

CLARK COUNTY STAFF REPORT

DEPARTMENT: Public Works/Fleet Services Division

DATE: December 21, 2016

REQUESTED ACTION: Request authority to enter into a professional services contract with Mercury Associates for Fleet Management Consulting services, in the amount of \$79,620. Also authorize the Public Works Director to approve future contract extensions and/or to sign supplemental agreements up to 10 percent of the contract amount.

_____ Consent _____ Hearing X County Manager

PUBLIC WORKS GOALS:

- Provide safe and efficient transportation systems in Clark County
- Create and maintain a vibrant system of parks, trails and green spaces
- Continue responsible stewardship of public funds
- Promote family-wage job creation and economic development to support a thriving community
- Maintain a healthy, desirable quality of life
- Increase partnerships and foster an engaged, informed community
- Cultivate a nimble, responsive work force
- Make Public Works a great place to work

BACKGROUND

Public Works is requesting to enter into a professional services contract with Mercury Associates for consulting work. The City of Vancouver has signed a contract with Mercury to conduct a similar study of their fleet and we plan to piggyback off of their contract. This work will consist of a one-time study for the Clark County fleet for the following:

1. Fleet Policy - Does it meet our objectives and is it consistent?
2. Life-cycle cost analysis - Are the right vehicles being purchased and are they being replaced at the most cost effective time?
3. Fleet rate structure
4. Right-sizing - Utilization and the right vehicle for the job
5. Vehicle sharing best practices
6. Leasing opportunities
7. Review current performance measures

COUNCIL POLICY IMPLICATIONS

None

ADMINISTRATIVE POLICY IMPLICATIONS

None

COMMUNITY OUTREACH

None

PW16-154

BUDGET IMPLICATIONS

| YES | NO | |
|-----|----|--|
| X | | Action falls within existing budget capacity. |
| | X | Action falls within existing budget capacity but requires a change of purpose within existing appropriation |
| | X | Additional budget capacity is necessary and will be requested at the next supplemental. If YES, please complete the budget impact statement. If YES, this action will be referred to the county council with a recommendation from the county manager. |

BUDGET DETAILS

| | |
|--------------------------|--------------------|
| Local Fund Dollar Amount | \$79,620 |
| Grant Fund Dollar Amount | \$0 |
| Fund Name and Number | Fleet - 5091 |
| Professional Services | Mercury Associates |

DISTRIBUTION:

Board staff will post all staff reports to The Grid. <http://www.clark.wa.gov/thegrid/>



Scott Rood
Fleet & Facilities Division Manager



Heath H. Henderson, PE
PublicWorks Director/County Engineer

APPROVED: 
Mark McCauley, County Manager

DATE: 1/3/17

BUDGET IMPACT ATTACHMENT

Part I: Narrative Explanation

I. A – This fleet consultant study was suggested by the Finance team and requested by the County Manager. Their goal is to use the study to see if the fleet budget could be reduced by \$1,000,000.

Part II: Estimated Revenues

| Fund #/Title | Current Biennium | | Next Biennium | | Second Biennium | |
|--------------|------------------|-----------------|---------------|-------|-----------------|-------|
| | Fleet | Total | Fleet | Total | Fleet | Total |
| 5091 / Fleet | \$79,620 | \$79,620 | | | | |
| | | | | | | |
| | | | | | | |
| Total | \$79,620 | \$79,620 | | | | |

II. A – Describe the type of revenue (grant, fees, etc.)

Public Works – Fleet Services

Part III: Estimated Expenditures

III. A – Expenditures summed up

| Fund #/Title | FTE's | Current Biennium | | Next Biennium | | Second Biennium | |
|--------------|-------|------------------|-----------------|---------------|-------|-----------------|-------|
| | | Fleet | Total | Fleet | Total | Fleet | Total |
| 5091 / Fleet | | \$79,620 | \$79,620 | | | | |
| | | | | | | | |
| | | | | | | | |
| Total | | \$79,620 | \$79,620 | | | | |

III. B – Expenditure by object category

| Fund #/Title | Current Biennium | | Next Biennium | | Second Biennium | |
|----------------------|------------------|-----------------|---------------|-------|-----------------|-------|
| | Fleet | Total | Fleet | Total | Fleet | Total |
| Salary/Benefits | | | | | | |
| Contractual | \$79,620 | \$79,620 | | | | |
| Supplies | | | | | | |
| Travel | | | | | | |
| Other controllables | | | | | | |
| Capital Outlays | | | | | | |
| Inter-fund Transfers | | | | | | |
| Debt Service | | | | | | |
| Total | \$79,620 | \$79,620 | | | | |

Professional Services Contract

Contract Purchase No. _____

THIS CONTRACT, entered this _____ day of _____ 2016, by and between CLARK COUNTY, after this called "County," a political subdivision of the State of Washington, and Mercury Associates, after this called "Contractor."

WITNESSETH

WHEREAS, the Contractor has been chosen through a competitive bid process by the County using the City of Vancouver RFP No. 11-16 for Fleet Total Cost Study and has the expertise to provide professional services for Clark County.

WHEREAS, Clark County does not have available staff to provide such services for the benefit of the services of Clark County, NOW, THEREFORE,

THE COUNTY AND THE CONTRACTOR MUTUALLY AGREE AS FOLLOWS:

1. Services. The Contractor shall perform services as set forth in Exhibit A.
2. Time. The contract shall be effective beginning January 9, 2017 and ending May 26, 2017. Clark County reserves the right to extend the contract for a period of two (2) six (6) month terms, with the same terms and conditions, by service of a written notice of its intention to do so prior to the contract termination date.
3. Compensation. County shall pay the Contractor for performing said services upon receipt of a written invoice according to the schedule set forth in Exhibit B, which is attached hereto and incorporated herein by this reference. The parties mutually agree that in no event shall the amount billing exceed the dollar amount in Exhibit B without prior approval of the County.
4. Termination. The County may terminate this contract immediately upon any breach by Contractor in the duties of Contractor as set forth in Contract. The waiver by the County of one or more breaches shall not be construed as a waiver of any subsequent

breach or breaches. Further, County may terminate this Contract upon immediate notice to Contractor in the event that the funding for the project ceases or is reduced in amount. The Contractor will be reimbursed for services expended up to the date of termination.

5. Independent Contractor. The Contractor shall always be an independent Contractor and not an employee of the County, and shall not be entitled to compensation or benefits of any kind except as specifically provided herein.

6. Indemnification / Hold Harmless. The Consultant shall defend, indemnify and hold the County, its officers, officials, employees and volunteers harmless from any and all claims, injuries, damages, losses or suits including attorney fees, arising out of or resulting from the acts, errors or omissions of the Consultant in performance of this Agreement, except for injuries and damages caused by the sole negligence of the County. Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of the Consultant and the County, its officers, officials, employees, and volunteers, the Consultant's liability, including the duty and cost to defend, hereunder shall be only to the extent of the Consultant's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the Consultant's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of this Agreement.

7. Wage and hour compliance. Contractor shall comply with all applicable provisions of the Fair Labor Standards Act and any other legislation affecting its employees and the rules and regulations issued thereunder insofar as applicable to its employees and shall always save County free, clear and harmless from all actions, claims, demands and

expenses arising out of said act and the rules and regulations that are or may be promulgated in connection therewith.

8. Social Security and Other Taxes. The Contractor assumes full responsibility for the payment of all payroll taxes, use, sales, income or other form of taxes, fees, licenses, excises, or payments required by any city, federal or state legislation that is now or may during the term of this agreement be enacted as to all persons employed by the Contractor in performance of the work pursuant to this Contract and shall assume exclusive liability therefore, and meet all requirements thereunder pursuant to any rules and regulations that are now and may be promulgated in connection therewith.

9. Contract Documents: Contract documents consist of this Agreement, Exhibit A, a scope of work and Exhibit B, budget documents.

10. Equal Employment Opportunity: The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, gender, sexual orientation, age, disability, marital status or national origin.

11. Changes: County may, from time to time, require changes in the scope of the services to be performed hereunder. Such changes, including any increase or decrease in the amount of the Contractor's compensation, which are mutually agreed upon by and between County and the Contractor, shall be in writing, signed by both parties and incorporated in the written amendments to the Contract.

12. Public records act: Notwithstanding the provisions of this Contract to the contrary, to the extent any record, including any electronic, audio, paper or other media, is required to be kept or indexed as a public record in accordance with the Washington Public Records Act, RCW Chapter 42.56, as may hereafter be amended, Contractor agrees to maintain all records constituting public records and to produce or assist Clark County in producing such records, within the time frames and parameters set forth in state law. Contractor further

agrees that upon receipt of any written public record request, Contractor shall, within two business days, notify Clark County by providing a copy of the request to the Clark County Public Records Officer/Department of Public Works.

13. Governing Law. This agreement shall be governed by the laws of the State of Washington. Venue for any litigation shall be in Superior Court for the State of Washington in Clark County, Washington.

14. Confidentiality. With respect to all information relating to County that is confidential and clearly so designated, the Contractor agrees to keep such information confidential.

15. Conflict of Interest. The Contractor covenants that it has had no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services hereunder. The Contractor further covenants that no person having such interest shall be employed by it, or shall perform services as an independent contractor with it, in the performance of this Contract.

16. Consent and Understanding. This agreement contains a complete and integrated understanding of the contract between the parties and supersedes any understandings, agreement, or negotiations, whether oral or written, not set forth herein or in written amendments hereto duly executed by both parties.

17. Severability. If any provision of this agreement is held invalid, the remainder would then continue to conform to the terms and requirements of applicable law.

IN WITNESS THEREOF, County and the Contractor have executed this contract on the date first above written.

CLARK COUNTY

Mercury Associates



Mark McCauley, County Manager

By

Printed Name

Title

Approved As To Form Only:

ANTHONY F. GOLIK

Prosecuting Attorney

By 
Deputy Civil Prosecutor

Vendor/Contractor:

Have you or any of your employees who will be directly compensated retired from a Washington State Retirement System using the 2008 Early Retirement Factor?

Yes

No

If yes, please provide the name and social security number for each retiree to Clark County Purchasing.

Exhibit A

Work plan

Our proposed work plan is described in detail below.

Task 1: Initiate and Manage the Project

We will start the project with a formal kick-off meeting whose primary objectives will be to introduce the key members of the County and Mercury Associates project teams to one another and to confirm both parties' understanding of key study parameters including but not necessarily limited to project goals and objectives, scope, timeline, critical success factors, and deliverables. We also will discuss logistical procedures such as key points of contact and work location when members of our project team are on site in Vancouver.

A key ingredient of an effective project management approach is periodic written progress reports. We want to ensure that the County is afforded regular opportunities to discuss the status of the project with us and to raise any questions or concerns relating to our progress toward achieving its expected outcomes. To this end, we will submit a brief progress report on a monthly basis, recapping the work accomplished to date. The written progress reports will be integrated with our monthly invoices. We also can conduct periodic conference calls, if desired, with appropriate County officials to discuss such things as obstacles to study progress or desired outcomes encountered, and preliminary findings and recommendations being considered.

Task 2: Collect and Review Information

Prior to conducting the project kick-off meeting, we will provide FFD with two written information requests. The first of these will be an MS *Word*-based checklist which identifies documentary material that we would like to obtain to review selected fleet management practices. Examples of the materials we will request include:

- Pertinent sections of FFD operating budgets and associated actual expenditures for the last two fiscal years;
- Organization charts and personnel rosters;
- Policy and procedure statements;
- Charge-back rate model documentation; and
- Key performance indicator (KPI) reports.

Our second information request will be in the form of an MS *Excel* spreadsheet that specifies certain pieces of information we would like to obtain for each asset in the County's fleet for two separate recent 12-month periods. We will use these data in conducting the fleet rightsizing and replacement studies, the cost charge-back rate review, and the review of current performance measurement practices and KPIs.

Examples of the quantitative data we will request for each asset in the include year, make, model, serial number (VIN), County ID number, class code and description, user agency name, in-service date, original purchase price/capitalized cost (for any leased assets), life-to-date maintenance and repair cost, recent current meter reading and meter reading date, utilization during each 12-month period, maintenance and repair costs during the same period (broken out by in-house labor hours and costs, in-house parts costs, and outside vendor charges), and gallons of fuel consumed during the same periods.

Please note that our proposed level of effort for this task assumes that the County will be able to furnish these data to us in either *Excel* or flat files capable of being imported to *Excel* in the format specified in the abovementioned *Excel*-based data collection template. It also assumes that these data will be substantially accurate and complete, requiring minimal data cleansing or normalization by our project team. While we do not anticipate that fulfilling this request will be a problem, our IT consultants can assist County personnel in writing queries, extracting data, and cleansing data prior to analysis, if necessary, *for an additional fee*.

Task 3: Review Selected fleet management practices

Task 3.1: Review Policies and Procedures

In this component of the project, we will review, evaluate, and identify opportunities to improve FFD policies and procedures, the purpose of which should be to guide and institutionalize the way the Division performs all key fleet management activities for which it is responsible. We will begin by determining if and how specific fleet management business processes are *defined* in formal policy and procedure statements and standardized data capture, record keeping, and reporting forms. We will then assess the soundness of such documents' *design* in terms of their logic, thoroughness, compliance with applicable regulations, responsibility and authority for execution, and so forth; and their *consistency* with industry best practices. Finally, we will gauge the nature of their actual enforcement or *execution*, which is a function of how they are communicated and how employees are held accountable for following them. We will gain these insights primarily from the review of the documentary material provided and the conduct of interviews and focus group sessions with FFD officials and employees.

The functional areas of fleet management whose policies and procedures we will review are the following:

1. Asset Allocation and Utilization Management
2. Asset Acquisition and Disposal
3. Asset Maintenance and Repair (including parts and vendor management)
4. Asset Fueling
5. Asset Replacement
6. Fleet Management Resources (facilities, personnel, etc.) Management
7. Fleet Cost Management
8. Customer Services Management

Task 3.2: Review Performance Measurement and Reporting Practices

In this task, we will review and recommend improvements, as appropriate, to the key performance indicators (KPIs) that FFD currently employs to measure, monitor, and report on its performance. We will start by reviewing the Fleet Services Division Performance Measures section of Public Works' web-based *Performance* report. We will compare both the measures and benchmarks contained in this report with a detailed list of KPIs that we have developed and refined over a period of many years (our proposed project director participated in the NAFA Foundation's first-ever attempt to define fleet-related performance measures and benchmarks in the early 1990s) in order to identify metrics that should be added to and deleted from this report.

In formulating recommendations for improvement, we will take into consideration several

factors that affect the utility of quantitative performance statistics, including 1) the accuracy and completeness of the data used to calculate the statistics reported; 2) the availability of suitable benchmarks to interpret the reasonableness of the statistics; and 3) informational value of the particular KPIs used. With respect to this last factor, for instance, we note that the first and second KPIs for Fleet Services shown in the most recent Public Works *Performance* report on the City's Web site, Average Direct Labor Hours per Tech{nician} and Percent Productive Technician Time, are measures of *input* or application rather than *output* or accomplishment. While these are valuable metrics for managing maintenance technician performance, they are of limited informational value to FFD customers or senior County executives or elected officials. A much more meaningful measure of the Division's performance for such external stakeholders would be its fully loaded cost per maintenance technician hour billed, which could easily be compared to local commercial shop labor rates to understand the reasonableness and competitiveness of the Division's maintenance and repair services.

Task 3.3: Present Findings and Recommendations

We will document our findings and recommendations in a written report. We will submit the report to FFD in draft form for review and comment and will make changes, if necessary, based on written feedback received.

In addition to documenting study results in a final report, we will conduct one informal presentation of our findings, conclusions, and recommendations to FFD, fleet user organization, and other appropriate County, officials. We will develop an MS *PowerPoint* presentation for this purpose.

At the County's option, we also can conduct a formal presentation of this and other project component results to the County Council for a small additional fee.

Task 4: Conduct a Fleet rightsizing Study

The ultimate goal of this task is help the County ensure that agencies have the right types and quantities of vehicles and equipment to meet their current operating and service delivery needs.

Task 4.1: Identify Potentially Underutilized Assets

We will begin by identifying any types of assets that the County wishes to exclude from the rightsizing study. This typically includes marked law enforcement vehicles, other emergency response/public safety vehicles such as ambulances and fire trucks, and one-of-a-kind units that are vital to County operations and cannot be rented commercially on an as-needed basis.

Next, we will perform statistical analyses of the asset utilization data assembled in Task 2. The purpose of these analyses will be to identify those assets in the County's fleet that, based on available usage data, should be investigated for possible reassignment to an existing or newly created motor pool, eventual replacement with a different type of asset, or removal from the fleet either immediately or at the end of the service life of the current asset.

We will stratify the assets in the fleet inventory by user agency, asset class or type, and, data availability permitting, asset domicile or primary parking location. We will calculate various statistics on usage levels by asset class and, based on the findings of these analyses, we will

recommend the annual usage level for each group which should serve as a threshold for separating assets that clearly should be retained in the fleet from those that require more detailed investigation and possible elimination.

For instance, if we find that the mean annual usage of a particular type of vehicle is 5,000 miles per year and that the standard deviation from the mean is 5,000 miles, this would suggest that the use of this type of vehicle is highly variable. This would argue in favor of performing more detailed investigations of a smaller percentage of the vehicles in this group – say, all vehicles whose annual usage is 50 percent or less of the mean annual usage (i.e., 2,500 miles or less per year) – than if the standard deviation were small – in which case we might recommend studying in greater detail a larger percentage of the vehicles in the group – say, all vehicles whose mean annual usage is 75 percent of the mean (or about 4,000 miles per year). We will submit our recommendations regarding the thresholds that should be used for each vehicle department to the County for discussion and approval before proceeding.

Task 4.2: Survey Users of Potentially Underutilized Assets

In order to decide whether individual assets whose usage falls below the pertinent threshold should be retained as is, reassigned to a shared pool, or removed from the fleet (and replaced with a commercial rental or car share vehicle), we will develop additional information on their use and the business need for them using a Web-based questionnaire. The types of information we will develop for each asset in this survey group include the following:

Frequency and timing of the asset's use

- Typical times of use, including evening and weekend hours
- Seasonality of use
- Ability to predict and manage when the asset is used

General requirements for the asset's use

- Typical number of passengers
- Types of passengers (e.g., County employees, VIPs, arrestees/inmates, etc.)
- Criticality to the user's job performance of the asset's reliability

Special characteristics of the asset's usage requirements

- Need to respond to emergency calls and frequency and timing of such calls
- Vehicle appearance (e.g., presence of County decals and other markings)
- Need for auxiliary equipment (e.g., light bar, radio, mobile data terminal, ladder rack, tool box, storage bins/cabinets, security cage, etc.)
- Security of asset and its contents
- Need to transport materials, tools, and/or equipment that are not easily removed from the asset so that someone else can use it

Location of the asset's use

- * Proximity of the asset user to other County employees with whom the asset might be shared
- * Proximity of the user to potential motor pool locations or a commercial vehicle/equipment rental facilities
- * Variability in the user's work place locations and travel destinations (i.e., predictability as to where and when the asset will be available for use by others)
- * Viability of alternative transportation options such as alternative fuel use, alternative propulsion systems, and future transportation options.

User's rating of the asset's importance to his/her/the organization's job performance

We will draft the questionnaire and submit it to appropriate County officials for review and approval and make changes where necessary based on feedback received. We will post the survey on-line for approximately three weeks and provide periodic updates on its status so that follow-up calls can be made to departments whose completion of questionnaires for their particular assets is lagging.

In order to ensure a high response rate, we recommend that FFD arrange to have each of its customer agencies that is asked to complete a questionnaire for one or more of the assets assigned to it to designate a single point of contact (POC) to be responsible for ensuring that the users of those vehicles log on to and complete the on-line survey form by an agreed-upon deadline. We will provide FFD with regular status reports on the completion of the survey to assist it in following up with the POCs of any agencies whose completion of their questionnaires is lagging.

Task 4.3: Earmark Assets for Reassignment or Removal from the Fleet

Once user agencies have completed the on-line survey, we will review the data for each surveyed asset for completeness (following up where necessary with agency points of contact to obtain missing data) and then analyze the data in order to identify specific assets that we believe should be reassigned to one or more shared (agency-specific or County-wide) pools or removed from the fleet. We also will identify assets included in the survey that we believe could be replaced with a more suitable or economical type of asset.

Upon completing these analyses, we will confer in face-to-face meetings or by teleconference with all County agencies to review and solicit feedback on our findings and recommendations regarding the disposition of specific assets in their possession. The objective of these meetings will be to review and discuss the reasonableness and acceptability of our survey findings and recommendations in light of considerations such as the following:

- Any special operating practices or circumstances that account for the low usage of the assets earmarked for reassignment or disposal; and
- Recent and/or anticipated changes in the organization's size, mission, work methods, staffing levels, or other operating needs and parameters that might mitigate some of recommended reductions to their fleet.

On the basis of these discussions, we will finalize our recommendations regarding changes in asset assignments that will adjust the size and composition of the fleet to a more cost-effective configuration.

Task 4.4: Quantify Cost Savings

To the extent that available data permit, we will quantify the immediate and recurring cost savings associated with implementing our recommended changes to current vehicle and equipment assignments and overall fleet size and composition.

Task 4.5: Present Findings and Recommendations

We will present our findings and recommendations in the aforementioned written report and presentation.

Task 5: Conduct a fleet replacement study

In our experience, one of the most important things a fleet owner can do to promote the cost-effective performance of its fleet is to have an effective fleet replacement program. This requires, in turn, an effective capital financing program since different financing approaches have different impacts on an organization's budget and the use of some financing methods actually discourages organizations from replacing their fleet assets in a timely manner. In this component of the project we will review the County's current replacement practices and identify opportunities for improvement. This includes an optional task of identifying the optimal replacement cycle for key types of assets in the fleet.

The central task of this component is the development of a multi-year replacement plan for the County's fleet which identifies the future replacement dates and costs of every individual asset in the fleet. We will develop this plan using a proprietary computer program called *CARCAP™ (Capital Asset Replacement Cost Analysis Program™)*. This plan will provide the foundation for 1) assessing the appropriateness of the current age of the fleet and the adequacy of current replacement cycles and replacement funding/spending levels; and 2) quantifying the costs and fiscal impacts of alternative methods that the County could use to finance the replacement of the fleet, such as outright cash purchases and a lease-purchase (i.e., debt financing) program, in the future.

As noted earlier, the most recent financial statements for the Equipment Rental and Revolving Fund available on the County's Web site suggest that the fleet may be older than appropriate. Based on our experience working with hundreds of local government jurisdictions throughout the US and Canada, this would not be surprising, as many such entities underfund the replacement of fleet assets, a practice that was only worsened by the 2009 recession.

This is a cause for concern because a widely held principle of fleet management is that vehicle replacement practices have a significant impact on fleet costs and performance. These impacts result from the fact that the total cost of ownership (TCO) of any type of vehicle or piece of equipment does not remain constant over time. Rather, it is high when a vehicle is new, diminishes steadily for some period of time until it reaches a minimum, and then increase steadily thereafter. Graphically speaking, the total cost of ownership of a vehicle takes the shape of a "U". This is illustrated in the graph below, taken from a life cycle cost analysis that Mercury Associates performed of a particular type of truck in the public works fleet of a mid-sized US city.

Mercury Associates professionals has been conducting vehicle and fleet replacement studies since the 1980s (i.e., at other consulting firms, long before Mercury was founded). These studies have consistently found that the average age at which vehicle TCO is minimized in a local government fleet – taking into account the wide variety of asset types, from mowing equipment to passenger cars to police patrol vehicles to refuse collection and fire trucks, that comprise such fleets – is approximately 8 to 9 years. This means that, at any given time, the average age of all the assets in such a fleet should be approximately half the average replacement cycle, or 4 to 4.5 years.

A significant disparity between the amount that the County should be and may actually be spending on fleet replacement would beg a question: If there is a large gap, how does the fleet continue to function? The graph shown above provides the answer. Many cities and

counties trade low fleet capital costs for high fleet operating – maintenance, repair, and fuel – costs, including high *indirect* costs resulting from increased vehicle downtime, reduced vehicle reliability and safety, and reduced employee productivity. In addition, these entities usually have more vehicles in their fleets than are necessary to meet their business needs, since more spare vehicles are needed in an old fleet than a young one to ensure a given level of vehicle availability. Consequently, modernizing a fleet not only reduces direct fleet operating costs but permits an organization to reduce the size of its fleet as a result of improvements in vehicle reliability and reductions in vehicle downtime. These types of costs – and cost savings – may be difficult to pinpoint in specific departments’ line-item budgets, but they are real costs to taxpayers nonetheless.

Our experience performing many fleet replacement studies over the last 30 years suggests that the sum of the *incremental* capital and operating costs of an old fleet (to say nothing of the indirect operating costs) usually far exceeds the costs that the owner of that fleet avoids by replacing its fleet assets too infrequently. This means that increasing fleet replacement spending usually will more than pay for itself by reducing fleet operating expenses.

Given this premise and the current average age of the County’s fleet assets of seven years, we propose to perform the following tasks in this component of the project:

1. The determination of the optimal replacement cycles for selected types of vehicles in the County’s fleet (optional);
2. The development of a multi-year fleet modernization plan that predicts future asset replacement dates and costs by year, by vehicle, by agency, and for the fleet as a whole; and
3. The determination of fleet replacement funding (budgetary) requirements under selected capital financing approaches, including a replacement reserve fund, outright cash purchase, and tax-exempt lease purchasing (debt financing).

Task 5.2: Determine Fleet Replacement Costs

In this task, we will quantify and compare the future costs of Clark County acquiring replacement vehicles under several alternative capital methods. Our proposed approach to performing this analysis begins with the development of a multi-year fleet modernization and ongoing replacement plan – i.e., a projection of future vehicle replacement costs based on appropriate replacement cycle guidelines (including those identified in Task 5.1 if the County elects to have us perform it). Once these costs have been determined, we will then quantify the fiscal impacts (i.e., net cash funding requirements) associated with financing them under alternative capital financing approaches such as a replacement reserve fund versus a tax-exempt lease-purchase program versus outright cash purchase.

We will perform this analysis using Mercury’s fleet replacement planning and cost analysis program *CARCAP™ (Capital Asset Replacement Cost Analysis Program™)*. This program employs specific parameters or assumptions and regression equations for specific types or classes of assets in a fleet to project future replacement dates, purchase prices, residual values, capital (depreciation) costs, maintenance and repair costs, and other pieces of information for each *individual* asset in a fleet over a 20-year period. Thus, our determination of future fleet replacement costs and analysis of alternative capital financing approaches will not be based on, say, the average purchase/upfitting cost and replacement cycle of an “average” vehicle in the County’s fleet, but on parameters that are established for the specific

types of vehicles in the fleet and on a complete inventory of the assets that currently comprise this fleet. In conducting fleet replacement cost and alternative financing studies, we frequently establish such parameters for as many as 200 different types of fleet assets.

In addition to ensuring the relevance of our analysis results to the specific conditions (e.g., contract purchase prices, annual utilization levels, operating environments, etc.) that pertain to a specific fleet owner such as Clark County, this parameter-based analysis approach enables us to perform a wide array of sensitivity analyses of our findings. For instance, we can quantify the immediate and ongoing impact on a particular agency's and/or the entire County's fleet replacement costs resulting from changing a given type of vehicle's recommended replacement cycle from, say, seven to eight years; replacing one type of vehicle that currently is used to meet a particular business need with a different type of vehicle; or introducing alternative fuel vehicles into the fleet as part of a fleet sustainability improvement initiative.

We will begin this task by developing and submitting to FFD a data request that specifies the types of information needed to develop the replacement plan and alternative financing analysis. Next, we will work with appropriate Fleet officials to develop the analysis parameters needed by *CARCAP* to project future vehicle replacement dates and purchase prices. These parameters include, by vehicle type or class, recommended replacement cycles in terms of age (months) and/or usage (miles or hours); current purchase price, including upfitting costs (if any); and purchase price inflation rate.

We will begin developing the parameters by examining the vehicle classification scheme currently employed by FFD to determine its suitability for replacement cost analysis purposes. In our experience, some organizations employ class definitions that are too broad for this purpose. For instance, a classification such as "Full-Size Pickup Truck" or "Service Van" may be adequate for the purpose of describing the composition of a fleet in general terms, but generally not for accurately projecting the future replacement dates and costs of specific vehicles in specific County agencies. This could be the case if the range of purchase prices and annual utilization levels associated with the vehicles that fit into such categories is quite broad. At the same time, like types of vehicles with similar purchase prices might need to be classified differently due to significant differences in the way they are used. For example, a backhoe-loader assigned to a parks and recreation department generally is used far less and thus should have a longer planned replacement cycle than the same type of asset in a water utility department fleet.

Where appropriate, we will use FFD's existing asset class definitions as the point of departure for identifying the class codes to be used in this project. This may require performing statistical analyses of original vehicle purchase prices and recent annual usage levels to determine the suitability of the current class codes – to the extent that such data are available. Where the class codes currently used are clearly too broad (or do not exist), we will classify the vehicles in the fleet inventory using class codes we have developed in performing previous fleet replacement studies. Once we have completed the validation/refinement of existing vehicle class codes and/or the development of new vehicle class codes, we will submit a complete class code list to Fleet for review, finalization, and approval. This list also will include recommended replacement cycles; either those currently used by the County and confirmed for reasonableness by Mercury based on our experience performing fleet replacement studies and vehicle replacement cycle analyses for other

clients, and the optimal replacement cycles identified in Task 3.1 (if applicable).

The finalization of the planning parameters will entail identifying the estimated current purchase price for each type of vehicle for which a separate class code has been established. Our proposed level of effort for this task presumes that FFD personnel will provide this information to us based on current vehicle purchase contracts and other suitable information sources. If necessary, we can perform statistical analyses of historical vehicle acquisition cost data to develop these parameters, but there would be an additional cost for us to do this.

Next, we will use the fleet inventory and replacement cost analysis parameters to develop a preliminary or *baseline* replacement plan for the entire County fleet. This plan will project the replacement date and cost of each individual vehicle in the fleet each time it meets the recommended criteria for replacement over the next 20 years.

Task 5.3: Determine Funding Requirements under Alternative Capital Financing Methods

Once we have finalized the plan for modernizing the County's fleet, we will use it as the foundation for quantifying and comparing the funding (i.e., budgetary) requirements under several alternative capital financing approaches. Our replacement planning program *CARCAP* is designed to calculate funding requirements, by vehicle and by year for each year of a 20-year analysis period, under each of several financing approaches: outright cash purchase; a replacement reserve fund and charge-back system (the financing method the County currently uses); various types of debt financing; and off-balance-sheet operating leases. Specifically, the program can calculate replacement reserve fund rates, loan payments, debt-service costs, and lease payments, based on user-defined parameters such as loan and lease terms (durations) and interest rates, by vehicle by year for the entire 20-year analysis period.

We will quantify and compare the net fleet replacement funding (i.e., cash) requirements under three alternative capital financing approaches (outright purchase, a replacement reserve fund, and a tax-exempt master lease program) against one another and identify the financing approach that we believe would be most beneficial to Clark County from a fiscal (i.e., cash budget) perspective and an economic (i.e., present value cost) perspective.

Task 5.4: Present Findings and Recommendations

We will present our findings and recommendations in the aforementioned written report and presentation.

Task 6: Review cost charge-back rates

Task 6.1: Review Costs to be Recovered through User Rates

The most basic requirement of any effective cost charge-back system is that it recover 100 percent of the costs of the services for whose delivery user charges are expected to pay. Thus, the first step in our review of FFD charge-back rates is to ensure that all appropriate annual costs, both direct and indirect, of providing fleet maintenance and repair services are included in the Division's FFD "rate base" and updated correctly, preferably on an annual basis.

To do this, we will compare and assess the consistency of individual line-item and total

annual cost amounts in the Division's maintenance and repair budget with the cost amounts used to calculate rates and with actual costs incurred in the last two full fiscal years and in the current fiscal year to date. To the extent that the current rates are not producing enough revenue to recover all of the Division's costs, this could be due in part to discrepancies between the cost amounts budgeted, actually incurred, and/or included in the rate development model. For instance, if an organization budgeted \$5 million for repair parts in a given year, has never actually spent more than \$4.8 million in any prior year (and therefore assumes that it has a comfortable budget), calculated rates for the current year based on the budgeted amount, and then incurs actual costs of \$5.1 million this year (say, because it has been deferring vehicle and equipment replacement purchases due to the recent recession), its rates obviously will not generate enough charge-back revenue to cover its parts costs.

We will work with FFD and other County officials as appropriate to identify any needed adjustments to the rate base, based on this comparison of budgeted and actual costs in recent years and the identification of any significant uncertainties in future FFD operating costs or other conditions. We also will explore the possibility of adding to the rate base any indirect costs of operating FFD that are not already reflected in its line-item budget and that the County wishes to finance through the charge-back system. For example, these could include such costs as maintenance facility and equipment depreciation expense, interagency data processing charges, allocated overhead costs, and contingency amounts for unforeseen costs or working capital needs.

Task 6.2: Review Cost Pools and Cost Allocation Methods

We will review and assess the appropriateness of the cost pools or buckets that the rate model uses to make allocations of FFD operating costs. Based on industry best practice, we would expect these cost pools to be similar, but not necessarily identical to, those that the Division uses to develop rates for charging customers "actuals" for things like collision repair. This would include one or more pools for the costs of in-house mechanic labor; a pool for the costs of managing in-house parts; a pool for the costs of managing sublet repair transactions; a pool for the costs of asset acquisition and disposal services (*not* including the costs of the assets themselves).

We will then review the methods used to allocate all the costs in the rate base to these cost pools and make recommendations for improvement if necessary. In general, costs in the rate base that clearly can be attributed to a specific activity or service for which a rate will be developed should be allocated directly to the cost bucket for that activity. For example, line item amounts in the rate base for tool allowances, technician training, technician uniform rental, and shop materials and supplies usually can be allocated directly to a mechanic labor rate cost pool. Conversely, the costs of salaries and fringe benefits for those employees whose time is split among several different types of fleet management services FFD provides cannot be directly allocated to such a pool. They must be parsed out to cost pools associated with the various activities for which rates will be calculated in some logical and equitable manner.

The most common method of allocating these indirect costs is on the basis of each cost pool's proportional share of total fleet organization salary costs. These shares typically are determined through the conduct of a "salary and wage" analysis aimed at determining how much time each employee in the fleet organization devotes to each activity for which a rate will be calculated. Whereas most mechanics devote 100 percent of their time to vehicle

maintenance and repair activities, maintenance supervisors typically split their time between maintenance and repair management, parts management, and sublet repair management activities. Consequently, supervisors' salary and fringe benefit costs should be allocated to cost pools based on estimates of the percentages of their time devoted to each activity and recovered using rates calculated for each of these services (which may, as in FFD, be used to develop usage-based rates for specific types of vehicles and equipment in the fleet).

Similarly, indirect costs of things like allocated Public Works department and County overhead, building rent and utilities, and interagency charges for IT support services usually are allocated based on each cost pool's share of total personnel costs. Thus, for example, if in-house mechanic labor accounts for 67 percent of all FFD salary and fringe benefit costs, the technician labor rate cost pool(s) should be allocated 67 percent of the Division's annual indirect costs for overhead charges, rent, utilities, and so forth.

Task 6.3: Review Calculations of Unit Costs

We will review and assess the soundness of the methods FFD uses to project the total volume of each product and service that its customers will consume in the year for which it calculates rates. For instance, is the number of hours that in-house mechanics are projected to charge to work orders realistic given levels of production in recent years, changes in the size, composition, and age of the fleet, and so forth? Clearly, the key challenge of this step in the process is to ensure that FFD can produce the number of units of service by which the total cost amount in each cost pool is divided. For instance, if mechanics charge fewer hours to work orders in FY 2017 than in past years and FFD has calculated its current labor hour rate based on past years' productivity levels, the labor rate – and the monthly lease rates by asset type reviewed in a later task – will be too low and FFD could lose money. In order to avoid this, two to three prior years' worth of data on billable hours, parts issues, and sublet repair purchases should be analyzed and then adjusted if necessary to reflect changing fleet conditions and needs. We will recommend changes to the current calculation methods if appropriate.

Task 6.4: Review Definitions of Rate Classes

In the three previous subtasks we will have reviewed the steps (which should be) taken to calculate unit costs for estimating the actual, transaction-based operating (management and maintenance and repair) costs attributable to each class of assets in the fleet. In Task 5.3, we will have used our *CARCAP* program to calculate replacement rates for each individual asset in the fleet. In this task, we review and assess the appropriateness of the method FFD uses to define asset classes for purposes of calculating a combined capital and operating (exclusive of fuel) cost lease rate for each type of asset in the fleet.

The principal objective in stratifying the assets in the fleet into separate classes should be to minimize cross subsidization of capital and operating costs among different types of assets and their users. This requires grouping assets with similar cost characteristics together. The easiest way to assess the reasonableness of the current classification scheme (which includes about 130 classes) is to compute some simple statistics on the actual costs of the assets comprising each of FFD's classes, such as mean annual cost and standard deviation from the mean. If the latter statistic is relatively high for some rate classes, this could signify that the classes are defined too broadly or that specific assets in the group should be assigned to a different class. We will recommend changes to the asset classification approach where necessary.

Task 6.5: Present Findings and Recommendations

We will present our findings and recommendations in the aforementioned written report and presentation.

Task 7. Develop an Implementation plan (optional)

At the County's option, we will develop an implementation plan for key recommendations for improvement identified in Tasks 3-6. The plan would focus on a limited number of strategic improvement initiatives that we believe can be implemented (or initiated) over a period of 24 to 36 months. This limitation is based on our experience and belief that developing fleet management transformation and business process improvement plans of more than three years' duration is a largely academic exercise due to the myriad managerial, operational, and fiscal conditions that cannot be foreseen and therefore accommodated in a realistic plan that extends beyond this timeframe.

In developing this plan, we would employ considerations such as the following to prioritize recommended improvement initiatives (not necessarily in order of importance):

- The expected impact on fleet asset total cost of ownership of a potential improvement;
- The expected impact on fleet management costs of an improvement;
- The expected costs and benefits of an improvement;
- The absolute complexity – political, operational, technological, etc. – of an improvement;
- The possession of the authority to make an improvement by the entity that would be chiefly responsible for its implementation; and
- The consistency with broad administration goals and objectives of an improvement.

For each improvement initiative, we would draft a formal problem and goal statement, a high-level description of the anticipated outcome of the improvement, and a discussion of the rationale for the improvement. We also will develop an action plan that identifies the tasks to be performed; estimated resource requirements (internal time commitments and/or out-of-pocket costs for professional services), suggested timelines and milestones, and recommended responsibility assignments.

We would submit the implementation plan to FFD in draft form for review and comment and make revisions, as necessary, based on written feedback received.

As with the previous tasks in our work plan, we would develop and conduct one informal presentation of our recommendations to FFD, fleet user organization, and other appropriate County officials. We will develop a Microsoft *PowerPoint* presentation(s) for this purpose. At the County's option, we also could conduct a formal presentation of this and other work plan task results to the County Council for a small additional fee.

PROJECT SCHEDULE

We estimate that the project will take approximately 20 weeks to complete. Please note that our proposed timeline begins with the project kick-off meeting, which may or may not be the same date as the issuance of a formal notice to proceed.

Adherence to this timeline is contingent upon the activities not only of the Mercury project team but of the County as well, including the timely delivery of requested data and documentary material; scheduling of site visits, interviews, and presentations; completion of the Web-based survey of users of potentially underutilized fleet assets; and receipt of written feedback on draft final reports.

A Gantt chart for the project can be provided upon request.

PROPOSED FEES

Our proposed fees for performing all of the activities described in our work plan above are \$79,620. This amount includes all professional services and out-of-pocket expenses. Please note that, due to the planned use of a different mix of our professional staff members, our proposed average hourly rate for this project (\$183) is substantially lower than that for our current City of Vancouver project (\$225).

The hours and fees by proposed work plan task and project team member are shown in the Detailed Fee Proposal on the following page. We have priced each major project task separately in the event that the County wishes to conduct some but not all of the activities included in our work plan.

While our proposed level of effort and fees are based on the thorough and detailed approach and work plan we have proposed, we recognize that this is not an insignificant amount of money for Clark County to spend on a consulting project. However, we are confident that the study will uncover cost savings opportunities that far exceed the cost of having Mercury conduct this project, and believe that many of our past clients will readily attest to the fact that this has been their experience in working with our firm (references are available upon request).

That said, please be assured of our willingness to discuss modifications to our proposed approach to and work plan for the project if the County wishes to explore ways to reduce its overall cost or the cost of any particular elements of the proposed work plan.

DETAILED FEE PROPOSAL

| Task | Subtask | Description | Lauria | | Saltgiver | | Nalven | | Deras | | Hollis | | Total | |
|--------------------|-----------------|---|----------|-----------|-----------|-----------|-----------|-----------|----------|----------|----------|----------|-----------|-----------|
| | | | Hours | Fees | Hours | Fees | Hours | Fees | Hours | Fees | Hours | Fees | Hours | Fees |
| 1 | | Initiate and Manage the Project | 4 | \$ 1,000 | 24 | \$ 4,800 | | \$ - | | \$ - | | \$ - | 28 | \$ 5,800 |
| 2 | | Collect and Review Information | | \$ - | | \$ - | 16 | \$ 2,640 | | \$ - | | \$ - | 16 | \$ 2,640 |
| | | Review Selected Fleet Management Practices | | | | | | | | | | | | |
| 3 | 3.1 | Review Policies and Procedures | | \$ - | 16 | \$ 3,200 | | \$ - | | \$ - | | \$ - | 16 | \$ 3,200 |
| | 3.2 | Review Performance Measurement and Reporting Practices | 2 | \$ 500 | 16 | \$ 3,200 | | \$ - | | \$ - | | \$ - | 18 | \$ 3,700 |
| | 3.3 | Present Findings and Recommendations | 4 | \$ 1,000 | 12 | \$ 2,400 | | \$ - | | \$ - | | \$ - | 16 | \$ 3,400 |
| | | Subtotal | 6 | \$ 1,500 | 44 | \$ 8,800 | 0 | \$ - | 0 | \$ - | 0 | \$ - | 50 | \$ 10,300 |
| | | Conduct Fleet Rightsizing Study | | | | | | | | | | | | |
| 4 | 4.1 | Identify Potentially Underutilized Assets | | \$ - | | \$ - | 12 | \$ 1,980 | | \$ - | | \$ - | 12 | \$ 1,980 |
| | 4.2 | Survey Users of Potentially Underutilized Assets | | \$ - | | \$ - | | \$ - | | \$ - | 28 | \$ 4,200 | 28 | \$ 4,200 |
| | 4.3 | Earmark Earmark Assets for Reassignment or Removal | 4 | \$ 1,000 | 24 | \$ 4,800 | 40 | \$ 6,600 | | \$ - | 24 | \$ 3,600 | 92 | \$ 16,000 |
| | 4.4 | Quantify Cost Savings | 2 | \$ 500 | | \$ - | 12 | \$ 1,980 | | \$ - | | \$ - | 14 | \$ 2,480 |
| | 4.5 | Present Findings and Recommendations | 8 | \$ 2,000 | | \$ - | 12 | \$ 1,980 | | \$ - | | \$ - | 20 | \$ 3,980 |
| | Subtotal | 14 | \$ 3,500 | 24 | \$ 4,800 | 76 | \$ 12,540 | 0 | \$ - | 52 | \$ 7,800 | 166 | \$ 28,640 | |
| | | Conduct Fleet Replacement Study | | | | | | | | | | | | |
| 5 | 5.1 | Determine Optimal Vehicle Replacement Cycles (optional) | TBD | | TBD | | TBD | | | TBD | | TBD | | |
| | 5.2 | Determine Fleet Replacement Costs | 4 | \$ 1,000 | | \$ - | 56 | \$ 9,240 | | \$ - | | \$ - | 60 | \$ 10,240 |
| | 5.3 | Determine Funding Needs Under Alternative Financing Methods | 4 | \$ 1,000 | | \$ - | 8 | \$ 1,320 | | \$ - | | \$ - | 12 | \$ 2,320 |
| | 5.4 | Present Findings and Recommendations | 8 | \$ 2,000 | | \$ - | 12 | \$ 1,980 | | \$ - | | \$ - | 20 | \$ 3,980 |
| | Subtotal | 16 | \$ 4,000 | 0 | \$ - | 76 | \$ 12,540 | 0 | \$ - | 0 | \$ - | 92 | \$ 16,540 | |
| | | Review Cost Charge-Back Rates | | | | | | | | | | | | |
| 6 | 6.1 | Review Costs to be Recovered through Lease Rates | 4 | \$ 1,000 | | \$ - | | \$ - | 8 | \$ 1,280 | | \$ - | 12 | \$ 2,280 |
| | 6.2 | Review Cost Pools and Cost Allocation Methods | 4 | \$ 1,000 | | \$ - | | \$ - | 8 | \$ 1,280 | | \$ - | 12 | \$ 2,280 |
| | 6.3 | Review Calculations of Unit Costs | 4 | \$ 1,000 | | \$ - | | \$ - | 8 | \$ 1,280 | | \$ - | 12 | \$ 2,280 |
| | 6.4 | Review Definitions of Rate Classes | 4 | \$ 1,000 | | \$ - | 16 | \$ 2,640 | | \$ - | | \$ - | 20 | \$ 3,640 |
| | 6.5 | Present Findings and Recommendations | 8 | \$ 2,000 | | \$ - | 4 | \$ 660 | 16 | \$ 2,560 | | \$ - | 28 | \$ 5,220 |
| | Subtotal | 24 | \$ 6,000 | 0 | \$ - | 20 | \$ 3,300 | 40 | \$ 6,400 | 0 | \$ - | 84 | \$ 15,700 | |
| 7 | | Develop Implementation Plan | TBD | | TBD | | TBD | | | TBD | | TBD | | |
| Grand Total | | | 64 | \$ 16,000 | 92 | \$ 18,400 | 188 | \$ 31,020 | 40 | \$ 6,400 | 52 | \$ 7,800 | 436 | \$ 79,620 |

Exhibit B

Expenditures summed up

| Fund #/Title | FTE's | Current Biennium | | Next Biennium | | Second Biennium | |
|--------------|-------|------------------|-------|---------------|----------|-----------------|-------|
| | | GF | Total | GF | Total | GF | Total |
| 5091 | | | | | \$79,620 | | |
| | | | | | | | |
| | | | | | | | |
| Total | | | | | \$79,620 | | |

Expenditure by object category

| Fund #/Title | Current Biennium | | Next Biennium | | Second Biennium | |
|----------------------|------------------|-------|---------------|----------|-----------------|-------|
| | GF | Total | GF | Total | GF | Total |
| Salary/Benefits | | | | | | |
| Contractual | | | | \$79,620 | | |
| Supplies | | | | | | |
| Travel | | | | | | |
| Other controllables | | | | | | |
| Capital Outlays | | | | | | |
| Inter-fund Transfers | | | | | | |
| Debt Service | | | | | | |
| Total | | | | \$79,620 | | |