, 24040, 10441, 10017	7	Utility Vehicle, Small
12089	1	1/2 Ton Van

In addition, fifteen pieces of equipment assigned to the Planning and Building Department can be downsized. The table below presents the equipment recommended for downsizing.

Division	Vehicle Number	Class of Vehicle	Reason For Downsizing
Planning and Building – Inspection Specialty	10420	Utility Vehicle, Small	Other staff performing similar functions are assigned sedans. This vehicle, when replaced, should be downsized from a SUV to a compact sedan.
Planning and Building – Combination Inspection	10427	Utility Vehicle, Small	Other staff performing similar functions are assigned sedans. This vehicle should be downsized to a compact sedan.
Planning and Building – Inspection Specialty	10428	Utility Vehicle, Small	Other staff performing similar functions are assigned sedans. This vehicle should be downsized to a compact sedan.
Planning and Building – Combination Inspection	10440	Utility Vehicle, Small	Other staff performing similar functions are assigned sedans. This vehicle should be downsized to a compact sedan.

Division	Vehicle Number	Class of Vehicle	Reason For Downsizing
Planning and Building – Intensified Code Enforcement / Neighborhood Improvement Strategy	10473	Utility Vehicle, Small	Other staff performing similar functions are assigned sedans. This vehicle should be downsized to a compact sedan.
Planning and Building – Business License Inspection	10640	Utility Vehicle, Small	Other staff performing similar functions are assigned sedans. This vehicle should be downsized to a compact sedan.
Planning and Building – Inspection Specialty	24010	Utility Vehicle, Small	Other staff performing similar functions are assigned sedans. This vehicle should be downsized to a compact sedan.
Planning and Building – Inspection Specialty	24011	Utility Vehicle, Small	Other staff performing similar functions are assigned sedans. This vehicle should be downsized to a compact sedan.
Planning and Building – Inspection Specialty	24033	Utility Vehicle, Small	Other staff performing similar functions are assigned sedans. This vehicle should be downsized to a compact sedan.
Planning and Building – Combination Inspection	24035	Utility Vehicle, Small	Other staff performing similar functions are assigned sedans. This vehicle should be downsized to a compact sedan.
Planning and Building – Intensified Code Enforcement / Neighborhood Improvement Strategy	24036	Utility Vehicle, Small	Other staff performing similar functions are assigned sedans. This vehicle should be downsized to a compact sedan.
Planning and Building – Intensified Code Enforcement / Neighborhood Improvement Strategy	24037	Utility Vehicle, Small	Other staff performing similar functions are assigned sedans. This vehicle should be downsized to a compact sedan.
Planning and Building – Deputy Inspections	24039	Utility Vehicle, Small	Other staff performing similar functions are assigned sedans. This vehicle should be downsized to a compact sedan.
Planning and Building – Zone Code Enforcement Program	24031	Utility Vehicle, Small	Other staff performing similar functions are assigned sedans. This vehicle should be downsized to a compact sedan.
Planning and Building – Combination Inspection	24034	Utility Vehicle, Small	Other staff performing similar functions are assigned sedans. This vehicle should be downsized to a compact sedan.

The annual cost savings generated by the elimination of these twenty-six pieces of equipment would approximate $110,000 to $125,000 annually in operating and maintenance costs as well as capital replacement costs

The downsizing of the equipment identified in the table above would generate approximately $30,000 annually in reduced capital outlay charges.

These savings would be offset by mileage reimbursement for employee usage of his/her own personal vehicles; this would amount to approximately $29,000 annually.

The total cost savings generated by the reduction and downsizing of this fleet would approximate $111,000 to $124,000 annually.

(20) <u>The Number of Equipment Assigned to the Public Works Department should be Reduced by One Hundred One</u>.

The equipment recommended for elimination is presented in the sixth exhibit at the end of this chapter (exhibit 15). The table below and on the next page summarizes the one hundred one pieces of equipment recommended for elimination. It should be noted that 30% of the recommended reduction results from the possible outsourcing of street landscaping/median maintenance.

Vehicle Number	Number of Vehicles	Class of Vehicle
12588	1	1 Ton Crewcab
12956, 12950, 12929, 12953, 12962, 12952, 12951, 12945, 12944	9	1 Ton Dump Truck
12827, 12825, 12830, 12765, 12764	5	1 Ton Service Truck
1508, 19745, 19773, 12165	4	1 Ton Van
12164	1	1 Ton Van, CNG
12259	1	1/2 Ton Pickup Truck
12245	1	1/2 Ton Pickup Truck, CNG
12039, 12040, 12021, 12022, 12093, 12033	6	1/2 Ton Van
1274	1	2 Ton Service Truck
13119, 13167	2	3/4 Ton Pickup Truck
12557	1	3/4 Ton Pickup Truck, CNG
12771, 12762, 12758, 12722, 12718, 12713	6	3/4 Ton Service Truck
13109, 13122, 13120	3	Aerial Bucket, Heavy
12975, 12976	2	Aerial Bucket, Small
3892	1	Boat 1
12257	1	Compact Pickup Truck
13273	1	Dump Truck Type II
13401, 13405	2	Dump Truck Type III
5702, 13173, 13174, 13155, 13146, 13142, 12590	7	Flatbed Truck
13350, 13343, 13342	3	Mini Van
13754	1	Packer 17 Yard

Vehicle Number	Number of Vehicles	Class of Vehicle
14595, 2957	2	Pavement Grinder
10661	1	Police/Fire Solid
10607, 10059, 10692	3	Sedan
10675, 10654, 10635	3	Sedan, CNG
1236, 13465	2	Street Flusher
14572	1	Stump Cutter
12880	1	Survey Truck
13462	1	Sweeper 3 Wheel
13885, 8944	2	Sweeper 4 Wheel
14647	1	Sweeper Parking Lot
14259, 14353, 14262, 2009, 14344, 14347, 14340	7	Tractor Type II
14367	1	Tractor Type III
3952, 14391, 3957, 14385	4	Trailer
1303, 1304	2	Truck Tractor
17173	1	Truckster
10460	1	Utility Vehicle, CNG
10477, 10417, 10449, 10450, 24008, 10447, 24013, 10478, 10484	9	Utility Vehicle, Small

In addition, sixteen pieces of equipment assigned to the Public Works Department can be downsized. The table below and at the top of the next page presents the equipment recommended for downsizing.

Division	Vehicle Number	Class of Vehicle	Reason For Downsizing
Public Services - Street Trees	10474 10495 10496	Utility Vehicle, Small	These vehicles are assigned to supervisors, who oversee staff in the field. Supervisors carry small tools and equipment. These vehicles should be downsized to mini pickups.
Public Services - Street Surfaces	10481 10499 14098	Utility Vehicle, Small	These vehicles are assigned to supervisors, who oversee staff in the field. Supervisors carry small tools and equipment. These vehicles should be downsized to mini pickups.
Public Services – Structural Services – Electrical	12725 12726 12736 12738	Truck, 3 / 4 Ton Service	Staff performing similar functions within this unit are assigned Mini Pickups. It is recommended that these vehicles be downsized to compact pickup trucks.
Public Works – Engineering Construction Division	10465 10466 10467 10442 10452	Utility Vehicle, Small	Theses vehicles, which are small utility vehicles, are assigned to instruction inspections. While the inspectors need sufficient room to store small amounts of tools and plans, these vehicles can be downsized, It is recommend that these vehicles be downsized to compact pickup trucks when replaced.

Division	Vehicle Number	Class of Vehicle	Reason For Downsizing
Public Services – Structural Services – Painting	10469	Utility Vehicle, Small	This vehicle is assigned to the supervisor who oversees painting. It is recommend that this vehicle be downsized to a compact pickup truck when replaced.

The annual cost savings generated by the elimination of these one hundred one pieces of equipment would approximate $730,000 to $850,000 annually in operating and maintenance costs as well as capital replacement costs.

These savings would be offset by mileage reimbursement for employee usage of his/her own personal vehicles; this would amount to approximately $15,000 annually.

The downsizing of the equipment identified in the table above would generate approximately $35,000 annually in reduced capital outlay charges.

The total cost savings generated by the reduction and downsizing of this fleet would approximate $750,000 to $870,000 annually.

(21) <u>The Number of Equipment Assigned to Van Pool Should Be Reduced By Fourteen</u>.

This program is being eliminated. There are fourteen vehicles assigned to this program: twelve one-ton vans and two sedans. These vehicles should be eliminated, as noted in the table below.

The annual cost savings generated by the elimination of these fourteen pieces of equipment would approximate $70,000 to $80,000 annually in operating and maintenance costs as well as capital replacement costs.

Vehicle Number	Number of Vehicles	Class of Vehicle
19748, 19752, 19753, 19756, 19759, 19760, 19761, 19774, 19775, 19784, 19785, 19786	12	1 Ton Van
10041, 10042	2	Sedan

(22) <u>The Number of Equipment Assigned to Voice Support/Technology Services Should Be Reduced By Three</u>.

All of the vehicles assigned to Voice Support were found parked during a high percentage of the observations. Three of the five vehicles have low annual mileage, less than 5,000 miles annually. These three vehicles should be eliminated, and the remaining two vehicles "pooled" among the staff of Voice Support. The table below summarizes the three pieces of equipment recommended for elimination.

Vehicle Number	Number of Vehicles	Class of Vehicle
13379	1	Mini Van
12029	1	1/2 Ton Van
13139	1	Flat Bed Truck

The annual cost savings generated by the elimination of these three pieces of equipment would approximate $20,000 to $25,000 annually in operating and maintenance costs as well as capital replacement costs.

(23) <u>One Vehicle Assigned To Wireless Communications/Technology Services Should Be Eliminated.</u>

The table below presents recommendations for reductions in the fleet assigned to Wireless Communications. Wireless Communications is assigned fourteen pieces of equipment including three generators. The equipment assigned to Wireless Communication should be reduced by one.

Vehicle Number	Class of Vehicle	Basis for Elimination
12989	Aerial Bucket, Small	The average annual mileage is approximately 2,500. This vehicle should be eliminated.

The annual cost savings generated by the elimination of this equipment would approximate $10,000 annually in operating and maintenance costs as well as capital replacement costs.

(24) <u>The Number of Equipment Assigned to the Fire Department should be Reduced by Thirty.</u>

The Fire Department is responsible for a wide array of services including such services as fire suppression, emergency medical services, hazardous materials, and marine safety. There are 24 Fire Stations and 8 Lifeguard facilities located throughout the City. Recently, the City of Signal Hill chose another agency for the delivery of fire suppression services than the City of Long Beach. The City had four pieces of equipment assigned to station #23.

The equipment proposed for elimination is presented in the table below. The reasons for recommending the elimination of this equipment are presented in the seventh exhibit at the end of this chapter (exhibit 16). In considering this list of equipment proposed for elimination, it should be recognized that three pieces of equipment in the list are associated with the Signal Hill fire station.

Vehicle Number	Number of Vehicles	Class of Vehicle
10031	1	Sedan
10634	1	Sedan, CNG
13376, 13358	2	Mini Van
24025, 24027, 24028	3	Utility Vehicle, Small
19787	1	1 Ton Van, CNG
1306	1	Truck Tractor
19788	1	1 Ton Van
8920	1	Step Van
12755	1	3/4 Ton Service Truck
10247, 10271	2	Ambulance-Reserve
108	1	Aerial Ladder-Reserve
131	1	Pumper
10270	1	Ambulance
10362	1	Squirt
10371, 183, 196	3	Pumper - Reserve
10260, 10261, 10262, 10263, 10264, 10265, 10266, 10267, 10268	9	Ambulance

In addition, twenty-three pieces of equipment assigned to the Fire Department can be downsized. The table below presents the equipment recommended for

downsizing.

Division	Vehicle Number	Class of Vehicle	Reason For Downsizing
Fire Prevention	17457, 10067, 17517, 10069, 10063	Police/Fire Solid	One person typically uses these vehicles. These vehicles should be downsized to mid-size sedans.
Fire Prevention	24026, 24030, 24029, 24001	Utility Vehicle, Small	One person typically uses these vehicles. These vehicles should be downsized to mid-size sedans. The staff assigned to construction inspection should not require four-wheel drive.
Fire Prevention	13344, 13377, 12031, 13345, 13335, 13378, 13373	Mini Van	One person typically uses these vehicles. These vehicles should be downsized to mid-size sedans.
Fire Operations	17516, 17468, 17456, 17485, 17483	Police/Fire Solid	One person typically uses these vehicles. These vehicles should be downsized to mid-size sedans.
Fire Operations	24051, 24052	Utility Vehicle, Small	One person typically uses these vehicles. These vehicles should be downsized to mid-size sedans.

The annual cost savings generated by the elimination of these thirty pieces of equipment would approximate $215,000 to 265,000 annually in operating and maintenance costs as well as capital replacement costs (recognizing that reserve apparatus and the ambulances that have already been replaced are not charged a replacement charge). These savings would be offset by mileage reimbursement for employee usage of his/her own personal vehicles; this would amount to approximately $10,000 annually. The downsizing of the equipment identified in the table above would generate approximately $50,000 annually in reduced capital outlay charges. The total cost savings generated by the reduction and downsizing of this fleet would approximate $255,000 to $305,000 annually.

(25) <u>The Number of Vehicles Assigned to the Police Department Should Be Reduced By Ninety-Two</u>.

The table on the next page summarizes the vehicles proposed for elimination from the fleet assigned to the Police Department. The basis for the proposed elimination

of this equipment is presented in more detail in the eighth exhibit at the end of this chapter (exhibit 17).

Vehicle Number	Number of Vehicles	Class of Vehicles
17394, 17500, 17511, 17497, 17402, 17413, 17373, 17420, 17400, 10620, 17396, 17403, 17433, 17448, 17388, 17452, 17395, 17382, 17461, 17398, 17449, 17486, 17401, 17428, 17490,	25	Police/Fire Solid
19630, 19634	2	Utility Vehicle, Small
10197, 10195, 10196, 19629	4	Utility Vehicle, Large
14392, 14419	2	Trailer
12977, 12979	2	1 Ton Crew Cab
18346, 18272, 18121, 18145, 18153, 18170, 18177, 18182, 18154, 18240, 18245, 18252, 18340, 18344, 18351, 18162, 18191, 18218, 18235, 18263, 18345, 18352, 18354, 18137, 18082, 18088, 18136, 18158, 18086, 18168	30	Black/White Sedan
19737, 19781, 19782, 10245, 19739	5	1 Ton Van
8918, 8919, 5099	3	Step Van
14008	1	Forklift, Light
13368, 13369, 13370	3	Mini Van
12330	1	1/2 Ton Pickup Truck
17040, 17041, 17045, 17047, 17052, 17058, 17061, 17077, 17072	9	Motorcycles
8934, 8935	2	Mobile Command Center
12329	1	Compact Pickup Truck
10039	1	Sedan
10273	1	Paramedic Ambulance

The Matrix Consulting Group also believes there are opportunities to reduce the ”L” car fleet within the Police Department.

One other piece of equipment should be reassigned to a citywide pool maintained by the Fleet Services Bureau: #19777, a 3/4-ton van.

In addition, equipment assigned to the Police Department can be downsized. The department is utilizing Ford Crown Victoria’s (Police/Fire Solid’s) for staff transportation in areas such as Investigations, Administration, etc. These vehicles cost $29,000 for the City to acquire. It is recommended that the department utilize mid-size sedans (e.g.,

Ford Taurus) instead. The City can acquire these mid-size sedans through the State of California's cooperative purchasing agreement for approximately $15,000. Even if the City eliminated the twenty-five Police/Fire Solid's as recommended in the previous table, there would be 117 remaining within the department's fleet. The annual cost savings in capital replacement resulting from the downsizing of these sedans would approximate $200,000 annually.

The annual cost savings generated by the elimination of these ninety-two pieces of equipment would approximate $650,000 to $720,000 annually in operating and maintenance costs as well as capital replacement costs.

These savings would be offset by mileage reimbursement for employee usage of his/her own personal vehicles; this would amount to approximately $20,000 annually.

The downsizing of the equipment identified in the table above would generate approximately $200,000 annually in reduced capital outlay charges.

The total cost savings generated by the reduction and downsizing of this fleet would approximate $830,000 to $900,000 annually.

It should be recognized that the amount of black and white sedans required for patrol is significantly impacted by the use of the 4/10 schedule. The overlap between shifts requires a significantly greater number of patrol vehicles than would otherwise be required.

RECOMMENDATION 7-2: The Fleet Services Bureau should meet with the affected departments to discuss the proposed reductions, modify the proposed reductions as appropriate based upon this feedback, and present recommendations to the City Manager within the context of the reductions already built into the 2003-04 budget.

* * * * * *

The table below summarizes the annual cost savings that could be generated if all of the vehicles proposed for elimination were, in fact, eliminated.

Organizational Unit	Number of vehicles Proposed for Elimination	Annual Cost Savings
City Attorney	0	$ 4,000
Community Development	6	$ 17,500
Financial Management	2	$ 1,600
Animal Control	4	$ 30,500
Hazardous Materials	1	$ 3,800
Vector Control	1	$ 4,900
Social Services	1	$ 3,900
Preventive Health	1	$ 1,900
Gas	12	$ 98,000
Construction/Energy	20	$ 197,000
Engineering/Energy	1	$ 7,000
Towing	8	$ 66,500
Fleet Services	23	$ 43,000
Parking	6	$ 28,400
Street Sweeping	1	$ 5,900
Refuse Collection	7	$ 280,000 to $330,000
Oil	4	$ 21,400
Parks & Recreation	66	$ 500,000 to $590,000
Planning & Building	26	$ 111,000 to $124,000
Public Works	101	$ 750,000 to $870,000
Van Pool	14	$ 75,000
Voice	3	$ 22,000
Wireless	1	$ 10,000
Fire	30	$ 255,000 to $305,000
Police	92	$ 830,000 to $900,000
TOTAL	**431**	**$3,368,300 to $3,761,300**

Exhibit 10 (1)

Best Practices for Fleet Utilization

Best Practice	Strength	Opportunity for Improvement
Alternatives have been developed to assignment of City-owned vehicles (i.e., rentals, taxis, and reimbursement) and these alternatives are promoted among employees.		The City has not developed a policy regarding alternatives to assignment of City-owned vehicles. Alternatives to City-owned vehicles are not being promoted.
Short-term rental and motor "pools" for light, medium and heavy equipment are available.	The Fleet Services Bureau has a short term motor "pool" of Honda Civics for staff that brings in their vehicles for repair or preventive maintenance.	Short-term rental and motor "pools" are not available for medium and heavy equipment.
Justification and analysis are required before additional equipment is purchased for the City's fleet.	The City, within their FY 2004 Budget Instructions, provides an Enhancement Form.	There aren't any specific instructions regarding the submittal of justification for additional vehicles.
Fleet utilization is continually monitored and opportunities are identified by the Fleet Services Bureau to reassign or rotate under-utilized equipment.		The Fleet Services Bureau is not continually monitoring vehicle utilization and identifying opportunities to reassign or rotate underutilized equipment.
Economic incentives are provided to fleet users to maximize their use of permanently assigned units.	Departments that are assigned vehicles are charged a monthly replacement fee and the costs of maintenance and repair.	Until recently, departments were not provided monthly reports regarding these costs.
The City has developed policies that identify criteria that must be met for vehicles to be permanently assigned to staff.	The City has not developed policies regarding the criteria or basis for permanent assignment of vehicles to staff.	The criteria, contained in an Administrative Regulation, should be modified to increase the mileage requirements.
The Fleet Services Bureau monitors and "flags" low-utilization vehicles and compiles a "watch list" of vehicles with annual mileage below a set threshold.		The Fleet Services Bureau does not compile a "watch list" of vehicles with low annual mileage.

Exhibit 10 (2)

Best Practice	Strength	Opportunity for Improvement
The City requires justification information on an annual basis for the continued assignment of low utilization vehicles that appear on the “watch list”.		The City does not require justification for the continued assignment of low utilization vehicles.

Exhibit 11 (1)

Basis for Recommended Reductions In Construction Division

<table>
<tr><th>Department</th><th>Vehicle Number</th><th>Vehicle Type</th><th>Basis for Elimination</th></tr>
<tr><td>Long Beach Energy – Construction</td><td>12618</td><td>3 / 4 Ton Pickup</td><td>This vehicle is designated the on-call vehicle which rotates among 8 staff positions. This vehicle is a take home vehicle.
During field observations this vehicle was parked 40% of the time.
Eliminate this vehicle and use one of the four other 3 / 4 ton pickups assigned to the Division as the take home vehicle.</td></tr>
<tr><td>Long Beach Energy – Construction</td><td>2414
2419</td><td>Crane Type I</td><td>There are four cranes assigned to this Division that are shared among staff and assigned according to project needs. All of these cranes have low annual utilization as measured by miles. On average, 1.8 cranes were observed parked during observations of the fleet.
<table>
<tr><th>Vehicle</th><th>Yr.</th><th>Field Observation</th></tr>
<tr><td>2414</td><td>85</td><td>20%</td></tr>
<tr><td>2417</td><td>01</td><td>40%</td></tr>
<tr><td>2418</td><td>01</td><td>60%</td></tr>
<tr><td>2419</td><td>01</td><td>60%</td></tr>
</table>
Based on utilization and field observations, two cranes should be eliminated and pooled equipment used if necessary.</td></tr>
<tr><td>Long Beach Energy – Construction</td><td>1268
1297</td><td>Dump Truck Type III</td><td>There are four dump trucks type threes assigned to this Division.
<table>
<tr><th>Vehicle</th><th>Yr.</th><th>Field Observation</th></tr>
<tr><td>1268</td><td>81</td><td>60%</td></tr>
<tr><td>1297</td><td>01</td><td>40%</td></tr>
<tr><td>1295</td><td>01</td><td>0%</td></tr>
<tr><td>1296</td><td>01</td><td>0%</td></tr>
</table>
Vehicle 1268 is a spare dump truck. Vehicle 1297 is unassigned due to a retirement. Two dump truck III’s should be eliminated.</td></tr>
</table>

Exhibit 11 (2)

<table>
<tr><th>Department</th><th>Vehicle Number</th><th>Vehicle Type</th><th>Basis for Elimination</th></tr>
<tr><td rowspan="3">Long Beach Energy – Construction</td><td>1136</td><td>Flat Bed Truck, Diesel</td><td>There are five flat bed trucks assigned to this Division
Vehicle 1136 was parked during 60% of field observations. Its average annual mileage is 1,600.
This vehicle should be eliminated.</td></tr>
<tr><td>1397
13204</td><td>Truck, Line Construction</td><td>There are 9 line construction trucks assigned to this Division. Two are assigned to vacant crews, meaning the Division has insufficient staff to create additional crews due to vacancies.
<table>
<tr><th>Vehicle</th><th>Yr.</th><th>Assignment</th></tr>
<tr><td>1205</td><td>84</td><td>Construction Crew</td></tr>
<tr><td>1272</td><td>82</td><td>Unassigned</td></tr>
<tr><td>13203</td><td>87</td><td>Service Crew</td></tr>
<tr><td>13204</td><td>96</td><td>Vacant Crew</td></tr>
<tr><td>13205</td><td>00</td><td>Emergency Response</td></tr>
<tr><td>13206</td><td>00</td><td>Emergency Response</td></tr>
<tr><td>1395</td><td>82</td><td>Construction Crew</td></tr>
<tr><td>1396</td><td>82</td><td>Service Crew</td></tr>
<tr><td>1397</td><td>82</td><td>Vacant Crew</td></tr>
</table>
Based on age, condition, and utilization, three trucks should be eliminated and two trucks assigned to the Division should be pooled among the crews.
Eliminate vehicles 1272, 1395 and 1397.
Vehicles 13205 and 13206 should remain assigned to the Emergency Response crews.
Vehicle 13204 should be assigned to the Construction Crew.
Vehicles 13203 and 1205 should be used as pool vehicles and shared among the two Service Crews and one Construction Crew.</td></tr>
<tr><td>2006</td><td>Tractor Type III</td><td>This vehicle is a 1977 tractor that is not assigned to a specific crew or function.
This vehicle was parked during 60% of field observations.
This tractor should be eliminated.</td></tr>
</table>

Exhibit 11 (2)

<table>
<tr><th>Department</th><th>Vehicle Number</th><th>Vehicle Type</th><th>Basis for Elimination</th></tr>
<tr><td rowspan="2">Long Beach Energy – Construction</td><td>1212
1392</td><td>2 Ton Service Truck</td><td>There are five 2-ton service trucks assigned to this Division, two of which are fueled with compressed natural gas.

<table>
<tr><th>Vehicle</th><th>Yr.</th><th>Assignment</th><th>Field Observations</th></tr>
<tr><td>1212</td><td>81</td><td>Unassigned</td><td>60%</td></tr>
<tr><td>1392</td><td>81</td><td>Unassigned</td><td>20%</td></tr>
<tr><td>1227</td><td>84</td><td>Magajes</td><td>0%</td></tr>
<tr><td>13218</td><td>92</td><td>Valve Crew</td><td>20%</td></tr>
<tr><td>13219</td><td>92</td><td>Valve Crew</td><td>40%</td></tr>
</table>

Two of the five service trucks are unassigned. Vehicles 13218 and 13219 are assigned to valve crew staff. Vehicle 1227 is assigned to a staff person who assists contractors.
Eliminate two service trucks.</td></tr>
<tr><td>12250</td><td>3 / 4 Ton Service Truck</td><td>There are five 3 /4 ton service trucks assigned to this Division. The equivalent of 1.6 3/4-ton service trucks were found parked during observations.

<table>
<tr><th>Vehicle</th><th>Yr.</th><th>Assignment</th><th>Field Observations</th></tr>
<tr><td>12734</td><td>94</td><td>Corrosion Crew</td><td>40%</td></tr>
<tr><td>12250</td><td>92</td><td>Corrosion Crew</td><td>60%</td></tr>
<tr><td>12273</td><td>02</td><td>Construction Crew</td><td>0%</td></tr>
<tr><td>12856</td><td>01</td><td>Unassigned</td><td>0%</td></tr>
<tr><td>12729</td><td>93</td><td>Facility Maintenance</td><td>60%</td></tr>
</table>

Based on age, condition and utilization, one of the 3 / 4 ton service trucks should be eliminated.</td></tr>
</table>

Exhibit 11 (3)

<table>
<tr><th>Department</th><th>Vehicle Number</th><th>Vehicle Type</th><th>Basis for Elimination</th></tr>
<tr><td rowspan="8">Long Beach Energy – Construction</td><td>12899
12905</td><td>Truck, Welder</td><td>There are seven welder trucks assigned to this Division. Three of the trucks are assigned to specific crews, two to the weld shop. Vehicles 12899 and 12900 are CNG welder trucks. The equivalent of 2.2 welder trucks were always found parked.
<table>
<tr><th>Vehicle</th><th>Yr.</th><th>Assignment</th><th>Field Observations</th></tr>
<tr><td>12899</td><td>92</td><td>Weld Shop</td><td>20%</td></tr>
<tr><td>12900</td><td>92</td><td>Service Crew</td><td>40%</td></tr>
<tr><td>12901</td><td>99</td><td>Service Crew</td><td>20%</td></tr>
<tr><td>12902</td><td>99</td><td>Unassigned</td><td>40%</td></tr>
<tr><td>12903</td><td>99</td><td>Construction</td><td>20%</td></tr>
<tr><td>12905</td><td>99</td><td>Weld Shop</td><td>40%</td></tr>
<tr><td>12906</td><td>99</td><td>Construction</td><td>20%</td></tr>
</table></td></tr>
<tr><td>14465</td><td>Air Compressor</td><td>This vehicle is either not currently in use (due to vacancies), is a spare or backup vehicle, or is an unassigned vehicle. This vehicle should be eliminated.</td></tr>
<tr><td>14462</td><td>Air Compressor</td><td>This vehicle is either not currently in use (due to vacancies), is a spare or backup vehicle, or is an unassigned vehicle. This vehicle should be eliminated.</td></tr>
<tr><td>14472</td><td>Air Compressor</td><td>This vehicle is either not currently in use (due to vacancies), is a spare or backup vehicle, or is an unassigned vehicle. This vehicle should be eliminated.</td></tr>
<tr><td>2137</td><td>Air Compressor</td><td>This air compressor is either not currently in use (due to vacancies), is a spare or backup, or is unassigned. This air compressor should be eliminated.</td></tr>
<tr><td>10653</td><td>Sedan, CNG</td><td>This vehicle is either not currently in use (due to vacancies), is a spare or backup vehicle, or is an unassigned vehicle. This vehicle should be eliminated.</td></tr>
<tr><td>10638</td><td>Sedan, CNG</td><td>This vehicle is either not currently in use (due to vacancies), is a spare or backup vehicle, or is an unassigned vehicle. This vehicle should be eliminated.</td></tr>
</table>

Exhibit 12 (1)

Basis for Recommended Reductions In Fleet Services

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Long Beach Energy – Fleet Services – Fleet Maintenance	17360	Police / Fire Solid	This vehicle is a loaner vehicle used by Fleet customers when their vehicle is being repaired. The annual mileage for this vehicle is less than 4,000. This vehicle should be eliminated.
	12832	3 / 4 Ton Pickup	This vehicle is a loaner vehicle used by Fleet customers when their vehicle is being repaired. The annual mileage for this vehicle is less than 2,000. This vehicle should be eliminated.
	1284	2 Ton Service Truck	This is a mobile lube truck, which provides lubrication services to vehicles. This vehicle is staffed with personnel at night. The annual average mileage is approximately 4,000. The Bureau operates another mobile lube truck during the day. This vehicle should be eliminated. Nightshift personnel can utilize the mobile lube truck used by day shift personnel.
	14617	Steam Cleaner, Portable	This is a mobile water pressure truck that is used to wash grounds and equipment (e.g. large car accident or spill). The Bureau should rent a vehicle when this need arises. Eliminate this vehicle.
	1154 12223	Truck, 3 / 4 Ton Service 1/2 Ton Pickup Truck	These are mobile service trucks, which provides service to the Police / Safety vehicles and heavy-duty vehicles that breakdown in the field. #1154 had annual mileage of 4,000; #12223 had annual mileage of 7,600. There are four mobile service trucks (#1154, #1483, #12223, and #12624) These two vehicles should be eliminated. The Bureau should pool the remaining two mobile service trucks.

Exhibit 12 (2)

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Long Beach Energy – Fleet Services – Fleet Maintenance	3562	Portable Welder	The Bureau has two portable welders; one should be eliminated.
	2035 2036	Tractor Type II A	The Division does not use these tractors.
	17154	Truckster	This vehicle is unassigned. The annual mileage is approximately 700. This vehicle should be eliminated.
	10014	Sedan	The Division does not use this vehicle. The annual mileage for #10014 is approximately 7,000.
	1481	3 / 4 Ton Pickup	This vehicle is used to provide assistance to vehicles which breakdown in the field, when a two-person response is needed. The annual mileage for this vehicle is approximately 4,500. This vehicle should be eliminated.
	10459	Utility Vehicle, Small	This vehicle is not to a specific staff person or function. Additionally, this vehicle was parked during 75% of field observations.
	17346	Police/Fire Solid	This vehicle is a “loaner.” There are seventeen “loaners.” The annual mileage for this sedan is approximately 3,000. This vehicle should be eliminated.
	10438	Utility Vehicle, Small	This vehicle is a “loaner.” There are seventeen “loaners.” The annual mileage for this sedan is approximately 7,000. This vehicle should be eliminated.

Exhibit 12 (3)

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Long Beach Energy – Fleet Services – Fleet Maintenance	13317	Mini Van	This vehicle is used by the Motorcycle Mechanic (used to tow motorcycles) The vehicle had approximately 1,500 miles of utilization annually. The vehicle should be eliminated. The Motorcycle Mechanic has other vehicles available to tow motorcycles.
	1401	3/4 Ton Van	This is a “loaner’ – Janitorial staff. This vehicle had approximately 5,000 miles of annual utilization. The vehicle should be eliminated. Other vehicles are available.
	12091	3/4 Ton Van, CNG	This vehicle is a Loaner – Light / Medium line. There are seventeen “loaners.” This vehicle had approximately 7,000 miles of annual utilization. The vehicle should be eliminated.
	12092	3/4 Ton Van, CNG	This vehicle is a “loaner”. There are seventeen “loaners.” This vehicle had 5,500 miles of annual utilization. The vehicle should be eliminated.
	8916	Truck, Mini Stake Bed	This vehicle is a “loaner”. There are seventeen “loaners.” This vehicle had approximately 3,000 miles of annual utilization. The vehicle should be eliminated.
	14003	Forklift, Light	This is one of three forklifts assigned to the Bureau. This equipment should be eliminated.
	13340	Mini Van	This vehicle is assigned to T. Marten (fuel sites inspections and maintenance). The vehicle should be eliminated. Other vehicles are available. The annual utilization of this vehicle was approximately 7,500.
	12035	1/2 Ton Van	This is one of two vehicles assigned to the Parks and Marina Mechanic (used to transport tools and equipment when working offsite). The other vehicle is #13148. This vehicle should be eliminated.

Exhibit 13 (1)

Basis for Recommended Reductions In Parks and Recreation

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Parks – Rangers	17114	All Terrain Vehicle	There are two all terrain vehicles assigned to the Park Rangers. Mileage data indicated little to no use. Fuel consumed by both vehicles was less than 13 gallons for a 12-month period. One ATV should be eliminated.
Parks – Grounds Maintenance	1314	Flatbed Truck, Diesel	This vehicle is assigned to an equipment operator I (J. Flores). This position also is assigned a dump truck, type II (#13270). This vehicle should be eliminated and the dump truck used as needed.
	1315	Dump Truck, Type II	This vehicle is assigned to a maintenance worker III position (W. Jeffcoat). There is also a flat bed truck assigned to this same position (#13152). This vehicle was characterized as a "piece of junk." This vehicle should be eliminated and the flatbed truck used as needed.
	12941	1 Ton Dump Truck	This vehicle was primarily used for transportation for irrigation maintenance. Interviews indicated that use of this vehicle has decrease. This vehicle should be eliminated due to low utilization.
	12297	Compact Pickup Truck	This vehicle is assigned to staff that maintain land in the Nature Center and El Dorado park. This position is also assigned a truckster/gator ()#8928). Due to low utilization, this vehicle should be eliminated.
	14260	Tractor Type II	This vehicle is a 1989 tractor that is assigned to the irrigation crew. Over a 12-month period, this vehicle consumed 27 gallons of fuel. This vehicle should be eliminated, and a "pool" tractor from Fleet utilized.
	13749 13747 13865	Packer, 17 Yard	There are three packers assigned to this Division, which are used by staff to remove and haul debris in vacant lots (#13749, #13747, and #13865). The Parks and Recreation Department should explore the provision of weed abatement services contractually and eliminate these vehicles if contract services prove cost-effective. These three packers should be eliminated
	14343 14174	Tractor Type II A Mower, Riding Small	This equipment is used to mow alleys and vacant lots. The Parks and Recreation Department should explore the provision of weed abatement services contractually and eliminate these vehicles if contract services prove cost-effective

Exhibit 13 (2)

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Parks – Grounds Maintenance	12744 14027 14342 14348 14592 2200 12549 12560 10520 12261 14025 14154 14167 14350 14351 14388	3/4 Ton Service Truck Leaf Sweeper Tractor Type IIA Tractor Type IIA Broadcast Spreader Flail Mower 3/4 Ton Pickup 3/4 Ton Pickup Truckster Compact Pickup Leaf Sweeper Mower, Riding Small Mower, Riding Small Tractor Type IIA All Terrain Vehicle Trailer	These vehicles are allocated to ball field maintenance. The Parks and Recreation Department should explore the provision of ball field maintenance contractually, and eliminate this vehicle if contract services prove cost-effective.
	13864	Packer, 17 Yard	There is one packer assigned to this Division for refuse collection within the parks. The Parks and Recreation Department should explore the provision of these services contractually and eliminate these vehicles if contract services prove cost-effective.
Parks – Marina Maintenance	12003 12286 12564 TOO151, TOO 152, & TOO 150	3/4 Ton Van Compact Pickup 3/4 Ton Pickup Electric Carts (3)	These vehicles are assigned to maintenance assistants providing custodial services. The Parks and Recreation Department should explore the provision of these services contractually and eliminate these vehicles if contract services prove cost-effective. The supervisor – R. McIntosh – would continue to be responsible for supervision, but of contractors and not in-house staff.
	12752	3/4 Ton Service Truck	This vehicle is assigned to a vacant position. The vehicle should be eliminated.
	12943	Truck, 1 Ton Dump	The Division does not use this vehicle and has selected to have it turned in.

Exhibit 13 (3)

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Parks – Marina Maintenance	13164	Flat Bed Truck	This vehicle is not assigned to a specific staff person for daily use; rather all staff share it. Due to low mileage, this vehicle should be eliminated and a pool vehicle used when needed.
	14345	Tractor, Type II A	This vehicle has a reported annual mileage of 2,000. It is shared among staff and used as needed. The Division should eliminate this piece of equipment and use a pool tractor as needed.
	12954	1 Ton Dump Truck	The annual mileage for this vehicle is 3800. The Division does not use this vehicle and has selected to have it turned in.
Parks – Park Facility and Custodial Maintenance	12037 12036 12032 12027	1/2 Ton Van	These vehicles are assigned to maintenance assistants providing custodial services. The Parks and Recreation Department should explore the provision of these services contractually and eliminate these vehicles if contract services prove cost-effective. The supervisor would continue to be responsible for supervision, but of contractors and not in-house staff.
Parks – Beach Maintenance	13404	Dump Truck, Type III	There are 3 dump truck type III's assigned to a Beach Maintenance Crew, which consist of four staff. The dump trucks are used to pull rakes along the beach and remove debris. There are also 5 tractors that pull rakes and perform similar functions. A dump truck should be eliminated.
	13860	Refuse Packer, Beach	There are three packers assigned to this Division, which are used for refuse collection from the beach and marina, as well as debris removal as needed. Vehicle 13751 is a 25-yard packer. One packer should be eliminated given the levels of utilization. Eliminate a packer.
	14302	Tractor, Beach	There are five beach tractors, which are used by staff to pull rakes to clean the beaches. The Division also uses three dump trucks for this purpose. The five tractors and three dump trucks are assigned to a four-person crew. Two tractors should be eliminated.

Exhibit 13 (4)

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Parks – Beach Maintenance	14024	Sweeper, Leaf	This vehicle is a leaf sweeper that staff uses to sweep the bike path. Annual mileage for this vehicle averaged approximately 300. There is a leaf sweeper assigned to Landscape and Turf Maintenance Division, which is used for general cleanup of debris Eliminate 14024 and pool vehicle 14023.
	14640 14645 14401 13479	Sweeper, Parking Lot (2) Trailer 3 Wheel Sweeper	Beach maintenance provides its own sweeping of parking lots. The Parks and Recreation Department should explore the provision of these services contractually and eliminate these vehicles if contract services prove cost-effective.
Parks – Landscape and Turf Maintenance	14184	Mowing, Rider, Small	There are two small rider mowers assigned to this Division. Vehicle 14175 is assigned to tideland grounds and has low utilization. Vehicle 14184 is not assigned to a specific Division. Vehicle 14184 should be eliminated.
Parks – Unassigned	12099	3 / 4 Ton Van, CNG	This vehicle is not assigned to a specific function or staff person. Due to low utilization this vehicle should be eliminated.
Parks – Queensway	3898	Boat	There are two boats assigned to this Division, which are used to remove debris from the water. This boat should be eliminated. One boat should be sufficient.
	8923 8924 8930	Gator	These vehicles are not assigned to a specific function or staff person. Mileage and fuel data are unavailable.
Parks – Special Events	10662	Sedan	The Department has turned in this vehicle.
Parks – Skateboard Park	12167	1 Ton Van	This vehicle is assigned to the Skate Park. This vehicle should be eliminated and staff reimbursed for use of their personal vehicle.
	19788	3 / 4 Ton Van	This vehicle is assigned to the Skate Park. This vehicle should be eliminated and staff reimbursed for use of their personal vehicle.
Parks – Murals	1137	1 / 2 Ton Van	This vehicle is assigned to Parks and Recreation Murals This vehicle should be eliminated and staff reimbursed for use of their personal vehicle.
Parks	12081	3 / 4 Ton Van	This vehicle is assigned to the Senior Center This vehicle should be eliminated and staff reimbursed for use of their personal vehicle.

Exhibit 14 (1)

Basis for Recommended Reductions In Planning and Building

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Planning and Building – Administration	10611	Sedan	This vehicle was parked during 100% of field observations. This vehicle is assigned to a Planner in Administration. Due to low utilization, staff should be reimbursed for mileage.
Planning and Building – Land Use Regulations	10666	Sedan	This vehicle was parked during 71% of field observations This vehicle is assigned to Land Use Regulations. Staff should staff should be reimbursed for mileage.
Planning and Building – Combination Inspection	10643	Sedan	This vehicle is unassigned, and was observed parked during 71% of field observations. This vehicle should be eliminated.
	10614	Sedan	This vehicle is assigned to a vacant position. This vehicle should be eliminated.
Planning and Building – Inspection Specialty	10424	Utility Vehicle, Small	This vehicle was observed parked during 71% of field observations. Staff should be reimbursed for mileage.
	10622	Sedan	This vehicle is unassigned. This vehicle should be eliminated.
	24018	Utility Vehicle, Small	This vehicle is unassigned. This vehicle should be eliminated.
	24032	Utility Vehicle, Small	This vehicle was observed parked during 43% of the field observations. Staff should be reimbursed for mileage.
	24040	Utility Vehicle, Small	This vehicle was parked during 71% of field observations Staff should be reimbursed for mileage.
Planning and Building – Zone Code Enforcement Program	10615	Sedan	This vehicle is unassigned. Due to low utilization, this vehicle should be eliminated. Staff should be reimbursed for mileage.
Planning and Building – Oil Code	10441	Utility Vehicle, Small	This vehicle was parked during 86% of field observations. This vehicle should be eliminated. Staff should be reimbursed for mileage or share another vehicle.
Planning and Building – Community Code Enforcement	10017	Sedan	This vehicle is unassigned. This vehicle should be eliminated.

Exhibit 14 (2)

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Planning and Building – Community Code Enforcement	10674	Sedan	Due to low utilization, this vehicle should be eliminated and staff reimbursed for mileage.
Planning and Building – Intensified Code Enforcement / Neighborhood Improvement Strategy / CDBG	10649	Sedan	This vehicle was parked during 57% of the field observations. Due to low utilization, staff should be reimbursed for mileage.
	12089	1 / 2 Ton Van	This vehicle was during 100% of the field observations. This vehicle is not assigned to a specific staff person or function. This vehicle should be eliminated and staff should be reimbursed for mileage.
Planning and Building – Code Compliance Program	10668 17322 17349 17378	Sedan, CNG Police/Fire Solid Police/Fire Solid Police/Fire Solid	These vehicles are assigned to the Code Compliance Program. This is a grant-funded program. Upon termination of the grant, these four vehicles should be eliminated. Three of these vehicles have low annual mileage. Vehicle 17378 is assigned to the Deputy City Attorney allocated to this program.
Planning and Building – Inspection Specialty	10688	Utility Vehicle, Small	This vehicle was found parked during 100% of the observations. This vehicle should be eliminated and staff should be reimbursed for mileage.
	10421	Utility Vehicle, Small	This vehicle was found parked during 100% of the observations. This vehicle should be eliminated and staff should be reimbursed for mileage.
Planning and Building – Intensified Code Enforcement / Neighborhood Improvement Strategy / CDBG	10698	Sedan, CNG	This vehicle was found parked during 57% of the observations. This vehicle should be eliminated and staff should be reimbursed for mileage.
Planning and Building – Deputy Inspections	11518	Sedan	This vehicle was found parked during 86% of the observations. This is one of two vehicles assigned to Deputy inspections. This vehicle should be eliminated and staff should be reimbursed for mileage.

Exhibit 14 (3)

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Planning and Building – Zone Code Enforcement	10669	Sedan, CNG	This vehicle was found parked during 57% of the observations. This vehicle should be eliminated and staff should be reimbursed for mileage.
Planning and Building – Weed Abatement	10651	Sedan, CNG	This vehicle was found parked during 43% of the observations. This vehicle should be eliminated and staff should be reimbursed for mileage.

Exhibit 15 (1)

Basis for Recommended Reductions In Public Works

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Public Services – Streets Landscaping	12944 12945 12951 12952 12962	Truck, 1 Ton Dump	The Public Works Department should explore the provision of these services contractually and eliminate these vehicles if contract services prove cost-effective.
	13645	Street Flusher	The Public Works Department should explore the provision of these services contractually and eliminate this vehicle if contract services prove cost-effective.
	12713 12718 12722 12758 12762 12771	Truck, 3/4 Ton Service	The Public Works Department should explore the provision of these services contractually and eliminate these vehicles if contract services prove cost-effective.
	13342 13343 13350	Mini Van	The Public Works Department should explore the provision of these services contractually and eliminate these vehicles if contract services prove cost-effective.
	12764 12765 12830	1 Ton Service Truck	The Public Works Department should explore the provision of these services contractually and eliminate these vehicles if contract services prove cost-effective.
	13119 13167	3/4 Ton Pickup	The Public Works Department should explore the provision of these services contractually and eliminate these vehicles if contract services prove cost-effective.
	12257	Mini Pickup	The Public Works Department should explore the provision of these services contractually and eliminate these vehicles if contract services prove cost-effective.
	14340 14347	Tractor, Type II A	The Public Works Department should explore the provision of these services contractually and eliminate these vehicles if contract services prove cost-effective.
	12588	1 Ton Crew Cab	The Public Works Department should explore the provision of these services contractually and eliminate these vehicles if contract services prove cost-effective.

Exhibit 15 (2)

<table>
<tr><th>Department</th><th>Vehicle Number</th><th>Vehicle Type</th><th>Basis for Elimination</th></tr>
<tr><td rowspan="5">Public Services – Streets Landscaping</td><td>14385</td><td>Trailer</td><td>The Public Works Department should explore the provision of these services contractually and eliminate these vehicles if contract services prove cost</td></tr>
<tr><td>12245</td><td>1/2 Ton Pickup, CNG</td><td>The Public Works Department should explore the provision of these services contractually and eliminate these vehicles if contract services prove cost-effective.</td></tr>
<tr><td>12590
13142
13146
13155</td><td>Flat Bed Truck</td><td>The Public Works Department should explore the provision of these services contractually and eliminate these vehicles if contract services prove cost-effective.</td></tr>
<tr><td>3957</td><td>Trailer</td><td>The Public Works Department should explore the provision of these services contractually and eliminate these vehicles if contract services prove cost-effective.</td></tr>
<tr><td>8944</td><td>Sweeper, 4 Wheel, Vacuum</td><td>The Public Works Department should explore the provision of these services contractually and eliminate these vehicles if contract services prove cost-effective.</td></tr>
<tr><td rowspan="3">Public Services - Street Trees</td><td>10692</td><td>Sedan</td><td>This vehicle is assigned to a vacant supervisor position. There are three supervisors for six crews “on a good day” (an east crew, a west crew, a complaint crew, two stump crews and a palm trimming crew).
The vehicle (and the supervisor position) should be eliminated.</td></tr>
<tr><td>14572</td><td>Stump Cutter</td><td>This Division has two stump cutters, which are used by the tree trimming crews to remove stumps.
One stump cutter was parked during 50% of the field observations. The second stump cutter assigned was parked nearly 70% of field observations. Due to low utilization, one stump cutter should be eliminated.</td></tr>
<tr><td>13109
13122</td><td>Aerial Bucket, Large</td><td>There are four large Aerial Buckets assigned to Street Trees. There are two assigned to crews.
<table>
<tr><th>Vehicle</th><th>Yr.</th><th>Crew</th><th>Days</th></tr>
<tr><td>13109</td><td>86</td><td>Unassigned</td><td>N / A</td></tr>
<tr><td>13112</td><td>01</td><td>Palm Crew</td><td>Tuesday – Thursday</td></tr>
<tr><td>13113</td><td>92</td><td>Complaint Crew</td><td>Monday – Friday</td></tr>
<tr><td>13122</td><td>92</td><td>Unassigned</td><td>N / A</td></tr>
</table></td></tr>
</table>

Exhibit 15 (3)

<table>
<tr><th>Department</th><th>Vehicle Number</th><th>Vehicle Type</th><th>Basis for Elimination</th></tr>
<tr><td>Public Services – Street Trees</td><td>13754</td><td>Packer, Yard 17</td><td>There are five packers: three 17 yards (13752, 13753 and 13754) and two 20 yards (13755 and 13756). Three crews utilize these five packers.
<table>
<tr><th>Vehicle</th><th>Yr.</th><th>Crew</th><th>Days</th></tr>
<tr><td>13752</td><td>01</td><td>West</td><td>Monday - Friday</td></tr>
<tr><td>13753</td><td>01</td><td>Unassigned</td><td>N / A</td></tr>
<tr><td>13754</td><td>01</td><td>Palm Trimming Crew</td><td>Tuesday-Thursday</td></tr>
<tr><td>13755</td><td>01</td><td>Complaint</td><td>Monday – Friday</td></tr>
<tr><td>13756</td><td>01</td><td>East</td><td>Monday – Friday</td></tr>
</table>
Eliminate 1 Packer, 17 yards.</td></tr>
<tr><td rowspan="3">Public Services – Street Surfaces</td><td>1274</td><td>Truck, 2 Ton Service</td><td>This vehicle is a 1983, 2 ton service truck which is unassigned,
This vehicle was parked during 67% of field observations.
This vehicle should be eliminated.</td></tr>
<tr><td>12825</td><td>1 Ton Service Truck</td><td>This vehicle is not assigned to a specific staff person or function.
This vehicle was parked during 50% of field observations.
This vehicle should be eliminated.</td></tr>
<tr><td>13273</td><td>Dump Truck, Type II</td><td>Street Surfaces has five Dump Truck Type IIs assigned to it; four of which are assigned to crews. Three of these dump trucks were found parked consistently during observations (13271, 13272, and 1319).
<table>
<tr><th>Vehicle</th><th>Yr.</th><th>Crew</th><th>Days</th><th>Field Obser.</th></tr>
<tr><td>1184</td><td>00</td><td>Hotline</td><td>Mon. – Fri.</td><td>33%</td></tr>
<tr><td>1319</td><td>84</td><td>Large Patch</td><td>Tues. – Thurs.</td><td>83%</td></tr>
<tr><td>13271</td><td>90</td><td>Dura Patch</td><td>Tues. – Thurs.</td><td>50%</td></tr>
<tr><td>13272</td><td>88</td><td>Dura Patch</td><td>Mon. – Fri.</td><td>67%</td></tr>
<tr><td>13273</td><td>88</td><td>Unassigned</td><td>N / A</td><td>17%</td></tr>
</table>
One Dump Truck Type II should be eliminated based on age and usage.</td></tr>
</table>

Exhibit 15 (4)

<table>
<tr><th>Department</th><th>Vehicle Number</th><th>Vehicle Type</th><th>Basis for Elimination</th></tr>
<tr><td rowspan="3">Public Services – Street Surfaces</td><td>13401
13405</td><td>Dump Truck, Type III</td><td>Street Surfaces has 3 Dump Truck Type IIIs, one of which is assigned to a Dig Out / Grinding Crew that operates three days per week.
<table>
<tr><th>Vehicle</th><th>Yr.</th><th>Crew</th><th>Days</th></tr>
<tr><td>13401</td><td>87</td><td>Dig Out</td><td>Tuesday – Thursday</td></tr>
<tr><td>13405</td><td>88</td><td>Unassigned</td><td>N / A</td></tr>
<tr><td>13408</td><td>88</td><td>Unassigned</td><td>N / A</td></tr>
</table>
Based on age, usage and general condition, one dump truck should be eliminated.</td></tr>
<tr><td>13462</td><td>Sweeper 3 Wheel</td><td>This street sweeper was always found parked during observations.
This sweeper should be eliminated.</td></tr>
<tr><td>12953</td><td>1 Ton Dump</td><td>There are eight 1-Ton Dump Trucks assigned to Street Surfaces. Five are assigned to specific crews.
<table>
<tr><th>Vehicle</th><th>Yr.</th><th>Crew</th><th>Days</th></tr>
<tr><td>1186</td><td>01</td><td>Hotline</td><td>Monday – Friday</td></tr>
<tr><td>12946</td><td>92</td><td>Large Patch</td><td>Tuesday – Thursday</td></tr>
<tr><td>12953</td><td>97</td><td>Unassigned</td><td>N / A</td></tr>
<tr><td>12957</td><td>00</td><td>Sidewalk Patch</td><td>Tuesday – Thursday</td></tr>
<tr><td>12959</td><td>01</td><td>Sidewalk Patch</td><td>Tuesday – Friday</td></tr>
<tr><td>12963</td><td>91</td><td>Grind Crew</td><td>Tuesday - Thursday</td></tr>
</table>
All of the Dump Trucks are utilized to some extent during the calendar year; however the average annual mileage and age of vehicle varies.
During field observations, 2 were not observed parked; 3 were parked at the public services yards at least 50% of the time; and 3 were observed parked for 33% of field observations.
Eliminate a 1-Ton Dump truck.</td></tr>
</table>

Exhibit 15 (5)

<table>
<tr><th>Department</th><th>Vehicle Number</th><th>Vehicle Type</th><th>Basis for Elimination</th></tr>
<tr><td rowspan="5">Public Services – Street Surfaces</td><td>14595
2957</td><td>Pavement Grinder</td><td>There are three pavement grinders assigned to this Division. One pavement grinder is assigned a crew. During field observations, two pavement grinders were parked during 67% of field observations.
Two pavement grinders should be eliminated.</td></tr>
<tr><td>1236</td><td>Street Flusher</td><td>There is one Street Flusher assigned to the Division. There is not a dedicated staff person or function assigned to the equipment.
The Street Flusher was parked during 83% of the field observations.
Eliminate the Street Flusher.</td></tr>
<tr><td>2009
14344</td><td>Tractor, Type II</td><td>There are four Tractor Type IIs assigned to this Division. One is assigned to the Dig Out Crew. The equivalent of two tractors were observed parked all of the time
Two tractors should be eliminated.</td></tr>
<tr><td>14367</td><td>Tractor, Type III</td><td>There are two Tractor Type III's assigned to this Division. One is unassigned; the Dig Out Crew uses the other. One of the tractors was observed parked frequently during observations.
Eliminate one of the two tractors.</td></tr>
<tr><td>1303
1304</td><td>Truck, Tractor</td><td>There are three tractor trucks assigned to Street Surfaces.
<table>
<tr><th>Vehicle</th><th>Yr.</th><th>Crew</th><th>Days</th><th>Field Obser.</th></tr>
<tr><td>1303</td><td>71</td><td>Dig Out</td><td>Tues. – Thurs.</td><td>67%</td></tr>
<tr><td>1304</td><td>95</td><td>Unassigned</td><td>N / A</td><td>83%</td></tr>
<tr><td>1305</td><td>95</td><td>Unassigned</td><td>N / A</td><td>83%</td></tr>
</table>
All of the vehicles were observed parked during the majority of field observations.
Two should be eliminated.</td></tr>
<tr><td rowspan="2">Public Services – Structural Services – Carpentry</td><td>13173
13174</td><td>Flat Bed Truck</td><td>There are two flat bed trucks assigned to carpentry, which are shared among staff.
Both trucks were observed parked during 67% of field observations.
These vehicles should be eliminated.</td></tr>
<tr><td>12929</td><td>1 Ton Dump</td><td>Carpentry staff shares this vehicle.
This vehicle was parked during 75% of field observations.
This vehicle should be eliminated.</td></tr>
</table>

Exhibit 15 (6)

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Public Services – Structural Services – Carpentry	12165	1 Ton Van	Carpentry staff shares this vehicle. During field observations, this vehicle was parked 50% of the time.
Public Services – Structural Services – Electrical	12033	1 / 2 Ton Van	This vehicle is not assigned to a specific staff person. This vehicle should be eliminated.
Public Services – Structural Services – Graffiti	19745 19773 12021 12022 12093	1 Ton Van 1 / 2 Ton Van	There are eight vans assigned to Graffiti, which are used by staff to transport court referrals that assist with graffiti abatement. Light duty staff from City departments operates the vehicles. Five of these vans were observed parked all of the time or during 80% of the observations. Five vans should be eliminated. Graffiti abatement staff should use pool vehicles from Fleet Services as needed, particularly as the number and frequency of court referrals varies.
Public Services – Structural Services – Mall Operations	1508	1 Ton Van	There are 12.7 FTEs responsible for providing maintenance services to a six-block area within downtown. The annual mileage for this vehicle is approximately 3,600. This vehicle should be eliminated. Staff electric carts for transportation within the 6-block area.
	12040	1 / 2 Ton Van	The Division does not use this van Eliminate this vehicle.
	14647	Sweeper, Parking Lot	This Division is responsible for sweeping the parking lots in the six-block area. There are two sweepers assigned to this Division. One sweeper should be eliminated.
	12950	1 Ton Dump Truck	This piece of equipment is assigned to Mall Operations Division and is shared among staff. The frequency with which the truck is used varies depending on current projects. This vehicle should be eliminated and a pool vehicle used as needed.
Public Services – Structural Services – Plumbing	14262	Tractor, Type II	This piece of equipment is assigned to the Plumbing Division and is shared among staff. The frequency with which the tractor is used varies depending on current projects. The vehicle was found parked frequently. This vehicle should be eliminated and a pool vehicle at Fleet Services used as needed.

Exhibit 15 (7)

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Public Services – Structural Services – Plumbing	12956	1 Ton Dump	This piece of equipment is assigned to the Plumbing Division and is shared among staff. The frequency with which the truck is used varies depending on current projects. This vehicle should be eliminated and a pool vehicle used as needed.
	10460	Utility Vehicle, Small CNG	There are two vehicles assigned to one staff person (10460 and 12723). This position performs plumbing activities. This vehicle was found parked during 60% of the observations. This vehicle should be eliminated.
Public Works – Engineering Construction Division	10478	Utility Vehicle, Small	This vehicle is not assigned to a staff person. The vehicle should be eliminated.
	24013	Utility Vehicle, Small	The average annual mileage for this vehicle is 7,000. Due to low utilization, this vehicle should be eliminated. Staff should be reimbursed for mileage.
	10447	Utility Vehicle, Small	This vehicle is assigned to a vacant position. This vehicle should be eliminated.
	12164	1 Ton Van, CNG	This vehicle is assigned to a vacant position. Its average annual mileage was approximately 1,600. This vehicle was found parked during 50% of the observations. This vehicle should be eliminated.
	12259	1 / 2 Ton Pickup	This vehicle was observed parked during 43% of field observations. The annual average mileage was approximately 4,000. This vehicle should be eliminated. Staff should be reimbursed for mileage.
	12280	Survey Truck	This Division has several vacancies. The Division currently operates 2 two-person survey crews, while owning three survey trucks. One survey truck should be eliminated. This leaves the Division with two new survey trucks for their 2 two-person survey crew.
	24008	Utility Vehicle, Small	This vehicle is assigned to the acting supervisor. This vehicle had 6,600 miles of utilization annually. This vehicle should be eliminated, and staff reimbursed for mileage.
	3892 14391 3952	Boat I Trailer	This boat and these two trailers are no longer in service. It is recommended that these three pieces of equipment be eliminated.

Exhibit 15 (8)

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Public Works – Engineering Project Development	10635 10654 10675 10059	Sedan, CNG Sedan	These four sedans were found parked frequently during observations, ranging from 75% to 100% of the observations. These four sedans are shared or "pooled These four sedans should be eliminated, and staff reimbursed for mileage.
Public Services – Traffic Operations	10449 10450	Utility Vehicle, Small	This Division has three utility vehicles that are shared among staff. Two of the vehicles have an average annual mileage of less than 4,000 miles. Two of the utility vehicles should be eliminated.
	10607	Sedan	Staff assigned to the warehouse uses this vehicle. Staff transports materials and supplies in the vehicle. The average annual mileage for this vehicle is approximately 3,400. Staff should be reimbursed for mileage.
	17173	Truckster	There are two trucksters assigned to the Division, which are used for curb painting. Annual mileage for this truckster was under 1,000. One truckster should be eliminated.
	5702	Flat Bed Truck	There are three flat bed trucks used as paint / stencil trucks by this Division. One of the flatbed trucks – 5702 -was found parked during 63% of the observations. Stencil truck 5702 should be eliminated.
	13120	Aerial Bucket, Heavy	There are two aerial buckets (heavy) assigned to the Division. #13120 has annual mileage less than 1,000. This aerial tower was found parked during observations and had lower annual mileage than the other. One aerial bucket should be eliminated.
	12827	1 Ton Service Truck	There are three 1-ton service trucks assigned to two staff persons. One is used as a spare. The spare should be eliminated.
	12975 12976	Aerial Bucket, Small	There are six aerial buckets that are used by one-person signal crews. Two of these positions are vacant. Two aerial buckets were always found parked: 12975 and 12976. The Division has one additional small aerial bucket assigned to traffic signs. Eliminate two small aerial buckets.

Exhibit 15 (9)

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Public Works – Airport Maintenance	10417	Utility Vehicle, Small	In field observations, this vehicle was parked 30% of the time. Annual mileage is 8,400. This vehicle should be eliminated. Staff should be reimbursed for mileage.
	12557	3/4 Ton Pickup, CNG	This vehicle is assigned to maintenance staff. The annual average mileage is 2,500. This vehicle should be eliminated. Staff should be reimbursed for mileage.
	13885	Sweeper, 4 wheel, Vacuum	Airport maintenance has 2 four-wheel sweepers. This vehicle is a 1987 Ford CF700. Additionally, it was not in used during 57% of field observation. If a sweeper is required as backup, this should be coordinated with Street Sweeping/Energy.
	14259 14353	Tractor Type II	This function should be provided by contract with another City department or privatized.
Public Works – Airport Security	10477	Utility Vehicle, Small	This vehicle is shared by the Airport Superintendents. The average annual mileage is 9,100. This vehicle was parked during 40% of field observations. Superintendents should be reimbursed for mileage.
	10661	Police / Fire Solid	This vehicle is assigned to airport security. The average annual mileage is 2,600. This vehicle should be eliminated.
	12039	1/2 Ton Van	This vehicle is shared among staff. It is used to transport visitors, conduct tours, escorts, and respond to emergencies. The average annual mileage is 3,000. This vehicle should be eliminated. Staff should be reimbursed for mileage.

Exhibit 16 (1)

Basis for Recommended Reductions In the Fire Department

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Fire Department, Fire Administration	10031	Sedan	This is a "pool" vehicle. Annual mileage amounts to approximately 4,100. This vehicle was found parked in 73% of the observations. This vehicle should be eliminated, and staff reimbursed for mileage.
Fire Department, Fire Prevention	10634	Sedan, CNG	This vehicle assigned to a Plan Checker. This vehicle had approximately 6,400 miles of utilization annually. This vehicle should be eliminated and the employee reimbursed for mileage.
Fire Department, Support Services	13376	Mini Van	This vehicle is assigned to Training. This vehicle has approximately 6,800 miles of utilization annually. This vehicle should be eliminated and staff reimbursed for mileage.
Fire Department – Special Events	24025	Utility Vehicle, Small	This vehicle is assigned to the Special Events function. This vehicle was parked during 55% of field observations. This vehicle had approximately 6,500 miles of annual utilization. The employee should be reimbursed for mileage.
Fire Department – Fire Operation	19787	1 Ton Van, CNG	This vehicle was parked during 73% of field observations. The annual mileage for this vehicle is low. This vehicle should be eliminated.
	1306	Truck, Tractor	This vehicle is assigned to Fire Operations. Annual mileage for this vehicle amounts to 500. This vehicle should be eliminated.
Fire Department – Fire Prevention	24027	Utility Vehicle, Small	This vehicle is assigned to a Hazmat Investigator 2 position, which is currently vacant. There is another vehicle assigned to HazMat (19675). The annual mileage for this vehicle is approximately 3,300. This vehicle was parked during 91% of field observations. This vehicle should be eliminated and the two staff should share a vehicle.
	13358	Mini Van	This vehicle was found parked during 82% of the observations. Each of the three Fire Investigators is assigned their own vehicle. The three staff should share two vehicles. This vehicle should be eliminated.
Fire Department – Support Services – Training	19788	1 Ton Van	This vehicle is a pool vehicle used by the Training unit. The average annual mileage for this vehicle is approximately 3,000. This vehicle should be eliminated and the staff reimbursed for mileage.

Exhibit 16 (2)

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Fire Department – Fire Operations – Administration	24028	Utility Vehicle, Small	This vehicle is not assigned to a specific staff person or function. During field observations, the vehicle was parked 82% of the time. The other vehicle – a sedan (10628) – was found parked during 64% of the observations. This vehicle should be eliminated.
	12755	3 / 4 Ton Service Body	The average annual mileage for vehicle #12755 is approximately 1,500. Eliminate this 3 / 4 ton service truck.
Fire Department – Fire Operations	10247 10271	Reserve Paramedic Ambulance	The ratio of front line rescues to reserve rescues 2 to 1. A survey of other cities found that these cities generally utilize a guideline of 3 front to 1 reserve rescue unit. Long Beach recently replaced its ambulances. Based on age, condition, and utilization, two reserve ambulances should be eliminated.
	108	Reserve Aerial Ladder	The ratio of front line trucks to reserve trucks is 4 to 3. A survey of other cities found that these cities follow a guideline of 3 front line to 1 reserve aerial ladder. Based on age, condition, and utilization, one reserve aerial ladder should be eliminated.
	131 10270 10362	Fire Pumper Paramedic Ambulance Squirt Pumper	These three pieces of equipment were assigned to the Signal Hill fire station. Since Signal Hill has chosen another agency for service delivery than Long Beach, this equipment should be eliminated.
	10371 183 196	Pumper, Fire - Reserve	The Fire Department has seven fire pumper reserves, and another six fire pumper reserves at the academy. The Fire Department has 20 front-line fire pumpers including two squirts (this excludes apparatus that were assigned to the Signal Hill fire station). The amount of reserves exceeds the proportion used in many other departments. This would still leave a ratio of 2:1; this still exceeds the ratio in other departments.
	8920	Step Van	This step van has low levels of utilization based upon fuel records. Eliminate the vehicle.

Exhibit 16 (3)

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Fire Department – Fire Operations	10260, 10261, 10262, 10263, 10264, 10265, 10266, 10267, 10268	Ambulance	These ambulances were recently replaced. The ambulances that were replaced should be eliminated. There are sufficient reserves without these eight ambulances.

Exhibit 17 (1)

Basis for Recommended Reductions In the Police Department

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Police Department-Chief's Staff	17394 17500	Police / Fire Solid	These two vehicles are assigned to staff whose functions are primarily administrative. During field observations, vehicle #17394 was parked approximately 70% of the time, while #17500 was found parked 56% of the time. These vehicles should be eliminated and staff reimbursed for mileage.
Police Department – Internal Affairs	17511 17497	Police / Fire Solid	This vehicle is assigned to the Internal Affairs Division, which is responsible for investigating complaints against the Department or staff. There are three sedans assigned to this Division. Annual mileage for two of those sedans was approximately 5,400 miles. Two of the sedans should be eliminated and staff reimbursed for mileage.
Police Department-Code Compliance	18346	Black and White	This vehicle is allocated to program that is funded by a grant. The vehicle was found parked during 60% of the observations. Upon termination of the grant, the vehicle should be eliminated.
Police Department-Community Relations	17402 17413 19777	Police/Fire Solid Police/Fire Solid 3/4 Ton Van	Vehicles 17402 and 17413 are used by staff to attend community events. Both had between 6,000 and 7,000 miles of use annually. One was found parked 66% and the other 69% of the observations. The van is equipped with a lift gate. It was found parked during 87% of the observations. The two Police/Fire Solids should be eliminated and staff reimbursed for mileage; the van should be assigned to a citywide pool maintained by the Fleet Services Bureau.
Police Department-Organizational Review	17373	Police/Fire Solid	This sedan had low levels of utilization. This vehicle was found parked during 65% of the observations. The vehicle should be eliminated and staff reimbursed for mileage.
Police Department – Support – Food Services	10197	Utility Vehicle, Large, Fire / K – 9	This vehicle is assigned to Food Services. It is used to haul barbeques to special events and functions. The annual mileage for this vehicle approximates 1,100. This vehicle was parked during 56% of field observations. This vehicle should be eliminated.

Exhibit 17 (2)

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Police Department – Support – Information Technology	14392 17420 17490	Trailer Police/Fire Solid	The trailer is inactive. #17420 was found parked during 65% of the observations, and had approximately 5,000 miles of use annually. The other sedan assigned to this unit – 17490 - was found parked 48% of the observations, and had approximately 6,600 miles of utilization annually. These two sedans and the trailer should b eliminated, and staff should be reimbursed for mileage as necessary.
Police Department – Jail/Support	17400	Police/Fire Solid	This vehicle was found parked during 69% of the observations. The annual mileage was approximately 8,400. This vehicle is the jail officer's car. If the jail officer needs a vehicle, the jail officer should utilize other sedans available at the south police station.
Police Department – Support – Planning and Research	10620	Police / Fire Solid	This sedan is a pool vehicle used by staff in Planning and Research. The annual mileage for this vehicle is approximately 5,300. This vehicle should be eliminated and staff reimbursed for mileage.
Police Department – Support – Planning and Research	12977	1 Ton Crew Cab	This vehicle is a pool vehicle used by staff in Planning and Research. This vehicle was parked during 74% of field observations. The annual mileage for this vehicle approximately 2,200.
Police Department – Support – Planning and Research	18272	Black and White	This sedan is assigned to Planning and Research. It was found parked during 57% of the observations. This vehicle should be eliminated and staff reimbursed for mileage.
Police Department – Support – Pool Vehicles	18121 18145 18153 18170 18177 18182	Black and White	This Division maintains pool black and whites for use by staff as needed. These vehicles should be eliminated. Each of the substations maintains their own pool vehicles. Staff should use these as necessary. In addition, there are three L-Cars, which are located at the pumps and are used as pool vehicles for undercover investigations. Investigative staff is assigned a sufficient number of vehicles.

Exhibit 17 (3)

<table>
<tr><th>Department</th><th>Vehicle Number</th><th>Vehicle Type</th><th>Basis for Elimination</th></tr>
<tr><td>Police Department – Investigation – Auto Theft</td><td>17396</td><td>Police / Fire Solid</td><td>There are three sedans that are assigned to this Division and used by staff in day-to-day investigation activities. These vehicles were found parked a high proportion of the observations.
<table>
<tr><th>Vehicle</th><th>Year</th><th>Field Observation</th></tr>
<tr><td>17396</td><td>98</td><td>52%</td></tr>
<tr><td>17646</td><td>00</td><td>63%</td></tr>
<tr><td>17470</td><td>00</td><td>70%</td></tr>
</table>
Eliminate one of the police / fire solid sedans and pool the remaining two sedans.</td></tr>
<tr><td>Police Department – Burglary Investigation</td><td>17403</td><td>Police/Fire Solid</td><td>This is one of four sedans assigned to Burglary Investigations. Assigned to this Unit are a Sergeant and six Detectives. All four of these sedans were found parked a high proportion of the observations; three were found parked 74% of the observations. Eliminate one of the four sedans.</td></tr>
<tr><td>Police Department – Investigation – Child Abuse</td><td>17433</td><td>Police / Fire Solid</td><td>There are four police / fire solid sedans assigned to the Child Abuse Investigations Unit. Staff in day-to-day investigation activities use these vehicles. Vehicle 17433 was observed parked during 87% of field observations. Its average annual mileage is approximately 7,100.
This vehicle should be eliminated.</td></tr>
<tr><td>Police Department – Investigation – Computer Crimes</td><td>17448</td><td>Police / Fire Solid</td><td>This vehicle is assigned to the Computer Crimes Investigation Unit. Assigned to this Unit are one sergeant and two detectives.
The average annual mileage for this vehicle is approximately 4,500. In addition, the van assigned to this unit was found parked during 64% of the observations. This vehicle should be eliminated.</td></tr>
<tr><td>Police Department – Investigation-Domestic Violence</td><td>17388</td><td>Police/Fire Solid</td><td>This unit is assigned four sedans for one Sergeant and six Detectives. Three of these sedans were found parked a high proportion of the observations; three were found parked 74% or more of the observations. Eliminate one of the four sedans.</td></tr>
<tr><td>Police Department – Investigation – Forgery</td><td>17452</td><td>Police / Fire Solid</td><td>There are four vehicles assigned to Forgery, which are shared between the one Sergeant and seven detectives. Three of the four sedans were found parked a high proportion of the observations: 83%, 78%, and 65%.
This vehicle should be eliminated.</td></tr>
</table>

Exhibit 17 (4)

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Police Department – Investigation – Gang Enforcement	18154 18240 18245 18252	Black and White	These vehicles were always found parked during observations of the fleet. These are part of ten Black and Whites assigned to two Sergeants and 14 Officers, but these officers are deployed seven days a week.
Police Department – Investigation – Robbery	17395	Police/Fire Solid	This is one of four sedans assigned to 1 Sergeant and 6 Police Officers. Two sedans were found parked during 83% to 87% of the observations. This sedan should be eliminated.
Police Department – Investigation – Gang Investigation	17382 17461	Police / Fire Solid	These vehicles are assigned to the Gang Investigation Units. There are 23 vehicles assigned to this Unit, shared by 38 staff. These two sedans were found parked during 91% of the observations. These two vehicles should be eliminated.
Police Department – Investigation – Police Athletic League	19739	1 Ton Van	There are two 1- ton vans assigned to this Unit to provide transportation to events, functions and tournaments. The average annual mileage for this vehicle is 3,700. This vehicle should be reassigned to the Fleet Services Bureau as part of the citywide pool.
Police Department – Investigation – Property	14008	Fork Lift, Light	There are three forklifts assigned to this Division. One should be eliminated.
Police Department – Investigation – Property	12329	Compact Pickup Truck	This is a 1985 vehicle with approximately 54,000 life-to-date miles. It is averaging 4,400 miles of use annually. This vehicle is one of four vans or pickup trucks assigned to the Property Room. This vehicle should be eliminated.
Police Department – Investigation – Police Athletic League	8918 8919	Step Van	There are two-step vans or buses assigned to this Unit to provide transportation for larger groups to events, functions and tournaments. Annual mileage for both vehicles is low. Eliminate both vehicles and rent as needed.
Police Department – Investigation –	17398	Police/Fire Solid	This unit is allocated six sedans including 3 “L” cars for one Sergeant and six Detectives. Two of the sedans (not the “L” cars) were found parked three-quarters of the observations. Eliminate one sedan.

Exhibit 17 (5)

<table>
<tr><th>Department</th><th>Vehicle Number</th><th>Vehicle Type</th><th>Basis for Elimination</th></tr>
<tr><td>Police Department – Investigation – Vice</td><td>17449</td><td>Police / Fire Solid</td><td>This vehicle is assigned to Vice. There are two police / fire solids and 15 “L” cars assigned to this unit. One Lieutenant, three Sergeants, and twelve Detectives utilize these vehicles. In essence, this unit has one vehicle per employee.
This vehicle was parked during 90% of field observations
This vehicle should be eliminated.</td></tr>
<tr><td>Police Department – Investigation – Youth Services</td><td>13368
13369
13370</td><td>Mini Van</td><td>There are six mini vans assigned to DARE Officers within this Unit.
Currently, there are 3 DARE Officers.
Eliminate 3 vehicles assigned to the vacant positions.</td></tr>
<tr><td>Police Department – Patrol-Accident Investigation</td><td>17486</td><td>Police/Fire Solid</td><td>This is one of two vehicles assigned to the detective/fleet safety officer (the other is an “L” car. This vehicle was found parked during 69% of the observations. Eliminate the vehicle.</td></tr>
<tr><td>Police Department – Patrol – Canine Detail</td><td>19630
19634</td><td>Utility Vehicle, Small</td><td>There are fifteen vehicles assigned to the Canine Unit. Of those fifteen vehicles, two are assigned to supervisors, one used for exhibitions and undercover work and the remainder assigned to Canine Officers.
There are four vehicles, which are inactive or assigned to vacant positions.
Two vehicles should be eliminated, which still provides for two spare vehicles.</td></tr>
<tr><td>Police Department – Patrol – East</td><td>12330</td><td>1 / 2 Ton Pickup</td><td>This vehicle is used for community policing activities. This vehicle was parked during 60% of field observations.
This vehicle should be eliminated.</td></tr>
<tr><td>Police Department – Patrol – East</td><td>14419</td><td>Trailer</td><td>This trailer is inactive.</td></tr>
<tr><td>Police Department – Patrol – Airport Security</td><td>18340
18344
18351</td><td>Black and White Sedan</td><td>There are four black and white sedans that are assigned to this Division. While staff provides 24 / 7 coverage, the Airport Operations also provides security coverage. Airport Operations Security is responsible for patrolling the grounds of the airport.
<table>
<tr><th>Vehicle</th><th>Mileage</th></tr>
<tr><td>18339</td><td>7,800</td></tr>
<tr><td>18340</td><td>7,500</td></tr>
<tr><td>18344</td><td>7,000</td></tr>
<tr><td>18351</td><td>8,600</td></tr>
</table>
Due to low utilization for black and white sedans, three vehicles should be eliminated.</td></tr>
</table>

Exhibit 17 (6)

Department	Vehicle Number	Vehicle Type	Basis for Elimination
Police Department – Patrol – Field Support	18162 18191 18218 18235 18263 18345 18352 18354	Black and White Sedan	There are eight pool vehicles assigned to this Division, which are used by patrol staff as spares. These vehicles should be eliminated since additional pool vehicles are maintained at the substations should be used when needed. Eliminate eight sedans.
Police Department – Patrol – Motor Patrol	17040 17041 17045 17047 17052 17058 17061 17077 17072	Motorcycle	There are 44 motorcycles assigned to the Motor Patrol. Of the 44 motorcycles, there are 27 assigned to Officers, 9 assigned to training and 9 unassigned or spare motorcycles. Eliminate 9 motorcycles. The remaining motorcycles are sufficient for training, and spares.
Police Department – Patrol – North	12979	1 Ton Crew Cab	This vehicle is assigned to North Patrol. Staff uses this vehicle to pull trailers during community policing activities. According to interviews, these trailers are not active. The average annual mileage is approximately 1,600. This vehicle should be eliminated a.
Police Department – Patrol – North	17401	Police / Fire Solid	This vehicle is used by staff to perform community-policing functions. The average annual mileage for this vehicle is 3,900. This vehicle should be eliminated and staff reimbursed for mileage.
Police Department – Patrol – North	19737	1 Ton Van	There are two vans assigned to this Division that are used to transport prisoners. Mileage on vehicle approximates 3,700 annually. One van should be eliminated.

Exhibit 17 (7)

<table>
<tr><th>Department</th><th>Vehicle Number</th><th>Vehicle Type</th><th>Basis for Elimination</th></tr>
<tr><td>Police Department – Patrol – North</td><td>18137</td><td>Black and White Sedan</td><td>There are 43 black and white sedans assigned to the North Substation, plus two trucks used by Supervisors.
<table>
<tr><th></th><th>Number</th></tr>
<tr><td>Total Number of Black and Whites and Supervisor Vehicles</td><td>45</td></tr>
<tr><td>Minimum Number of Black and Whites Observed Parked</td><td>4</td></tr>
<tr><td>Number of Spares</td><td>3</td></tr>
<tr><td>Total Number Eliminated</td><td>1</td></tr>
</table>
At peak staffing times (i.e. shift overlap), the minimum number of vehicles observed parked was 4.
Based on condition, mileage and utilization, eliminate 1 black and white patrol sedan.</td></tr>
<tr><td>Police Department – Patrol – Search and Rescue</td><td>19781
19782</td><td>1 Ton Van</td><td>There are two vans assigned for search and rescue purposes. This Division is not staffed. Vehicles are loaded with fans, barricades, and sandbags. These vehicles have less than 1,100 miles of use annually.
These vehicles should be eliminated and pool vehicles used as needed.</td></tr>
<tr><td>Police Department – Patrol – South</td><td>10245</td><td>1 Ton Van</td><td>There are two vans assigned to this Division that are used to transport prisoners. 10256 was always found parked during observations.
One van should be eliminated.</td></tr>
<tr><td>Police Department – Patrol – South</td><td>17428</td><td>Police / Fire Solid</td><td>This vehicle is used by staff to perform community-policing functions.
The annual mileage for this vehicle is 3,200.
This vehicle should be eliminated and staff reimbursed for mileage.</td></tr>
<tr><td>Police Department – Patrol – SWAT</td><td>10195</td><td>Utility Vehicle, Large Fire / K – 9</td><td>There are four SWAT vehicles assigned to the Division; two of which are backups.
Annual mileage for both vehicles is less than 5,000.
One spare should be eliminated.</td></tr>
<tr><td>Police Department – Patrol – SWAT</td><td>8934</td><td>Mobile Command Center</td><td>There are three “humbor pigs,” which the Department uses to breakthrough doors, windows and buildings.
One should be eliminated.</td></tr>
</table>

Exhibit 17 (8)

<table>
<tr><th>Department</th><th>Vehicle Number</th><th>Vehicle Type</th><th>Basis for Elimination</th></tr>
<tr><td>Police Department – Patrol – South</td><td>18082
18088</td><td>Black and White</td><td>There are 50 black and white sedans assigned to the South Substation, plus 2 vehicles assigned to supervisors.
<table>
<tr><th></th><th>Number</th></tr>
<tr><td>Total Number of Black and Whites and Supervisor Vehicles</td><td>52</td></tr>
<tr><td>Minimum Number of Vehicles Observed Parked</td><td>5</td></tr>
<tr><td>Number of Spares</td><td>3</td></tr>
<tr><td>Total Number Eliminated</td><td>2</td></tr>
</table>
At peak staffing times (shift overlap, the minimum number of vehicles observed parked was 5.
Based on mileage, condition and usage, 2 black and white patrol sedans should be eliminated from the South Substation.</td></tr>
<tr><td>Police Department – Patrol – West</td><td>18136
18158</td><td>Black and White Sedan</td><td>There are 37 black and white patrol vehicles assigned to the West Police Substation, plus two vehicles assigned to Supervisors.
<table>
<tr><th></th><th>Number</th></tr>
<tr><td>Total Number of Black and Whites and Supervisor Vehicles</td><td>39</td></tr>
<tr><td>Minimum Number of Vehicles Observed Parked</td><td>4</td></tr>
<tr><td>Number of Spares</td><td>2</td></tr>
<tr><td>Total Number Eliminated</td><td>2</td></tr>
</table>
At peak staffing times (i.e. shift overlap), the minimum number of vehicles observed parked was 4.</td></tr>
</table>

Exhibit 17 (9)

<table>
<tr><th>Department</th><th>Vehicle Number</th><th>Vehicle Type</th><th>Basis for Elimination</th></tr>
<tr><td>Police Department – Patrol – East</td><td>18086</td><td>Black and White</td><td>There are 42 black and white sedans assigned to the East Substation, plus 2 vehicles assigned to supervisors.
<table>
<tr><th></th><th>Number</th></tr>
<tr><td>Total Number of Black and Whites and Supervisor Vehicles</td><td>44</td></tr>
<tr><td>Minimum Number of Vehicles Observed Parked</td><td>3</td></tr>
<tr><td>Number of Spares</td><td>2</td></tr>
<tr><td>Total Number Eliminated</td><td>1</td></tr>
</table>
At peak staffing times (i.e. shift overlap), the minimum number of vehicles observed parked was 3.
Based on mileage, condition and usage, 1 black and white patrol sedan should be eliminated from the South Substation.</td></tr>
<tr><td>Police-Facility Remodel/Reconstruction</td><td>10039</td><td>Sedan</td><td>This sedan is assigned to the construction manager from Public Works responsible for construction management of police headquarters.</td></tr>
<tr><td rowspan="3">SWAT/Patrol</td><td>5099</td><td>Step van</td><td>Vehicle 5099 is an old armor vehicle used as a reserve/back-up. It has a trap door on the bottom/center that can be used in an officer down/victim rescue scenario.</td></tr>
<tr><td>8935</td><td>Mobile Command Center</td><td>8934 and 8935 are reserve armor vehicles. 8935 has not apparently moved for months. One of the two armored reserve vehicles should be eliminated.</td></tr>
<tr><td>10196</td><td>Utility Vehicle, Large</td><td>There are two of these types of vehicles assigned to SWAT. Both accrue low annual mileage. One of these two vehicles should be eliminated.</td></tr>
<tr><td rowspan="2">Canine Detail/Patrol</td><td>19629</td><td>Utility Vehicle Large-K-9</td><td>This vehicle has not apparently been utilized for months. There are ten staff assigned to Canine with twelve vehicles available (excluding command staff and vehicles #24019 and #24020)</td></tr>
<tr><td>18168</td><td>Black and White-K-9</td><td>This vehicle has not apparently been utilized for months. There are ten staff assigned to Canine with twelve vehicles available (excluding command staff and vehicles #24019 and #24020)</td></tr>
<tr><td>Patrol/West</td><td>10273</td><td>Paramedic Ambulance</td><td>10273 is an old ambulance used for prisoner transport. This vehicle, according to the automated fuel dispensing system, utilized no fuel in 2002 or 2003.
19738 is also available as a transportation van.</td></tr>
</table>

8. ACCIDENT PREVENTION

8. ACCIDENT PREVENTION

All fleets are similar, yet different. They vary in size, area of operation, their purpose and who drives the vehicles. However, all fleets need a safety program. Many of the motor vehicle accidents that occur each year destroy governmental vehicles, incur property damage to others, and kill and injure employees and the general public. To protect against these losses, the creation of an effective fleet safety program is critical to the future success of a local government. For a fleet safety program to be effective it must be well organized, tailored to the particular needs of the local government and incorporated as a fundamental part of the day-to-day operations.

Just how significant is the problem of motor vehicle crashes? The National Highway Traffic Safety Administration estimates the annual cost – including productivity losses, property damage, medical cost, rehabilitation costs, travel delay, legal and court costs, emergency service costs, insurance administration costs, premature funeral costs, and costs to employers at a staggering $150.5 billion. This figure includes property damage cost of $52.1 billion, and lifetime losses in marketplace production of $42.4 billion.

1. THE CITY UTILIZES A NUMBER OF THE BEST PRACTICES FOR ACCIDENT PREVENTION.

The first exhibit presented at the end of this chapter presents a comparison of the actual practices of the City of Long Beach against best management practices for accident prevention. There are a number of strengths within the City related to these best management practices as well as opportunities for improvement. The strengths of the City include the following:

- The Safety Officer within the Risk Management Bureau fills the role and responsibilities of a fleet safety officer.

- The Risk Management Bureau requires departments to validate the driver's license and the vehicle insurance of their employees once a year.

- Motor vehicle records are being checked by the Risk Management Bureau for employees on an ongoing basis for such issues as failure to appear, moving citations, cancelled insurance, physical examinations, accidents, etc. for those employees with commercial drivers licenses.

- The Risk Management Bureau uses the Smith System for driver training. This training is mandatory for new hires whose job description indicates that they drive as part of their job. These employees must repeat the training every three years.

- The Risk Management Bureau requires driver training – the Smith System - for those drivers at fault in an accident.

- The Risk Management Bureau has taken the lead, in concert with the Citywide Safety Committee, in beginning to establish a Citywide Heath and Safety Manual.

- The City has established a Citywide Safety Committee with Safety Coordinators for each major department.

- The Safety Officer has introduced Systematic Causal Analysis Technique (SCAT) – an accident investigation tool - and trained all supervisors in its use in lieu of an accident review board.

- The Fleet Services Bureau maintains records regarding vehicle maintenance and inspection within M4, its fleet management information system.

- The Fleet Services Bureau has acquired a brake-testing machine, and is utilizing this machine to proactively test the adequacy of braking for heavy equipment and public safety equipment.

On the other hand, there are a number of opportunities for improvement. These opportunities include the following:

- The City does not have an adopted and documented fleet safety policy.

- Fleet Safety Program guidelines have not been established (such as basic criteria concerning driver qualifications and screening, required and prohibited driving practices, accident reporting and review procedures, safe driving incentive awards, etc.).

- The City has not defined standards for safe driving performance.

- The City does not have a formal safe driver recognition and incentive program.

- The policy for checking, on an annual basis, the validity of an employee's driver's license and vehicle insurance is unwritten. An audit process is lacking to assure conformance with this policy.

- Motor vehicle records are not being obtained for employees without CDL that are driving City vehicles or driving their own vehicles on City business.

- The City lacks a policy regarding the reporting of vehicular accidents.

- While the Safety Officer has trained supervisors in the use of Systematic Causal Analysis Technique (SCAT), and supervisors are required to return copies of these investigations to the Safety Officer within two working days after the accident has occurred, these investigations are not always completed or are returned weeks after the accident has occurred.

- Periodic driver evaluations are not conducted on a citywide basis after at-fault accidents, although the City does utilize the Systematic Causal Analysis Technique (SCAT).

- Penalties have not been defined in a citywide policy for at-fault accidents.

The strengths of the City's existing safety policies and practices provide a sound foundation for addressing the opportunities for improvement cites above.

2. <u>THE CITY SHOULD ADOPT A FLEET SAFETY POLICY.</u>

This fleet safety policy should contain the elements presented in the following sections.

- The responsibilities for department heads, managers, supervisors and employees regarding the implementation of the fleet safety policy should be identified within the policy.

- The responsibility of the Long Beach Police Department regarding investigation of accidents involving city employees and reporting these accidents to the Risk Management Bureau should be specified.

- The responsibility of Risk Management should be identified as:

  - Training appropriate employees in the City's Fleet Safety Policy;

- Auditing each department's compliance with this policy on an annual basis;
- Tracking and documenting all reported vehicle accidents; and
- Assisting with the identification of preventable and non-preventable vehicle accidents, as requested.

- The policy should require that the Risk Management Bureau annually check all full-time and part-time employees of the City of Long Beach who operate a City owned or leased vehicle or utilize their personal vehicle in conducting City business.

- All applicants hired as vehicle operators should have their motor vehicle record checked for patterns of violations or recent violations of DWI or DUI or unsafe driving habits.

- Driving standards should be identified within the fleet safety policy.

- The departments should be responsible for completing the accident investigation using the Systematic Causal Analysis Technique (SCAT), and the supervisors of the employees involved in these accidents should be required to forward copies of these investigations to the Safety Officer within two working days after the accident has occurred.

- Fleet safety rules should be specified, as well as insurance requirements, responsibility for the vehicle maintenance safety inspection program, insurance requirements, and accident reporting policies and procedures, and employee retraining in defensive driver techniques in the event of preventable accidents.

The Risk Management Bureau, in the development of a Citywide Health and Safety Manual, should develop a fleet safety policy.

RECOMMENDATION 8-1: The Risk Management Bureau should develop a fleet safety policy as part of the Citywide Health and Safety Manual.

3. THE CITY SHOULD ADOPT ADDITIONAL MEASURES TO ENHANCE ITS ACCIDENT PREVENTION PROGRAM.

Implementation of this policy would involve additional measures to prevent accidents or to mitigate employee behavior that resulted in accidents. These additional measures are presented in the paragraphs below.

(1) <u>The Risk Management Bureau Should Analyze the Accident Rate Per Million Miles Driven for each Department</u>.

This tool should be utilized to identify problem areas within the City's organization. In addition, the National Association of Fleet Administrators publishes accident rate data annually. The City should compare its accident rates per million miles driven to this annual survey and internally on a department-by-department basis.

(2) <u>The Risk Management Bureau should establish a Safe Driver Recognition Program</u>.

The Risk Management Bureau should utilize the safe driver recognition program to recognize and reward safe driving by City employees.

(3) <u>The Risk Management Bureau Should Conduct Periodic Audits to Determine Whether Departments Are Assuring Their Employees Have Valid Driver Licenses and Vehicle Insurance</u>.

Departments are responsible for assuring employees have valid drivers licenses and vehicle insurance. The Risk Management Bureau should conduct annual audits to assure that departments are effectively fulfilling this responsibility.

(4) <u>The Risk Management Bureau Should Check Motor Vehicle Records for all City Employees that Are Driving City Vehicles or Driving Their Own Vehicles on City Business</u>.

Regardless of the size and type of vehicle being utilized, employees using unsafe driving practices present risks to the City. The Risk Management Bureau should check the motor vehicle records of all City employees, not just those with CDL. It could check the motor vehicle records of those employees without CDL less frequently than those with CDL (such as once every three years), but all employee-driving records should be checked periodically.

* * * * * *

The Risk Management Bureau has already initiated the development of a Citywide Health and Safety Manual. These measures and additional policies should be included in the development of this manual.

However, the Risk Management Bureau's ability to implement these techniques is limited by its current pattern of staffing. The Safety Officer is the only employee available; staffing within the Human Resources Department has been reduced in fiscal year 2003-04. An additional professional-level position will need to be authorized for the City's safety program to enable the implementation of these measures.

RECOMMENDATION 8-2: The Risk Management Bureau should expand the measures utilized for its accident prevention program including the analysis of the City's accident rate, establishment of a safe driver recognition program, conducting periodic audits to assure that departments are checking whether their employees have valid drivers licenses and vehicle insurance, and checking the motor vehicle records of all City employees, not just those with CDL.

RECOMMENDATION 8-3: The City should authorize an additional professional-level position for the City's safety program to enable the implementation of these measures.

Exhibit 18 (1)

Comparison of the Accident Prevention Practices Against Best Management Practices

BEST MANAGEMENT PRACTICE	STRENGTHS OF THE CITY OF LONG BEACH	OPPORTUNITIES FOR IMPROVEMENT
Management Support and Organization		
Do you have a documented Fleet Safety Policy?	The Risk Management Bureau has taken the lead, in concert with the Citywide Safety Committee, in beginning to establish a Citywide Heath and Safety Manual.	The City does not have an adopted and documented fleet safety policy.
Have Fleet Safety Program guidelines been established?	The Risk Management Bureau has taken the lead, in concert with the Citywide Safety Committee in beginning to establish a Citywide Heath and Safety Manual.	Fleet Safety Program guidelines have not been established.
Do you have a designated Fleet Safety Coordinator?	The Safety Coordinator within the Risk Management Division fills much of the role of a fleet safety coordinator.	
Has the city defined a standard for the safe driving performance of its drivers?		The City has not defined a standard for safe driving performance.
Does the company have a formal safe driver recognition and incentive program?		The City does not have a formal safe driver recognition and incentive program.
Driver Qualifications		
Do you periodically check the validity of the driver's license and vehicle insurance of employees?	The City requires employees to present proof their driver's license and insurance to a representative within their department on an annual basis.	This policy is unwritten. An audit process is lacking to assure conformance with this policy.
Are Motor Vehicle Records (MVR's) being obtained on an ongoing basis?	Motor vehicle records are being obtained for employees with CDL.	Motor vehicle records are not being obtained for employees without CDL that are driving City vehicles or driving their own vehicles on City business.
Is Driver Training provided to City employees?	The City uses the Smith System for driver training. This training is mandatory for new hires whose job description indicates that they drive as part of their job. These employees must repeat the training every three years.	

Exhibit 18 (2)

BEST MANAGEMENT PRACTICE	STRENGTHS OF THE CITY OF LONG BEACH	OPPORTUNITIES FOR IMPROVEMENT
Accident Reporting, Recording, and Reviewing		
Has a documented policy been established to report vehicular accidents?	The Risk Management Bureau has taken the lead, in concert with the Citywide Safety Committee, in beginning to establish a Citywide Heath and Safety Manual.	The City lacks a policy regarding the reporting of vehicular accidents.
Are the accident specifics reviewed with the driver with the utilization of a citywide accident review committee or by first-line supervisors using accident investigation tools on a consistent basis?	The Safety Officer has introduced Systematic Causal Analysis Technique (SCAT) – an accident investigation tool - and trained all supervisors in its use in lieu of an accident review board.	While the Safety Officer has trained supervisors in the use of Systematic Causal Analysis Technique (SCAT), and supervisors are required to return copies of these investigations to the Safety Officer within two working days after the accident has occurred, these investigations are not always completed or are returned weeks after the accident has occurred.
Vehicular Accident Recurrence Prevention		
Do you conduct periodic driver evaluations after at-fault accidents occur?		The Risk Management Bureau does not conduct periodic evaluations of drivers after at-fault accidents.
Have you established a documented Post-Vehicular Accident Retraining Program?	The City requires driver training – the Smith System - for those drivers at fault in an accident.	
Are penalties present for “At Fault” vehicular accidents?		Penalties have not been established in a citywide policy.
Vehicular Specifications, Inspections, and Maintenance		
Are documented vehicle specifications required?	The Fleet Services Bureau has documented vehicle specifications.	
Are vehicle inspections and vehicle maintenance records documented?	The Fleet Services Bureau maintains a record of vehicle inspections and vehicle maintenance records within M4. The Fleet Services Bureau has acquired a brake inspection/testing machine and is utilizing to proactively test the adequacy of brakes on heavy equipment and public safety equipment.	

9. FLEET FUELING

9. FLEET FUELING

Fleet fueling involves the procurement, storage, and supply of fuel to fleet users. This chapter analyzes the practices for fleet fueling, opportunities to improve – albeit marginally – the price for fuel obtained by the City, issues associated with the parameters for data entry for the automated fuel dispensing system that impact the accuracy of mileage data for the fleet, and an opportunity to upgrade the automated fuel dispensing system to address this problem.

1. THE FLEET SERVICES BUREAU UTILIZES MANY OF THE BEST PRACTICES FOR FLEET FUELING.

The first exhibit following this chapter presents an analysis of the best practices for fleet fueling and an analysis of how well the Fleet Services Bureau meets these best practices. In fact, the Bureau meets many of these practices. These include the following:

- There are twenty-seven different fuel sites that can be utilized by City employees to fuel their City-owned vehicles.
- The Fleet Services Bureau utilizes a cost-effective mix of annual fuel contracts and spot purchases to obtain the best fuel price for the City. In fact, the price obtained by the Bureau for unleaded fuel is better than that obtained by the City of Los Angeles. The practices utilized for procurement of unleaded gasoline are saving the City of Long Beach approximately $70,000 annually.
- The Bureau uses an automated fuel dispensing system.
- The Bureau has effectively utilized alternative fuel vehicles with 8% of the fuel used by the City being alternative fuel (CNG), and is currently bringing LNG refuse packers and sweepers into the fleet.

At the same time, there are a limited number of opportunities for improvement. These include the following:

- The Bureau could utilize cooperative purchasing for procurement of fuel with other local governments.

- The parameters currently set for entry of odometer readings into the E.J. Ward automated fuel dispensing system could be tightened to reduce the extent of incorrect data entry.

- The E.J. Ward automated fuel dispensing system does not interface with M4, and could be replaced to reduce problems with the maintenance of two separate databases and the validity of odometer readings.

The best practices already utilized by the Bureau provide a sound foundation for further enhancement.

2. THE FLEET SERVICES BUREAU IS OBTAINING GOOD PRICING FOR FUEL, BUT SHOULD EXPLORE COOPERATIVE PURCHASING WITH OTHER LOCAL GOVERNMENTS.

The Fleet Services Bureau purchases fuel for the City by comparing the price the City can obtain from two long-term contracts against a third contract that provides "spot market" pricing. In essence, the Bureau is constantly searching for the best price for fuel. This is an important and effective tool since the City is spending an average of $2.1 million annually for motor fuel and compressed natural gas. Overall, the City is consuming approximately 140,000 gallons a month of unleaded gasoline, diesel, and aviation fuel. Unleaded gasoline approximates 58% of the gallons of fuel, diesel approximates 36% of the gallons of fuel, and aviation fuel approximates 6% of the gallons of fuel. Fuel is dispensed at twenty-seven different sites located throughout the City.

The process utilized by the Fleet Services Bureau to order fuel is presented in the paragraphs below.

- The inventory level of fuel at all fueling sites is monitored electronically or manually "sticked" daily. The manual inventory levels are e-mailed daily to the Fleet Services Bureau administration, and entered into a consolidated daily fuel inventory report. The purpose of this report is two fold; first the report provides a summary of the City's total fuel inventory and is used to order additional fuel

when required; secondly, when fuel is delivered to a fueling site and staff are unavailable to sign for the fuel delivery, the next days inventory level is compared to the previous day's inventory level as a reasonableness check to verify the fuel quantity delivered. The consolidated fuel inventory reports are maintained for the previous twelve months.

- When a fueling site's inventory is below a preset inventory level, usually about five days worth of fuel, the Fleet Services Bureau will review the OPIS. OPIS, or the Oil Price Information Service, is the world's most widely accepted fuel price benchmark for supply contracts and competitive positioning. OPIS is a fueling service which tracks the daily cost of wholesale fuel, and provides a daily email to determine the average cost of fuel. The OPIS average fuel price is used to purchase fuel during the subsequent week.

- The Fleet Services Bureau purchases regular unleaded gasoline, diesel #2 and jet fuel. The Bureau will compare the cost of fuel from the three authorized vendors to the OPIS average cost and then order fuel from the lowest priced vendor. Two of the vendors, General Petroleum and Petro Diamond, have OPIS-based contracts with the City. OPIS based contracts have pricing above or below the OPIS price based upon the quantity ordered as indicated in the table below. As the table indicates, the City receives a reduced unit price from General Petroleum if the City orders more than 6,000 gallons.

Vendor	Fuel Type	Quantity	Price over/under OPIS
General Petroleum	Unleaded	0-999 gals.	OPIS price + $0.069/gal
General Petroleum	Unleaded	6,000+gals.	OPIS price - $0.008/gal
General Petroleum	Diesel	0-999 gals.	OPIS price + $0.078/gal
General Petroleum	Diesel	6,000+gals.	OPIS price - $0.008/gal
Petro Diamond	Unleaded	1000-5999	OPIS price - $0.001/gal
Petro Diamond	Midgrade	1000-5999	OPIS price - $0.0224/gal
Petro Diamond	Clear Diesel	1000-5999	OPIS price + $0.082/gal
Petro Diamond	Dyed Diesel	1000-5999	OPIS price + $0.0132/gal

- The Fleet Services Bureau has a third OPIS vendor, Jankovich, which is under OPIS pricing for Jet A fuel only. As a result, if the OPIS fuel price (used to purchase fuel in the following week) is higher than the spot price of fuel at the time of purchase, the Bureau will purchase its fuel from Jankovich. If the OPIS prices are lower than the spot price, the Bureau will purchase from General Petroleum or Petro Diamond, depending on who has the lowest price.

- The Bureau faxes an order sheet to the vendor and the fuel is usually delivered within 24 hours of the order. After delivery of the fuel, the vendor forwards the bill of lading, receiving report and the invoice to the Bureau. The Bureau compares the bill of lading, receiving report, daily fuel inventory report (if a receiving report or bill of lading was not received), and the invoice to the order sheet to insure the Bureau received the correct amount of fuel at the ordered price. The bill of lading, receiving report (if available) and invoice are forwarded to Accounts Payable for payment.

The practices utilized by the Fleet Services Bureau result in the City obtaining cost-effective prices for fleet fuel, particularly for unleaded fuel as demonstrated by the table below. The price for unleaded gasoline obtained by the Bureau is less than that obtained by either the cities of Torrance and Los Angeles. Those two cities are paying a price per gallon for unleaded fuel that 6% higher than the City of Long Beach. However, the two cities are obtaining a marginally lower price for diesel fuel

Comparison of Fuel Prices Paid By Long Beach Versus Torrance and Los Angeles

Date	Long Beach Unleaded	Torrance Unleaded	Los Angeles Unleaded	Long Beach Diesel	Torrance Diesel	Los Angeles Diesel
11/3 - 11/9	$1.265	$1.311	$1.316	$1.098	$1.093	$1.077
11/10 - 11/16	$1.155	$1.287	$1.292	$1.089	$1.083	$1.067
11/17 - 11/23	$1.140	$1.283	$1.288	$1.064	$1.056	$1.040
11/24 - 11/30	$1.130	$1.223	$1.227	$1.059	$1.051	$1.035
12/1 - 12/7	$1.058	$1.181	$1.168	$1.065	$1.057	$1.046
12/8 - 12/14	$1.045	$1.124	$1.116	N/A	$1.064	$1.048
12/15 - 12/21	$1.154	$1.159	$1.154	$1.076	$1.069	$1.053
12/22 - 12/28	$1.147	$1.178	$1.172	$1.115	$1.157	$1.141
12/29 - 1/4	$1.208	$1.208	$1.206	$1.182	$1.206	$1.190
Average $ per Gallon:	$1.145	$1.217	$1.216	$1.093	$1.093	$1.078
Variance Versus Long Beach (+/-)		+6.34%	+6.21%		-0.05%	-1.45%

Note, the above prices include $0.18 State Excise Tax and 8.25% per gallon

RECOMMENDATION 9-1: The Fleet Services Bureau should pursue cooperative procurement of fuel with other local governments. The cost savings are likely to be

marginal given the cost effective approaches to fuel procurement utilized by the Bureau.

3. THE PARAMETERS FOR ENTRY OF ODOMETER READINGS INTO THE AUTOMATED FUEL DISPENSING SYSTEM SHOULD BE ADJUSTED.

It is clear from a review of fuel records that City employees are frequently entering incorrect odometer readings when fueling their vehicles. The table below presents a few of many examples of incorrect odometer readings.

Fill Date	Gallons	Odometer Reading	Unit Number	Unit Type	Assignment
9-Jun-02	22.1	35,864	10202	SUV	Fire Operations Administration
11-Jun-02	7.8	39,726			
13-Jun-02	9.7	39,825			
14-Jun-02	4.8	39,873			
18-Jun-02	15.9	40,003			
21-Jun-02	13.5	30,135			
24-Jun-02	0.9	999,999			
24-Jun-02	11	49,000			
25-Jun-02	9.9	40,338			
10/9/01	11.76	78,762	10006	Sedan	Financial Management, Business Licensing
11/2/01	11.5	75,000			
11/13/01	12.1	79,008			
11/28/01	12.97	79,268			
12/11/01	10.3	79,384			
12/15/01	10.5	79,500			
1/3/02	12.6	79,682			
1/18/02	12.69	79,855			
2/4/02	10.7	79,991			
2/15/02	8.99	79,800			
3/5/02	12.8	803,000			
10/17/01	6.5	33,600	10032	Sedan	Police Department
10/20/01	14.1	31,600			
10/23/01	7.8	37,000			
10/25/01	7.7	71,436			
10/29/01	11.6	31,700			
11/6/01	9.8	34,875			
11/7/01	6.6	32,325			
11/18/01	5.5	32,427			
11/24/01	5.1	32,599			

Accurate odometer readings are important for a number of reasons including scheduling of preventive maintenance, assessing the utilization of a vehicle to determine whether it warrants continued assignment, replacement planning, etc.

These problems result from setting the parameters in the automated fuel dispensing software too broadly or eliminating the parameters altogether.

RECOMMENDATION 9-2: The parameters within the E.J. Ward automated fuel dispensing software should be "tightened" to reduce the extent of incorrect entry of odometer readings.

4. THE FLEET SERVICES BUREAU SHOULD REPLACE ITS AUTOMATED FUEL DISPENSING SYSTEM.

The Fleet Services Bureau utilizes the E.J. Ward fuel dispensing system. This system does not interface with M4, and E.J. Ward does not offer such an interface. This creates a number of problems in that the data is maintained in two separate databases (M4 and E.J. Ward). The automated fuel dispensing system should be replaced with the FMS Fuel Manager hardware and software. This system offers several benefits including the following:

- FMS is built into the core functionality of the M4. M4 coupled with the FMS Fuel Manager Hardware provides features not available with other fuel management system. While other fuel management systems can be interfaced with M4, none provide the features and integration equal to using M4's **native** fuel hardware.

- With M4 and FMS, Long Beach can perform all fuel management functions within a single system; data is maintained in only one system, not two separate systems. When external fuel systems like E.J. Ward are interfaced to M4, the interface can only import fuel issue transactions, resulting in two systems or databases with vehicles, employees and fuel data in two systems. With M4 and FMS, all data is input in only one database. From fuel orders to receipts, tank readings, all functions are performed from a single system. Conversely, when third party fuel systems are interfaced to M4, only fuel issue transactions are imported. The third party fuel system software must then be used for fuel ordering, receipts tank sticking reconciliation or this data manually input into M4.

- All data is maintained in a single database so there is no possibility of fuel data becoming out of synch with fleet management data. In addition, the information collected by the fuel system is more accurate because it is shared and validated by data within M4. Odometer and hour meter readings are stored in the central M4 database and shared by all sources (work order, fuel transactions, motor pool tickets, usage tickets). So when odometer readings are entered at the fuel island, they are checked against the most accurate up to date information.

- Using a single database allows the fleet system to easily share data with the fuel system. Features such as messaging to the vehicle operator for preventive maintenance due can be accomplished easily because maintenance data is available to the fuel system.

This system would cost approximately $300,000 in one-time capital outlay.

RECOMMENDATION 9-3: The Fleet Services Bureau should replace its automated fuel dispensing system.

5. THE FLEET SERVICES BUREAU SHOULD FORMALIZE ITS CONTINGENCY PLAN FOR FUEL SHORTAGES.

The Fleet Services Bureau does have a contingency plan for fuel shortages. This plan, however, is unwritten. The Bureau should formalize this contingency plan in writing as a policy adopted by the City Manager's Office. This plan should include stages or phases in the emergency from a less serious shortfall to a critical shortfall in fuel.

RECOMMENDATION 9-4: The Fleet Services Bureau should develop a formal, written contingency plan for fuel shortages.

Exhibit 19

Comparison of the Actual Fueling Practices Against Best Management Practices

BEST MANAGEMENT PRACTICE	STRENGTHS OF THE FLEET SERVICES BUREAU	OPPORTUNITIES FOR IMPROVEMENT
Cost effective locations are utilized for fueling sites to minimize the costs of travel to these fuel sites.	There are fifteen locations that can be utilized by City employees to obtain fuel for City equipment.	
A cost-effective use of annual fuel contracts versus spot purchases is utilized to obtain the best fuel price.	The City makes cost-effective use of annual fuel contracts and spot purchases.	
Alternative fuel procurement approaches have been developed in order to control costs and maintain competitiveness.		The Fleet Services Bureau should explore the potential of cooperative procurement of fuel.
An automated fuel dispensing system is utilized.	The Bureau uses the E.J. Ward automated fuel dispensing system.	
An automated leak detection system is utilized to monitor system failures.	All of the 15 fuel tanks are double walled. 11 of the 15 fuel tanks have leak detection systems	Four of the active fuel tanks need leak detection systems
The automated fueling system has been integrated with the fleet information system.		The E.J. Ward automated fuel dispensing system cannot be integrated with M4.
An energy shortage and emergency contingency plan for fuel has been developed.	The Bureau has developed an informal plan.	The Bureau should formalize its emergency contingency plan in a written policy.
A clean fuel/alternate fuel plan has been developed compatible with local, state and federal requirements.	The City procures approximately 8% of its fuel from clean/alternate fuel (CNG).	

10. FLEET REPLACEMENT

10. FLEET REPLACEMENT

Eventually, all vehicles wear out. As they wear out, they become more expensive to operate and maintain and less safe and reliable to use. They become more expensive, in part, because major components and systems, which are costly to fix or replace, cease to function properly or at all. They also become more expensive because component failures tend to be unpredictable, and unplanned for repair requirements are more likely to disrupt the use of the vehicle, impose uneven demands on maintenance resources, and exacerbate parts acquisition difficulties.

Ideally, vehicles should be replaced when the sum of their capital costs, which decline as a vehicle ages, and operating costs, which rise as a vehicle ages, is at a minimum. Graphically, this point can be visualized as the bottom of a u-shaped total cost curve. Most fleet organizations express these “optimal” replacement points in terms of vehicle age and/or cumulative usage (in miles or engine hours), and establish guidelines for different classes of vehicles to trigger the evaluation of specific vehicles for possible replacement. Really sophisticated fleet management organizations determine these replacement points empirically using data from their equipment maintenance information systems, but such organizations are few and far between.

The fact that a particular vehicle has reached an age and/or usage threshold beyond which it is a candidate for replacement does not mean that it should automatically be scheduled for replacement. Some vehicles do not wear out as quickly as others due to a variety of factors such as their usage is lower than that of other vehicles in the same class or because their operator takes better care of the vehicle. By

the same token, some vehicles need to be replaced sooner than others because they experience above-average wear and tear.

In addition to having guidelines that trigger an assessment of the need to replace a particular vehicle, a good fleet management organization have analytically-based short-term decision-making processes that are used to determine when specific vehicles should be replaced and which vehicles are a higher priority to replace than others.

1. THE FLEET SERVICES BUREAU UTILIZES A NUMBER OF THE BEST PRACTICES FOR FLEET REPLACEMENT.

The first exhibit presented at the end of this chapter presents a comparison of the actual practices of the Fleet Services Bureau against best management practices for fleet replacement. There are a number of strengths within the Bureau related to these best management practices as well as opportunities for improvement. The strengths of the Bureau include the following:

- The Bureau has developed a nine-year replacement plan.
- The Bureau has developed a replacement schedule or policy identifying the year/mileage points at which a vehicle should be replaced.
- Replacement cycles are reasonable and comparable to other cities.
- Specification development has been centralized within the Bureau with two staff assigned to the development of specifications.
- The City has begun to utilize lease-purchase for acquisition of vehicles.
- In the customer satisfaction survey, 74% of the respondents indicated that the Bureau consults with them in preparing specifications for replacement vehicles.
- The Bureau utilizes a professional auctioneer to organize, market, and conduct sales, and these auctions tale pace at least on a monthly bases.

There are also opportunities for improvement. These opportunities include the

following:

- The Bureau should develop criteria that identify priorities for replacement if insufficient replacement funds are available and to guide retain/replace/repair decisions.
- Incremental adjustments to the replacement cycles for some classes appear appropriate.
- The Bureau should utilize cooperative procurement available through the State of California for the acquisition of light and medium equipment.
- Multiple year bids should be utilized more frequently for heavy equipment such as refuse packers, street sweepers, and fire apparatus to standardize the fleet.
- The City should develop a policy requiring that vehicles that are replaced must be removed from service and not kept by users or the Bureau.
- It appears the Bureau is only receiving 25% of Kelly Blue Book in the sale of vehicles by the auctioneer.

The strengths in the replacement practices utilized by the Bureau provide a sound foundation for these opportunities for improvement.

2. THE CITY'S FLEET IS OLD COMPARED TO OTHER FLEETS AND ITS MAINTENANCE AND REPAIR COSTS EXCEED THOSE OF OTHER FLEETS AS A CONSEQUENCE.

The average age of the City's fleet exceeds that of many other fleets evaluated by the consulting team such as Scottsdale, Arizona and Charleston County, South Carolina. In the case of Charleston County, South Carolina, the average fleet age was 4.3 years. The average age of the fleet owned by the City of Scottsdale, Arizona was 4.0 years. In comparison, the average age of the City of Long Beach's fleet is 8.2 years.

There are a number of classes of equipment with issues regarding their age versus their replacement guidelines. These classes of equipment are presented in the paragraphs below.

- The average age of police motorcycles is 6.5 years. The replacement guideline is 4 years.

- The average age of police pursuit sedans is 4.4 years. The replacement guideline is 4 years. The average age of police pursuit sedans-K9 is 5.4 years. The replacement guideline is 4 years.

- The average age of one-ton dump trucks is 9.9 years; the average age of dump trucks-type II is 10.5 years. The replacement guideline for both classes is 10 years.

- The average age of three wheel broom street sweepers is 6.7 years; the average age for three wheel vacuum street sweepers is 6.6 years. The replacement guideline for both classes of equipment is 4 years.

- The average age of refuse packer, side loader is 8.1 years. The replacement guideline for both classes of equipment is 7 years.

The estimated replacement cost for the City's fleet is $87,575,700. The City, over the four fiscal years from fiscal year ending 1999 to 2002 averaged $8,161,927. Given the estimated replacement cost and the level of replacement funding over the past four fiscal years, the City is approximating a 10-year replacement plan. Although the average age of the City's fleet is 8.2 years, given the level of funding that average age will increase over the next nine years.

Deferring replacement of vehicles is not "free". The costs of maintenance and repair will increase as a vehicle ages. For example, the City's expenditures for Refuse Packer-Side Loaders amounted to $1,894,471 in fiscal year 2001-02 for thirty vehicles. These expenditures were for labor, parts, and commercial or sub-let repairs. The expenditures for these 30 vehicles amounted to an average of $63,149 each vehicle or 30% of the replacement cost for each vehicle. The Bureau is expending 17.9% of its labor, parts, and commercial or sub-let repairs for 1.6% of the City's fleet.

This cost far exceeds that of other cities. The City of Sacramento expended an

average just exceeding $25,000 for each of their Refuse Packer-Side Loaders. This City spent less for the maintenance and repair of their 61 Refuse Packer-Side Loaders than Long Beach did for their 30 Refuse Packer-Side Loaders. The City of Sacramento has a younger fleet of Refuse Packer-Side Loaders, however. The City of Phoenix expended an average of $39,400 for the maintenance and repair of each of their 144 side loaders. The City of Phoenix has a younger fleet of Refuse Packer-Side Loaders, however.

If the City of Long Beach was able to achieve the median of the maintenance and repair costs achieved by the cities of Phoenix and Sacramento, the maintenance and repair costs just for these 30 Refuse Packer Side Loaders would decrease by $840,000 annually. The annual cost savings would pay for replacement of 28 of these 30 Refuse Packer Side Loaders over their seven-year life cycle.

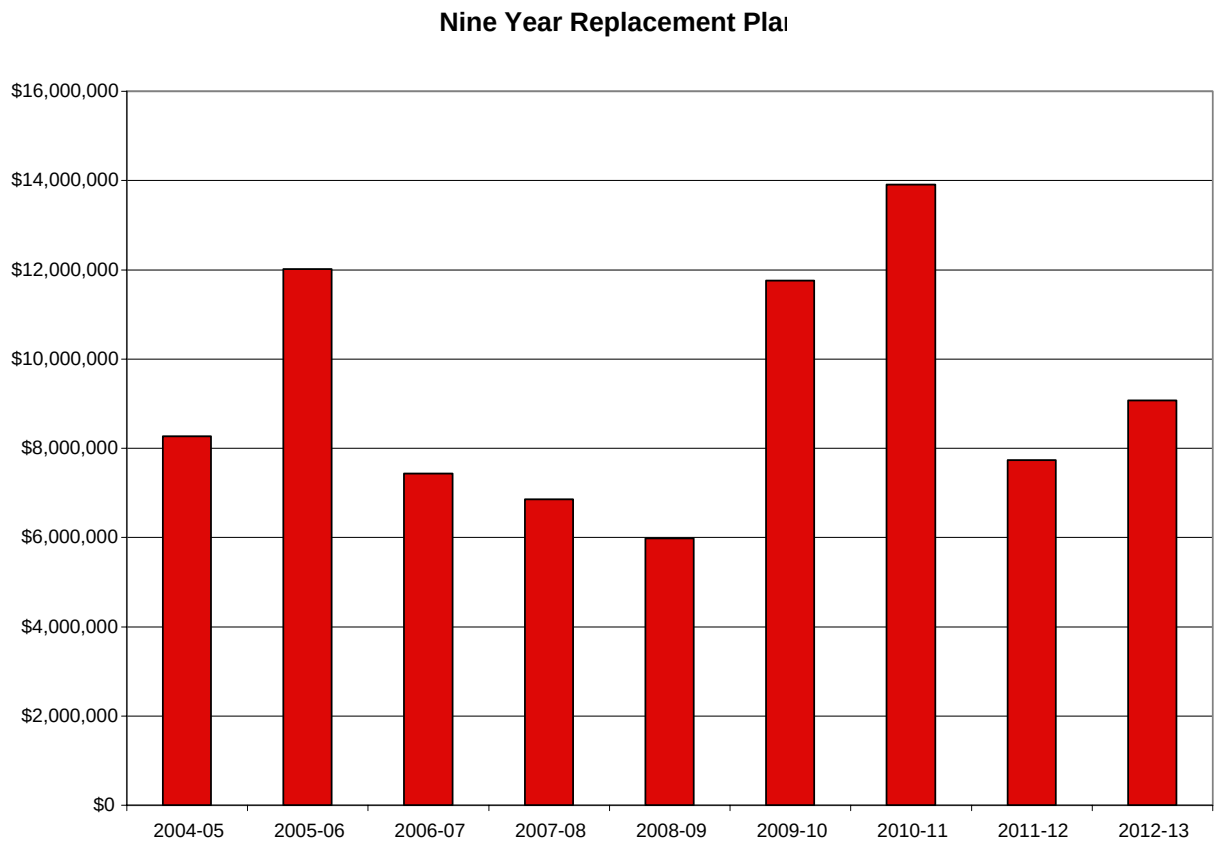
RECOMMENDATION 10-1: The City needs to increase its efforts to replace the heavy equipment within its fleet that exceed replacement guidelines and adhere to the nine-year replacement plan developed by the Fleet Services Bureau.

3. THE CITY SHOULD EXPAND THE USE OF LEASE-PURCHASING, BUT ONLY FOR ACQUISITION OF HEAVY EQUIPMENT.

The Matrix Consulting Group has performed a high-level replacement analysis for the vehicles and equipment that the City provided to the Matrix Consulting Group in their asset listing. This database contains 1,539 units and pieces of equipment or approximately 82% of the fleet. It includes things such as compressors, generators, trailers, sedans, trucks, and refuse vehicles. As noted earlier, there are some 340 pieces of equipment that are not charged a monthly replacement charge by the Bureau. This includes primarily, but is not limited to, vehicles that are assigned to the Fleet Services Bureau (57 vehicles), equipment acquired from the U.S. Navy (26 vehicles),

stationary generators (28 generators), vehicles acquired through grants (92 vehicles), "loaners" or vehicles that have already been replaced, but are still being utilized (41 vehicles), etc.

As a consequence, this high-level replacement planning was provided only for those vehicles that are charged a monthly replacement charge. This nine-year replacement plan is presented in the chart below. Important points to note regarding the chart are presented below the chart.



- **<u>The City would need to spend an average of $9.2 million over the next nine years to meet the replacement criteria</u>**. Over the next nine years, the City would need to expend $83.0 million to meet the replacement criteria identified for the City's fleet.

- **<u>The levels of funding for fleet replacement in the past are incapable of meeting the replacement requirements defined in the nine-year</u>**

replacement plan. The estimated replacement cost for the City's fleet is $87,575,700. The City, over the four fiscal years from fiscal year ending 1999 to 2002 averaged $7.4 million in replacement expenditures. Given the estimated replacement cost and the level of replacement funding over the past four fiscal years, the City is approximating a 12-year replacement plan. Although the average age of the City's fleet is 8.2 years, that average age will increase over the next nine years unless the level of replacement funding is increased by approximately 25% annually or the fleet is reduced.

- **Four classes of equipment will require 57% of the replacement funding over the next nine years or a total of $47.2 million**. The table below presents those four classes of equipment that will require the largest proportion of funding within the nine-year replacement plan. As the table indicates, this includes refuse packers (rear loaders and side loaders), police black and white sedans, fore apparatus (Rescue units, fire pumpers, aerial ladders, and telesquirt), and street sweepers (broom and vacuum).

Class of Vehicle	Replacement $ Requirements	% of All Replacement Expenditures
Refuse Packers	$19,531,028	23.53%
Police Black and White Sedans	$11,997,861	14.45%
Fire Apparatus	$8,110,744	9.77%
Street Sweeper	$7,600,540	9.16%
TOTAL	**$47,240,173**	**56.91%**

- **There are significant variations from the average replacement expenditures in three fiscal years**. The expenditures in three fiscal years exceed the average by a significant extent. These include fiscal years 2005-06, 2009-10, and 2010-11. These fiscal years exceed the average by $2.5 million to $4.7 million. The increase in 2005-06 is the result of "peaking" in replacement requirements for police black and white sedans and fire pumpers. In 2009-10 and 2010-11, the increase is the result of "peaking" in replacement requirements for police black and white sedans, refuse packers, and street sweepers.

The Matrix Consulting Group recommends that the City expand the utilization of lease purchase financing, but solely for heavy equipment with long replacement cycles or with high costs per unit such as refuse packers, fire apparatus, and street sweepers. The City's own experience with leasing of ambulances for the Fire Department and motorcycles for the Police Department prove that the use of lease purchase financing for light and medium equipment is **not** cost-effective.

In considering leasing, the City should consider the following factors as the basis

for evaluating leasing versus outright purchase of vehicles:

- Financial Considerations

  - Paying cash is inherently the least expensive way to acquire assets (including vehicles) as long as all other funding sources require the payment of interest with the principal repayment.
  - Next to cash, using funds that have the lowest associated interest rate will be the most economical way to make purchases.
  - Government entities (like Long Beach) have the potential to secure lower cost capital funds than private sector firms due to their ability to offer tax-exempt income to investors.
  - Governmental entities must balance the low interests rates associated with public debt against the entity's borrowing capacity and competing asset needs.
  - Consistent with basic economic principles of risk-versus-return, the more flexible the financing source (risky), the higher the associated interest rate.
  - Tax-exempt leasing provides a way to secure funds at low interest rates without issuing public debt.

- Administrative Considerations

  - Leasing provides a flexible way to meet vehicles needs.
  - Leasing providers/fleet management firms are able to leverage investments in technology, communications infrastructure, linked vendor networks, streamlined business processes and functional expertise over multiple firms.
  - Leasing providers/fleet management firms allow rapid adoption and/or expansion of technology and/or enhanced fleet management programs without lessee investments in equipment or personnel.
  - Leasing providers/fleet management firms can bundle/unbundle services to quickly provide the lessee a variety of fleet management support options. When combining multiple programs, the lessor can spread administrative costs more broadly, often resulting in lower combined pricing than if programs are sourced separately.

- Operational Considerations

  - The use of leasing providers/fleet management firms provides a means to quickly monitor and manage fleet operations in a decentralized environment.
  - Operational considerations (ability to replace a higher proportion of the fleet) may justify higher-cost vehicle sourcing alternatives as a means of achieving overall fleet goals.

- Political Considerations

- Government vehicles and fleet funding are popular areas for City Council and budget scrutiny during difficult financial periods.

There are three basic types of leases enjoying significant usage in local governments:

- Tax-exempt Leases (a form of conditional sale.
- Open-End Leases (also referred to as “TRAC”, “capital,” or “finance” leases; and
- Closed-End Leases (also referred to as “operating,” “net,” or “walk-away” leases).

Analysis completed of alternatives for financing the replacement of vehicles using the financial model developed for the National Association of Fleet Administrators (NAFA) Foundation by the consulting firm, Deloitte & Touche LLP, has led to the following conclusions:

- Tax-Exempt leasing had nearly the same NPV as paying cash.
- Open-End leasing was more expensive than Tax-Exempt leasing or paying cash due to the slightly higher applicable interest rate and the management fee.
- The Closed-End lease calculation reflects the same interest rates and management fees as Open-End leasing but also reflects the need to constantly make principle and interest lease payments that are based on a more frequent replacement cycle, and the use of a short lease term to ensure that the Lessor has marketable vehicles for resale.

Based on both Total Cost and Net Present Value, the analysis completed of alternatives for financing the replacement of vehicles resulted in the ranking from least-to-most expensive as follows:

- Current (pay cash)
- Tax-exempt Lease
- Open-End Lease
- Closed-End Lease

The Matrix Consulting Group recommends that the City of Long Beach utilize tax-exempt leasing for the acquisition of heavy equipment. In the next two or three years, this would include the following:

- An aerial ladder (FY 04-05);
- Eight fire pumpers (FY 04-05, 05-06, and 06-07;
- Seven tractor backhoes type 2 (FY 05-06);
- Three tractor beach type 2 large (FY 04-05);
- Six refuse packer side loaders and a refuse packer, 20 yard (FY 05-06 and FY 06-07); and
- Six dump truck type 3, 3 axle (FY 04-05, FY 05-06, and FY 06-07);

This would involve almost $8 million in lease financing of the replacement of equipment over the three fiscal years from FY 04-05 through FY 06-07. The use of lease financing is an effective method for reducing the peaks in the nine-year replacement plan. This method of replacement funding should be used solely for heavy equipment.

Overall, 747 pieces of equipment would need to be replaced over the next three fiscal years at a cost of $27.7 million if the City adhered to the replacement policy. Using lease financing for the 33 pieces of equipment identified above would enable the City to reduce the initial cash outlay to under $20 million over the next three fiscal years.

RECOMMENDATION 10-2: The City should expand the use of lease financing solely for acquisition of heavy equipment, particularly over the next three fiscal years.

RECOMMENDATION 10-3: The Fleet Services Bureau should be responsible for administering the leases for equipment within the City's fleet.

4. THE FLEET SERVICES BUREAU SHOULD EXPAND THE CRITERIA UTILIZED FOR PRIORITIZING EQUIPMENT THAT SHOULD BE REPLACED.

In the comparative survey, Charlotte, North Carolina and Fort Worth, Texas developed largely identical criteria that were designed to supplement replacement criteria. It is a rare circumstance when any City has sufficient funds on a year-in and year-out basis to replace all the vehicles that merit replacement. These cities, like Long Beach, are forced to prioritize their replacement needs. The criteria are designed to assist in the prioritization of replacement.

The second exhibit contains possible criteria that could be utilized by the Fleet Services Bureau in prioritizing replacement of vehicles. The Bureau should review these criteria, modify them as appropriate, share them with their customers, and then formally adopt them in a written policy for the Bureau.

RECOMMENDATION 10-4: The Fleet Services Bureau should expand the criteria utilized for prioritizing equipment that needs to be replaced using the possible criteria identified within the report.

5. THE FLEET SERVICES BUREAU SHOULD UTILIZE THE COOPERATIVE PURCHASING AGREEMENT WITH THE STATE OF CALIFORNIA TO ACQUIRE LIGHT AND MEDIUM EQUIPMENT.

For over 30 years, the State Department of General Services has competitively bid and made vehicle contracts available to California governmental entities helping to meet their vehicle fleet needs. These vehicle contracts leverage pricing based upon California government business volume enhanced by manufacturer and dealer incentive programs provided to government. These contracts provide a broad spectrum of vehicles at an 8 to 12 percent cost savings over volume commercial fleet pricing (based upon KBB dealer invoice pricing). Generally, contract ordering begins in October and

extends through the following March to June time frame of the model year, depending upon manufacturer production schedules. The contracts provide for a 30-day notice of production cutoff dates.

The State of California contracts are available to any California Governmental entity defined by the California Government Code including state agencies, county and city governments, K-12 education, special districts, colleges and universities. Customer agencies order directly from the contract dealer with a copy of the order going to the California Department of General Services (DGS) Procurement Division. DGS charges a administrative fee which is minimal when considering the time and cost savings agencies incur by avoiding the specification development, negotiation and the bid process.

The pricing offered through these contracts are advantageous compared to the prices obtained by the City of Long Beach. A review of the pricing available through the State of California contracts versus the actual prices paid by the City of Long Beach indicates the opportunity to reduce the capital outlay cost to the City by 8% to 12%.

RECOMMENDATION 10-5: The City of Long Beach should utilize the State of California contracts to acquire light and medium equipment.

6. THE FLEET SERVICES BUREAU SHOULD DEVELOP A POLICY REQUIRING VEHICLES THAT ARE REPLACED BE REMOVED FROM SERVICE.

The City has 41 “loaners” or vehicles still in use in the fleet that has already been replaced, but still being utilized. The departments to which these vehicles are assigned will likely request these vehicles be replaced a second time.

The Fleet Services Bureau should develop a written policy for the approval of the City Manager that requires the removal of vehicles from the fleet, and prohibits their

retention by users or by the Fleet Services Bureau. For example, one local government adopted the following policy.

"*Replaced vehicles must be released for disposal as soon as possible after receipt of the new vehicle. Fleet will levy additional charges for vehicles which are replaced but not released for sale as soon as practicable*."

"*Under no circumstances will approval be given for retention of the vehicle being replaced*."

In addition, the users that have retained these 41 "loaners" should be required to submit written justification to the Budget Bureau for the retention of these vehicles in service, and to include replacement funding within their operating budget if the vehicle is approved for retention.

RECOMMENDATION 10-6: The users that have retained these 41 "loaners" should be required to submit written justification to the Budget Bureau for the retention of these vehicles in service, and to include replacement funding within their operating budget if the vehicle is approved for retention.

7. THE FLEET SERVICES BUREAU SHOULD ASSUME RESPONSIBILITY FOR VEHICLE DISPOSAL AND TAKE STEPS TO INCREASE RESALE VALUE.

The Fleet Services Bureau uses a contractor (Porter Auctions) to sell the City's vehicles being sold as "surplus". The check from these sales is sent to Technology Services (Special Projects) that makes out the Deposit Receipt while retaining 10% of the total sale to Technology Services (Special Projects). Technology Services (Special Projects) does not perform any services for the sales other than making out the Deposit Receipt. The Fleet Services Bureau staff performs all the work associated with preparing the vehicles for sale, make all the title transfers and system updates and prepare and transport the vehicles.

The Fleet Services Bureau should make the Deposit Receipt, and the 10% commission transfer to Technology Services (Special Projects) should be discontinued. The average amount transferred annually in the last 4 years was $63,000. These funds should be utilized to assist in the funding of the replacement of the City's vehicles, and not to offset the annual operating costs of Technology Services (Special Projects).

In addition, Fleet Services should take measures to enhance the resale value of the vehicles sold at auction. The Fleet Services Bureau presently utilizes an auctioneer to dispose of vehicles. The value of the vehicles sold at auction in FY 01-02 was compared to the Kelly Blue Book value for "trade-in", or the value that would be received if the vehicle was sold to a dealership. The results are presented in the third exhibit at the end of this chapter. The results of this analysis are summarized below:

- For 32% of the transactions, the resale value received at auction exceeded that of Kelly Blue Book. The value exceeded Kelly Blue Book by 0.2% to 178.6%.
- For 10% of the transactions, the resale value was 1% less to 7% less than Kelly Blue Book.
- For the other 58% of the transactions, the resale value was 10% to 74% less than Kelly Blue Book.
- The net difference in resale value between Kelly Blue Book and the value received at the auction amounted to $53,000 or 32% for City vehicles sold at auction in FY 01-02.

There are circumstances that contribute to this difference. For example, five of the six vehicles that received the lowest auction value relative to Kelly Blue Book were police black and white sedans. These vehicles likely had over 100,000 miles of use. In addition, the resale value of vehicles had declined over the past several years. For example, in the past year (April 2002 to April 2003), the Manheim Used Vehicle Value Index has declined by 11%.

However, it is recommended that the Fleet Services Bureau explore options to enhance the resale value of its vehicles. This could include a number of options that range from seeking an alternative auctioneer, the use of Lien Sales to auction City vehicles, better preparation of vehicles for resale (e.g., painting of police black and white sedans before resale), the use of the Internet for resale of these vehicles, etc.

RECOMMENDATION 10-7: The Fleet Services Bureau should make the Deposit Receipt for revenue received for auctioned City vehicles, and the 10% commission transfer to Technology Services (Special Projects) should be discontinued. Reimbursement for time and material expenses, if any, could be made in lieu of commission.

RECOMMENDATION 10-8: The Fleet Services Bureau should explore alternatives to increase the resale value of vehicles that are auctioned.

8. THE CITY SHOULD USE MULTI-YEAR CONTRACTS WHENEVER POSSIBLE FOR THE REPLACEMENT OF HEAVY EQUIPMENT.

The City of Phoenix recently awarded a five-year contract for replacement of fifty-five fire pumpers over five years. The use of this multi-year contract will assure uniformity, reduce the extent of parts inventory required, enhance technician productivity, and reduce the unit costs for fire pumpers.

The City of Long Beach should utilize a similar approach to long-term replacement for heavy equipment whenever possible. There are some opportunities in the near-term for the use of a long-term contract for fire pumpers by the City of Long Beach.

RECOMMENDATION 10-9: The Fleet Services Bureau should utilize multi-year contracts whenever possible for the acquisition of heavy equipment.

Exhibit 20 (1)

Comparison of the Actual Replacement Practices Against Best Management Practices

BEST MANAGEMENT PRACTICE	STRENGTHS OF THE FLEET SERVICES BUREAU	OPPORTUNITIES FOR IMPROVEMENT
The Fleet Services Bureau has developed a long-term replacement plan.	The Bureau has developed a nine-year replacement plan.	
The Bureau has developed a replacement schedule.	The Bureau has developed a replacement schedule or policy identifying the year/mileage points at which a vehicle should be replaced.	The Bureau should develop criteria that identify the priorities for replacement if insufficient funds are available to replace vehicles that meet the replacement policy and to guide retain/replace/repair decisions.
Vehicle replacement cycles are reasonable and in accord with standard practices.	Replacement is based upon the age of the vehicle and life-to-date mileage in some instances.	Incremental adjustments to the replacement cycles for some classes appear appropriate.
Specification development has been centralized.	Two staff within the Fleet Services Bureau are assigned responsibility for development of equipment specifications.	
The City utilizes the most cost effective method for acquisition of vehicles.	The City has begun to utilize lease-purchase for acquisition of vehicles.	The Bureau should utilize the cooperative procurement available through the State of California for the acquisition of light and medium equipment.
The Bureau focuses on matching vehicle design to meet specific customer job requirements and customers are given ample input into the specification process.	In the customer satisfaction survey, 74% of the respondents indicated that the Bureau consults with them in preparing specifications for replacement vehicles.	
Multiple year bids are routinely used in order to reduce administrative costs and to standardize the fleet.		Multiple year bids should be utilized more extensively for heavy equipment to standardize the fleet.
A policy exists requiring that vehicles that are replaced are removed from service and not kept by users.		The Bureau should develop a policy requiring that vehicles that are replaced be removed from service and not kept by users.

Exhibit 20 (2)

BEST MANAGEMENT PRACTICE	STRENGTHS OF THE FLEET SERVICES BUREAU	OPPORTUNITIES FOR IMPROVEMENT
The Bureau utilizes a professional auctioneer to organize, market, and conduct sales.	The Bureau utilizes a professional auctioneer to organize, market, and conduct sales.	
Efforts are taken to maximize the residual value of used vehicles.		It appears the Bureau is only receiving 25% of Kelly Blue Book in the sale of its vehicles by the auctioneer. However, in the past year (April 2002 to April 2003), the Manheim Used Vehicle Value Index has declined by 11%
Auction sales are conducted frequently, at least on a semi-annual basis.	Auctions take place at a minimum on a monthly basis.	

Exhibit 21 (1)

Possible Replacement Prioritization Criteria

Equipment is evaluated by four criteria: age, mileage, maintenance costs, and condition of body and mechanical components. A baseline is set for each criterion and points are assigned, depending on how the equipment's data compares to the base standard.

The ratings are low, base (equal to the standard), high, and extreme. Points are assigned as follows: 1-low, 2-base, 3-high, and 4-extreme. Any point total of 8 or above indicates that the vehicle should be recommended for replacement. The point total becomes the equipment's condition index and is used to rank its replacement priority. The higher the condition index number, the higher the replacement priority will be.

A brief explanation of the criteria is provided in the paragraphs below.

- **Age**. Based on experience per class of equipment and national averages that reflect optimum resale conditions for the City.
- **Mileage**. Based on experience per class of equipment and national averages that reflect the optimum resale conditions for the City.
- **Maintenance Costs**. The base cost will be a percentage above the average for the class of equipment. This percentage will be adjusted based on the overall profile of the class (as the class profile improves, average age and mileage are lower, the average maintenance costs and base will be reduced).
- **Condition**. A physical evaluation is made to assess whether the vehicle meets or exceeds the base standards for age, mileage, and/or maintenance costs. Each major system is evaluated and the estimated cost projection to put this system in good condition is determined. The cost is compared to the baseline for the condition criteria. The base is a base repair cost that is set at a percentage or more of the vehicle's projected replacement value.

Exhibit 21 (2)

Evaluation Point Assignment

Age

Condition	Assigned Points
Below base replacement age	1
< 1 year over base	2
1 to 2 years over base	3
3 or more years over base	4

Mileage

Condition	Assigned Points
Below base replacement mileage	1
Base + <10,000 miles	2
Base + 10,000 to 20,000 miles	3
Base + > 20,000 miles or more	4

Maintenance Cost

Condition	Assigned Points
< 10% below base maintenance cost	1
Base +/- 10%	2
Base + 10% to 50%	3
Base + > 50%	4

Current Condition*

Condition	Assigned Points
Below base	1
Base + <6%	2
Base + 6% to 18%	3
Base + > 18%	4

- Example: if repair costs are less than 6% of replacement costs, assign 2 points

Exhibit 22 (1)

Difference Between Kelly Blue Book And the Value of vehicles Disposed at Auction

Unit #	Year/ Make/ Model	KKB - Sale $	Kelly Blue Book	Sale $	Smog Exp. $	Net G/L $
1141	1984 GMC G3500	-$492.00	$1,100.00	$1,592.00	$50.00	$1,542.00
1150	1984 GMC G3500	-$100.00	$1,100.00	$1,200.00	$0.00	$1,200.00
1406	1984 GMC SIERRA 150	-$125.00	$1,175.00	$1,300.00	$50.00	$1,250.00
1503	1985 DODG B350	$451.31	$1,600.00	$1,148.69	$50.00	$1,098.69
1448	1985 GMC C20	$451.00	$1,675.00	$1,224.00	$50.00	$1,174.00
1440	1985 GMC G2500	$975.00	$1,675.00	$700.00	$50.00	$650.00
1478	1986 GMC G2500	$800.00	$1,600.00	$800.00	$50.00	$750.00
1490	1986 GMC G2500	-$1,100.00	$1,600.00	$2,700.00	$50.00	$2,650.00
1516	1986 GMC SAFARI	-$30.00	$675.00	$705.00	$50.00	$655.00
1471	1986 GMC VANDURA	$50.00	$1,150.00	$1,100.00	$50.00	$1,050.00
13110	1987 CHEV C30	-$105.00	$2,095.00	$2,200.00	$50.00	$2,150.00
12703	1987 GMC G2500	$1,225.00	$2,025.00	$800.00	$50.00	$750.00
12551	1987 GMC R2500	$801.00	$2,025.00	$1,224.00	$50.00	$1,174.00
12706	1987 GMC R2500	$575.00	$2,025.00	$1,450.00	$50.00	$1,400.00
12930	1987 GMC R3500	-$5.00	$2,095.00	$2,100.00	$50.00	$2,050.00
12209	1987 GMC SIERRA 150	$475.00	$2,075.00	$1,600.00	$0.00	$1,600.00
13140	1987 GMC SIERRA 3500	-$905.00	$2,095.00	$3,000.00	$0.00	$3,000.00
8	1987 OLDS CUTLASS	-$25.00	$475.00	$500.00	$50.00	$450.00
19771	1988 CHEV C20	-$150.00	$1,350.00	$1,500.00	$0.00	$1,500.00
19766	1988 CHEV C30	-$350.00	$1,350.00	$1,700.00	$50.00	$1,650.00
19769	1988 CHEV C30	$150.00	$1,350.00	$1,200.00	$50.00	$1,150.00
17303	1988 FORD TAURUS	$225.00	$425.00	$200.00	$50.00	$150.00
12218	1988 GMC C1500	$545.00	$1,745.00	$1,200.00	$50.00	$1,150.00
11870	1988 GMC SUBURBAN	$503.00	$1,625.00	$1,122.00	$50.00	$1,072.00
12083	1988 GMC VANDURA	$611.00	$1,325.00	$714.00	$50.00	$664.00
17323	1989 CHEV CAPRICE	-$1,000.00	$800.00	$1,800.00	$50.00	$1,750.00
12559	1990 CHEV C20	-$275.00	$1,425.00	$1,700.00	$50.00	$1,650.00
12833	1990 CHEV C20	-$375.00	$1,425.00	$1,800.00	$50.00	$1,750.00
12971	1990 CHEV C30	-$2,500.00	$1,400.00	$3,900.00	$0.00	$3,900.00
17918	1990 CHEV CAPRICE	$25.00	$500.00	$475.00	$0.00	$475.00
10568	1990 CHEV CORSICA	-$263.00	$400.00	$663.00	$50.00	$613.00
10570	1990 CHEV CORSICA	-$212.00	$400.00	$612.00	$50.00	$562.00
10572	1990 CHEV CORSICA	-$161.00	$400.00	$561.00	$50.00	$511.00
10583	1990 CHEV CORSICA	$75.00	$400.00	$325.00	$0.00	$325.00
10587	1990 CHEV CORSICA	-$300.00	$400.00	$700.00	$50.00	$650.00
10591	1990 CHEV CORSICA	-$100.00	$400.00	$500.00	$50.00	$450.00
10592	1990 CHEV CORSICA	-$300.00	$400.00	$700.00	$50.00	$650.00
12230	1990 DODG D150	$25.00	$1,225.00	$1,200.00	$50.00	$1,150.00
12238	1990 DODG D150	$275.00	$1,225.00	$950.00	$0.00	$950.00

Exhibit 22 (2)

Unit #	Year/ Make/ Model	KKB - Sale $	Kelly Blue Book	Sale $	Smog Exp. $	Net G/L $
12240	1990 DODG D150	$325.00	$1,225.00	$900.00	$0.00	$900.00
12835	1990 FORD F450	-$540.00	$2,160.00	$2,700.00	$50.00	$2,650.00
19694	1990 GMC G1500	$395.00	$1,795.00	$1,400.00	$50.00	$1,350.00
12712	1990 GMC G2500	-$230.00	$1,720.00	$1,950.00	$50.00	$1,900.00
13321	1990 GMC SAFARI	-$735.00	$1,265.00	$2,000.00	$50.00	$1,950.00
19735	1990 GMC VANDURA	$525.00	$1,375.00	$850.00	$50.00	$800.00
17976	1991 CHEV CAPRICE	$100.00	$1,600.00	$1,500.00	$50.00	$1,450.00
10418	1991 CHRY CHEROKEE	$1,000.00	$2,100.00	$1,100.00	$50.00	$1,050.00
10422	1991 CHRY CHEROKEE	$800.00	$2,100.00	$1,300.00	$50.00	$1,250.00
13328	1991 GMC SAFARI	$810.00	$1,610.00	$800.00	$50.00	$750.00
13331	1991 GMC SAFARI	-$277.00	$1,610.00	$1,887.00	$50.00	$1,837.00
13332	1991 GMC SAFARI	$29.00	$1,610.00	$1,581.00	$50.00	$1,531.00
17350	1992 CHEV CAPRICE	$25.00	$1,925.00	$1,900.00	$50.00	$1,850.00
18010	1992 CHEV CAPRICE	$925.00	$1,925.00	$1,000.00	$50.00	$950.00
18044	1992 CHEV CAPRICE	$425.00	$1,925.00	$1,500.00	$50.00	$1,450.00
18047	1992 CHEV CAPRICE	$375.00	$1,925.00	$1,550.00	$50.00	$1,500.00
18058	1992 CHEV CAPRICE	$975.00	$1,925.00	$950.00	$50.00	$900.00
18062	1992 CHEV CAPRICE	$375.00	$1,925.00	$1,550.00	$50.00	$1,500.00
10430	1992 CHRY CHEROKEE	$475.00	$2,175.00	$1,700.00	$50.00	$1,650.00
10435	1992 CHRY CHEROKEE	-$171.00	$2,175.00	$2,346.00	$50.00	$2,296.00
10437	1992 FORD EXPLORER	$940.00	$2,470.00	$1,530.00	$50.00	$1,480.00
12721	1992 FORD F250	$1,020.00	$3,320.00	$2,300.00	$50.00	$2,250.00
12973	1992 FORD F350 SD	$280.00	$4,180.00	$3,900.00	$0.00	$3,900.00
11517	1992 FORD TEMPO	-$175.00	$825.00	$1,000.00	$50.00	$950.00
11519	1992 FORD TEMPO	$213.00	$825.00	$612.00	$50.00	$562.00
11520	1992 FORD TEMPO	$213.00	$825.00	$612.00	$50.00	$562.00
19750	1993 DODG RAM 3500	$1,175.00	$2,725.00	$1,550.00	$0.00	$1,550.00
19751	1993 DODG RAM 3500	$925.00	$2,725.00	$1,800.00	$0.00	$1,800.00
13338	1993 FORD AEROSTAR	$17.00	$1,445.00	$1,428.00	$50.00	$1,378.00
13339	1993 FORD AEROSTAR	-$5.00	$1,445.00	$1,450.00	$50.00	$1,400.00
10439	1993 FORD EXPLORER	$60.00	$2,760.00	$2,700.00	$50.00	$2,650.00
10455	1993 FORD EXPLORER	$414.00	$2,760.00	$2,346.00	$50.00	$2,296.00
10456	1993 FORD EXPLORER	$1,332.00	$2,760.00	$1,428.00	$0.00	$1,428.00
12724	1993 FORD F250	$1,245.00	$3,545.00	$2,300.00	$50.00	$2,250.00
12728	1993 FORD F250	$383.00	$3,545.00	$3,162.00	$50.00	$3,112.00
12974	1993 FORD F350	-$920.00	$3,880.00	$4,800.00	$0.00	$4,800.00
10606	1993 FORD TAURUS	-$245.00	$1,455.00	$1,700.00	$0.00	$1,700.00
18061	1994 CHEV CAPRICE	$1,550.00	$2,100.00	$550.00	$0.00	$550.00
13363	1994 DODG CARAVAN	$175.00	$925.00	$750.00	$0.00	$750.00
19754	1994 DODG RAM 3500	$2,955.00	$4,755.00	$1,800.00	$0.00	$1,800.00
19757	1994 DODG RAM 3500	$3,327.00	$4,755.00	$1,428.00	$50.00	$1,378.00

Exhibit 22 (3)

Unit #	Year/ Make/ Model	KKB - Sale $	Kelly Blue Book	Sale $	Smog Exp. $	Net G/L $
10609	1994 FORD TAURUS	$205.00	$1,305.00	$1,100.00	$50.00	$1,050.00
17098	1994 YAMA MOTO	$1,599.00	$3,180.00	$1,581.00	$50.00	$1,531.00
17101	1994 YAMA MOTO	$1,548.00	$3,180.00	$1,632.00	$50.00	$1,582.00
17102	1994 YAMA MOTO	$1,803.00	$3,180.00	$1,377.00	$50.00	$1,327.00
17103	1994 YAMA MOTO	$1,854.00	$3,180.00	$1,326.00	$50.00	$1,276.00
17104	1994 YAMA MOTO	$1,650.00	$3,180.00	$1,530.00	$50.00	$1,480.00
17105	1994 YAMA MOTO	$1,497.00	$3,180.00	$1,683.00	$50.00	$1,633.00
18181	1995 CHEV CAPRICE	$1,605.00	$2,505.00	$900.00	$0.00	$900.00
11891	1995 FORD F150	-$105.00	$3,395.00	$3,500.00	$50.00	$3,450.00
11892	1995 FORD F150	$233.00	$3,395.00	$3,162.00	$50.00	$3,112.00
18202	1997 FORD CROWN VIC	$3,100.00	$4,450.00	$1,350.00	$50.00	$1,300.00
18212	1997 FORD CROWN VIC	$3,300.00	$4,450.00	$1,150.00	$50.00	$1,100.00
18215	1997 FORD CROWN VIC	$3,022.00	$4,450.00	$1,428.00	$50.00	$1,378.00
12604	1997 FORD F250	$1,063.00	$6,265.00	$5,202.00	$50.00	$5,152.00
19671	1998 CHEV TAHOE	$3,605.00	$10,105.00	$6,500.00	$50.00	$6,450.00
19672	1998 CHEV TAHOE	$3,505.00	$10,105.00	$6,600.00	$50.00	$6,550.00
19673	1998 CHEV TAHOE	$3,105.00	$10,105.00	$7,000.00	$50.00	$6,950.00
Totals:		$54,538.31	$220,035.00	$165,496.69	$3,900.00	$161,596.69

11. FLEET MAINTENANCE

11. FLEET MAINTENANCE

Fleet maintenance and repair are the most costly and labor intensive aspects of owning and operating a fleet of vehicles. Maintenance and repair processes have a significant impact on vehicle availability, reliability, safety, economy, and environmental integrity.

In evaluating fleet maintenance, a number of functional areas within maintenance management were reviewed. These functional areas are identified in the paragraphs below.

- Preventive maintenance or the planned inspection, testing and adjustment, and/or replacement of selected vehicle components, systems, and fluids at pre-defined time or usage intervals.

- Pre- and post-trip inspection or the systematic examination of specific vehicle components by the operator.

- Defect reporting and service writing or the process of defining problems that have been experienced with a vehicle when it is brought into the shop and the corrective and preventive maintenance services that need to be performed.

- Warranty management or the identification of repairs to vehicles and parts that are covered by manufacturer, re-manufacturer, or vendor warranty and recovering the costs associated with performing warranty repairs.

- Work order assignment, control, and quality assurance or the processes of determining how many labor hours need to be allocated to completing a work order, assigning the work order to an Equipment Mechanic or Equipment Service Worker based on priority and workload, keeping track of the status of open work orders, and inspecting finished services and associated records for completeness before returning the vehicle to the user.

- Sub-let maintenance and repair services or the farming out of work to vendors and the procedures used to control the quality and costs of these services.

- Employee training or the provision of in-house training and participation in third party training programs.

- Professional certification or the encouragement and rewarding of employees to secure formal recognition for specific technical proficiencies from recognized

industry organizations such as the National Institute for Automotive Service Excellence.

- Use of maintenance management information or the capturing of relevant data on maintenance activities and costs and using such data to develop an understanding of maintenance performance that cannot be obtained through first-hand observation and second-hand information.

- The level of staffing within the Fleet Services Bureau or the adequacy of staffing within the Bureau to maintain and repair the fleet and the efficiency with which that staff is utilized.

1. THE FLEET SERVICES BUREAU UTILIZES A NUMBER OF THE BEST PRACTICES FOR FLEET MAINTENANCE.

The first exhibit presented at the end of this chapter presents a comparison of the actual practices of the Fleet Services Bureau against best management practices for fleet maintenance. There are a number of strengths within the Bureau related to these best management practices as well as opportunities for improvement. The strengths of the Bureau include the following:

- A sample of 2% of the fleet found general compliance with the preventive maintenance intervals for light and medium equipment, police black and white sedans, and refuse packers.

- The Bureau provides a mobile lubrication service for equipment that customers have difficulty in bringing the heavy equipment into the Bureau's shops for lubrication.

- "Loaner" sedans are available to customers when they bring their sedans in for preventive maintenance.

- The Bureau has established a formal preventive maintenance schedule that includes multiple echelons or progressive preventive maintenance. These echelons include PM-500, preventive maintenance and safety inspection, PM-600, preventive maintenance and annual safety inspection, and PM-900, preventive maintenance and smog inspection.

- Preventive maintenance intervals are based upon both time and/or mileage.

- Customers are notified by phone regarding when their vehicles are due for preventive maintenance.

- The Bureau has decentralized some its technician's staff to the work sites of its customers including police substations, the beach yard, the public services yard, fire rescue boats, police helicopters, and the energy yard.

- Work or repair orders are utilized to record all maintenance activities.

- A procedure is in place at the time the work or repair order is created to identify vehicles scheduled for preventive maintenance.

- Minor warranty repairs are completed in-house in order to expedite the repair process.

- The City provides a 5% compensation adjustment for those technicians that obtain ASE certification. Eight Equipment Mechanics have received this certification in some form.

- Quality control processes have been developed. In fact, the Bureau has developed a policy regarding quality assurance specifying that each Fleet Supervisor will take at random a vehicle that has been reported as complete and road test the vehicle, complete a "Quality Assurance Test Report" and review the outcome with the appropriate technician. The Fleet Superintendent at the time set a minimum target of two vehicles a week.

- 10% of the costs of maintenance and repair costs (labor, parts, and commercial repairs) are accomplished as sub-let repairs. The Bureau sub-lets body and paint repair services and most major component repairs and rebuilds.

- Based upon a sample of 450 work orders, 72% of the work orders for police equipment (e.g., police black and white sedans) are completed within one workday, and 78% within two workdays.

- Technicians have a goal of billing 125 hours per month to work orders or 72% of their available work hours. This is, in fact, a written policy of the Bureau. For the time period from April 2002 to March 2003, technicians billed 75% of their available work hours to work orders.

- The Bureau has stated as policy that it expects its technicians to meet or beat flat rate. The Bureau has adopted a policy stating "before undertaking a major repair job (i.e., cylinder head work, r/r/engine, r/r/ transmission, etc.), each mechanic will consult with his supervisor for recommended flat rate time to accomplish the task assigned. He should meet or beat the recommended flat rate time."

- The Bureau has recently obtained applications to the State of California and to the Federal Government to maintain and repair their vehicles, and has discussed providing such services to the Long Beach Unified School District for their "overflow" work.

- The size and layout of the Bureau's facility promotes efficient maintenance activities.
- Effective safety procedures are in place.
- Shop tools and equipment are up-to-date.

At the same tome, there are also opportunities for improvement. These opportunities include the following:

- Preventive maintenance for sweepers exceeded mileage intervals by more than 50%. 4 of the 13 refuse packers that were sampled exceeded their mileage interval by more than 50%.
- Preventive maintenance services are not available after normal work hours.
- M4, the fleet maintenance information system, is not utilized to notify customers when preventive maintenance is due.
- A procedure is not in place at the time a work order is created to identify vehicles scheduled for replacement so that maintenance and repair expenditures are minimized for those equipment about to be replaced.
- The expected costs and time for completing repairs are not routinely given to customers in advance of the repair.
- Shop business hours have not been set for customer convenience.
- Warranty recoveries are not actively pursued for both repairs and parts.
- Four-fifths of the Equipment Mechanics have not yet received ASE certification.
- Quality control of repair orders should be consistently performed by Fleet Supervisors for "drive tests" to assess the quality of work performed by technicians.
- Based upon a sample of 250 work orders, the turnaround time for light and medium equipment approximates 58% within one workday and 71% within two workdays.
- While the policy for the Bureau is that technician's bill 72% of their available work hours, two technicians billed less than 60% of their available work hours. Conversely, eight technicians billed more than 90% of their available work hours, and one of these technicians billed 100% of his available work hours.

The strengths of the Bureau's maintenance practices provide a sound foundation for improvements.

1. THE BUREAU SHOULD ENHANCE ITS PREVENTIVE MAINTENANCE PROGRAM.

As noted earlier, there are a number of strengths in the preventive maintenance program administered by the Bureau. These strengths include the following:

- A sample of 2% of the fleet found general compliance with the preventive maintenance intervals for light and medium equipment, police black and white sedans, and refuse packers.
- The Bureau provides a mobile lubrication service for equipment that customers keep their heavy equipment in the field, and face difficulty in bringing the heavy equipment into the Bureau's shops for lubrication.
- "Loaner" sedans are available to customers when they bring their sedans in for preventive maintenance.
- The Bureau has established a formal preventive maintenance schedule that includes multiple echelons or progressive preventive maintenance.
- Preventive maintenance intervals are based upon both time and mileage for many classes of equipment.
- Customers are notified by phone regarding when their vehicles are due for preventive maintenance.

Properly scheduled and periodic preventive maintenance is the most important component in the cost-effective operation of a fleet.

The Fleet Services Bureau has established guidelines for the frequency of preventive maintenance. These guidelines are presented for PM-500 in the table below.

Class of Equipment	PMA Frequency
Light Duty Sedans, Pickup Trucks, and Medium Duty Trucks	4,000 miles
Refuse Packers	3 months/3,000 miles
Police Sedans	4,000 miles

Class of Equipment	PMA Frequency
Beach and Bucket Vehicles	4 months/4,000 miles
Police Motorcycles	3 months/2,000 miles
Tractors, Front Loader	6 months/100 hours
ATV's	1 month
GO-4 & Cushman	3 months/3,000 miles
Street Sweepers	1 month/800 Miles
Paramedics	2 months/3,000 miles
Aerial Ladders	6 months/2,000 miles
Fire Pumpers	4 months/2,000 miles
Airport Crash Trucks	6 months/2,000 miles
Fire Truck, Crash	1 year/2,000 miles
Fire Boat, Rescue	100 hours
Operations Boats	250 hours
Boat 1	100 hours
Generators	Two weeks
Helicopters	Daily

Preventive maintenance "500" comprises fewer tasks than does preventive maintenance "600" or "900". It includes such tasks as changing the oil and oil filter, lubricating suspension and steering, brake inspection, tire inspection, and the like. Preventive maintenance "600" is more extensive and includes those tasks performed during preventive maintenance "500" plus pressure testing and flushing the cooling system, conducting starter draw tests, replacing the gas and fuel filter, inspection of the undercarriage, and the like.

A sampling of almost 2% of the City's fleet was made to determine the extent of preventive maintenance provided for these vehicles. The results of this sampling are presented in the second exhibit at the end of this chapter. The findings and conclusions generated by this sampling are presented below.

- The five street sweepers included in the sample received preventive maintenance "500" at an average interval of 1,294 miles and 41 calendar days. This compares to the schedule of 800 miles and 30 calendar days.

- The thirteen sedans, pickup trucks, utility vehicles, and vans included in the sample received preventive maintenance "500" at an average of a 4,262 mile interval. This compares to the schedule of 4,000 miles.

- The thirteen refuse packers included in the sample received preventive maintenance "500" at an average interval of 2,922 miles and 95 calendar days. This compares to the schedule of 3,000 miles and 3 months.

- The thirteen police black and white sedans included in the sample received preventive maintenance "500" at an average interval of 3,600 miles. This compares to the schedule of 4,000 miles.

These samples indicate that preventive maintenance of City equipment is consistently meeting the schedule with the exception of street sweepers.

A number of steps need to be taken to address these problems and assure the fleet receives the proper level of preventive maintenance. These steps are identified in the paragraphs below.

(1) <u>The Equipment Maintenance Information System Should Be Utilized to E-Mail Operating Departments the Preventive Maintenance Schedule and Enable Managers and Supervisors to Monitor Preventive Maintenance and Identify Equipment Overdue for Preventive Maintenance</u>.

The equipment maintenance information system – M4 – has the capacity to e-mail operating departments when their vehicles are due for scheduled preventive maintenance. This e-mail capacity should be utilized to notify customers when their vehicles are scheduled for preventive maintenance.

At the same time, M4 has the capacity to identify and print those units overdue for preventive maintenance. The Fleet Services Bureau should print this report weekly (for the previous week) and the Fleet Superintendent-Maintenance and the Fleet Supervisors should utilize these reports to assure that vehicles overdue for preventive maintenance get into the shop for preventive maintenance.

(2) <u>The Fleet Services Bureau should implement a "quick lube" concept for light and medium equipment</u>.

The median cost for a preventive maintenance "500" performed by the "N" Line of the Fleet Services Bureau approximated $90 for light and medium equipment. Customers will inevitably compare this cost to the costs of preventive maintenance performed by Jiffy Lube. While the preventive maintenance "500" performed by the Bureau differs from Jiffy Lube, customers with whom the Matrix Consulting Group discussed this issue do not appreciate these differences. The Matrix Consulting Group recommends that the Bureau implement a "quick lube" concept only for light and medium equipment, excluding emergency response vehicles.

For example, the Equipment Services Division of the City of St. Petersburg, Florida introduced a number of changes to enable the division to better compete with the private sector. One of these changes was the introduction of a "quick lube" concept.

Before implementation of this concept, City employees had to drop their vehicle off a day or more ahead of time of the scheduled preventive maintenance. Now, these same City employees can wait for the completion of the preventive maintenance that ordinarily requires twenty (20) minutes.

The specifics of this concept as it has been implemented in St. Petersburg, Florida are described below.

- This "quick lube" service is available only on Tuesdays and Wednesdays;
- Operating departments must call ahead and schedule this type of preventive maintenance;
- This type of preventive maintenance is not available each and every time. St. Petersburg will provide the "quick lube" three times at 3,000-mile intervals. The fourth preventive maintenance is a comprehensive stem-to-stern inspection – a PM-600 in essence.

- The "quick lube" involves a change of oil and oil filter, checking all fluids and topping the fluids off, checking all the lights and tires, checking wiper blades, and vacuuming the interior.

St. Petersburg reports this "quick lube" concept has been well received by their customers.

RECOMMENDATION 11-1: M4 should be utilized to e-mail operating departments when their vehicles are due for preventive maintenance and to enable the Fleet Superintendent-Maintenance and Fleet Supervisors to identify equipment overdue for preventive maintenance.

RECOMMENDATION 11-2: The Fleet Services Bureau should implement a "quick lube" concept only for light and medium equipment, excluding emergency response vehicles.

2. THE FLEET SERVICES BUREAU SHOULD EXPAND ITS WORK SCHEDULE TO INCLUDE A SWING SHIFT, INITIALLY FOR THE PACKER LINE AND THE SWEEPER LINE.

The comparison survey presented previously included a comparison of operating hours. With the exception of Las Vegas, the other cities utilized swing shifts, in most cases Monday through Friday. More specifically

- Charlotte, North Carolina operates three shops from 6:00 a.m. to 10:00 p.m.
- Fresno, California operates its main shop with a day shift and a swing shift with varying hours during the week that begins at the earliest at 5:30 a.m. and ends as late as 12 midnight. The shop also operates a day shift on Saturday.
- Fort Worth, Texas operates two shops with a day shift and a swing shift that begin at 6:00 a.m. and end as late as 1:30 a.m.
- Kansas City, Missouri operates a day shift and swing shift with hours that begin at 7:30 a.m. and end at 11:30 p.m.
- Oklahoma City, Oklahoma operates a graveyard shift from 10:00 p.m. to 7:00 a.m.

- Sacramento, California operates two shops with a day shift and swing shift seven days a week from 5:30 a.m. to 10:30 p.m. and three shops with a day shift and a swing shift from 5:30 a.m. to 11:00 p.m.

- Virginia Beach, Virginia operates two shops with a day shift and a swing shift from 7:00 a.m. to 2:00 a.m.

The packer line operated by the Fleet Services Bureau operates 5:30 a.m. to 8:00 p.m. The staff assigned to the sweeper line work variations of the day shift.

The packer line and sweeper line staff should work a day shift and a swing shift. The day shift should begin at 7:00 a.m. and end at 3:30 p.m.; the swing shift should begin at 3:00 p.m. and end at 11:30 p.m. (Two mechanics should continue to have earlier start times – at 5:00 a.m. – to assist packer and sweeper operators in resolving equipment problems.)

There are currently fifteen mechanics and garage service attendants assigned to the packer line, and six mechanics and garage service attendants assigned to the sweeper line. At least ten of these staff should be assigned to the swing shift. In addition, a Fleet Supervisor should be assigned to the swing shift. As noted earlier, the Fleet Supervisor assigned to facility maintenance should be reassigned to supervision of an equipment line. This reassignment would provide the capacity for supervision of the swing shift.

Upon the successful demonstration of the implementation of the swing shift, the Bureau should next expand the use of the swing shift to the safety line and to the fire line.

RECOMMENDATION 11-3: The Fleet Services Bureau should implement the use of a swing shift for the packer line and the sweeper line should implement a swing shift that should begin at 3:00 p.m. and end at 11:30 p.m. At least ten mechanics and garage

service attendants should be assigned to the swing shift. In addition, a Fleet Supervisor should be assigned to the swing shift.

RECOMMENDATION 11-4: Upon the successful demonstration of the implementation of the swing shift, the Bureau should next expand the use of the swing shift to the safety line and to the fire line.

3. A MORE FORMAL WORK PLANNING AND SCHEDULING SYSTEM SHOULD BE INSTALLED, AND THE TIME GUIDELINES WITHIN MITCHELL ON DEMAND UTILIZED TO ESTIMATING LABOR HOURS FOR WORK COMPLETED BY THE SAFETY LINE AND THE LIGHT/MEDIUM LINE.

The Fleet Services Bureau has available a number of tools to plan and schedule the work of its technicians. This includes the planning and scheduling tools within M4, the fleet management information system, and *Mitchell on Demand.*

(1) Mitchell on Demand Should Be Utilized to Estimate the Labor Hours Required to Complete Repairs Performed by the Technicians Assigned to the Safety and the Light/Medium Lines.

As part of the analysis of the Bureau, the actual labor hours required to complete over 150 repair orders were compared to the labor hours allowed for these repairs within *Mitchell on Demand*. This software provides a labor-estimating feature for maintenance and repair work performed on light and medium equipment (i.e., sedans, pickup trucks, vans, utility vehicles, etc.). The results indicated that the technicians assigned to the safety line were generally able to meet or beat the labor hours suggested by *Mitchell on Demand*. In fact, for 21 of the 41 repair orders (or 51%) that were sampled, the technicians assigned to the safety line completed the repair in a shorter time than allowed by *Mitchell on Demand.* However, the technicians assigned to the light/medium line completed the repair in a shorter time than allowed by *Mitchell on Demand* for only 9 of the 66 repair orders (or 14%) sampled. These technicians

generally required twice as many labor hours to complete a repair as suggested by *Mitchell on Demand.*

The Bureau has installed within the offices allocated to the two Fleet Supervisors for the safety line and the light/medium equipment line a personal computer on which is installed Mitchell on Demand software.

The Bureau should utilize the data within Mitchell on Demand to estimate the labor hours required to complete work performed by the mechanics and garage service attendants assigned to the safety line and the light and medium line.

The Bureau should review the repair types within M4 to assure these repair types correspond closely or match those utilized within Mitchell on Demand and make adjustments as necessary. Then the labor hours required to perform these repairs should be entered into M4 so that the Fleet Supervisors will not have to check two information systems to estimate the labor hours and to fully utilize the capabilities of M4.

The application of these guidelines is **not** the norm within the public sector, but have recently been implemented within the City of Houston's Fleet Services shop responsible for the maintenance and repair of police sedans and other police equipment (and as reported within *California Fleet News* in July/August 2003). The implementation was the result of a managed competition that was awarded to the City employees who worked in this shop. These employees were responsible for the maintenance and repair of over 1,000 pieces of equipment at four different shops. In this shop, flat rate guidelines were established for as many repair types as possible based on a number of flat rate manuals (Chilton, Motor, and Mitchell) and from historical experience. The result of the implementation of the flat rate guidelines has been the reduction of

technicians from 26 to 20, the reduction of maintenance and repair costs per vehicle by one-third, and the percentage of work orders completed within one work day was 96%. If the City of Houston can achieve this, the City of Long Beach can as well.

Upon successful implementation of Mitchell on Demand within the safety line and the light/medium line, the Bureau should proceed with implementation of labor estimates for the other lines as well.

RECOMMENDATION 11-5: The Fleet Services Bureau should utilize the data within *Mitchell on Demand* to estimate the labor hours required to complete work performed by the mechanics and garage service attendants assigned to the safety line and the light and medium line including the work performed by the mobile technicians.

RECOMMENDATION 11-6: Upon successful implementation of Mitchell on Demand within the safety line and the light/medium line, the Bureau should proceed with implementation of labor estimates for the other lines as well.

(2) <u>The Bureau Should Utilize the Capabilities of M4 to Plan and Schedule the Work of Its Technicians.</u>

The work planning and scheduling practices utilized by the Fleet Supervisors vary, but are largely informal, written, and do not communicate expectations to technicians. Largely, the system currently in place allows technicians to self-schedule their own work and set their own work pace.

The Fleet Supervisors should utilize the capabilities of M4 for shop planning and scheduling and schedule the work for the technicians for their entire shift. This should include the mobile technicians.

RECOMMENDATION 11-7: The Fleet Services Bureau should utilize the capabilities of M4 to plan and schedule the work of its technicians for the entire shift.

4. THE FLEET SERVICES BUREAU SHOULD PURSUE "CONTRACTING IN" VEHICLE MAINTENANCE SUB-LET BY THE STATE, FEDERAL GOVERNMENT, AND THE LONG BEACH UNIFIED SCHOOL DISTRICT.

Previously, Fleet Services Bureau retained *Venture Associates* to develop business and organization strategies for the Bureau. *Venture Associates* recommended that the Bureau pursue nearby government fleets as a recommended target market to seek their business for vehicle maintenance. These nearby governmental fleets were recommended for a number of reasons.

- The average fleet size was larger, making these possible customers circumstances most analogous to the Bureau and reducing the number of sales required to meet financial and utilization objectives.
- The vehicle mix within these governmental fleets fits the technical expertise and experience of the Bureau.
- Marketing and contracting advantages are greatest for a public sector provider targeting other public sector accounts.
- The large government fleets near Long Beach are promising prospects.

The Matrix Consulting Group concurs, and recommends that the Fleet Services Bureau solicit the business of other governments.

In fact, the State of California and the Federal Government have already indicated that they are willing to sub-let vehicle maintenance to the Fleet Services Bureau. Private contractors maintain all of the vehicles leased by the United States General Services Agency to other federal agencies within the City of Long Beach. Similarly, private contractors maintain all the vehicles leased by the State of California to other state agencies within the City of Long Beach. Both of these agencies would, however, require the Fleet Services Bureau to utilize a flat rate manual, such as Mitchell

on Demand, to determine repair costs for vehicles maintained by the City of Long Beach on their behalf.

In addition, the Long Beach Unified School District sub-lets repair work to private contractors in the amount of approximately $290,000 annually. The District has indicated a willingness to sub-let this work to the Fleet Services Bureau if the costs charged by the Bureau do not exceed those of the private sector. The types of sub-let repairs work in 2002-03 by the District are presented in the table below.

Amount	Type of Work
$5,500	Rebuild of air valves and air compressors
$4,300	Rebuild of starters and alternators
$10,800	Glass replacement (windshields, door glass, etc.)
$16,900	Repairs to cars and light duty trucks (brakes, electrical, tune-ups (gas engine only), steering and alignments, cooling systems, fuel systems, electronic diagnostics and repairs, etc.)
$39,700	Repairs to Medium and Heavy duty trucks and buses (brakes, electrical, tune-ups (gas engine only), steering and alignments, cooling systems, fuel systems, electronic diagnostics and repairs, etc.)
$16,800	Body work: cars and light truck
$87,000	Body work: medium and heavy trucks, and school buses
$3,500	Exhaust repairs (mufflers and tail pipes)
$7,000	Repair of trash truck hydraulic systems and repair to the trash truck beds
$42,700	Diesel engine tune-up and overhaul and misc. engine repairs
$2,400	Utility bed repairs
$14,700	Emergency road service for flat repairs. Includes dismounting and mounting of new tires on district cars, trucks and school buses at LBUSD yard. Bandag recapping of 10R22.5, 11R22.5 & 12R22.5 tires is included in this.
$7,100	Allison transmission repairs and overhaul
$15,200	Automatic transmission repairs and overhaul except Allison Transmission
$9,400	Speedometer, tachometer, and tachograph repairs
$900	A/C repairs
$1,200	Liftgate repairs
$7,300	Towing: cars, trucks and school buses
$292,400	**TOTAL**

Not all of these repairs sub-let by the District should be pursued by the Fleet Services Bureau as some of these types of repairs are sub-let by the Bureau itself (body

work, glass replacement, etc.). However, the technicians within the Bureau of the type already perform much of this other work identified in the table for the City itself.

RECOMMENDATION 11-8: The Fleet Services Bureau should complete and return the vehicle maintenance sub-let agreements to the General Service Department of the State of California and the General Services Agency of the United States.

RECOMMENDATION 11-9: The Fleet Services Bureau should enter into discussions with the Long Beach Unified School District regarding the assumption by the Bureau of "overflow" repairs and maintenance on behalf of the District.

5. THE FLEET SERVICES BUREAU SHOULD IMPLEMENT ITS POLICY FOR QUALITY CONTROL.

As noted earlier, the Fleet Services Bureau has developed quality control processes. In fact, the Bureau has developed a policy regarding quality assurance specifying that each Fleet Supervisor will take at random a vehicle that has been reported as complete and road test the vehicle, complete a "Quality Assurance Test Report" and review the outcome with the appropriate technician. The Fleet Superintendent at the time set a minimum target of two vehicles a week.

The Fleet Superintendent-Maintenance should direct that the Fleet Supervisors immediately implement this policy.

RECOMMENDATION 11-10: The Fleet Superintendent-Maintenance should direct that the Fleet Supervisors immediately implement the Bureau's Quality Control policy.

6. THE EXTENT OF MOBILE TECHNICIANS SHOULD BE REDUCED.

At present, the Fleet Services Bureau has decentralized ten of its technicians to eight sites other than its main shop at 2600 Temple Avenue. These sites, and the number and types of staff assigned, are presented below.

Department Served	Address	Distance From The Fleet Services Bureau Main Shop	Staff Assigned to This Location
Public Works/Public Services	1601 San Francisco	3.7 miles	Equipment Mechanic I/II
Energy	2400 East Spring	0.7 miles	Equipment Mechanic I/II
Police, north substation	4891 Atlantic Avenue	4.3 miles	Equipment Mechanic I/II
Police, west police substation	1835 Sante Fe Avenue	4.5 miles	Equipment Mechanic I/II
Police, east police substation	4800 Los Coyotes Diagonal	2.3 miles	Equipment Mechanic I/II
Police, south police substation	100 Long Beach Boulevard	4.3 miles	Equipment Mechanic I/II, Garage Service Attendants (2)
Parks and Recreation, Beach Maintenance			Equipment Mechanic I/II
Fire, Fire Rescue Boats			Equipment Mechanic I/II

Important points to note concerning these mobile technicians are presented in the paragraphs below.

- The Bureau has decentralized 17% of its technicians (excluding the staff assigned to helicopter maintenance and repair and the two welders) at work sites other than its main shop at 2600 Temple Avenue. Ten of fifty-seven mechanics and garage service attendants have been placed at these eight decentralized sites.

- The driving distance from these sites to 2600 Temple Avenue is minimal. The distance to the Energy/gas yard at 2400 East Spring is less than a mile, for example.

- These mobile technicians determine their own workload and schedule their own work.

The Fleet Services Bureau should reduce the extent of mobile technicians and perform as much work as possible at its main shop at 2600 Temple Avenue. Initially, the Equipment Mechanics assigned to the Public Works/public services yard, the

Energy/gas yard, and the two Garage Service Attendants assigned to the south police substation (Lincoln Park) should be reassigned to the Bureau's main shop. However, the Bureau should continue to assess the value to the customer of decentralized repair service versus the productivity of these mobile technicians.

RECOMMENDATION 11-11: The Fleet Services Bureau should reassign the Equipment Mechanics assigned to the Public Works/public services yard, the Energy/gas yard, and the two Garage Service Attendants assigned to the south police substation (Lincoln Park) to the Bureau's main shop

RECOMMENDATION 11-12: The Bureau should continue to assess the value of mobile technicians to the customer versus the productivity of these mobile technicians.

7. IMPROVE WARRANTY REPAIR AND VENDOR "COMEBACK" MANAGEMENT.

A warranty management program identifies repairs to vehicles that are covered by warranty and recovers the costs associated with performing them. Warranty recovery revenue for the Bureau should be comparable to other fleets (e.g., $100 over the first three years for a light duty vehicle). For example, Fleet Services for Broward County, Florida is certified and authorized to perform warranty repairs on County fleet vehicles, saving out-of-service time and the cost of transporting vehicles to obtain warranty repairs.

Warranty management involves determining the level of warranty coverage that should be secured from suppliers of vehicles, parts, and related services, assuring that this warranty recovery data is entered into M4, identifying repair needs that are covered by warranty, and ensuring that the costs of such repairs are borne by the original equipment manufacturer (OEM) rather than the City.

The Bureau specifies warranty terms in all contracts and purchase orders for its vehicles. Procedures should be in place, using M4, to flag all service requests that might be covered by a warranty and to properly document and secure reimbursement or purchase credits for all warranty-covered costs that are incurred in house. Where the volume of warranty-covered repairs justifies it, warranty work should be performed in-house under an OEM certification in order to minimize repair turn-around time.

(1) The Fleet Services Bureau Should Obtain OEM Certification for Light and Medium Equipment, and Begin Tracking and Reporting Warranty Dollars Recovered and Warranty Cost Avoidance.

The current fleet management information system – M4 - has the capacity to flag vehicles and parts that are under warranty. However, documentation of the value of warranty efforts (either in terms of dollars reimbursed or cost avoidance by having repairs completed by warranty vendors free of charge) is not currently kept. Such documentation provides an important measure of fleet program effectiveness and is also required to perform a cost/benefit analysis of the value of purchasing extended warranty contracts.

The Bureau should establish a warranty recovery program using M4 to identify repairs eligible for warranty recovery, and perform those warranty repairs in-house.

In fact, the State of Alaska has established a new vehicle warranty recovery policy. That policy states, “the purpose of this procedure is to provide a uniform way of processing warranty repairs on State Equipment Fleet (SEF) vehicles and equipment. It is SEF's policy to avail itself of maximum warrant coverage for eligible repairs.”

The Bureau should initially obtain OEM certification for the repair of light and medium vehicles.

(2) Begin Recording Comebacks to the Shop for Commercial Vendors and Returning These Comebacks to Vendors.

Currently, comebacks or repeat work for sub-let work is not measured. This is an essential measure of the quality of sub-let repair activities and should be added to M4 and monitored by Fleet Supervisors. The quality of sub-let repairs has been problematic in the past with some vendors such as rebuilds of radiators.

Measuring the percentage of time a piece of equipment is returned to the Bureau for the same problem within a specified period of time as a result of improper rebuilds of parts by vendors is important in holding the vendor accountable. The industry standard is less than 2% of all work should be returned to the vendor.

The Bureau should begin recording comeback repairs for sub-let work and returning those sub-let repairs to the vendor for repair while under warranty.

RECOMMENDATION 11-13: The Bureau should establish a warranty recovery program using M4 to identify repairs eligible for warranty recovery, and perform those warranty repairs in-house.

RECOMMENDATION 11-14: The Bureau should begin recording comeback repairs for sub-let work and returning those sub-let repairs to the vendor for repair while under warranty.

8. THE BUREAU SHOULD EXPAND THE USE OF VENDORS FOR SUB-LET REPAIRS.

Vendors may be relied upon to perform fleet maintenance and repair services for a variety of reasons, including managing in-house work backlogs; avoiding costly investments in facility construction, tooling, training, and staffing to meet low volumes of service demand in remote areas or for specialty repairs; and to achieve a degree of

flexibility (e.g., in terms of locations, hours of service, etc.) in the provision of services that is not possible with civil service system constraints and sizable investments in fixed fleet maintenance infrastructure.

The Bureau makes good use of commercial providers of specialty services. The Bureau also makes effective use of vendors during periods of peak workload so as to limit equipment downtime. The Bureau outsourced approximately 10% of its maintenance and repair activities last year, which is within the benchmark range of 10% to 15% percent used by the Matrix Consulting Group.

There are two areas that the Bureau should consider for additional outsourcing: welding and "upfitting" of public safety vehicles (i.e., light bars, cages, etc.). The "upfitting" services are currently entirely performed in-house, and welding is performed both contractually and with two in-house welders. The amount of delay in "upfitting" new police black and white sedans was cited as an opportunity for improvement in the customer satisfaction survey conducted by the Matrix Consulting Group. Most best in class fleet operations outsource all or a significant portion of these functions to commercial vendors.

RECOMMENDATION 11-15: The Bureau should expand the extent of outsourcing to include "upfitting" of public safety vehicles (i.e., light bars, cages, etc.) and welding.

9. THE FLEET SERVICES BUREAU SHOULD DEVELOP A FORMAL TRAINING PLAN FOR ITS TECHNICIANS AND ADDITIONAL FUNDING MADE AVAILABLE.

As noted earlier, four-fifths of the Equipment Mechanics have not yet received ASE certification despite the provision of a 5% incentive offered by the City for obtaining such certification. The Bureau should be proactive in providing training to its technicians

to obtain such ASE certification. As a first step, the Bureau should develop a training plan for its technicians.

In developing a training plan, the Bureau is linking the skill development of its technicians to its own assessment of their strengths and weaknesses. The Bureau should strive to achieve the best practices presented below in developing this training plan.

The Bureau provides a comprehensive staff development program to achieve and maintain high levels of productivity and employee performance.
The Bureau maintains training records for each technician.
The Bureau has mentoring programs, as appropriate, for new employees.
The Bureau plans training programs for its technicians based on a needs assessment that includes input from employees and their supervisors at least every other year.
The Bureau establishes and implements formal development plans to provide on-going training for technicians. Technicians are provided with at least forty (40) hours of training annually.
The Bureau has procedures to evaluate individual in-service training activities, including employee feedback, and to evaluate the extent to which annual training efforts have met identified long-term training objectives.

The training process involves the identification of the need for training, and the selection of and attendance at appropriate courses. Due to continual and accelerating changes in automotive technology, a rigorous, proactive training program is essential for maintaining the viability of in-house fleet maintenance programs. Training investments yield dividends in mechanic effectiveness and efficiency, which translate into better, and cheaper maintenance and repair services.

The Fleet Services Bureau does not have a formal training program for employees of the Bureau. Over the four fiscal years from 1999 to 2001 the Bureau expended an average of $15,000 for training of its employees (excluding Towing and Lien Sales). This equates to little more than $150 per year per maintenance and repair technician. This is not adequate to provide the necessary training in light of continued technological advances in vehicles, equipment, and diagnostic equipment. The City

does provide financial reimbursement for technicians that achieve various certifications through the Automotive Service Excellence certification program.

The Bureau should develop a training plan, and increase the budget for training to $65,000 per year, which would still approximate only $700 per technician per year.

RECOMMENDATION 11-16: The Bureau should be proactive in providing training to its technicians to obtain such ASE certification through the development of a training plan for its technicians and increasing the training budget to $65,000 per year.

10. THE FLEET SERVICES BUREAU SHOULD IMPLEMENT ITS POLICY FOR LABOR RECONCILIATION REVIEW.

As noted earlier, the Bureau has established a policy that technicians bill 125 hours a month to work orders or 72% of their available work hours. However, a review of actual hours billed for the time period from April 2002 to March 2003 indicated that two technicians billed less than 60% of their available work hours. Conversely, eight technicians billed more than 90% of their available work hours, and one of these technicians billed 100% of his available work hours.

The Bureau has established a policy regarding labor reconciliation that requires Fleet Supervisors to review the monthly direct-billed hours report to ensure accountability for all employees. This same policy also requires the Fleet Superintendent-Maintenance to monitor adherence to these goals and report monthly to the Fleet Services Manager. The ‘acting” Fleet Superintendent-Maintenance should immediately implement this policy.

RECOMMENDATION 11-17: Fleet Supervisors should review the monthly direct-billed hours report to ensure accountability for all employees, and the Fleet Superintendent-

Maintenance should monitor adherence to these goals and report monthly to the Fleet Services Manager.

11. THE LEVEL OF TECHNICIAN STAFFING IS APPROPRIATE GIVEN THE CURRENT SIZE AND MAKEUP OF THE FLEET.

In October 1995, *David M. Griffiths* and *Associates* completed a fleet management and operations study of the Fleet Services Bureau. The study included an evaluation of staffing levels. The findings and conclusions regarding the level of staffing are presented below.

- "With regard to maintenance staffing levels, our review suggests that the Bureau has more mechanics than it needs to properly service the fleet. Currently, there are 53 mechanic and garage service attendant positions devoted to 'wrench-turning' activities, two of which are vacant. This number of wrench-turning positions give the Bureau the capacity to produce about 77,000 direct labor hours of maintenance and repair work per year, assuming that each trades worker devotes 1,500 hours (out of 2,080 regular hours for which he is paid) to repair activities."

- "Our independent estimates, based on vehicle equivalents analysis, and the Bureau's own records indicate that the fleet needs and is consuming about 60,000 direct labor hours of work per year. Distributing this number of hours over 51 trades workers yields an average productivity rate of about 1,180 hours per worker per year. Subtracting mechanic overtime hours from the 60,000-hour figure reduces mechanic productivity to about 1,000 hours per year. This is considerably less than the 1,500 hour productivity goal which we recommend."

- "Dividing 60,000 hours of work by 1,500 hours per worker yields staffing requirements of 40 wrench turners. Unless there is compelling evidence that the fleet needs more this amount of work, that it is actually consuming more than this amount but labor hour reporting practices are understating this fact, and/or the Bureau's mechanics cannot produce an average of 1,500 hours of direct work per year, this analysis approximately 63,300 hours last year, including helicopter and marine unit. On pace to bill 61,000 hours in 1995. Approximately 4,000 vehicle equivalents in the fleet. At 15 hours per equivalent, fleet should require about 60,000 hours of maintenance. Current authorized maintenance staff size is 53 mechanics and GSA's, with two vacancies (2 GSA's). Fifty-one mechanics at 1,400 hours productivity per year provides capacity of 71,400 labor hours, or approximately 10,000 more hours than were accounted for."

- "Assuming the fleet needs 63,000 hours of work and that a reasonable mechanic productivity rate is attainable, the Bureau needs 42 to 45 wrench –turners."

In essence, *David M. Griffiths* and *Associates* were suggesting that the Fleet Services Bureau could reduce the number of technicians by eight to eleven positions.

Since 1995, the fleet has grown from 1,437 vehicles to 1,877 vehicles. This is a growth of almost 31%. The number of technicians now available in 2003-04 amounts to fifty-six (56); this reflects the reduction of five Equipment Mechanic I/II's in the 2003-04 budget process including the Equipment Mechanic that was assigned to Towing. This also excludes the two technicians allocated to helicopter maintenance, the technician allocated to fire rescue boat maintenance, and the two welders, but includes the staff allocated to the tire shop.

The analysis conducted of the staffing requirements using vehicle equivalents indicates that there are approximately 5,400 vehicle equivalents. This is 35% more than that determined by *David M. Griffiths* and *Associates* in 1995, while the fleet has grown by 31%. Some of the difference is due to more complex equipment being introduced into the fleet (e.g., Refuse Packer-Side Loader). The current number of technicians and the current number of vehicle equivalents results in a ratio vehicle equivalents per technician of 96. Given the age of the City's fleet, the number of vehicle equivalents per technician should be at the lower end of the range of 90 to 120 equivalents per technician.

If the age of the fleet was comparable to other fleets, a higher vehicle equivalent per technician could be utilized; this would approximate 110 to 120 equivalents per technician. The staffing with a younger fleet would approximate forty-five to forty-nine technicians or seven to eleven less than technicians than currently authorized. The

impact of an old fleet on technician staffing was noted earlier in the much higher labor hours required by the City of Long Beach to maintain and repair Refuse Packer-Side L Loaders than does Long Beach.

RECOMMENDATION 11-18: Reductions in the level of technician staffing assigned to the Fleet Services Bureau should only be made if the number of equipment within the City's fleet is reduced and if the age of the fleet is reduced through replacement of equipment that already exceeds replacement guidelines.

Exhibit 23 (1)

Comparison of the Fleet Maintenance Practices Against Best Management Practices

BEST MANAGEMENT PRACTICE	STRENGTHS OF THE CITY OF LONG BEACH	OPPORTUNITIES FOR IMPROVEMENT
The focus of the organization is clearly on PM services.	A sample of 2% of the City's fleet found general compliance with preventive maintenance intervals for light and medium equipment, police black and white sedans, and refuse packers.	Preventive maintenance for street sweepers exceeded mileage intervals by more than 50%. 4 of the 13 refuse packers that were sampled exceeded the mileage interval by a little more than one-third.
PM services are completed after normal working hours in order to increase convenience to customers.	"Loaner" sedans are available for customers when they bring in their sedans for preventive maintenance.	Preventive maintenance services are not completed after normal working hours.
The PM program incorporates multiple echelons of progressive services.	The Bureau has developed a formal preventive maintenance schedule that includes multiple echelons of progressive preventive maintenance.	
PM intervals are based on both time and use and mirror manufacturer recommendations.	Preventive maintenance intervals are based upon both time and mileage	
Customers receive a monthly schedule of PM services forecast to be due.	Customers are notified by phone regarding when their vehicles are due for preventive maintenance.	M4 is not utilized to notify customers when preventive maintenance is due.
The organization focuses on scheduling services in order to avoid disrupting customer operations. The ratio of scheduled to unscheduled services is at least 1:1.		Data regarding the proportion of scheduled versus unscheduled work is unavailable.
Quick fix services are available to customers for simple repairs and PM services.		Quick fix services are unavailable.
Work orders are used to record all maintenance activities.	Work orders are utilized to record all maintenance activities.	

Exhibit 23 (2)

Comparison of the Fleet Maintenance Practices Against Best Management Practices

BEST MANAGEMENT PRACTICE	STRENGTHS OF THE CITY OF LONG BEACH	OPPORTUNITIES FOR IMPROVEMENT
A procedure is in place at the time of work order creation to identify vehicles scheduled for replacement, to check for overdue PM's, and to check for warranties.	A procedure is in place at the time of work order creation to identify vehicles scheduled for PM's.	A procedure is not in place at the time of work order creation to identify vehicles scheduled for replacement.
The expected costs and time for completing repairs are routinely given to customers in advance of the repair.		The expected costs and time for completing repairs are not routinely given to customers.
Shop business hours have been set for customer convenience.	A mobile lubrication service for equipment that customers keep their heavy equipment in the field, and face difficulty in bringing the heavy equipment into the Bureau's shops for lubrication. The Bureau has decentralized some its technician's staff to the work sites of its customers including police substations, the beach yard, the public services yard, fire rescue boats, police helicopters, and the energy yard.	Shop business hours have not been set for customer convenience.
Warranty recoveries are actively pursued for both repairs and parts.		Warranty recoveries are not actively pursued for both repairs and parts.
Minor warranty repairs are completed in-house in order to expedite the repair process.	Minor warranty repairs are completed in-house in order to expedite the repair process.	
Technicians are encouraged to keep skill levels current through financial incentives to obtain ASE certification.	The City provides a 5% compensation adjustment for those technicians that obtain ASE certification. Eight Equipment Mechanics have received some form of certification.	Four-fifths of the Equipment Mechanics have not yet received ASE certification.

Exhibit 23 (3)

Comparison of the Fleet Maintenance Practices Against Best Management Practices

BEST MANAGEMENT PRACTICE	STRENGTHS OF THE CITY OF LONG BEACH	OPPORTUNITIES FOR IMPROVEMENT
Technician staffing levels are consistent with the size and type of vehicles in the fleet.	The current number of technicians is appropriate for the size, mix and age of the current fleet.	
Ratio of supervisory and support positions to technicians is reasonable.	The ratio of supervisory and support positions is reasonable if the recommendations contained within the chapter regarding the reorganization of the Fleet Services Bureau are implemented.	
Quality control procedures for maintenance and repair work and repair orders are randomly sampled upon completion by Supervisors for “drive tests” to assess the quality of work performed by technicians.	Quality control procedures have been developed.	Supervisors do not quality control repair orders by performing “drive tests” to assess the quality of work performed by technicians.
The organization has a clear outsourcing strategy that focuses on core competencies and service improvements.	10% of the costs of repairs are accomplished as sub-let repairs (based upon the MOPERT report generated by M4). This falls within the lower end of 10% to 15% range that the Matrix Consulting Group would expect to find. Over a twelve month period, the extent of sub-let repairs ranged from a low of 7% to a high of 14%,	The Bureau is currently utilizing in-house staff for upfitting of police black and white sedans. The Bureau is using a mix of contract welding and in-house welders.
The turnaround time for completion of work orders for the fleet as a whole approximates 75% within one workday and 85% within two workdays.	Based upon a sample of almost 450 work orders, the turnaround time for police equipment approximates 72% within one workday and 78% within two workdays.	Based upon a sample of 250 work orders, the turnaround time for light and medium equipment approximates 58% within one workday and 71% within two workdays.

Exhibit 23 (4)

Comparison of the Fleet Maintenance Practices Against Best Management Practices

BEST MANAGEMENT PRACTICE	STRENGTHS OF THE CITY OF LONG BEACH	OPPORTUNITIES FOR IMPROVEMENT
Technicians are accountable for their direct billable hours.	Technicians have a goal of billing 125 hours per month against work orders (or 72% of their available work hours). For the time period from April 2002 to March 2003, technicians billed 75% of their available hours to work orders.	Two technicians billed less than 60% of their available work hours. Eight technicians billed more than 90% of their available work hours, and one of these technicians billed 100% of his available work hours.
Outside customers are solicited in order to spread shop overhead and provide additional billable work during slack periods.	The Bureau has recently submitted applications to the State of California and the Federal Government to maintain and repair their vehicles, and discussed providing such services to the LBUSD for their "overflow."	
Size and layout of facilities promotes efficient maintenance operations.	Size and layout of facilities promotes efficient maintenance operations.	
Effective safety procedures are in place.	Effective safety procedures are in place.	
Shop tools and equipment are up to date.	Shop tools and equipment are up to date.	

Exhibit 24 (1)

Comparison of Actual Preventive Maintenance Versus Maintenance Versus Schedule

Unit Number	Class of Vehicle	Actual Preventive Maintenance		Preventive Maintenance Schedule		Variance	
		Mileage	Days	Mileage	Days	Mileage	Days
13469	Sweeper, Three Wheel	1,209	43	800	30	409	13
13470	Sweeper, Three Wheel	1,341	39	800	30	541	9
13471	Sweeper, Three Wheel	1,306	41	800	30	506	11
13472	Sweeper, Three Wheel	1,185	42	800	30	385	12
13473	Sweeper, Three Wheel	1,431	42	800	30	631	12
10007	Sedan	4,198	129	4,000		198	
10008	Sedan	4,456	292	4,000		456	
10009	Sedan	4,201	401	4,000		201	
10012	Sedan	3,989	331	4,000		-11	
10013	Sedan	4,301	71	4,000		301	
10200	Utility Vehicle, Large	4,653	120	4,000		653	
10201	Utility Vehicle, Large	3,901	131	4,000		-99	
10243	Pickup Truck, 3/4 Ton	3,539	113	4,000		-461	
10420	Utility Vehicle, Small	4,444	154	4,000		444	
12026	Van, 1/2 Ton	4,677	101	4,000		677	
12027	Van, 1/2 Ton	3,465	93	4,000		-535	
12255	Pickup Truck, 1/2 Ton	4,703	131	4,000		703	
12257	Pickup Truck, Compact	4,876	193	4,000		876	
13717	Refuse Packer, 20 Yard	2,499	87	3,000	90	-501	-3
13718	Refuse Packer, 20 Yard	3,191	103	3,000	90	191	13
13719	Refuse Packer, 20 Yard	2,531	106	3,000	90	-469.5	16
13720	Refuse Packer, 20 Yard	3,133	93	3,000	90	133	3
13721	Refuse Packer, 20 Yard	2,787	96	3,000	90	-213	6
13722	Refuse Packer, 20 Yard	2,843	99	3,000	90	-157	9
15001	Refuse Packer, Side Loader	1,341	92	3,000	90	-1659	2
15002	Refuse Packer, Side Loader	2,284	109	3,000	90	-716	19
15003	Refuse Packer, Side Loader	883	96	3,000	90	-2117	6
15005	Refuse Packer, Side Loader	4,316	105.5	3,000	90	1316	15.5
15009	Refuse Packer, Side Loader	4,453	78	3,000	90	1453	-12
15013	Refuse Packer, Side Loader	3,724	101	3,000	90	724	11
15014	Refuse Packer, Side Loader	4,004	70	3,000	90	1004	-20
18082	Police Black and White Sedan	2,797	77	4,000		-1203	
18087	Police Black and White Sedan	4,905	104	4,000		905	
18088	Police Black and White Sedan	2,683	144	4,000		-1317	
18090	Police Black and White Sedan	3,641	71	4,000		-359	

Exhibit 24 (2)

Comparison of Actual Preventive Maintenance Versus Maintenance Versus Schedule

Unit Number	Class of Vehicle	Actual Preventive Maintenance		Preventive Maintenance Schedule		Variance	
		Mileage	Days	Mileage	Days	Mileage	Days
18091	Police Black and White Sedan	3,038	102	4,000		-962	
18094	Police Black and White Sedan	2,907	55	4,000		-1093	
18097	Police Black and White Sedan	2,875	69	4,000		-1125	
18100	Police Black and White Sedan	2,848	124	4,000		-1152	
18101	Police Black and White Sedan	3,241	90	4,000		-759	
18104	Police Black and White Sedan	5,132	108	4,000		1132	
18108	Police Black and White Sedan	3,401	98	4,000		-599	
18109	Police Black and White Sedan	6,380	170	4,000		2380	
18110	Police Black and White Sedan	2,952	85	4,000		-1048	

12. MATERIALS MANAGEMENT AND INVENTORY PRACTICES

12. MATERIALS MANAGEMENT AND INVENTORY PRACTICES

The Stock Room is responsible for purchasing parts to repair and maintain the City's fleet in safe operating condition; identifying and coordinating the disposal of obsolete and surplus parts; and for maintaining an accurate parts inventory.

This chapter provides an analysis of the effectiveness of the Fleet Service Bureau's materials and inventory management practices.

1. THERE ARE THREE IMPORTANT PRINCIPLES ADHERED TO BY FLEETS WITH WELL-MANAGED MATERIALS AND INVENTORY MANAGEMENT FUNCTIONS.

In the fleet management industry, a balance must be maintained between the availability of parts to meet maintenance and repair demands, the personnel costs for purchasing and inventory management, and the loss of maintenance work hours and, ultimately, service if needed parts are not available.

Nevertheless, three important principles are commonly adhered to in organizations with well-managed materials and inventory management functions: (1) parts inventories are maintained at reasonable levels; (2) no unnecessary items are purchased and added to the inventory; and (3) items that are no longer used are removed from the inventory. Two standards are commonly used to measure the effectiveness of fleet services materials management and parts inventory practices and internal controls. The first measure is the inventory turnover ratio (or number of inventory turns), which is the ratio of the total inventory purchase costs for the year and the actual inventory costs for the annual period at any given time. An inventory turnover rate between four to six turns annually is generally considered desirable. Effective parts

purchasing maximizes inventory turns making the most of the availability of parts, and minimizing obsolete and surplus parts inventory.

The second measure is the inventory record accuracy rate, which is the ratio of parts reported in the inventory system and the actual parts physically located on the shelf. Generally, a 95 percent inventory accuracy rate with a ± 5 percent tolerance is considered reasonable. Inventory record accuracy is maximized by recording all parts transactions properly and by safeguarding parts against waste, loss, and misuse. An accuracy rate below 90 percent generally means that the parts and quantity data are not reliable for purchase planning and maintenance scheduling purposes.

2. THE FLEET SERVICES BUREAU UTILIZES A NUMBER OF THE BEST PRACTICES FOR MATERIALS MANAGEMENT.

The first exhibit presented at the end of this chapter presents a comparison of the actual practices of the Fleet Services Bureau against best management practices for materials management. There are a number of strengths within the Bureau related to these best management practices as well as opportunities for improvement. The strengths of the Bureau include the following:

- Blanket purchase agreements and contracts are utilized to reduce parts unit costs.
- The number of blanket purchase orders has been reduced from over 270 to a little over 220.
- M4 is available to manage the parts inventory.

At the same tome, there are also opportunities for improvement. These opportunities include the following:

- The “fill” rate for parts requests by staff of the Fleet Services Bureau is not tracked.

- Inventory turnover approaches two times annually.
- The parts inventory on hand amounts to $200 worth of parts per vehicle equivalent versus the fleet benchmark of $50 to $100 worth of parts per vehicle equivalent.
- Spot audits are not conducted. Some part inventories are not secure (motorcycle, fire apparatus, etc.).
- The level of staffing for parts personnel is higher than the industry guidelines would suggest as appropriate: 1 parts employee for every 10 technicians. The current level of staffing for parts personnel is 1 parts employee for every 6 technicians.
- Inventory shrinkage amounted to 7.6%. The shrinkage amounted to $113,810.

The strengths of the materials management practices of the Fleet Services Bureau provide a sound basis for these improvements.

3. THE LEVEL OF STAFFING ALLOCATED TO THE STOCK ROOM SHOULD BE REDUCED BY FOUR POSITIONS.

There are currently 10 parts positions, which correlate to a parts staff to technician ratio of 1:6. The industry benchmark is 1:10, which equates to 6 positions. Parts staffing should be reduced from ten to six total positions – 5 parts workers and one supervisor. The annual cost savings generated by this reduction would generate approximately $240,000 annually.

RECOMMENDATION 12-1: The level of staffing within the Stock Room should be reduced by four positions.

4. THE EXTENT OF INVENTORY SHOULD BE REDUCED BY APPROXIMATELY 60%.

As noted earlier, the parts inventory on hand amounts to $270 worth of parts per vehicle equivalent versus the fleet benchmark of $50 to $100 worth of parts per vehicle equivalent. In addition, inventory turnover approaches two times annually versus the

benchmark of three to six times annually. The Stock Room had almost $1.1 million in parts on-hand at the time of the last inventory (excluding helicopters). The data suggests that the level of the parts inventory should proximate $500,000, not the $1.1 million.

This data suggests that the inventory levels within the Stock Room need to be reduced significantly, and also the minimum and maximum reorder points need to be reviewed and adjusted.

RECOMMENDATION 12-2: The minimum and maximum reorder points should be reviewed and adjusted based upon actual issuances.

RECOMMENDATION 12-3: Dead and antiquated parts should be eliminated from the parts inventory.

RECOMMENDATION 12-4: The value of the inventory in the Stock Room should be reduced from $1.1 million to approximately $0.5 million through an analysis of parts issuances versus parts on hand.

5. THE FLEET SERVICES BUREAU SHOULD SEEK COMPETITIVE PROPOSALS FOR THE MANAGEMENT AND OPERATION OF ITS STOCK ROOM USING A MANAGED COMPETITION PROCESS.

In September 2002, as part of an overall realignment of how the City of Carrollton, Texas fleet is managed, the stock rooms were consolidated and the two remaining facilities-- including inventory, staff and supervision - were outsourced to NAPA Auto Parts. The NAPA Auto Parts program provided a complete on-site system of inventory and parts management covering all parts needs as well as tires, which were purchased off the state contract.

NAPA Auto Parts also plays a large part in Carrollton, Texas by providing training to the City's fleet technicians through free or low-cost training on all parts supplied to the City.

Due to increased parts availability through warehouse outsourcing to NAPA Auto Parts, Carrollton, Texas realized a 9% improvement in technician productivity. The result is an approximate annual increase of 4,175 billable hours and the projected annual savings in operating overhead due to warehouse outsourcing is $54,000. The program has also lowered Carrollton, Texas parts acquisition costs by an average of 25 percent for a projected annual savings of $236,000.

Gains were also achieved by outsourcing the materials management for the fleets in other cities such as Chicago, Illinois and Miami, Florida, as well as San Diego County, California.

The Matrix Consulting Group believes that the City could achieve further annual cost savings by outsourcing its Stock Room in the order of $300,000 to $350,000 annually. In addition, the City would reap a one-time annual revenue of approximately $0.5 to $0.8 million from the sale of its "active" parts to the vendor and additional revenue from the sale of its "inactive" parts.

RECOMMENDATION 12-5: The Fleet Services Bureau should seek competitive bids to outsource the Stock Room including inventory and, staff and supervision using a managed competition process.

6. PARTS STORAGE AT THE MAIN SHOP SHOULD BE CONSOLIDATED INTO THE STOCK ROOM.

The main shop of the Fleet Services Bureau has developed a number of different locations for storage of parts including such locations as adjacent to the fire repair and

maintenance bays, the motorcycle repair and maintenance bays, the electronic repair and maintenance bays, etc. These parts are not stored in a secure environment.

RECOMMENDATION 12-6: The parts storage in the main shop for the Fleet Services Bureau should be consolidated into the stock room.

Exhibit 25

Comparison of the Part Practices Against Best Management Practices

BEST MANAGEMENT PRACTICE	STRENGTHS OF THE CITY OF LONG BEACH	OPPORTUNITIES FOR IMPROVEMENT
The "fill" rate for parts requests by staff of the Fleet Services Bureau approaches 75% to 80% within one working day of submittal		This performance is not tracked; the data is unavailable.
Blanket purchase agreements and contracts are utilized to reduce parts unit costs.	Blanket purchase agreements and contracts are utilized to reduce parts unit costs. The number of blanket purchase orders has been reduced from over 270 to a little over 220.	
Inventory turnover approaches three to six times annually		Inventory turnover approaches two times annually.
The % of stock lines with no movement in the past 12 months ranges from 3% to 5% to total stock lines.		
Parts inventory on-hand at any one moment approaches the fleet benchmark of $50 to $100 worth of parts per vehicle equivalent.		The parts inventory on hand amounts to $200 worth of parts per vehicle equivalent.
Inventory internal control procedures are sound		Spot audits are not conducted. Some part inventories are not secure (i.e., motorcycle, fire apparatus, etc.).
A reliable, integrated information system is available to enable the Equipment Services Division to manage the parts inventory	M4 is available to manage the parts inventory.	
Ratio of parts personnel to technicians is reasonable. Industry standard is 1 parts employee for every 10 technicians.		The ratio is 1 parts employee for every 6 technicians.
Inventory shrinkage amounts to 3 to 5% annually.		Inventory shrinkage amounted to 7.6%. The shrinkage amounted to $113,810.

13. FLEET ADMINISTRATION

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This chapter presents an analysis of the administration of the fleet focusing on the adequacy of goals, objectives, and performance measures and the adequacy of M4.

1. THE FLEET SERVICES BUREAU SHOULD ENHANCE THE EXTENT OF OBJECTIVES AND PERFORMANCE MEASURES.

The Fleet Services Bureau has developed an excellent purpose and mission statement, which is included within its Personnel Policies and Procedures Manual. Furthermore, the Bureau is pursuing with Carolina Software the installation of software that would report its accomplishments against a number of performance benchmarks.

The Bureau should utilize this purpose and mission statement as the basis for the development of a formal system of goals, objectives, and performance measures. The Bureau should then utilize the Carolina Software to report actual versus planned performance in the context of these goals and objectives.

Goals should be updated for the Bureau with objectives developed for each section such as Fleet Maintenance, the Stock Room, Fleet Administration, and the like. Performance measures should then be developed to assess the workload, efficiency, and effectiveness with which these objectives are accomplished.

Each manager within the Bureau should report quarterly to the Manager, Fleet Services their progress in achieving their goals and objectives using the performance measures as a measure of progress.

In developing these goals, objectives, and performance measures, the Bureau's management team should consider the following best practices.

The Bureau has clearly stated goals and measurable objectives that can be achieved within budget.
The Bureau can demonstrate that it has clearly stated goals and measurable objectives.
Bureau goals reflect the intent (purpose) and expected outcomes of the Bureau.
Goals and outcome-oriented objectives for each major unit within the Bureau can be achieved within budget, are up-to-date, in writing, easy to identify, and located in a single document.
Outcome-oriented objectives for each major unit within the Bureau are consistent with the Bureau's goals.
Outcome-oriented objectives address the major aspects of the Bureau's purpose and expenditures.
Bureau goals and outcome-oriented objectives are consistent with the Energy Department's strategic plan and City priorities.
The Bureau can demonstrate that it measures progress toward meeting these goals and outcome-oriented objectives.
The Bureau uses appropriate performance and cost-efficiency measures and interpretive benchmarks to evaluate its major units and uses these in management decision-making.
The Bureau has established appropriate performance and cost-efficiency measures and benchmarks that are not cumbersome to use, expensive to implement, or difficult for its customers to understand but are related to the activities of the cost centers.
Performance measures and benchmarks link directly to the expected outcomes of each unit within the Bureau and assist the Bureau in determining whether it is achieving the unit's goals and outcome-oriented objectives.
Performance and cost-efficiency measures and benchmarks for each major unit are up-to-date, in writing, easy to identify, and located in a single document.
The performance measures for each unit include linked input, output, and outcome measures.
Performance measures link unit performance to unit costs.

The Superintendent-Operations should be assigned responsibility for providing training and technical assistance to the Bureau's managers in the development of goals, objectives, and performance measures.

RECOMMENDATION 13-1: The Bureau should utilize its purpose and mission statement as the basis for the development of a formal system of goals, objectives, and performance measures.

RECOMMENDATION 13-2: The Bureau should utilize the Carolina Software to report actual versus planned performance in the context of these goals and objectives.

2. THE BUREAU SHOULD EXPAND ITS FLEET MANAGEMENT POLICIES AND PROCEDURES AND PLACE THESE POLICIES ON ITS WEB SITE.

The Fleet Services Bureau has developed personnel policies and procedures for

the Bureau.

However, the Bureau should develop a more comprehensive set of fleet management policies and procedures manual to guide the City's managers and first line supervisors in the use and management of the fleet.

In developing these fleet management policies and procedures, topic areas such as the following should be considered.

- Responsibilities for equipment acquisition, operation, maintenance and repair, and disposal of equipment
- Assignment of fleet vehicles (e.g., criteria for assignment of vehicles)
- Fleet vehicle utilization (minimum levels of utilization)
- Maintenance and care of fleet vehicles
- Installation of non-standard equipment
- Fleet vehicle accidents
- Commuting with fleet vehicles
- Replacement criteria and guidelines
- Rates and billing for maintenance and repair of equipment and for replacement of equipment

The policies should be available on the Bureau's intranet site. This should facilitate easy updating.

The Superintendent-Operations should be assigned responsibility for providing leadership for the Bureau's managers in the development of the fleet policies and procedures manual.

RECOMMENDATION 13-3: The Fleet Services Bureau should expand its fleet management policies and procedures and place these policies and procedures on the Bureau's intranet site.

3. THE FLEET SERVICES BUREAU SHOULD UPGRADE ITS FLEET MANAGEMENT INFORMATION SYSTEM.

MAXIMUS has recently upgraded its fleet management information system from M4 to M5. This is a significant upgrade to the system; M5 is a web-enabled system. M5

can be accessed anywhere and at any time from virtually any thin client platform, and data forms are displayed with a familiar web page “look and feel”.

The one-time cost for the system upgrade would approximate $150,000. This includes the upgrade license ($50,000), training ($36,800), data conversion ($25,780), software installation ($9,200), and project management ($27,600).

RECOMMENDATION 13-4: The Fleet Services Bureau should upgrade its fleet management information system from M4 to M5.