

STAFF ANALYSIS
ADHOC TECHNOLOGY COMMITTEE STRATEGIC TECHNOLOGY PLAN REPORT

PROJECT: Drone Technology		MGR: Donner
EXECUTIVE SUMMARY:		RECOMMEND <input checked="" type="checkbox"/> NOT RECOMMEND <input type="checkbox"/>
<p>MOD/GRF maintenance is in support of the committee’s recommendation to pursue the use of Drone Technology and has already purchased a drone. Staff recognizes the value of saving staff time through aerial inspections. Staff does not agree that the use of drones will generate a savings of \$39,000. Staff believes that the use of drones will increase efficiency but quantifiable cost savings would be difficult to measure.</p>		
ESTIMATE OF STAFFING REQUIRED TO INVESTIGATE, OBTAIN PROPOSALS AND OPERATE THE INITIATIVE:		
Est hours to investigate/research/study:	Staff has already researched this concept.	
Estimated hours to prepare bid proposals, evaluate responses, monitor performance:	Not applicable	
Estimated hours to operationalize:	One year due to licensing requirements	
ESTIMATED TIMELINE:		
12 months due to licensing requirements.		
DEPENDENCIES:		
Staff will need to acquire the necessary license and insurance to operate a drone.		
RESOURCES REQUIRED:		
Staff has already purchased the drone. A budget would need to be approved for insurance and licensing. Staff does not agree that the use of drones will generate a savings of \$39,000. Staff believes that the use of drones will increase efficiency but quantifiable cost savings would be difficult to measure.		
GENERAL COMMENTS:		
<p>The use of a drone may save staff time in some areas, improve efficiency and increase safety through the reduction of time spent walking roofs and other physical areas of the campus. It may also decrease efficiency because the images taken by the drone will have to be downloaded, reviewed and/or printed in the office by computer-capable staff members versus the immediacy of have a staffer on a roof to conduct visual inspections, for example. The licensing element of the concept is difficult and time consuming to obtain. Staff may need to devote overtime hours towards obtaining that goal. Residents may feel that a drone invades their privacy.</p>		

**STAFF ANALYSIS
OF
ADHOC TECHNOLOGY COMMITTEE STRATEGIC TECHNOLOGY PLAN REPORT**

PROJECT: Fiber Optic Cable Replacement		MGR: Chakoff
EXECUTIVE SUMMARY:		RECOMMEND <input checked="" type="checkbox"/> NOT RECOMMEND <input type="checkbox"/>
Staff agrees with the Committee’s recommendation to replace the fiber optic cable. It was included with the 2019 capital budget that was approved in February 2019.		
ESTIMATE OF STAFFING REQUIRED TO INVESTIGATE, OBTAIN PROPOSALS AND OPERATE THE INITIATIVE:		
Est hours to investigate/research/study:	65 Hrs.	
Estimated hours to prepare bid proposals, evaluate responses, monitor performance:	22 Hrs.	
Estimated hours to operationalize:	180 Hrs.	
ESTIMATED TIMELINE:		
Phase one would take approximately 20 days. Planned start date is April 15, 2019.		
Phase two would take approximately 45 days with a planned start day June 24, 2019.		
DEPENDENCIES:		
<p>The project will be done in two phases.</p> <p>Phase 1 will involve an inspection of the conduit in which the existing fiber optic cable resides and the installation of a “Pull Tape” that would be used to install the new cable. The existing cable will remain operational while this process is being performed. The budget for this phase is \$60,000.</p> <p>Phase 2 will be dependent on the outcome pf phase 1. If the inspection determines that the conduit is in good condition, the new cable would be installed using the “Pull Tape.” The budget for this phase is \$160,000.</p> <p>If it is determined that all or part of the conduit needs to be replaced there would be an additional cost. This would need to be determined and presented to the Board.</p>		
RESOURCES REQUIRED:		
The project will be done by an outside vender with overall management by staff.		
GENERAL COMMENTS:		

The Fiber optic cable is the backbone of the Rossmoor corporate network. It provides connectivity for our computer data as well as the telecommunications, access control for the security gate and video surveillance. It connects Mutual Operations, Gateway, Creekside, the fitness center and the security gate.

The existing fiber optic allows for data transmission speeds of 100 Mbps per strand. We are currently at the limit of the amount of data that we can pass on our network and with the increasing demands of computer, telecommunications and video surveillance our current bandwidth is insufficient. The new fiber optic cable will allow for data speeds in excess of 10 Gbps per strand. In addition, the current fiber optic is over 20 years old and several strands have failed.

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PROJECT: Gateway Data Site Relocation		MGR: Chakoff
EXECUTIVE SUMMARY:		RECOMMEND <input checked="" type="checkbox"/> NOT RECOMMEND <input type="checkbox"/>
<p>The recommendation of the Adhoc Technology Committee was to relocate the data mirrored site upon the completion of the fiber optic project</p> <p>Staff agrees with the recommendation from the Technology Committee with the exception that if the generator for the Gateway complex is approved, we would not need to relocate the data mirrored site.</p>		
ESTIMATE OF STAFFING REQUIRED TO INVESTIGATE, OBTAIN PROPOSALS AND OPERATE THE INITIATIVE:		
Est hours to investigate/research/study:	25 Hrs.	
Estimated hours to prepare bid proposals, evaluate responses, monitor performance:	12 Hrs.	
Estimated hours to operationalize:	300 Hrs.	
ESTIMATED TIMELINE:		
Due to the demand for generators the lead time would be 4 to 5 months before delivery. Electrical work and project management would be approximately 300 Hrs.		
DEPENDENCIES:		
<p>The Fiber Optic Project completion</p> <p>Installation of a backup generator at Creekside. Cost to be determined</p>		
RESOURCES REQUIRED:		
IT Staff, Electrical contractor, and Wiring contractor for the network rewiring that will need to be done in the small electrical room.		
GENERAL COMMENTS:		
<p>By relocating the data center to Creekside from Gateway we would have an area that would allow for a smaller generator than the one proposed for the Gateway generator project.</p> <p>NOTE If the Gateway generator project moves forward we would NOT need to relocate the data center from Gateway to Creekside.</p>		

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PROJECT: LED Street Lighting		MGR: Matheson
EXECUTIVE SUMMARY:		RECOMMEND <input checked="" type="checkbox"/> NOT RECOMMEND <input type="checkbox"/>
<p>This is a project that is currently underway. The recommendation has accurate information regarding the steps GRF is undertaking with Enovity. Enovity is studying energy efficiency opportunities including LED street lighting, interior lighting, HVAC upgrades, pump upgrades, etc. The goal is to package energy savings measures together to achieve the required 10 year payback for the PGE On Bill Financing program.</p>		
ESTIMATE OF STAFFING REQUIRED TO INVESTIGATE, OBTAIN PROPOSALS AND OPERATE THE INITIATIVE:		
Est hours to investigate/research/study:	40 staff hours working with Enovity and providing information requested	
Estimated hours to prepare bid proposals, evaluate responses, monitor performance:	Within the 40 hours listed above	
Estimated hours to operationalize:	The work to implement the changes will be done by contractors.	
ESTIMATED TIMELINE:		
<p>Enovity is currently analyzing the potential cost savings of a number of measures. These energy savings measures will then be submitted to PGE for approval under the On Bill Financing Program. Once finalized, the approved measures will be implemented. LED street lights will be among the first measures implemented. The agreement with Enovity covers a three year period.</p>		
DEPENDENCIES:		
<p>Implementation of the LED street lights is dependent on approval by PGE to fund under the On Bill Financing Program.</p>		
RESOURCES REQUIRED:		
<p>The PGE On Bill Financing program is a zero interest loan that is paid back with the energy savings over a maximum 10 year period. The cost to implement the energy savings measures is yet to be determined.</p>		
GENERAL COMMENTS:		
<p>Staff agrees with this recommendation and is working toward implementation.</p>		

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PROJECT: On Demand Transportation Trial		MGR: Matheson
EXECUTIVE SUMMARY:		RECOMMEND <input checked="" type="checkbox"/> NOT RECOMMEND <input checked="" type="checkbox"/>
<p>GRF is currently conducting an On Demand pilot through grant funds from Measure J. The pilot involves operating an On Demand service with GRF busses and staff. The pilot includes a new software program that routes the buses based on requests for rides. Patrons can request a ride using a smartphone app or by calling dispatch. If using the app, the patron can track the progress of the bus and be alerted of its arrival time. For the pilot the service is replacing the underperforming white line. The pilot ends in May. At that time further modifications will be considered.</p> <p>Partnering with Uber/Lyft is another option for expanding service or replacing underutilized service times. Uber/Lyft does have limitations for paratransit service and meets a different demographic than the typical Rossmoor transit user. Many factors would need to be analyzed if such a service were introduced. Some considerations include service time, service area, ride subsidy provided, potential restrictions on how many times one resident can use the service, dispatch options, accessibility issues, capacity concerns for the system, etc.</p>		
ESTIMATE OF STAFFING REQUIRED TO INVESTIGATE, OBTAIN PROPOSALS AND OPERATE THE INITIATIVE:		
Est hours to investigate/research/study:	80 staff hours in research, meetings, contracts, reports, union negotiations, etc.	
Estimated hours to prepare bid proposals, evaluate responses, monitor performance:	120 staff hours is estimated to develop and implement an on demand supplemental service with Uber and Lyft.	
Estimated hours to operationalize:	Once in full operation the ongoing staff time would be minimal.	
ESTIMATED TIMELINE:		
<p>Prior to introducing Uber/Lyft service, staff proposes completing the pilot and implementing any service modifications using the grant funding already received through Measure J for On Demand. In depth evaluation of Uber/Lyft service to supplement or replace underutilized service would take place over the next year. Grant funding would be evaluated however implementation should not be based on grant funds. Grant funds are limited and once a service is offered there will be an expectation of it being available ongoing.</p>		
DEPENDENCIES:		
<p>Implementation of Uber/Lyft OnDemand should come after the completion of the On Demand pilot and first year of operation of the OnDemand service offered by GRF transportation.</p>		
RESOURCES REQUIRED:		
<p>Resources for an agreement with Uber/Lyft would come from reallocating budgeted funds from existing transportation services. The subsidy provided to residents and parameters still need to be identified.</p>		

GENERAL COMMENTS:

It is important to identify opportunities for expanding transportation opportunities for residents. This helps meet the goals of keeping residents active and independent. Uber/Lyft provides a service that is appealing to many residents while also being very foreign and uncomfortable to others. A service level would need to be developed that enhances transit opportunities for all residents while not increasing the cost.

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PROJECT: Solar System for Common Areas		MGR: Matheson
EXECUTIVE SUMMARY:		RECOMMEND <input checked="" type="checkbox"/> NOT RECOMMEND <input type="checkbox"/>
<p>Although the solar project approved in 2015 has proven to be a challenge getting through regulatory agencies, there is still savings that will be realized once the array is constructed and operational. The system currently planned does leave significant reliance on PGE electricity for the many meters assigned to GRF facilities. Based on this reliance a second system would yield benefit in cost savings as well as benefit the environment. In order to reduce the regulatory process it is recommended a second system not be located on previously unimproved land.</p>		
ESTIMATE OF STAFFING REQUIRED TO INVESTIGATE, OBTAIN PROPOSALS AND OPERATE THE INITIATIVE:		
Est hours to investigate/research/study:	Significant time researching opportunities <i>and working with stakeholders. Estimate for staff time is 80 hours.</i>	
Estimated hours to prepare bid proposals, evaluate responses, monitor performance:	Significant time in meeting, negotiating, contracts, regulatory review, etc. <i>Estimated staff time is 80 hours</i>	
Estimated hours to operationalize:	Contract and construction management would be time over several months. Estimated staff time is 120 hours +/-	
ESTIMATED TIMELINE:		
<p>The solar array planned for Rockview and over the RV lot should reach a point of construction prior to engaging in a second array. This does not mean preliminary review and discussions on a staff level needs to wait.</p> <p>A second array should be planned for parking lot or roof structures to reduce the regulatory review process. Significant time is needed to evaluate proposals and ultimately negotiate a contract for lease or PPA.</p>		
DEPENDENCIES:		
The project would be dependent on PGE, incentives, regulatory review, and community interest.		
RESOURCES REQUIRED:		
Staff resources are needed to research and evaluate options. Financial resources are dependent on the method of procurement.		
GENERAL COMMENTS:		
The recommendation suggests a resident committee. Such a committee could be involved in review and recommendations to the board and help with outreach to the community. The committee should not be directly involved in oversight or solicitation of contractors or consultants.		

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PROJECT: TV/Internet Provider Alternatives		MGR: O'Keefe
EXECUTIVE SUMMARY:		RECOMMEND <input type="checkbox"/>
		NOT RECOMMEND <input type="checkbox"/>
<p>As both an internet service provider and an owner of extensive broadcasting content, Comcast is in a unique position to offer Rossmoor an extraordinary discount on a bulk package that would be impossible to replicate with another provider. The current cable TV and internet package from Comcast represents a tremendous value to Rossmoor residents. At the time it was structured in 2016, it represented the lowest bulk price in the U.S. for similar services.</p> <p>The ATC recommends that a new committee should be formed to study alternatives for the delivery of TV and internet service to the Rossmoor community. Undertaking a study of this magnitude would be a significant investment of time and resources with no assurance that it would result in a cost savings or improvement of service with a distinct possibility of higher overall household costs, less service and a less reliable system.</p> <p>If the Board wishes to proceed with the Committee's recommendation, staff recommends that the new committee is formed in spring 2019 to construct a community survey by end of summer. Due to the complex, highly regulated and costly endeavor of owning and operating a telecommunications system, staff also recommends the retention of a telecommunications consultant to guide the Board and committee on the process and identify viable options that could be available to GRF, if the results of the survey indicate community interest in an ala carte streaming TV service. The consultant would also be used to design the bid package, solicit and evaluate bids and manage the infrastructure improvements.</p>		
ESTIMATE OF STAFFING REQUIRED TO INVESTIGATE, OBTAIN PROPOSALS AND OPERATE THE INITIATIVE:		
Est staff hours to investigate/research/study:	1,000 over 2 years	
	If decision is ultimately made to own/operate a telecommunications system, additional significant investment in personnel and equipment will be necessary	
Estimated hours to prepare bid proposals, evaluate responses, monitor performance:	100	
Estimated hours to operationalize:	TBD	
ESTIMATED TIMELINE:		
<p>The committee should be formed by spring 2019 to develop a community survey for distribution by end of summer. The consultant should be retained by end of summer 2019. 2020 would be spent evaluating the options with the consultant resulting in requests-for-proposals for the preferred option by fall 2020. If the decision is made to own/operate a telecommunications system, or a new provider is selected, a contract could be awarded in late 2020 or early 2021 so that the award recipient would have adequate time to plan for and implement the infrastructure changes necessary by December 2021 when the current contract ends.</p>		
DEPENDENCIES:		

The GRF Board of Directors should first decide whether it wants to dedicate staff and financial resources to this initiative.

RESOURCES REQUIRED:

Based on our experience in 2014 and 2015 with a telecommunications consultant under 2 separate contracts, it is anticipated that a consultant could cost approximately \$200,000 to conduct a feasibility study and evaluate options. There would be additional capital costs in the range of multi-millions if GRF were to own and operate its own telecommunications network with a significant annual operating budget in the \$3 million range. Although this would likely be lower than the current cost of Comcast service, it does not include the additional fees individual residents would incur to purchase TV content directly from content owners, aggregators or streaming services, which could exceed the current Comcast cost.

GENERAL COMMENTS:

There were several areas that were minimized or not addressed in the Committee's recommendation but were detailed in the previous telecommunications consultant's report. In particular, the cost and risk of owning our own system with the necessary operational support infrastructure would not be insignificant, whether provided by GRF directly or by a 3rd party under contract. Currently, Comcast can promptly address service outages and maintenance issues. With a GRF-owned system, GRF would have to make space available for and invest in new facilities for offices, vehicles, inventory and equipment. Connecting hardware would have to be purchased for each of the 6,700 manors. Many, if not all, streets, medians and residential buildings would have to be disturbed to install new fiber. System malfunctions and breakdowns are not uncommon and GRF would have the responsibility of repairing and restoring service promptly. In addition, according to our prior consultant, 3rd party operators are notoriously underfunded and transient.

The content package currently provided would be difficult to match at \$38/mo. for more than 220 channels as well as the internet service at \$17/mo. for 100 mbps (currently at 150 mbps) which includes the modem/router for each household and high definition signal. Alternatively, Hulu with live TV starts at \$45 for just 60 channels. The least expensive live streaming service, Sling TV, starts at \$25 for 30 channels but only includes 2 of the 4 major networks.

The Committee did not analyze (nor would it necessarily know at this early stage) whether residents have the interest or technical know-how to 'cut the cord,' live with reduced TV offerings, know how to substitute other streaming options over the internet using, for example, a Roku or Firestick device, setup and record digital video, etc. However, based on the types of technology issues that residents notify us and Comcast about with their TV's, phones, smart speakers, tablets and computers, moving this direction would likely prove very challenging for a large number of residents.

On the other hand, if residents are willing to give up a significant number of TV channels, desire to only purchase the channels they want to watch and have the technical ability to replace TV viewing with live streaming over the internet, it is possible that many residents could realize a small savings on their coupon and would gain the flexibility of paying for small blocks of channel content that they are interested in rather than a massive package of channels that few people watch.

If the Board wishes to move forward with this initiative, the process of hiring a consultant and forming an exploratory committee must start immediately.

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PROJECT: Autonomous Vehicle Development		MGR: O’Keefe
EXECUTIVE SUMMARY:		RECOMMEND <input checked="" type="checkbox"/> NOT RECOMMEND <input type="checkbox"/>
The Committee recommends that standards are developed in the event that autonomous vehicles are tested in Rossmoor to ensure GRF and residents are safe and legal, insurance and regulatory conditions are met.		
ESTIMATE OF STAFFING REQUIRED TO INVESTIGATE, OBTAIN PROPOSALS AND OPERATE THE INITIATIVE:		
Est hours to investigate/research/study:	40 hours for staff plus additional hours for insurance and legal review.	
Estimated hours to prepare bid proposals, evaluate responses, monitor performance:	TBD	
Estimated hours to operationalize:	TBD	
ESTIMATED TIMELINE:		
The project would take about 40 hours of staff time plus additional review by insurance and the general counsel.		
DEPENDENCIES:		
Insurance and legal review.		
RESOURCES REQUIRED:		
Staff can create a template, however, it would be recommended to have the (former) Adhoc Technology Committee members survey other communities who have already worked with autonomous vehicle developers.		
GENERAL COMMENTS:		
<p>The Committee focused on creating standards for autonomous vehicle developers but omitted discussion of the considerable advantages of the technology for seniors:</p> <ul style="list-style-type: none"> • There would be fewer accidents, as human error would be nullified. • It would be accessible to anyone. Senior citizens, visually-impaired or other impaired residents, intoxicated or simply fatigued drivers would all be able to transport themselves safely without any unnecessary hazards. • Redundant drivers would be eliminated. As the car can drive itself to wherever it is required, there would no longer be the need for a driver to perform the specific chore of transporting 		

another individual. This would allow the passenger to be at ease from the tasks of driving and navigation.

- Parking scarcity would also be resolved, as the car could drop off passengers, park far away and then return to pick them up whenever it is required.
- There would be a reduced need for road signage, as the car would receive information electronically through signals.
- There would also be a better management of traffic flow, which would be monitored over a controlled system.
- There would be fewer cars on the road, as families would only need one car to suit the needs of every member. This would sequentially cut down on carbon dioxide emissions, thus being more environmentally friendly.
- Most importantly and relevantly to Rossmoor, our residents would have the ability to remain independent in their homes longer.

Current autonomous vehicle initiatives underway in Rossmoor are:

- Postmates: robotic delivery service; expected start date April 2019
- Contra Costa Transportation Authority: application filed in March 2019 for \$10 million in federal funding to pilot autonomous shuttle in Rossmoor
- Voyage: autonomous vehicle testing; applied February 2019

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PROJECT: Business Intelligence Decision Support		MGR: Chakoff
EXECUTIVE SUMMARY:		RECOMMEND <input checked="" type="checkbox"/> NOT RECOMMEND <input type="checkbox"/>
Staff agrees with the recommendation to undertake a pilot project to produce Dashboard reporting on a variety of key factors.		
ESTIMATE OF STAFFING REQUIRED TO INVESTIGATE, OBTAIN PROPOSALS AND OPERATE THE INITIATIVE:		
Est hours to investigate/research/study:	30	
Estimated hours to prepare bid proposals, evaluate responses, monitor performance:	40	
Estimated hours to operationalize:	This would be dependent on the amount of data to be tracked via a dashboard, the software chosen and the training time needed. It would involve meetings with various staff to determine the key data points to track.	
ESTIMATED TIMELINE:		
It is difficult to estimate a timeline without further research. Possibly three to four months from initiating the project.		
DEPENDENCIES:		
Database integration project		
RESOURCES REQUIRED:		
The project will be done by an outside vendor with assistance from staff.		
GENERAL COMMENTS:		
A dashboard is a tool that tracks key performance indicators that are constantly updated. This would allow for mid-month views into various data points without waiting for month end reports.		

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PROJECT: Document Scanning and Online Retrieval		MGR: Chakoff, Donner
EXECUTIVE SUMMARY:		RECOMMEND <input checked="" type="checkbox"/> NOT RECOMMEND <input type="checkbox"/>
<p>The Technology Committee Report recommends that we continue to scan documents in order to minimize the amount of paper storage of documents, allow for easier document retrieval and provide for greater document security.</p> <p>Staff agrees that we should continue to scan both newly created and historical documents.</p>		
ESTIMATE OF STAFFING REQUIRED TO INVESTIGATE, OBTAIN PROPOSALS AND OPERATE THE INITIATIVE:		
Est hours to investigate/research/study:	TBD	
Estimated hours to prepare bid proposals, evaluate responses, monitor performance:	TBD	
Estimated hours to operationalize:	TBD	
ESTIMATED TIMELINE:		
<p>There is no estimated timeline for completion. Since this is an operating expense, it is recommended that funds be included in the 2020 budget for a third party to scan documents.</p>		
DEPENDENCIES:		
RESOURCES REQUIRED:		
<p>In order to expedite the process, it is recommended that much of the scanning be outsourced. Currently staff is investigating updated copiers that will scan documents in to the document imaging system. It remains to be determined the volume of existing documents could be scanned in-house.</p> <p>The Tech Report states there would be a \$1,000/year reduction in man hour resulting in a decrease in costs. Although we agree that there would be some increase in efficiency, it isn't possible to determine if there would be a substantive cost reduction</p>		
GENERAL COMMENTS:		

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PROJECT: Event Management and Room Reservations		MGR: Matheson
EXECUTIVE SUMMARY:		RECOMMEND <input checked="" type="checkbox"/>
		NOT RECOMMEND <input checked="" type="checkbox"/>
<p>Staff agrees with the goal of improving software applications to provide better online options for accessing information and completing transactions. Staff is implementing a program called ThunderTix for the sale of concert tickets, class registration and excursion reservations. Staff is also researching options for a new facility reservation system. In addition staff is researching a new golf management system that would allow for online tee reservations. Staff is proposing the creation of a resident portal on Rossmoor.com. This resident portal would provide access to the various software programs in use by GRF with a single login. All these programs have an open API and will integrate with the new central database that was approved for funding and should be complete in 2019.</p> <p>Staff does not agree with the assessment of JEvents. This software does not provide the robust functions that is needed by staff and does not meet the needs for the current practices for completing reservations with clubs. Staff is investigating programs that will meet the needs of the department and residents.</p>		
ESTIMATE OF STAFFING REQUIRED TO INVESTIGATE, OBTAIN PROPOSALS AND OPERATE THE INITIATIVE:		
Est hours to investigate/research/study:	Staff is in the process of developing and implementing new software programs. Significant time is spent evaluating options. <i>Staff time is estimated at 80 hours per department.</i>	
Estimated hours to prepare bid proposals, evaluate responses, monitor performance:	Significant time is needed to review options with staff from various departments and work through various issues. <i>Estimated staff time is 80 hours.</i>	
Estimated hours to operationalize:	Training required implementing and transition to a new program is significant. This includes time needed to assist residents in use of new systems. <i>Estimated staff time per department impacted by a new software system is 120 hours.</i>	
ESTIMATED TIMELINE:		
<p>The ThunderTix program is being implemented and will be in use by staff in spring 2019. It will be open for resident access in late summer depending on the approval of funding for the resident portal.</p> <p>The implementation for Golf and Room Reservation software is planned for late fall 2019.</p>		
DEPENDENCIES:		
Implementation of the online programs are dependent on the funding approval of the resident portal.		
RESOURCES REQUIRED:		

Staff resources are needed to research and evaluate options. Financial resources are dependent on the final software products selected. The room reservation system is estimated to cost under \$2,500 annually. ThunderTix is \$6,000 annually with the cost included in the ticket prices, and the golf software is \$4,500 annually which is just under the current system cost for point of sale only.

GENERAL COMMENTS:

Staff is progressing to new software solutions that will all integrate with the new central database that has been funded in the capital budget. Access to the online tools will be available through a resident portal that still needs to be approved and funded.

The implementation of new software should help with work flow for staff and provide residents with access to many processes online. The software will not take the place of staff and may increase the demand for staff time through assistance with training and trouble shooting. Many Rossmoor residents prefer and some resident transactions require human interaction and do not lend themselves to an online presence. While an online presence will be preferred by many residents, it is not anticipated that there will be measurable labor savings for the foreseeable future but this will certainly be monitored closely as these programs gain acceptance.

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PROJECT: Irrigation Watering Technology		MGR: Donner
EXECUTIVE SUMMARY:		RECOMMEND <input checked="" type="checkbox"/> NOT RECOMMEND <input type="checkbox"/>
<p>This proposal is well researched and appropriately detailed and staff supports its implementation with a few minor adjustments;</p> <ul style="list-style-type: none"> • In instances where drip irrigation is recommended it should be noted that bubblers are also acceptable. Unfortunately gophers find drip tubing particularly palatable which has prevented us from expanding our use of it. Bubblers are the next best alternative. • More research is needed in regards to soil sensors to determine their practical feasibility. • Staff supports the 5-year timeline. 		
ESTIMATE OF STAFFING REQUIRED TO INVESTIGATE, OBTAIN PROPOSALS AND OPERATE THE INITIATIVE:		
Est hours to investigate/research/study:	16-32	
Estimated hours to prepare bid proposals, evaluate responses, monitor performance:	16	
Estimated hours to operationalize:	60 hours of manager time; if projects are performed by staff then approximately 2,000 hours of staff time	
ESTIMATED TIMELINE:		
Staff agrees with the 5-year timeline proposed in the report.		
DEPENDENCIES:		
Project funding is needed.		
RESOURCES REQUIRED:		
Some aspects of this project can be completed with in-house staff. For larger projects such as lawn removals we will need to contract the work to an outside crew.		
GENERAL COMMENTS:		
As mentioned in the report, replacing turf areas with drought-tolerant landscaping will save the community water, costs to maintain lawn and the use of herbicides and fertilizers. The result will require maintenance however, and that will be an added burden for our crews. Right now the lawns are maintained by an outside contractor but if the medians are converted to shrubs we would take on the maintenance in-house. The cost and resource savings to maintain the areas with our crews still far outweighs the costs so staff is supportive of the suggestions made in the report.		

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PROJECT: Wi-Fi Coverage Common Spaces	MGR: Chakoff
EXECUTIVE SUMMARY:	RECOMMEND <input checked="" type="checkbox"/> NOT RECOMMEND <input type="checkbox"/>
<p>Staff's recommendation is that we add additional Meraki wireless access points to cover all the GRF buildings. In addition to adding new more powerful WAP's "Wireless Access Points," we would also be replacing the older units with the newer WAP's. In doing so we would greatly increase our coverage areas and overall performance for all the GRF buildings</p> <p>This would remove the need for users of the wireless network to have a Comcast username and password.</p>	
ESTIMATE OF STAFFING REQUIRED TO INVESTIGATE, OBTAIN PROPOSALS AND OPERATE THE INITIATIVE:	
Est hours to investigate/research/study:	80 Hrs.
Estimated hours to prepare bid proposals, evaluate responses, monitor performance:	10 Hrs.
Estimated hours to operationalize:	40 Hrs.
ESTIMATED TIMELINE:	
This project would take approximately 30 days to complete once approved	
DEPENDENCIES:	
Comcast would have to allow us to access the modem to add attritional access points in all GRF buildings	
RESOURCES REQUIRED:	
<p>Wiring contractor for new network runs</p> <p>Comcast would have to replace a few of the modems to allow for the addition of the new access points which would likely have to be negotiated into the renewal TV/Internet contract.</p>	
GENERAL COMMENTS:	
If this plan is implemented all the GRF buildings would be covered with the Rossmoor Wi-Fi and this would eliminate the need for users of the Wi-Fi network to have a Comcast username and password.	

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ADHOC TECHNOLOGY COMMITTEE STRATEGIC TEHCNOLOGY PLAN REPORT**

PROJECT: Web Enabled Member Interaction		MGR: Matheson
EXECUTIVE SUMMARY:		RECOMMEND <input checked="" type="checkbox"/> NOT RECOMMEND <input checked="" type="checkbox"/>
<p>The capital project budget presented to the Board on February 28th contained funding for the creation of a member web portal. This portal will be integrated with the new central database which was approved for funding. The portal will give residents access to various documents and applications. Applications may include a new golf management system, new ticketing and activity registration system, etc. These standalone systems will be linked with a single sign in under the portal. Funding consideration for the creation of the portal was delayed until July of 2019.</p> <p>The creation of a web portal will provide a resource for more tech savvy residents interested in making purchases and seeking information online. It will not replace the need for staffing in these various areas to still deal with in person transactions and to be available to answer the phone and provide human interaction which is an important part of the Rossmoor experience. In addition more tech time may be needed to assist residents with completing transactions online.</p>		
ESTIMATE OF STAFFING REQUIRED TO INVESTIGATE, OBTAIN PROPOSALS AND OPERATE THE INITIATIVE:		
Est hours to investigate/research/study:	This will take time from staff to research needs and appropriate applications. 80-120 person hours	
Estimated hours to prepare bid proposals, evaluate responses, monitor performance:	40 hours of staff time is estimated	
Estimated hours to operationalize:	Ongoing to maintain programs and applications. Additional IT staff may be needed. 60-90 days to implement.	
ESTIMATED TIMELINE:		
If funding is approved in July the initial web portal can be designed and implemented over a six month period. The portal would continue to evolve as new applications are added.		
DEPENDENCIES:		
The web portal is dependent on the central database and the implementation of new applications that will provide online services including ticketing, class registration, reservations, tee times, etc.		
RESOURCES REQUIRED:		
The budget estimate for the creation of just the web portal is \$35,000.		
GENERAL COMMENTS:		

Moving toward an online platform for residents to have the ability to complete transactions and find updated program information is valuable. It will meet the interests of many new residents that are accustomed to online services/transactions. It will not replace the need for and the importance of having staffing to meet with residents and assist them with a variety of transactions. The human interaction provides an important high level of service that most Rossmoor residents need and expect.

STAFF ANALYSIS
ADHOC TECHNOLOGY COMMITTEE STRATEGIC TECHNOLOGY PLAN REPORT

PROJECT: Database Integration		MGR: Chakoff
EXECUTIVE SUMMARY:		RECOMMEND <input checked="" type="checkbox"/> NOT RECOMMEND <input type="checkbox"/>
Staff agrees with the recommendation to proceed with the Data41 database integration project. The Board approved the proposal with an estimated cost of \$55,000 at the February GRF Board meeting.		
ESTIMATE OF STAFFING REQUIRED TO INVESTIGATE, OBTAIN PROPOSALS AND OPERATE THE INITIATIVE:		
Est hours to investigate/research/study:	60 Hrs.	
Estimated hours to prepare bid proposals, evaluate responses, monitor performance:	10 Hrs.	
Estimated hours to operationalize:	205 Hrs.	
ESTIMATED TIMELINE:		
Project started on March 1, 2019. Estimated completion date is June 1, 2019.		
DEPENDENCIES:		
N/A		
RESOURCES REQUIRED:		
<p>The project will be done by an outside vendor with assistance from staff.</p> <p>The Adhoc Tech Committee report states that there will be a savings on the coupon as a result of integrating databases. Staff doesn't anticipate any significant savings since there isn't a great deal of time necessary to add residents to existing databases.</p>		
GENERAL COMMENTS:		
The integration of various databases will allow for continuity of data, improve efficiencies across multiple department, and reduce the possibility of data conflict.		

STAFF ANALYSIS
ADHOC TECHNOLOGY COMMITTEE STRATEGIC TECHNOLOGY PLAN REPORT

PROJECT: Jenark Upgrade and Standard API		MGR: Chakoff
EXECUTIVE SUMMARY:		RECOMMEND <input checked="" type="checkbox"/>
		NOT RECOMMEND <input checked="" type="checkbox"/>
<p>The recommendation is mixed. The recommendation of the Tech committee was to create a software evaluation process to compare the cost and benefits of the following:</p> <ol style="list-style-type: none"> 1. Database integration with Jenark API implementation <ul style="list-style-type: none"> • <i>Staff response:</i> The integration of the databases in use has been addressed by a recently approved proposal from Data41 which will integrate Jenark with the Fitness Center, Gate Access, Golf and Recreation systems. 2. Community Association Management/Property Management conversion and implementation <ul style="list-style-type: none"> • <i>Staff response:</i> For various reasons discussed in the Staff Analysis of the Community Association/Property Mgt. Software, staff disagrees with this recommendation 3. Upgrade of Jenark Property Management Software <ul style="list-style-type: none"> • <i>Staff response:</i> Staff will analyze new releases and upgrades to the Jenark system. To the extent they are of benefit to our operations they will be implemented. 		
ESTIMATE OF STAFFING REQUIRED TO INVESTIGATE, OBTAIN PROPOSALS AND OPERATE THE INITIATIVE:		
Est hours to investigate/research/study:	TBD	
Estimated hours to prepare bid proposals, evaluate responses, monitor performance:	N/A	
Estimated hours to operationalize:	TBD	
ESTIMATED TIMELINE:		
TBD		
DEPENDENCIES:		
This would be dependent on any software upgrades that are recommended for implementation		
RESOURCES REQUIRED:		
The Tech Committee report states that cost savings will be realized if workflow is streamlined. Any cost savings would be in the area of labor expense and would require the elimination of a portion of the staff work pool. There is no evidence included in the Tech Report that this would occur.		
GENERAL COMMENTS:		

Much of the Tech Committee’s recommendation is based on the integration for GRF’s separate databases. With the approval of the Data41 project previously mentioned, the issue of the lack of integration has been addressed. If new software is identified by staff that requires integration to Jenark, staff will evaluate the merits of using the Data41 process or another form of integration such as a standard API offered by Jenark.

The appendix to the Tech Report recommends the commissioning of a GRF taskforce to evaluate the possible pathways for upgrading, migrating or converting current property management software beginning in 2019. As stated in the Staff Analysis of the Community Association/Property Mgt. Software, staff disagrees with this recommendation.

The Tech Committee report goes on to state that the taskforce should be comprised of GRF staff, a consultant and “perhaps GRF members with subject matter expertise.” Although a taskforce is not recommended at this time, if one were to be formed in the future it should consist of staff as determined by management and a third party consulting firm if deemed necessary. GRF members should remain a part of governance and not part of management.

STAFF ANALYSIS
ADHOC TECHNOLOGY COMMITTEE STRATEGIC TECHNOLOGY PLAN REPORT

PROJECT: Community Association/Property Mgt. Software		MGR: Chakoff, Donner
EXECUTIVE SUMMARY:		RECOMMEND <input type="checkbox"/>
		NOT RECOMMEND <input checked="" type="checkbox"/>
<p>The Technology Committee Report recommends that a technology evaluation committee team be established in early 2019 to review alternative property management applications included in the report. Staff disagrees with this recommendation:</p> <ul style="list-style-type: none"> • As discussed further in this response, there is no identified need to replace Jenark and other systems currently in use in the near future. • The staff time involved would be substantial, taking time away from other duties. • The evaluation could require the use of an outside consultant at an additional cost. • The report states that the cost of the system would be \$350,000. Although this cost is a very rough estimate and could be substantially higher, this is a very major expenditure with little, if any, payback. • The cost savings of \$120,000 included in the report are unsubstantiated. • As stated in the risk factors in the report, it will be a challenge to identify a system that will accommodate the complexities of GRF and Mutual membership <p>We believe that GRF will consider moving to another system from Jenark at some point. However, in considering the substantial cost, investment of staff time and lack of any significant demonstrable payback, we don't believe it would be prudent to undertake this in the near future.</p>		
ESTIMATE OF STAFFING REQUIRED TO INVESTIGATE, OBTAIN PROPOSALS AND OPERATE THE INITIATIVE:		
Est hours to investigate/research/study:	This would involve several employees. Total estimated hours = 600	
Estimated hours to prepare bid proposals, evaluate responses, monitor performance:	This would involve several employees. Total estimated hours = 1,000	
Estimated hours to operationalize:	This would involve several employees. Total estimated hours = 3,000	
ESTIMATED TIMELINE:		
A system implementation is a major undertaking and typically spans about two years for planning and implementation, and possibly longer.		
DEPENDENCIES:		
N/A		
RESOURCES REQUIRED:		

If it was determined that GRF should go forward with a system to replace Jenark this would involve the employment of a project manager. In addition, this would involve the formation of a staff selection/implementation team and possibly the use of outside temporary help.

The report indicates that the overall project cost would be \$350,000. This is a very imprecise estimate of the cost and would require a more definitive budget. The cost could easily exceed the \$350,000 estimate.

The report includes a projection of approximately \$120,000 per year in cost savings. This number was derived by multiplying \$12 million in labor costs by 1%. Although it is mathematically correct that \$120,000 is 1% of \$12 million, there is no evidence to suggest that these savings could be achieved.

GENERAL COMMENTS:

There are a number of reasons to replace a software system. These would include:

- The ability to integrate various databases: This has been addressed by a recently approved proposal from Data41 which will integrate Jenark with the Fitness Center, Gate Access, Golf and Recreation systems.
- Cost reduction: There are not any projected reductions in cost that would result from the implementation of a new system. The Tech Committee report includes estimated savings of \$120,000 per year calculated by multiplying \$12 million in labor costs by 1%. There was, however, no basis upon which this reduction would be achieved.
- Improved workflow efficiency: Although it is always possible to improve processes, there is no evidence that implementing a new system would result in increased efficiency and cost savings that would justify the significant investment.
- Additional resident services: Staff recently implemented the Si-Pass and Mind Body systems at the Tice Creek Fitness Center. Currently staff is in the process of identifying systems to be used for Golf Operations and the Recreation Department. By analyzing separate systems for various activities in Rossmoor, this will allow for a solution that will fill specific requirements.

STAFF ANALYSIS
ADHOC TECHNOLOGY COMMITTEE STRATEGIC TECHNOLOGY PLAN REPORT

PROJECT: Modern Online Infrastructure		MGR: Matheson
EXECUTIVE SUMMARY:		RECOMMEND <input type="checkbox"/>
		NOT RECOMMEND <input checked="" type="checkbox"/>
<p>In the Tech report the Committee did not recommend this approach as proposed by the author. Staff agrees this is the wrong approach. Staff does not believe incorporating our operations into a CMS (content management system) via plugins is the right direction to take. In order to bring certain aspects online staff believe that switching over to cloud based software or SAAS (Software as a Service) would be a much better approach. These are turn-key solutions and benefit from full customer service, online web servers, and both Front-end and Back-end solutions. With implementation of the Data 41 integration plan and the progression toward a resident portal staff is progressing toward the SAAS model. New software for ticketing, reservations, golf, etc. will fit with the model staff is proposing. Some examples of new software include ThunderTix and Foreup for golf. Staff is still researching a new reservation program.</p>		
ESTIMATE OF STAFFING REQUIRED TO INVESTIGATE, OBTAIN PROPOSALS AND OPERATE THE INITIATIVE:		
Est hours to investigate/research/study:	<i>120 hours to investigate new software</i>	
Estimated hours to prepare bid proposals, evaluate responses, monitor performance:	<i>40 staff hours to review proposals</i>	
Estimated hours to operationalize:	<i>120 + hours per department to implement new software programs</i>	
ESTIMATED TIMELINE:		
Staff does not believe this is the right approach and the proposal is not being recommended by the full Adhoc Technology Committee.		
DEPENDENCIES:		
The proposed project would require software developers to create API's (application programming interfaces) so that multiple plugins can interact with each other. Staff would need to spend extra time to make sure the user experience is up to Rossmoor Standards.		
RESOURCES REQUIRED:		
For a project of this magnitude, we would need to outsource.		
GENERAL COMMENTS:		
Staff does not believe the proposed model would be able to cover the complexities of our operations. Not everything can be self-serve nor should it be. Combining everything into one CMS using dozens of plugins would move GRF backwards.		