DEPARTMENT OF MANAGEMENT
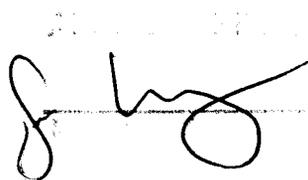
COUNTY OF MAUI

April 5, 2018

Mr. Sananda K. Baz
Budget Director, County of Maui
200 South High Street
Wailuku, HI 96793

Honorable Alan M. Arakawa
Mayor, County of Maui
200 South High Street
Wailuku, Hawaii 96793

For Transmittal to:

Honorable Riki Hokama
Chair, Budget and Finance Committee
Maui County Council
200 South High Street
Wailuku, Hawaii 96793

Dear Chair Hokama:

SUBJECT: FISCAL YEAR ("FY") 2019 BUDGET (MD-2) (BF-1)

This is the response regarding the Information Technology (IT) Services Program question from letter dated April 2, 2018 requesting a response in writing as well as being prepared to respond to the following question at the April 5, 2018 meeting:

Information Technology (IT) Service Program

4. As it relates to page 10-12 of the Budget Details, the Department is requesting an expansion of 4.0 equivalent personnel for Information Systems Analyst positions.

    a. Provide justification for these expansion positions. How is the work currently being performed? What will be the specific duties of these positions and will these expansion positions be specifically tied to special projects such as

RECEIVED AT _BF_ MEETING ON 4-5-18

MAPPs, HR/Payroll, etc.? How do the expansion positions differ existing Information Systems Analyst positions?

Response: The work is presently not being performed due to the workload of existing staff, and due to the absence of the specific skillsets and experience needed to perform the duties of the positions. These positions will not be tied specifically to special projects, but will contribute as appropriate to the implementation efforts for special projects. These expansion positions will differ from other ISA positions in the skills that are expected and in the responsibilities assigned, specifically in areas where ITSD lacks resources and experience such as managing vendor provided cloud applications; working with departments in finding, prioritizing, and managing projects in support of departmental strategic objectives; and, securing access to and safe use of desktop and mobile computing devices. For the specific duties and further explanations, please refer to Attachment A.

b. Why are the expansion positions requested at 22H and 24H levels instead of at entry-level steps? Are the salaries requested in the Budget for a full year?

Response: The public sector salaries for the specialized skill sets sought in these expansion positions fall way short of what is available in the private sector. In the last few years, ITSD has only been able to hire experienced personnel by going above the entry level step (typically like H) and emphasizing the benefits of County employment. Invariably, it still means the new employee has taken a substantial pay cut. The salaries requested for the FY2019 budget assume that new hires will start after an average recruitment period of 4 months, so reflect only 8 months worth of pay.

c. Explain how the Department reallocates positions, is it based on years of experience? Explain the differences in the levels of Information Systems Analyst I through V.

Response: Reallocation of positions is driven by increased responsibility, complexity, and independence of work assignments. The career path established for the ISA positions also stipulates that an employee must have performed work at the level of their present classification/allocation for a minimum period of time, typically 1 year. This career path spans the spectrum from entry level (college degree with 6 months of experience) to senior analyst (working independently with minimal supervision, responsible for large projects and leading teams of analysts).

d. What is the timeframe to fill these positions?

Response: As the need is urgent, recruitment will start as soon as the positions are approved in the budget and created by DPS. As noted, on average this takes about 4 months.

e. Has the Department already worked with the Department of Personnel Services and the respective unions, as necessary, to establish these positions?

Response: Work with DPS will start as soon as the positions are approved in the Budget Ordinance for FY2019. The process to create these positions is well established and well understood, so is not expected to suffer unnecessary delays. Union interaction is not required to establish and fill these positions.

f. Provide a list of current vacancies in the Department, by position title, program, and salary. Include the following information: date the position became vacant, recruitment efforts by the department to fill the positions, and the anticipated date of hire.

Response: Please refer to Attachment B for response.

5. On page 10-13 of the Budget Details, $31,599 was expended on standby pay for FY 2017. Why the need for standby pay? If positions are needed 24-hours per day, 7 days per week to maintain the IT system, why aren't positions hired to fulfill the need? Has the Department consulted with the union to stagger work hours and work schedules to meet the needs of the County? Explain.

Response: Standby assignment is limited to24 hour support for MPD's dispatch functions, which are the most critical function of the County. Only one position is on standby at any given time to provide this support. There is no need to provide 24 hour support on a continual basis for other County operations. The positions approved in past budgets are all required to provide IT support to County operations during normal work hours. Typically, 6 staff are required to provide 24x7 coverage for any single position; such coverage cannot be justified. The standby assignment arrangement in CBAs is an effective way to provide the support required for Police Dispatch. Work hours are staggered within the guidelines of flex work rules; this has allowed the ITS Division to provide coverage for early and late starting County employees.

6. Has the IT Program experienced any cost savings and efficiencies in terms of personnel costs, operational costs, equipment costs, or changes to the Department processes and policies as a result of technological advances? Please explain.

Response: The IT program has been able to leverage technological advances to provide IT Services to the County of Maui. Improved reliability and resiliency of the County's IT infrastructure were realized through judicious use of financial and staff resources. Technological advances do come at a cost, however, and those advances also represent a shortening cycle of obsolescence. These efficiencies are masked by the faster growth of demand for IT services from the County's departments and agencies, as well as from the public expecting effective and ever-present service delivery. The IT program has been able to hold the line on lifecycle maintenance and replacement costs through those efficiencies, while partially meeting that growing demand. The constraint experienced is in human resources, as the purchase of technology solutions is the end phase of a more expansive process of matching strategic needs to effective technology; that process still relies on staff providing their expertise to the business analysis effort with the departments.

7. Relating to Professional Services (index code 6132, page 10-14 of the Budget Details):

   a. Explain the additional $50,000 needed to complete the Active Directory integration.

      Response: The IT Program is learning how pervasive and fundamental the migration from Novell's eDirectory to Microsoft Active Directory really is. This is an undertaking that requires expert assistance to accomplish successfully. While this effort is underway, the requirements became more complex due to the introduction of several cloud based information systems, which require a sophisticated extension of Active Directory to the cloud to make sure that users are provided seamless access to information systems, whether in the cloud or on premise.

   b. Explain the additional $50,000 needed to complete the integration of Exchange into multiple enterprise applications and $100,000 to update the 2013 IT Comprehensive Assessment.

      Response: Once the migration from Groupwise email to Exchange/Outlook in the Cloud is complete, the time is right to leverage the ability of a number of present enterprise applications to use Exchange to provide desired improved functionality. That work is expected to require some professional services engagement by the vendors of those enterprise applications; at the time of installation and configuration that work could not be done with Groupwise and thus was not part of the costs of implementing those

applications. LegalFiles (Corporation Council) and Justware (Prosecuting Attorney) are some examples.

8. Relating to R&M – Services/Contracts (index code 6138, page 10-14 if the Budget Details), explain 1) the additional $300,000 needed for EnerGov support, 20 $50,000 needed for cyber security measures support, and 3) $330,000 due to a 10 percent increase in costs for existing maintenance agreements.

   Response: 1) EnerGov is the software for the MAPPS project. In FY2019, software maintenance will need to be paid for the first time beyond the maintenance costs included in the implementation contract. 2) In Fy2019, the cyber security tools acquired through funding in previous years from County budgets and DHS grants will no longer be covered under prepaid maintenance that was part of the purchase of the tools. 3) The technology industry business model relies heavily on support and maintenance fees to make sure their products remain suitable for their intended purpose, are upgraded to mitigate cyber security threats, and are evolving to meet changing and increasing expectations in the market place. To that end, maintenance agreements include provisions for annual increases in the coverage costs. Those increases are non-negotiable for all practical purposes. Please refer to Attachment A for a more detailed explanation.

9. Relating to Computer Software (index code 6244, page 10-15 of the Budget Details), provide additional information related to the $2.7 million request.

   a. Provide a status update on the electronic signature/approval system. Has this been fully implemented? How will this work and which departments will this apply to?

      Response: With the completion of the functional requirements of the MAPPS work flows, the time is now right to extend those functional requirements to the use of electronic signatures in the context of the MAPPS deployment as a first roll out. Future phases will see the use of electronic signatures extended beyond MAPPS, such as to the contract execution process.

   b. Provide a status update on the HR/Payroll system project. What is meant by contracting a "new" vendor for year two? What will the additional $2.25 million be used towards? How much, to date, has been allocated and expended for this project? Is the project on track for completion and within the amount budgeted for? Explain. Also provide a timeline for the project from start date to estimated completion date.

Response: The project is currently on budget and on schedule for an October, 2018 release. With that said, the schedule is at risk because of a one month extension of unit testing; we are working with the vendor to determine how best to absorb this into the schedule to avoid a change in the go-live date. The $2.25 million will cover the unfunded balance of the total contract cost, and will be able to absorb any additional cost that may be needed to outsource some integration work due to the learning curve for reporting and integrations. Additional information about both of these risks will be available in a few weeks.

c. Provide a status update on the MAPPS project. What will the additional $250,000 be used towards? How much, to date, has been allocated and expended for this project? Is the project on track for completion and within the amount budgeted for? Explain. Also, provide a timeline of the project from start date to estimated full-implementation date.

Response: The MAPPS project completed its phase to create an Enterprise GIS architecture in February 2017. The Assess and Define Phase to create functional requirements finishes in April 2018. Due to challenges with the vendor's project team and the workload of County departmental staff, the project has fallen behind schedule. A contributing factor is that 135 workflows needed to be documented as opposed to the initial estimate of 100. The added cost for developing those 35 extra workflows, as well as the need to purchase licenses for an additional module to accommodate renewable permits, such as for DEM grease traps and Fire permits, accounts for the additional request for $250,000. Tyler/EnerGov is absorbing the implementation costs associated with the delays in the project, which is now expected to go live in the 3rd quarter of calendar 2019.

10. Relating to computer equipment Requests (page 10-7 of the Budget Details):

a. Why is the computer equipment needed for expansion positions in Public Works, Finance, Prosecuting Attorney, Planning, Transportation, Police, and Parks listed as equipment expenses under IT? Is this a streamlined process that all department computer-related expenses flow through IT? If so, how is the respective department's program then charged?

Response: The IT Program manages the maintenance and replacement of computers for all executive branch departments. This ensures that standards and efficiencies can be applied to the provision of computers to County employees. IT pays for that from its budget for all executive branch departments except Water Supply. As expansion positions, once

approved, add to the inventory of computers, the associated computer equipment is identified in conjunction with the expansion position requests, ensuring that only approved expansion positions are provided with computers. The County's accounting practices do not accommodate charge backs to departments.

b. The Department of Fire and Public Safety is requesting tow Office Operations Assistant II expansion positions (page 7-13 of Budget Details), yet computer-related expenses are not listed as equipment expenses under IT. Explain.

Response: This was a decision made by the Budget Office and we would defer to the Budget Director for a response.

c. The Department of Fire and Public Safety is also requesting 18 tablet computers (page 7-62 of the Budget Details). Why is this computer-related expense not listed as an IT expense?

Response: This was a decision made by the Budget Office and we would defer to the Budget Director for a response.

d. Does IT review all departmental request for computer and computer-related purchases? Explain.

Response: Yes. IT is responsible for all the support and maintenance of computer equipment. Reviewing and approving related purchases makes it possible to apply cost-saving standards and ensure compatibility with other equipment and software. This practice also creates efficiencies as IT personnel can focus on skills development for a controlled set of computer hardware and software.

We thank you for your inquiry and would be happy to address any further questions you may have regarding this subject.

Sincerely,

KEITH A. REGAN
Managing Director

Attachment A and B

IT Services Division - Dept. of Management

Highlights of FY2019 Budget Request

Budget Category	What is requested	Why is it needed?	What if it is not provided?
"A": Expansion positions	**Information Systems Analyst IV - Cyber Security**	Cyber terrorism threats increase daily. The existing 2 positions have their hands more than full monitoring and analyzing threat events. The area that is not getting sufficient attention is identy and access management, which is becoming more vulnerable through the increased use of mobile devices and cloud base applications. This expansion position will implement security policies related to identity and access management .	The County of Maui will remain vulnerable to cyber attacks that exploit weak access controls and weak identity management. State and local government is increasingly the target of attacks (even the State of Hawaii recently, and the City of Atlanta) that aim to disrupt government service delivery. The County of Maui may not be able to ward off increasingly sophisticated attacks due to insufficient resources to improve our prevention and protection efforts.
	Information Systems Analyst V - Cloud Computing	The introduction of new information systems that are based in the cloud, brings with it the need for a new skill set for managing this new way of delivering IT services. Vendor management, including negotiating and managing service level agreements, is of critical importance for cloud applications. As is the increasing reliance on new and complex connectivity technology. The present ITSD staffing will remain focused on the more than 200 on premise applications being supported.	The County of Maui will not be in a good position to effectively protect the interests of the County in the complicated vendor relationships associated with cloud-based applications. Reliable access to cloud systems and quality delivery of service by vendors, will not be ensured if dedicated and knowledgeable IT staff is not available to manage cloud services and vendors. Vendors will be able to impose their interests over those of the County of Maui.

Information Systems Analyst V - Project Portfolio Management	The demand for IT services is growing faster than the ITS Division can manage effectively. This expansion position is needed to work with the County Departments in the context of the new Project Portfoio Management team being created within ITSD. This team is expected to help Departments identifying effective technology solutions for their strategic objectives, and to provide experienced project management during the implementation of new or replacement solutions. The team will also be focused on prioritizing these projects based on strategic importance, benefit to the organization, and budget support.	ITSD will continue to struggle with the project workload (there are more than 100 projects active and in the pipeline), without being able to provide the necessary support to departments in analyzing, prioritizing, and implementing technology projects that are necessary to allow those departments to meet their strategic and operational objectives. Frustration with ITSD is already pretty high with a number of departments, and this will not improve without additional resources.
Information Systems Analyst III - MPD Body-worn Camera Support Move back to MPD budget request.	MPD needs dedicated staff, trained by MPD, to manage and support the use of body-worn cameras and the video evidence collected. The original request used an IT specific class specification, prompting the request to be attached to ITSD. ITSD is not qualified to manage this function; MPD will be able to manage this position and its function better than ITSD. By moving the expansion position to the class of "Police Specialized Equipment Technician", which is already present in MPD, would allow the position to be located within the Department, and would allow MPD to train and manage this much needed position to the fullest benefit of the Department's use of body-worn cameras.	Many jurisdictions using BWCs have learned that dedicated staff is a critical need to make the program effective. Without this position, uniformed officers will end up spending a great deal of time away from their primary responsibilities. Placing this position in MPD, as originally requested by MPD, will provide the best option to provide effective and secure support to this important capability.

"B": Operations Expansion Funding	Update 2013 IT Comprehensive Assessment	The 2013 IT Comprehensive Assessment provided valuable insight in the state of IT Service delivery at the County. ITSD has been working on implementing the recommendations of the Assessment. With the change of administration coming next year, an update of the Assessment will provide valuable information on progress made and challenges remaining for this critical component of the County's government.	Without an update, it will be hard for the new Administration and Council to make informed decisions on the direction IT Service delivery for the next 5 years. With the growing reliance on information technology and the unrelenting assault of cuber security threats to that technology, Administration and Council alike will not have informed guidance on providing support for IT Service delivery.
	HR/Payroll Year 2 Funding -- $2.25M	Council funded $1.75M of the total $4M cost of the Workday solution implementation for the County. The request is for the balance of the contractual agreement.	The project to replace ADP and ePersonality will not be completed. There will be no remedy for the many problems associated with the continued use of ADP and ePersonality. The funding for the first year of the replacement project would be wasted.
	MAPPS Additional Licensing Costs -- $250K	During contract negotiations, the estimated number of processes to issue permits was set at 100. At the end of the funcitonal requirements definition phase that number stands at 135. Included in that number are a number of permits, mostly those that are annual renewable, that require a different software module than was anticipated. The additional processes and software module are necessary to cover all the ways the future users of the new MAPPS system envision to achieve the efficiency and automation of the permitting functions of the County of Maui.	Inclusion of all the defined services in MAPPS at go live will not be possible. The options would be to delay some functionality until funding is available, or to cut costs in other areas, based on an assessment of priority and importance. Either way, the County will not be able to provide the long sought-after improvement of services to the public seeking permits and approvals.

"C": Equipment Funding			
	Additional System Maintenance and Support Costs -- $680K	New information systems such as MAPPS and the cyber security tools will move out of implementation contract funding into support and maintenance funding during fiscal 2019. This will add $350k to the annual support and maintenance costs. The technology industry has long operated on a maintenance costing model that calls for a 10% increase on average each year. This will add $330K to the FY2019 support and maintenance bill.	Absent sufficient funding to maintain information systems in a timely manner, ITSD will have to choose which systems to take of maintenance and support, increasing those systems' vulnerability to cyber security threats as vulnerabilities will not be patched. It will also result in decreasing effectiveness of those systems as upgrades to functionality and the underlying technolgies will not be applied. This will reduce County user productivity.
	Lifecycle Hardware Replacement - $295K	To replace obsolete hardware, including servers ($125k), data storage capacity ($125k), and printers ($45K). Demand for data storage capacity is increasing at a growing rate. Fewer, but more powerful servers are needed to host the close to 200 virtual servers; those virtual servers are making the necessary levels of resiliency and redundancy possible.	The capacity of the County of Maui's infrastructure to support the computing needs of the County's departments will be insufficient to provide reliable and effective information processing. The County's employees will experience interuptions resulting from aging and insufficient hardware infrastructure.
	Bomgar Secure Remote Service Desk -- $65K	This cyber security tool will improve the protection of the County's desktop computers and bring them into the cyber security environment that has been created for servers. This tool will give the IT support staff and cyber security team an integrated capability to manage and secure the computers used by the County's employees.	ITSD staff will be considerable less effective in maintaining up to date computers for the County employees. This will mean that cyber security threats aimed at the desktop computers and their users will have a greater chance of succeeding. ITSD will continue to rely on tools that have shown to fall short of the inceasing need for sophistication in protecting desktop computers.
	Mobile Data Terminals -- $45K	This request is to be able to provide Mobile Data Terminals for new police cars requested by the department.	Without this funding, additional vehicles MPD will acquire in FY 2019 will not have Mobile Data Terminals to assist Patrol Officers with their work on the beat.

	VMWare Virtual Server Software - $10K	ITSD must purchase licenses for virtual servers being built on the host server hardware to meet the needs presented by the growing number of software applications. This cost is what remains after eliminating the need for hardware servers for each information system that can be virtualized.	The County will be at risk for penalties for insufficient virtual server licenses, or will not have the ability to provide virtual servers to information systems that need them.
	Data Center A/C Replacement -- $250K	The air conditioning equipment keeping the main data center in Kalana Pakui cooled has experienced many problems in recent years. With the electrical upgrade underway now, a more robust air conditioning system can be installed to protect the equipment in the data center from overheating and subsequent failure.	The existing equipment is estimated to have at most a year of useful life remaining. Failure will create overheating conditions, that will require equipment to be shut down, taking information systems off line. This will interfere with the County's ability to deliver services to the public.
	Motor Vehicle (Replacement) -- $28K	ITSD inherited a Windstar van from Council Services that Council staff deemed unsafe to drive. Recently it has left ITSD staff stranded at Maui Mall, and has not started at other occasions. It is in the garage now. It is 15 years old and no longer able to provide acceptable transportation.	ITSD staff will be hampered providing support services to County employees at remote offices due to insufficient access to utility vehicles.
	Motor Vehicle (New) -- $28K	ITSD has 4 staff embedded at the Wailuku Police Station, charged with providing IT support to MPD at all police stations. They do not have a utility vehicle available to deliver new or replacement equipment to remote locations. MPD does not have vehicles available for the ITSD staff to use.	Without a dedicated vehicle to be shared by the 4 IT employees, response to calls for service will be delayed by the need to find a vehicle somewhere for their use. At times immediate response to problems at MPD locations is required, but not reliably provided.

	Modular Furniture and Partitions -- $20K	The furniture in the Enterprise GIS Services Section office is old and poorly suited for the work performed by GIS analysts. Replacing it will improve their ability to produce geospatial products to the organization ($15k). The ITSD staff at the Wailuku Police Station needs to create an additional work area for the Public Safety Support Section Head who supervises staff at the Station and at Kalana Pakui ($5k)	The ability to produce quality work in response to all requests for GIS maps and data will be interfered with by inadequate furniture. Supervision of the staff supporting Public Safety Agencies (MPD, MFD, and Prosecuting Attorney) will not be at the levels necessary for the responsiveness required by those agencies as the supervisor will not have an appropriate work area at the Wailuku Station.

Attachment B

DEPARTMENT	DIVISION	POSITION	POSITION TITLE	LOCATION	UNIT	SCALE	FTE	ANNLPAY	VACANT	REPORT OF ACTION
— Vacant Positions by Department 20-MAR-18 07.58.31 AM										
MANAGEMENT	MD ITS	MD-0043	INFORMATION SYSTEMS ANALYST V	KALANA PAKUI 2ND	BU13	SR-24/C	1	58308	12/31/17	Request to fill rec'd 12/11/17; eligible list sent 1/2/18; no selection made; pending recruitment.
MANAGEMENT	MD ITS	MD-0062	INFORMATION SYSTEMS ANALYST V	WKU POL STN	BU13	SR-24/C	1	58308	09/12/17	Request to fill rec'd 9/7/17, eligible list sent 9/14/17; no selection. Request to fill rec'd 12/5/17, eligible list sent 1/2/18; no selection made; pending recruitment.
MANAGEMENT	MD ITS	MD-0067	INFORMATION SYSTEM ANALYST IV *	WKU POL STN	BU-13	SR-22/C	1	51792	01/01/18	Request to fill rec'd 12/28/17, eligible list sent 3/9/18, no selection made. Req. to fill rec'd 3/23/18, pending recruitment.
* Currently filled via Exemption from Civil Service (DM-89-1)										
NRF= No request to fill received from department										
NRL = No request for list received from department										
PWOE = Department indicated method of filling to be via internal promotion without exam										
Transfer = Department indicated method of filling to ve via transfer										