March 5, 2014

Subject: Report to Assistant City Manager/Chief Financial Officer - Independent Audit and Performance Commission Response to Request for Assistance Regarding General Services Department

Assistant City Manager/Chief Financial Officer Kelly Gottschalk:

Based on your request for assistance, the Independent Audit and Performance Commission (IAPC) formed a Subcommittee that held numerous meetings with representatives of the General Services Department's (GSD) Facilities and Communications Maintenance Division (F&CM) to review documents, spreadsheets and other materials regarding rate setting methodology and cost competitiveness.

BACKGROUND

According to Kelly Gottschalk, Assistant City Manager and CFO, the General Service Department has three budgeted program areas: Administration, Facilities, and Fleet Services.

The Facilities program area is responsible for construction oversight of major new buildings; repairs, remodels, alteration and demolition projects; planning and scheduling ongoing and long-term facilities maintenance, repair, and custodial services; and planning and implementation for energy conservation and energy optimization efforts.

The Facilities program is budgeted as an ISF and recovers the costs associated with providing their services by charging operating funds and capital projects. As an ISF, any surplus accumulated may carry forward into the next fiscal year; any deficit needs to be recovered through an increase of the following fiscal year rate structure.

The General Services Department recently updated their methodology of rate setting for the Facilities program in time for the preparation of the Fiscal Year 2015 budget. The General Service ISF fund balance is projected to be a deficit at the end of FY 2014 and will need to recover the losses within the new rate structure.

OBJECTIVES

Per the request for assistance by Kelly Gottschalk, the scope of the IAPC's "General Services Subcommittee" effort is to review the General Services Department's rate setting methodology and ultimately, respond to the following questions:

1. Are the services provided by the General Services Internal Service Fund (ISF) costs competitive locally?

2. By what method are the rates and the costs calculated and are the components reasonable?

ANALYSIS OF METHODOLOGY

The goal of IAPC was to evaluate and report on the validity and reasonableness of the proposed F&CM labor billing rates and the proposed material mark-ups associated with the work.

F&CM's goal in undertaking the task of determining appropriate billable rate(s) was, in their words, to:

> *"Conduct a full rate analysis for the Facilities and Communications Maintenance Division and develop an annual charging methodology and billable rate(s) that will provide the basis for full cost recovery in FY15 and into the future with the intent of financially stabilizing fund 057."*

A simplistic view of the goal is that F&CM must set their billing rates just high enough to recover all of the costs they incur for performing their work. However, since almost everything is simpler said than done, F&CM had to first determine what those costs are going to be in 2015 and beyond and determine what the workload is expected to be. This required that F&CM do a careful and complete analysis of prior years' experience and a complete analysis of the condition of each of the City's assets to determine how much "catch-up" maintenance is required. Also, F&CM analyzed their own vehicles and equipment to determine what replacements would be needed in future years and accounted for the replacement costs.

The work done by F&CM took place over many months and involved substantial data mining and the creation of numerous highly detailed and sophisticated spreadsheets. The effort resulted in a determination of billable rates and material mark-ups to be proposed for the 2015 fiscal year. The process and methodologies employed in these determinations are well documented and provide the tools for analyzing future years rate reviews as current and 2014 actual data are input into the models.

The model was designed to accommodate changes to some assumptions and can thus serve as a tool to measure sensitivity to changes in the assumptions. For example, it was assumed that employee medical coverage cost would increase by 8% per year. If one wished to see how a different percentage increase would affect the rates it can be simply done by a change in one cell of a spreadsheet. Other changes to assumptions can also be made easily.

The IAPC believes that the rates proposed by F&CM are based upon substantiated historical costs and records and that the assumptions F&CM had to make about future events are both reasonable and prudent. Thus, the IAPC believes that the proposed rates for 2015 are valid, reasonable. and supported by the data and assumptions.

Attached to this report as Attachment A is an F&CM prepared document that offers more details about the rate setting model, its assumptions and the methodologies employed. This document has been reviewed by the IAPC and is incorporated in this report fully and unequivocally.

COMPETITIVENESS OF PROPOSED RATES & RELATED CONSIDERATIONS

In the past, comparisons of labor rates between the City of Tucson and local private contractors were made by calling contractors in the various trades, and asking them for their hourly rates. These rates were then compared against the fully loaded hourly rates paid to City trade employees. In retrospect, although the results showed that the City rates were generally lower, the methodology was questionable. Vendor data were confidential, verbal, variable and specific only to the time period in which they were collected.

Over time, however, the City of Tucson has vastly expanded the number of written, competitively bid contracts it has with private sector contractors. The resulting rate data from these contracts are far more dependable and reliable, as well as, being available for independent public inspection.

The average hourly labor rates by area are as follows:

Area	Outside Contract Rates*	In House (Billable) City Rates**	
		Bldg. Maintenance Worker	Journeyman
Electrical	$86.50	$56.09	$75.53
EMCS (energy)	$90.00	$56.09	$75.53
HVAC (mechanical)	$77.33	$56.09	$75.53
Painting	$30.33	$56.09	$75.53
Plumbing	$95.00	$56.09	$75.53
Roofing	$65.00	$56.09	$75.53
Custodial	$15.14	$39.57	

*Note: The above rates do not include parts markup, travel nor after hour/ weekend nor holiday rates

**Note: The above blended rates do not include parts markup. Except for inflation they are computed upon actual City costs, and not market based.

F&CM also is continuing to refine its data collection requirements and selection criteria as to whether a particular job is performed by an outside contractor or in house staff.

Other Considerations Relating to Outside and In House Contracting

Assessing comparable costs through dollar rates alone, and not appreciating other consideration and variables could result in misleading conclusions, which acted upon could result in less than optimal management judgments and business decisions. What follows is a discussion of the market place and how it matches up against the operational needs of Facilities & Communications Maintenance (F&CM) in serving the public customer.

It should be realized that approximately 40% of F&CM's budget is paid to outside contractors.

There are a variety of reasons for this fact, including:

- Certain high-dollar jobs, by law cannot be performed by the City, and must be bid, such as permitted work and capital improvements including new buildings, additions and modifications, and large component replacements;
- Continuing gains in additional square footage with new buildings coming on line. This has been without the addition of commensurate City maintenance/repair staff to deal with the resultant increase in workload. As a result, contracted work continues to rise in order to close the gaps in real and anticipated work;
- Replacement or installation of new equipment involving, for example, high energy electrical systems where the City has minimal on-the-job experience;
- Maintenance of complex equipment that requires special knowledge and employee experience such as elevators and escalators, computerized management systems, and fire protection systems;
- Follow-up to City staff providing an emergency response, with subsequent repairs that exceed FC&M's ability to dedicate additional resources to fully remedy the situation.

On the other hand, there is irregular, unscheduled, immediate response (emergency) work:

- When an emergency is called in, a single City worker is generally dispatched to determine the location and nature of the problem, and the most appropriate response. In those cases involving life safety (e.g., electrical arcing), or preserving the building from further damage (interior flooding) the remedy cannot wait for the arrival of others. The initial response needs to be timely (immediate), knowledgeable and measured (correct), and those personnel in the best position and empowered to handle these situations are employed by the City.
- Not all contractors are interested in responding to emergency call-outs. In such cases, when the private sector elects to bid such work, its rates reflect a 16% to 34% increase over its normal business hour rates. This increase represents the need for firms to recover their costs and earn a profit associated with maintaining on-call, dedicated staffing and equipment, 24 hours a day, seven days a week.

Regardless of the private sector's spirit to be competitive, there are cases where the City has the additional advantage of institutional knowledge. That is, where in-house staff are already intimately familiar with particular equipment, and have the skill sets and tools to remedy the problem. This is especially true with respect to esoteric/obsolete mechanical systems that not only require knowledge, but also non-stock parts only available in F&CM's stores.

Finally, it needs to be emphasized that F&CM's maintenance contracts must be competitively bid. In order to ensure that all bidders have a common and mutual understanding of the scope of work, specifications must be provided. Specifications by application are task driven, and little room is provided for deviation from the contracts' words. The competitive advantage that in-house staff has, but not of its own making over outside contractors. is when it arrives at a site that is event driven (a specific problem). In those cases, in-house staff has the flexibility to not only diagnose the problem, and decide upon the most appropriate fix from a myriad of options, they also can proceed with the repair.

Summary of Competitiveness of Proposed Rates

Regardless of whether work is performed by F&CM staff or under contract the common goal is to preserve the City's assets. In certain general instances it is less expensive for work to be performed under contract. Given the average hourly rate chart, that is why the majority of custodial, roofing and painting work is already contracted. Further, when a task is defined, predictable, scheduled and/or requires personnel that F&CM does not have, then the private sector levels the volume of work. In other cases, where institutional knowledge is required, or a situation is event driven, or the work is less expensively performed by in-house staff, etc., then F&CM is called in. Not everything is nor can be competitive and cost/rate driven.

NOTABLE PROCESS IMPROVEMENT INITIATIVES

Facilities Administrator Ross Adelman has introduced the commission to his plans for implementing bold new Process Improvement (PI) initiatives within the organization. PI is a systematic approach to help an organization optimize its underlying processes to achieve more efficient results. The aim of this program is to introduce process changes to GSD in order to improve the quality of their service. Mr. Adelman has introduced a series of steps which will be taken by "process owners" identify, analyze and improve existing processes within GSD to meet new goals and objectives, such as increasing performance, reducing costs and accelerating schedules. These actions will follow a specific plan

designed to increase the likelihood of successful results. Central in this plan is to restructure GDS employee training programs to increase overall effectiveness and employee engagement.

Key Steps Being Taken

1. *Realign GSD Processes to Business Goals*. GSD will identify strategic organizational goals for reducing costs, increasing productivity, and better serving their "customers." This alignment will be brought about by implementing aspects of "Six-Sigma," a set of techniques designed to improve processes.

2. *Customer Focus*. Recent complaints from some of the entities served by GSD underscore the need for aligning GSD business processes to achieve higher customer satisfaction.

3. *Benchmarks and Progress Measurement*. Process improvement, especially which leverages Six-Sigma techniques, places a lot of emphasis on measurable results. Accordingly, benchmarks and other process improvement metrics will be implemented.

4. *Identify All Key Process Owners*. In Process Improvement it is essential that there be clarity on who the process owners are, and what constitutes success/failure of (their) process. These process owners are key in monitoring whether or not a certain process is meeting the desired objectives.

Information presented to the commission about this initiative impressed upon us that these bold new changes will make the GSD more effective, responsive, efficient and dynamic. The crux of its value is that it aims to empower GSD employees closest to a particular process to improve internal and external operations.

FINDINGS AND RECOMMENDATIONS

After numerous meetings with GSD staff, and after analyzing several very comprehensive and detailed spreadsheets modeling internal rate structures, costs, income sources, labor expenses, contract service costs, parts costs, etc., this Subcommittee makes the following findings and recommendations.

PRIMARY FINDINGS

Competitiveness of GSD Services. With one small exception, the commission does find that the services provided by GSD are cost competitive locally. Where practical, many of GSD's services are already being outsourced to local companies, thus reaping the benefits of lower competitive local rates. Services such as painting, roofing and roof repairs, HVAC service, electrical maintenance, repair and upgrade are mostly outsourced locally. It should be pointed out that in cases where a job requires specialized knowledge, skill, or has unique security concerns, GSD does not outsource such services and instead rightfully leverages its own in-house expertise. Thus, GSD's services are cost competitive locally because many services are outsourced locally. However, the commission finds that GSD is not cost competitive locally when providing custodial and janitorial services. The commission recommends that GSD more diligently pursue outsourcing its custodial services than it currently does. It should be noted however that even doing so doesn't represent a significant costs savings due to the relatively small expenses involved. Regardless, the commission encourages GSD to be as efficient as possible, where possible because it is simply good business practice.

Rate and Cost Calculation Methodology. The commission also finds that the rate and cost calculation methodology developed by GSD was reasonable for the blended hourly rate, as well as the application of that rate. A portion of the rate fee is allocated to older city assets such as buildings and is contained in the building service plan. This represents a new concept for GSD and one which cannot be overlooked any longer – maintenance and prevention. Here, GSD's plan is to catch up on deferred maintenance by replacing parts before they break, if possible, to save money. As for whether GSD's 29% markup is reasonable or not, the commission noted GSD's markup is a derived number. Markups in private industry typically include profits, costs, overhead – all market driven and not cost driven. The commission feels GSD very wisely kept their 29% markup below that of outside contractors having markups of typically 40% or more.

OTHER FINDINGS

Catch-up Maintenance. It should be noted that the rate is designed to shore-up the expected deficit in Fund 057, not the catch-up on maintenance. (Catch-up on maintenance is an over-and-above amount and that's why GSD asked for $3.3M annually for next 3 years.) That is, the rate is designed to replenish the fund so that it can be used as needed in the future for bringing city assets up to a responsible level of maintenance.

Unmet Needs: It should be noted that this analysis does not address the unmet needs of city assets but rather, addresses only immediate maintenance problems and expenses. The commission feels this is an important first step in the process of restoring city assets to a responsible level of maintenance. The commission further finds that GSD has done an excellent job of engineering a process to establish reasonable rates for work performed by GSD, and that it has validated those rates as being both reasonable and realistic.

ACKNOWLEDGEMENTS

The commission commends General Services for its responsiveness to the subcommittee's requests for information and for its help in providing a wealth of data, explanations, and research needed to analyze key questions. Thanks to General Services staff, especially Amber Kerwin, Management Coordinator, Facilities Administrator Ross Adelman, and Staff Assistant Alicia Roberson. Additionally the commission thanks Joyce Garland, Budget & Internal Audit Program Director; Jane Prior, Internal Audit Manager; and Robert Kulze, Principal Auditor, for providing support to the Subcommittee in terms of both research and meeting coordination.

Respectfully submitted,

Kevin Oberg
IAPC Chair

Attachment:
F&CM Labor Rates and Parts/Contracts Mark-up Analysis/Methodology Notes
c: Martha Durkin, Assistant City Manager
Ron Lewis, General Services Director
Ross Adelman, Facilities Administrator

City of Tucson

Attachment A

F&CM Labor Rates and Parts/Contracts Mark-up Analysis/Methodology Notes

PART A: F&CM Labor Rates and Parts/Contract Mark-up Analysis/Methodology Notes

This summation refers to the methodology and resulting calculations in the following workbook: F:\SHAREDIR\FDM\FM Financial Information\Full Cost Recovery\ F&CM Rate Development with 2 Trade Rates

Overall:

- It was decided that all overhead/indirect costs will be recovered through labor rates and parts/contract markup assessed on all BMA contracts and parts and all project parts (contracts used for projects will not be assessed a markup)
- All F&CM costs will be captured either through allocation or direct expenditure in the following cost centers (units) and corresponding revenue brought into the following revenue accounts:
    - Unit 4102 Building Maintenance; Revenue Offsets: 057-410-8763 FM Maintenance, 057-410-8764 FM Renewal (Projects); 8703 Sale of Scrap Material (incidental)
    - Unit 4103 District Heating and Cooling; Revenue Offset: 057-410-8765 Central Energy Plant
    - Unit 4112 Custodial; Revenue Offset: 057-410-8769
    - Unit 4322 Communications Maintenance; Revenue Offsets: 057-410-8761 Communications Maintenance, 057-410-8762 Services on Demand
- The following personnel adjustments were added on to the FY14 SBFS payroll projections as the guidance of the Budget Program Director (for additional data refer to "Personnel Rate Modifiers Tab"):
    - No adjustment to salary*
    - Pension increased by 1% for all categories
    - Medical increased by 8%
    - Workers Comp held constant with FY14
    - FICA held constant with FY14
    - Public Liability held constant with FY14

      *The FY14 SBFS over-projected in the categories of medical, workers comp and pension so these over projections will cover for any potentially approved mid-FY14 compensation adjustment. (the overage is mapped out on tab "Personnel Rate Modifiers")

Unit 4101 Allocations

- Director's Office and Facilities General and Administrative cost (both personnel and non-personnel cost) is allocated to the following F&CM cost centers based on the percentage share of the FY14 Budget that the cost centers equates to:

    - Unit 4102 Building Maintenance – FY14 Budget $10,532,850; 73.94%
    - Unit 4112 Custodial – FY14 Budget $1,640,710; 11.52%
    - Unit 4322 Communications Maintenance - $2,071,840; 14.54%

- It was decided that G&A costs (Director's Office Allocation and Unit 4101 G&A would not be allocated to unit 4103).

Unit 4102 Costing:

- **non-personnel costs** in Unit 4102 were projected for FY15 and allocated as either an OH cost or as a direct pass through cost attributable to either the Building Maintenance Service Plans (BMSPs) or Projects. Pass through costs are contract (object 288), parts (object 392), equipment rental (object 252), permits (object 283), and interdepartmental labor (object 196) that are costed directly to a BMSP work order or project work order. Those items that are categorized as OH will ultimately be calculated into the billable labor rate and parts mark-up then factored in as a component of the total 4102 Indirect OH.

-**Labor** is allocated among the following buckets (refer to the "Unit 4102 Labor" tab):

- Direct Billable Labor
- Non-Billable Labor (VL, SL, Holidays, meetings, training, etc.)
- Administrative Overhead (any time by a supervisor or superintendent that is not directly billable to a work order)
- Contact/Parts Management

- It was decided that 2 of the 3 Superintendents would be allocated 100% Administrative OH. The third Superintendent who provides contract management oversight would be allocated 40% to Contact/Parts Management and the remaining 60% to Administrative OH. This same Superintendent also oversees Custodial, so a portion of his Administrative OH cost will be allocated to the custodial labor rate. The allocation was based on the number of FTEs in custodial (22) versus the number of FTEs in the other sections he oversees (21). This meant that, 51% of the 60% of his time/cost that is allocated to Administrative OH will be allocated to the custodial cost center to be recovered through their billable rate. This amount is $28,500.

- It was decided that the Facilities Project Coordinators (FPCs) would be allocated 60% to direct billable and 40% to Contract/Parts Management.

- It was decided that the Storekeeper would be allocated 100% to Contract/Parts Management

- Labor productivity for each of the following categories was determined by looking at 3 years of historical labor data and then verifying against 8 months (Nov 2012 – July 2013) of Infor labor data (refer to "unit 4102 Labor" tab):

- Trades (Building Maintenance Worker, Roofer, Painter, Carpenter, Locksmith, Plumber, Electrician, HVAC-R Mechanic, EMCS, Fuel Station Mechanic) – Ranges from 65% to 80%
- Supervisors (Carpentry Supervisor, Lock Shop Supervisor, Plumbing Supervisor, HVAC-R Supervisor) – Billable 10% (non-billable time at 90% will be allocated to Administrative OH)

In an attempt to match the pool of available billable hours to what has historically been realized as a result of turnover, the following positions were assumed to be vacant for the year: Electrician, HVAC-R Mechanic, EMCS Tech, Plumber, Locksmith, Carpenter. Although there is no guarantee that these will be the actual vacancies realized, it is an effort to right size the total labor hours and associated personnel costs with our historical experience.

- It is proposed that the 57% of the total G&A (Director's Office Allocation + Unit 4101 personnel and non-personnel G&A cost + Unit 4102 G&A Cost) that is allocated and directly expensed to unit 4102 be allocated between the parts/contract markup and the labor rate so that the parts markup ends up at 29%. Backing into this number resulted in 57% of the G&A being allocated to the labor rates and 43% of the cost being allocated to the part/contract markup (refer to "Unit 4102 Labor" tab). These costs are then built into the rates as follows:

- There is a desire to move to trade rates rather than an overall blended hourly rate. To accomplish this type of pricing without it being too difficult to manage, it was decided to group the trades into 2 pricing tiers as follows (refer to "Trade Rates" tab):

- Building Maintenance Worker
- Journeyman (all other unit 4102 billable trades including supervisor billable time)

- It was proposed that the Indirect and G&A costs (Admin OH from unit 4102 and 4101) that are allocated to be recovered through the labor rate would then be allocated to these tiers based on the percentage of total direct billable labor dollars in each tier (rather than allocating the OH cost equally over all billable hours). The expectation is that this would create greater cost differentiation among the tiers. Based on this methodology 5.89% of the cost will be allocated to the Building Maintenance Worker rate and the remaining 94.11% will be allocated to the Journeyman rate. (refer to "Trade Rates" tab)

- In the case of the hourly rates/charges for the BMSPs, it would be nearly impossible to accurately project how many hours of each type of trade and the resulting tier rate would be needed to provide BMA services to individual facilities. For this reason, we will project the number of general trade labor hours needed to provide BMSP services and use a blended hourly rate for those hours. This blended rate is based on historical assessment that of the total hours required to provide BMSP services across all facilities (approximately 62,300), those hours are categorized as follows: 6.7% of those hours are for Building Maintenance Workers and 93.3% are for the Journeyman trades (refer to "Trade Rates" tab). The current projections of labor hour needs by facility are projected at 62,268 so this closely matches the available pool while leaving approximately 5,210 hours available for project work. Historic project work for the past 3 years averages about 5,000.

-Based on these calculations, the fully burdened billable hourly rates are as follows:

- Building Maintenance Worker - $56.09
- Journeyman - $75.53
- Blended hourly rate - $74.26

<u>Unit 4112</u>

Custodial rates were calculated similar to trade rates in unit 4102. Non-Personnel costs in this unit were projected for FY15 and then categorized among overhead, costs directly attributable to BMSPs and those costs directly attributable to projects (refer to the "Unit 4112" tab). Those items that are categorized as OH will ultimately be calculated into the billable labor rate and parts mark-up then factored in as a component of the total 4102 Indirect OH.

Personnel costs were taken from the budget provided FY14 SBFS personnel cost report and projected based on the factors previously mentioned. These costs were then allocated based on position to the following buckets (refer to the "Custodial Rate" tab):

- Direct Billable Labor
- Non-Billable Labor (VL, SL, Holidays, meetings, training, etc)
- Administrative Overhead (any time by the custodial supervisor and lead custodian that is not directly billable to a work order)
- Contact/Parts Management

-It was decided that the Supervisor's time would be allocated 60% to Administrative OH and 40% to Parts and Contract Management. Since the custodian section maintains their own supply room,

inventory and ordering and the supervisor oversees contract custodial services. For this reason, it seemed appropriate to weight a significant amount of time to contracts and parts management.

-It was decided that the Lead Custodian would be allocated 10% to Administrative OH and 10% to contracts and parts management since he provides backup support to the Supervisor. The remaining 80% of his time was allocated to billable time. This is consistent with historical billable time for this classification.

-Custodians were allocated 80% to billable and the remaining 20% to non-billable. This is consistent with the average total historical billable percentage.

-To right-size the labor pool to what has been realized based on historical turnover two positions were assumed to be vacant. One of these positions has been deliberately kept vacant for some time as the workload has not required it to be filled. The position authorization has been held on to in the event that it is needed for a new facility. This position's costs are not factored anywhere into the rate model. The other position was left open to capture the savings and reduction in labor hours we have historically seen as a result of turnover.

-The billable rate was then calculated by adding together the cost of the custodian's billable time, plus the non-billable time, plus the total G&A cost allocated to the custodial cost center (including the allocated cost of the Superintendent from unit 4102 - $28,500) and divided by the total available billable hours to arrive at a fully burdened hourly rate of $39.47.

Parts/Contract Mark-up Calculation

The parts and contract markup is calculated as a single rate that is applied to all BMSP projected contract and parts costs for both custodial and building maintenance work. It includes the following components:

- As discussed previously, it includes 43% of the General and Administrative cost (this includes a portion of the Directors Office, a portion of F&CM Administration and a portion of the building maintenance unit's OH cost) - $1,307,440
- The allocated cost of Parts and Contract Management in both unit 4102 and unit 4112 - $225,665
- The total allocated cost of $1,533,105 was then spread over the total projected BMSP parts and contract costs for both custodial and building maintenance of $5,293,350.
- This results in a markup of 29%

Application of Rates and Mark-ups

The calculated rates and markups were then applied to the project parts, contract and labor hours projected for FY14 BMSPs to arrive at an annual charge by facility. The projection of the parts, contract and labor hours for facilities is discussed in the notes outlining the building maintenance cost forecasting methodology.

Other Considerations

- F&CM provides revenue support to A&E for the following:

- Energy Office - $100,000
- A&E Standards and Archiving - $142,640

- Registered Plant - $34,500

Those functions are considered to provide a general benefit to the City, as such it does not seem appropriate that it be embedded in A&E's rate structure as the majority of their work is project specific. It also does not seem appropriate to embed it as a component of F&CM's labor or parts/contract markup. It is proposed that this cost be billed to the General fund as part of some sort of annual agreement. The cost can then be factored into the central cost allocation plan so that the Enterprise funds reimburse the GF for their allocated share of these functions.