

FY 19-20 BIENNIUM BUDGET REQUEST AND JUSTIFICATION

REQUESTER: Robert Burton PROGRAM/UNIT: Operations and Maintenance

I. TITLE OF REQUEST: Operations and Maintenance - Electrician I Position

DESCRIPTION OF REQUEST: Request is for position and salaries for an Electrician I

II. OPERATING COST SUMMARY

DESCRIPTION	FY 19	FY 20
Personnel/Position	25,000	25,000
Supplies/Other Expense	500	500
Equipment Expense		
TOTAL BUDGET REQUEST	25,500	25,500

III. OPERATING COST DETAILS

A. PERSONNEL/POSITION

POSITION TITLE	TYPE OF POSITION	FY 19 COST	FY 20 COST
Electrician I	UPW	25,000	25,000

B. SUPPLIES/OTHER EXPENSE

DESCRIPTION	PURPOSE	ONE TIME/ RECURRING	FY 19 COST	FY 20 COST
Electrical supplies	For campus repairs	Recurring	500	500

C. EQUIPMENT EXPENSE

DESCRIPTION	PURPOSE	ONE TIME/ RECURRING	FY 19 COST	FY 20 COST

IV. OUTCOME/JUSTIFICATION OF REQUEST

See Attached

V. RUBRIC RATING

CATEGORY	RATING	EXPLANATION
Link to Strategic Plan		
Link to Unit Priority		
Link to Program Review		
Supported by Performance/Outcomes		
Safety Compliance Requirement		
Cost Benefit		
Data Driven Justification		
Risk Associated with Not Supporting		
TOTAL RUBRIC RATING		

VI. IMPACT ON FACILITY REQUIREMENTS / INFORMATION SYSTEMS AND TECHNOLOGY

None

RUBRIC RATING SCALE

CATEGORY	LOW (1)	MEDIUM (2)	HIGH (3)	RATING
Link to Strategic Plan	Negligible linkage, weak justification	Moderate linkage, some justification	Directly linked to Strategic Plan with strong justification	
Link to Unit (Academic, Admin, Student, UH Center, OCET, IT) Priority	Designated below 20% of priority	Designated between bottom and top 20% of priority	Designated in 20% of Unit priority	
Link to Program Review	Negligible linkage, not in the program needs	Moderate linkage, in top five of program needs	Directly linked, in top two of program needs	
Supported by Performance/Outcomes	Negligible linkage to outcomes	Moderate linkage to outcomes	Strongly linked to outcomes	
Safety Compliance Requirement	Little or no relationship to safety and/or compliance	Moderate linkage to safety and/or compliance	Significant relationship to safety and/or compliance	
Cost Benefit	Low value compared to cost	Medium value compared to cost	High value compared to cost	
Data Drive Justification	Little or no data suggesting the need for or feasibility of request	Some data suggesting the need for or feasibility of the request	Significant data suggesting the need for or feasibility of the request	
Risk Associated with Not Supporting	Little or no risk with not supporting, weak justification	Moderate linkage to risk associated, some justification	Strongly linked to risk associated for not supporting, strong justification	
TOTAL RUBRIC RATING				

STRATEGIC DIRECTION PLAN GOALS

A. QUALITY OF LEARNING - Encourage and maintain high-quality learning across the institution.

Objective 1: A college culture that promotes excellence in teaching and learning for students, faculty and staff.

Objective 2: High quality degrees, certificates and courses that meet student, industry, and relevant stakeholder need.

Objective 3: Physical and fiscal support for high-quality teaching and learning.

Objective 4: Broad support for non-traditional and underprepared students with varied challenges.

B. STUDENT SUCCESS - Build Pathways and Assure Learning

Objective 1: College adopts policies and practices to help students enroll in and progress through college.

Objective 2: College provides optimal learning environments and effective and timely support for struggling students (especially Native Hawaiian and underrepresented students).

Objective 3: College uses evaluation and assessment practices to understand and improve educational effectiveness, especially for minority students

C. SUSTAINABILITY - Create a culture of sustainability at UHMC in its communities and environments by embedding sustainability practices and processes throughout the College.

Objective 1: An evidence-based understanding of systems on campus for prioritizing sustainable practices and improvements

Objective 2: Continuous, comprehensive leadership and coordination for UHMC sustainability efforts that promote a dynamic vision and understanding of sustainability.

Objective 3: Significant human, fiscal and physical campus resource decisions reviewed through a "Sustainability Lens."

Objective 4: A dynamic UHMC Sustainability Plan using a continuous improvement approach to address College goals, UH System, and UHCC System goals.

D. COMMUNITY NEEDS & WORKFORCE DEVELOPMENT - Prepare students to meet current and emerging community and workforce needs and opportunities.

Objective 1: Continuous evidence-based understanding of community and workforce needs and opportunities.

Objective 2: Credit and non-credit curriculum that are connected with relevant community and economic needs.

Objective 3: High quality Outreach centers to meet the credit and non-credit needs of the community

Objective 4: Consistent communication with the community about the College's mission and offerings

E. HAWAII PAPA O KE AO - Creating UHMC as a safe place for Native Hawaiian and all students.

Objective 1: Invigorate Native Hawaiian Student Academic Success and Potential for Leadership Strategies:

Objective 2: Establish a Pu'uhonua (Center of Hawaiian Knowledge) at UHMC that combines instruction, research, student services and community outreach.

Objective 3: Confirm Hawaiian Language and Culture Parity at UHMC

FY 2019-20 Biennium Budget Request and Justification (attachment)

Operations and Maintenance – Electrician I Position.

IV. Outcome/Justification of Request

About 3 years ago the Department of Commerce and Consumer Affairs issued a notice to all State Agencies. This notice informed all State Agencies of the need to use licensed electricians for repairs to State facilities that were deemed that a license was necessary.

The type of electrical repairs that were declared as needing a license included repairs/replacement of electrical parts that are electrified. The type of repairs included replacement of lighting ballasts, replacement of light switches and a wide range for work that the UHMC maintenance workers would normally do. After the DCCA notice, all campuses refrained from assigning any work to in house maintenance workers that required a license. Since no UHCC campus has an in house certified electrician on staff, all of the campuses contracted electricians to do the repairs.

This impacted the college two ways.

1. The cost to hire electricians to do simple repairs was costly. More than twice the normal cost.
2. The procurement of contract electricians severely delayed the repairs and have created a substantial deferred maintenance backlog.

The department has estimated that the college spends approximately \$40,000/year on contract electricians. Some of the contract costs are for HIGH Voltage work that cannot be assigned to an in house electrician and some of the contract work may require more than one electrician. Therefore, the department estimates \$30,000 in savings from contract electricians would be realized if the college hired an in-house certified electrician.

The college staff and faculty are experiencing extremely long periods of delays for electrical repairs, which impact lighting in classrooms, hallways, exterior walkways, etc, and therefore has both an impact to the educational environment and campus safety.

With the addition of the in house electrician the Department expects a complete elimination of outstanding light repairs and a significant reduction of all outstanding electrical repairs.

Electrician I – Annual Salary	\$55,000
Savings, Contract Electricians	\$30,000
Salary Funds Requested	\$25,000

BC-10

\$54,180
4,515 monthly

DEPARTMENT OF HUMAN RESOURCES DEVELOPMENT
STATE OF HAWAII

10.055

Specifications
for the Class:

ELECTRICIAN I

1.0 55,000.00
30,000.00

25,000.00

Distinguishing Characteristics

This class reflects the fully competent worker level in the series.

An Electrician I independently performs a variety of skilled electrical work in the repair, maintenance and installation of electrical systems and equipment as a regular and continuing assignment, and may supervise one or more helpers assisting in the work.

This class differs from the Electrician Helper which performs duties that are essentially routine and repetitive, as well as manual and semi-skilled, and assists, under the supervision of a licensed electrician, in the repair, maintenance and installation of electrical systems and equipment.

This class differs from the Electrician II in that the Electrician I performs skilled electrical work in the repair, maintenance and installation of electrical systems and equipment and may occasionally lead the work of other skilled Electricians but mainly confines supervision to electrician helpers and other semi-skilled or unskilled workers; whereas the Electrician II, in addition to performing skilled electrical work as the major work assignment, supervises the work of skilled electricians as a continuing work assignment including setting the pace and quality of work.

Examples of Duties: *(Positions may not be assigned all of the duties listed, nor do the examples necessarily include all of the duties that may be assigned. The omission of specific statements does not preclude the assignment of such duties if they are a logical assignment for the position. The classification of a position should not be based solely on the examples of duties performed.)*

Installs conduits, transformers, traffic signals, airport signaling systems, pull boxes, and switches from drawings and blueprints; services and repairs pumps, motors, generators, switchboards, oil circuit breakers, and various other types of electrical equipment and apparatus; repairs and replaces broken or defective parts in motors, switches, and fixtures; tests, locates, and repairs trouble in electrical circuits and equipment; replaces fuses and incandescent and fluorescent lights; plans electrical installations; traces and diagrams wiring circuits; inspects traffic signal, street lighting, and airport lighting systems; reads blueprints and compiles materials list; may assign

tasks to electricians and supervise the work of helpers; may assist in other related trades when not utilized as an electrician.

Minimum Qualification Requirements

License Required: Applicants must possess a valid State of Hawaii Journey Worker Electrician License, Journey Worker Industrial Electrician License, Supervising Electrician License, or Supervising Industrial Electrician License.

Knowledge of: Practices and methods used in the electrical trade, including safety procedures and electrical code; tools, equipment and materials used in the electrical trade.

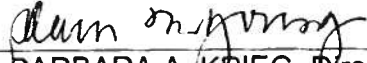
Ability to: Use hand and power tools common to the electrical trade; read and interpret blueprints, sketches, manuals and other materials; recognize hazards typical of the work; estimate time and materials needed to complete a job; understand and follow oral and written instructions; perform heavy lifting, moving and other manual work typical of the class.

Physical and Medical Requirements

Applicants must be able to perform the essential functions of the position effectively and safely, with or without reasonable accommodation.

This is an amendment to the specifications for the class ELECTRICIAN I, which were approved on November 9, 1993.

DATE APPROVED: 7/16/2012



BARBARA A. KRIEG, Director
Department of Human Resources Development

University of Hawaii Maui College
Annual Program Review for Operations & Maintenance and Mailroom/Switchboard
For Fiscal YR 2018
[covering calendar years 2016 and 2017]
By Robert Burton et al

Mission Statement:

The Operations & Maintenance (O/M) Department provides a safe, sanitary, and secure educational environment for students, faculty and staff that enhances student-learning outcomes.

(Mission of UHMC - Maui College is a learning-centered institution that provides affordable, high quality credit and non-credit educational opportunities to a diverse community of lifelong learners.)

Vision Statement:

To be an effective, efficient, harmonious, cohesive and disciplined Operations & Maintenance Department that is adequately staffed so that we may “realize” our mission as well as succeed at our goals.

(Vision of UHMC - We envision a world-class college that meets current and emerging Maui County education and training needs through innovative, high quality programs offered in stimulating learning environments. The College mission, goals, and actions will be guided by the Native Hawaiian reverence for the ahupua’a, a practice of sustaining and sharing diverse but finite resources for the benefit of all.)

Values Statement:

We hold these values as the most important for our group and we work daily to bring these into our work place in our own unique way:

1. Respect
2. Appreciation
3. Responsibility
4. Friendliness
5. Teamwork
6. Fairness
7. Honesty

Analysis and Assessment of Quantitative and Qualitative Data for the Calendar Years January 1, 2016 through December 31, 2017:

The quantitative data for Fiscal year 2017 and 2018:

Via Efacilities AiM...we had a total of work orders 2280 submitted and as of this writing there are only 168 “open”. We estimate that it took us, on average, 7 days to complete a work order.

The Department is fully staffed as of June 30, 2017. [unfortunately, one of the Grounds Team passed away November 2017]

The following lists were generated in Fiscal 2016 and remain accurate this time around for 2017 and 2018.

STRENGTHS:

- Working with a smile on our faces even with such overload
- Willingness to help others most times...working together
- Pride in doing high quality work
- Putting students first most times...
- Knowing and understanding that we have to drop what we are doing and jumping in to fix something else
- Patience with Robert and each other
- Patience with faculty and other staff
- Accept and implement change even if we resist at times and it seems impossible.

- We do have some good equipment.
- We do very well with what we have
- There are many faculty staff who do understand our importance and the role we play in making this a 1st class community college.
- Sense of humor

WEAKNESSES:

- Sometimes don't listen and understand clearly what our fellow OM folks are saying/telling us...
- Lack of adequate staffing levels
- Lack of communications –internal and external
- Lack of appropriate funding resources
- Slowness and complicated UH procurement process
- Impatience with faculty and other staff, and disrespecting students when their demands appear outrageous to us.
- Still “noni noni”, internal back stabbing, and talk stink about others instead of just be quiet and do our jobs.
- Lack of compassion from others towards our fiscal and personnel status
- Too much pride to admit not knowing and therefore not asking for help
- Not speaking up at open meetings – OM Ohana or elsewhere
- Fear of retaliation if we speak out about something we don't like or that we see happening and should be “corrected”.
- Lack of trust in administration to make decisions that truly benefit the entire community in terms of prudent and frugal use of our monetary resources.
- Not always walking our talk

FRUSTRATIONS:

- Not having material on hand to complete a work order
- Not enough information given on work order
- Lack of compassion towards us when they do not see the “whole picture” e.g. nit picky
- Insufficient training/knowledge/equipment/HVAC maintenance
- Too many talking too much about retirement
- Some poor purchasing decisions by facilities manager.
- New “Budget Committee” that reviews all vacant positions to see if it necessitates immediate fill behind – OM no longer “owns” its vacant position counts...they could be preempted if Executive Committee and Budget Committee so chose.
- Specifications on request for quotes should be better defined and we hold the vendor to strict compliance with the specification(s).

After reviewing the quantitative data, it is apparent that we are maintaining our rhythm of closing out all open work orders, which is easiest for Janitor and Grounds Team because they have the fewest. Building Maintenance crew has the majority of the open work orders due to the fact that they have the majority of work orders.

The strength of the qualitative data is that we have maintained our initiative to provide efficient and effective services to the college community. We are still working to incorporate more harmony, cohesiveness and discipline into our daily routines, but this has not always been possible due to personality contrasts/conflicts.

We anticipate that in the coming fiscal years 2019 – 2020 will see a decrease in negative comments. The main reasons are because we are fully staffed and have a new Assistant Facilities Manager. This person will focus on

the daily routines of Janitors, Bldg Maintenance and Grounds in order to catch up on in terms of basic deep cleaning and building maintenance repair. Once this is accomplished we will be freer to take care of more visible issues, such as landscaping beds not planted; restrooms not appearing clean and fresh smelling; lighting repairs taking way too long. We do have the support from the chancellor to hire student helpers and we are constantly searching for federal work study students but they are not always willing or able to work Operations and Maintenance during the hours we are on site.

When we are allowed to fill vacancies we will make all attempts to find very compatible and harmonious individuals to become a part of our team. We will be proceeding as quick a possible with this process. Operations and Maintenance positions are important to be filled due to the “effect” on the health and safety aspects of student learning outcomes. Students, faculty and visitors are more inclined to have a pleasant and affirming stay on campus if the landscape, exterior and interior spaces are well maintained and the employee whom they encounter are pleasant.

The weakness of the qualitative data is that while at most time’s morale is good, there are times when morale is down...even when we had emergency hires in janitor and grounds positions during the “searches.” The morale always appears low depending on time of year and time of day...for a variety of reasons:

1. As mentioned earlier – personality contrasts/conflicts.
2. The times that there is a lack of understanding and patience from the community concerning how fast/slow we are in responding which include unfriendly, snide and/or rhetorical comments from faculty
3. Seeming lack of opportunities for employee training.
4. A lack of certain types of powered machinery...in particular, high speed buffers and scrubbers for each building; no adequate sized pickup truck; length of time it takes to repair powered equipment.
5. The Apprenticeship Program could be helping more with small kine improvements if there was more consistent, direct, communication between the program coordinator of the Apprenticeship Program and the facilities manager
6. The “fires” we are always putting out seem to inevitably affect our capacity to tend to the more preventative types of work we can be doing.

In summary of the quantitative and qualitative assessment we like this poem by Edna St. Vincent Millay:

“My candle burns at both ends.
It will not last the night;
But, ah, my foes and oh, my friends –
It gives a lovely light!”

Plans & *Next Steps* for Fiscal Yr 2019 - 2020 and beyond within the Operations & Maintenance

1. Replace worn out equipment as quickly as possible. *Focus is on replacing the entire fleet of golf carts except for the two new ones Grounds team got in early 2017, a full size pickup truck and a small scissors lift that will fit into an elevator...mostly for use in Paina and Kaaike.*
2. Performance Appraisals for all O/M personnel *on going ... as time and schedules permit- with the new Assistant FM we anticipate being caught up with these by June 2018.*
3. Every two week meetings between department head and working supervisors *On going*
4. As needed meetings between department head and individual teams as well as entire O/M Department. *On going*
5. “Nuts & Bolts” from OM Dept 4 times a year to remind the community about:
Keys and Card Access procedures
Move requests and guidelines for packing “stuff” for moves of offices.
Locked out procedures
How to use EFacilities-AiM for customer requests

On going- has been very inconsistent and we feel consistency will improve with the new Assistant FM

6. Continue to lobby strongly and loudly for permanent counts and more positions within our department, especially full time, permanent positions.
7. Moving into Zero Waste we will implement:
We have two cardboard containers so that is accomplished and we will work with Hana Steele of the County to implement a more proactive office paper recycling effort.
8. Continually support UHMC Security Department in annual “disaster training” exercises.
9. Organize OM Ohana trips to other Community Colleges – and hosting the other OM Ohanas here on Maui. On going
10. Trap and transport all feral chickens to Maui Humane Society. On going
11. Be more active in campus wide events: N.S.O.; B.O.R.; Commencement on going
12. Successfully implement Phase 2 of the Johnson Controls Performance Contract – begins Summer 2018 and includes Solar PV additions that will take the campus to Net Zero in terms of electrical energy.

O/M Resource Needs for FY 2018 [prioritized]:

Electric Utility Carts – replace most of the entire OM Fleet:

1. 2 ea 4 passenger carts for FM and Assistant FM
 2. 3 ea utility carts with dumping bed for Grounds team
 3. 12 ea utility carts with appropriate style bed for Janitor team and Bldg Maintenance team
- Total 17 new carts at an estimated cost= \$187,000.00

Expected outcome – provide a better and more consistent “look” for the department which in turn provides a better appearance to the campus and community.

Crew cab-full sized, pickup truck

Estimated Cost = \$55,000.00

Expected outcome – reduce 90% of \$ spent for mileage on personal vehicle usage for college legal utility vehicle to replace old, small, gas powered, pickup truck.

Small, indoor, personnel lift (fits into elevator) to be able to reach high ceilings and light fixtures.

Estimated Cost = \$35,000.00

Expected outcome –benefits OM because we will be saving time and money on renting; be able to quickly replace lights and ceiling tiles and perform high, interior cleaning tasks safer than is relying on ladders or scaffolding. Students and campus community benefit by having a well-lit and cleaner space in which to conduct daily activities, routines and work.

All terrain personnel lift for exterior repair and maintenance projects

Estimated cost = \$175,000.00

Expected outcome – benefits OM because we will be saving time and money on renting; be able to quickly and more consistently replace exterior lights, clean roof gutters, trim trees and perform other high, exterior cleaning and maintenance tasks safer than is relying on ladders or scaffolding. Students and campus community benefit by having a cleaner, better maintained exterior campus in which to conduct daily activities, routines and work.

4 ea floor buffing machines & 4 ea floor scrubbing machines of higher quality than the ones purchased in FY 2014.

Estimated cost = \$19,500.00

Will replace existing as they break if entire funding is not available.

Expected outcome – reduce by 50% time spent moving machines around to different buildings in order to deep clean and/or polish floors.

Storage Areas :

1. Convert old Chiller Enclosure at Library into efficient, effective and watertight O/M storage area.

Expected outcome - stock more of frequently replaced maintenance items and more used furniture. This allows us to reach our goal of reducing days to complete a work order since we would not have to wait so long for parts. It will allow for more organized storage system of stocked parts thus reduce man-hours looking for repair parts. It would also allow us to store more good used furniture that can be used by other departments, thus reducing overall \$'s spent on furniture (no accurate figures nor estimate available at this time.) However, this space may become garage space if a new PU truck is purchased and we expand the fleet with people vans. One such van is waiting for license plates as this report is written.

2. Convert old Chiller Enclosures at Hookipa and Noi'i into storage areas –Hookipa for Business Office & Personnel and the Noii enclosure for Janitor supply/equipment storage.

Expected outcome - It will allow for more organized storage system for these departments. It would also allow the storage of good, used, furniture that can be used by other departments, thus reducing overall \$'s spent on furniture (no accurate figures nor estimate available at this time.)

3. Re-locate two 40 foot containers to far SW corner of campus – nestling them up against the sand hill – roof them over so that they can be utilized for dry storage.

Expected outcome – it will be a dry space for commencement staging and chairs. The chairs which are temporarily stored in Pilina MultiPurpose Room need a very permanent home.

4. Work with Apprenticeship Program – especially the Carpenter Union in order to create storage buildings around campus. First one will be for the grant programs in the Annex

Expected outcome – office space will be kept free and clear of “stuff” which will lend a more professional appearance to our public spaces.

Requested personnel “counts:”

Operations and Maintenance positions are important to be added as permanent counts due to its “effect” on the health and safety aspects of student learning outcomes. Students, faculty and visitors are more inclined to have a pleasant and affirming stay on campus if the landscape, exterior and interior spaces are well maintained. Quality of the landscape, exterior and interior spaces is compromised once employees are given more work load than is possible to complete in any given day to the standards we are setting. We are currently fully staff except for one Gen Labor II – Grounds Team. We did fill the Assistant Facilities Manager Position as of 12/29/17.

Positions:	Expected outcomes
1-FTE Building Maintenance Mechanic I – already high on the campus's approved personnel counts.	Number of days to repair powered hand tools and other large motorized equipment is reduced by 50%. And the additional help will allow us to do more specialty projects such as office renovation – be it dividing a space or demolition to enlarge a space. Data may be gleaned from Efacilites Aim
1- Building Maintenance Electrician – new request based on the facts we have on average 51 work orders for some type of electrical work and expenditures of \$40,000.00 per year for electrical companies.	Improve morale and improve attention to detail on all aspects of electrical work, energy management daily issues, routine & preventative maintenance of switches, circuit breakers, automated lighting programs – thus providing a better study and work environment. And the additional help will allow us to do more specialty projects such as office renovation – be it dividing a space or demolition to enlarge a space. We have on average 51 work orders per year for Elec Problems, lights out etc...and we spend close to \$40,000.00 per year for electrical contractors to do electrical work – low voltage and high voltage. Having a certified union electrician on staff would save us upwards of \$35,000.00 (the other \$5,000.00 is for high voltage work)...which is the bulk of low voltage expenditures. This savings would pay for 2/3 (plus/minus) of this position's salary. More importantly, we would be able to rectify simple electrical issues almost immediately, thus creating a brighter, more conducive space for learning and for working.
1-FTE Mailroom/Switchboard clerk (currently casual hire)	Non-quantifiable...improved morale
1-FTE O/M clerk (currently casual hire)	Non-quantifiable...improved morale
3-FTE Janitor II	Higher satisfaction ratings by 10% points and reduced number of overtime hours, by 1/3, for deep cleaning and window washing.
1-FTE General Labor II for landscape crew	Higher satisfaction ratings by 10% points for well kept campus and reduced need for contracting out irrigation troubleshooting and repair. Reduce hours by outside contractor by 1/3. Get more of the decorative landscape beds at buildings re-planted and maintained continuously.
1-FTE Building Maintenance I	Reduce number of days to complete work orders by 50%. Reduce number of overtime hours for Building Maintenance items by 1/3.

Repair and Maintenance Projects that On Going:

Small Kine by O/M Building Maintenance:

Re-organize OM Base Yard

Multiple door replacements –interior and exterior

In Process – and/or funded for Outside Contractor:

Up-grade service to raised stage on Great Lawn

Soffit Repair Paina Bldg – emergency repairs completed except for West side 1st floor soffit...now must be “studied” to see how to fix all the structural issues that were uncovered during emergency repairs

Upgrade HVAC systems and controls in Laulima and Hookipa

Exterior Wall Spalling Repairs on Ka'a'ike, Main Chiller Enclosure, Paina, and Rear Lot Parking Light bases.

Asbestos Abatement Library 1st Floor – asbestos containing vinyl floor tiles

Minor CIP Projects FY 2016

The Annex – Building #2207 – Complete Spring FY 2018.

Molokai Education Center expansion.

Co-creation projects with Sustainable Construction Technologies; Automotive Department; Apprenticeship Program

Tentative Projects under jurisdiction of Sustainable Construction Tech - Building Maintenance:

1. Re-paint exterior handrails and signposts
2. Get Metasys set up in Bldg #2202 Classroom Lab for energy monitoring projects
3. Convert our golf cart fleet to solar or wind power.