

+University of Hawaii Maui College  
Annual Program Review; Operations & Maintenance (O&M)  
January 2022 to December 2024

**Vision Statement:**

“Enhance O&M’s Efficacy & Synergy to improve campus Safety & Health, Reliability, Aesthetics and efficiency...”

**Mission Statement:**

“We, Ohana of O&M will do what is right because it is our responsibility”

**Core Values:**

- TRUST
- RESPECT
- HONESTY
- FAITH
- BELIEVE IN OURSELVES & EACH OTHER
- HAVE FUN

**O&M KOP:**

- K: Kuleana
- O: Ohana
- P: Pono

**O&M Process:**

- Weigh Social, Environment and Economical Equities...
- Making the best balance decision...
- Root Cause Analytics
- Kaizen & 5 S’s
  - Continuous Improvement of Work Practices, personal efficiency, etc
  - 5 S
    - Sort (organization)
    - Set in Order (Orderliness)
    - Shine (Cleanliness)
    - Standardize (Adherence)
    - Sustain (Self Discipline)
- One Voice Methodology
- Synergy
- Balance work and personal life

## **STAFFING (Present & see attachment):**

- Building Maintenance (4)
  - Staff
    - One BMW Lead
    - Two BMW I
    - One general laborer
  - Two years of COVID was good and bad in
  - Building maintenance are addressing emergencies and corrective repair that are essential to campus operations
  - We are implementing more Preventative and Predictive Maintenance programs as we continue to enhance campus
    - Safety
    - Reliability
    - Aesthetics
  - Finding funding is challenging
  - Repairs and projects are being outsourced due to timing, skill and availability
  - Upgrade, renovated and upkeep outdated & deteriorated equipment, buildings and utilities
  - We are utilizing Apprenticeship and student programs to address project normally done by building maintenance
- Janitorial (11)
  - Staff
    - One Janitor Lead
    - Seven: Janitor I
    - Three: Vacant
  - Implemented project driven objective during Spring, Summer and Fall breaks
  - Newer equipment to produce safer and with increase productivity
  - New Covid era has impacted our campus... decisions are being made outside of our control.
  - Additional Covid Cleaning and Inventory tasks
  - Little to no Preventative and Predictive Maintenance programs
  - Projects are being outsourced due to timing, skill and availability
  - We are utilizing student programs to support janitorial needs
  - We are a consolidated team: no upper and lower campus
  - Proactive Inventory (JIT) process
  - RACE to upkeep
- Landscaping & grounds (5)
  - Staff
    - One Janitor Lead
    - Three: Grounds/Landscaper I
    - One: Vacant

- Newer equipment to produce safer and with increase productivity
- New Irrigation upgrade project
- Repairs and projects are being outsourced due to timing, skill and availability
- Little to no Preventative and Predictive Maintenance programs are being implemented
- Lack of defined landscaping, turf, tree, shrubs and ground cover maintenance plans
- No herbicide and fertilizer management plans

Summary:

O&M staff are being cross trained and cross utilized to ensure tasks, assignments and emergencies are addressed safely and in a timely manner to support campus needs and requirements. Outsourcing is chosen method to primarily keep us afloat till vacancies can be refilled. We are cautioned to ensure we do not negatively impact the Collective Bargaining Agreement by implementing “cross-training and cross job description utilization.

**SWOT (STRENGTHS/WEAKNESS/OPPORTUNITY/THREATS):**

\*SEE ATTACHMENT\*

**STAFF (FUTURE):**

\*SEE ATTACHMENT\*

**MAINTENANCE ESTIMATED TASK HOURS:**

\*SEE ATTACHMENT\*

**WORK ORDER SUMMARY**

\*SEE ATTACHMENT\*

- Notes;
  - Work orders reduced due to elimination of;
    - AC schedule changes
    - O&M is not involved with movement of offices and staff
  - Data based on some assumptions and estimations
  - Closed, Open and Cancel data are AIM system information
  - Need to get one “super-user” trained in O&M
- AIM Work Order system is outdated, not user friendly and cannot integrate with other system programs to provide O&M a useful tool
  - Just input & outputs
  - Cannot auto-integrate with;
    - PO system
    - Labor

- Inventory min/max
- History information
- Ranking & prioritization
- Others
- Users are initiating WO to push their projects, wants and wishes...

## **CAMPUS CONDITIONS & RELIABILITY**

- MAILROOM
  - Permanently filled in Jan. 2024
  - New Position will consume other duties including 25live
  - Future training to be super-user of AIM Asset works
- UTILITIES
  - MUNICIPAL WATER
    - Portion of system is used for irrigation system (potential savings)
      - New irrigation system being worked on
    - Low pressure at lower campus municipal water system
      - Causes water loss at backflow devices
      - Water closet and faucet issues
        - COM Municipal water quality is determined “Hard water” therefore causes pipe and fixture issues through campus
    - Excessive water pressure on some areas of upper campus
      - Causes failure on pipes and valves
      - Additional pressure reducers need to added to system
    - Continuous updating Schematics and drawings
  - WELL WATER SYSTEM (Irrigation)
    - Major irrigation upgrade design and renovation started in 2023
      - Transmission lines are deteriorated and failing
      - Not enough pressure to irrigate parts of lower campus
      - Repair all leaks, failures and breakages i.e. 6 inch main at recycle center
      - Update Schematics and drawings
    - No PM or PdM programs
  - ELECTRICAL TRANSFORMERS
    - Requirements
      - Service, Replace and repair 17 each transformers
        - Revise all Wye transformers to Delta
      - Load data acquisition test
      - Service
      - Oil analytics
      - Long range contingency plan
    - Need to update Schematics and drawings
    - No PM or PdM programs
  - ELECTRICAL MOTORS (15 HP & UP)
    - Megger motors
      - Check continuity and load test
    - No PM or PdM programs

- ELECTRICAL LIGHTING
  - Remove Leviton system at Ikelea and convert to Lutron
  - JCI training for O&M Building Maintenance team on lighting system
  - Recommendation
    - Implement exterior light on Paina & IT emergency systems
  - Update Schematics and drawings
  - No PM or PdM programs
- ELECTRICAL SYSTEMS & MAIN VAULT
  - Update Schematics and drawings
  - Service all connections and terminations
  - Identify and categorize panels, distribution and controls
  - No PM or PdM programs
- BACKUP GENERATOR
  - Recommendations
    - Project and funding to
      - Service and repair generator to acquire 85% efficiency. Presently at 45%
      - Add safety lighting to IT server & Paina refrigeration
      - New Above Ground Fuel Storage Tank
  - No PM or PdM programs
- PV FARMS & ACCESSORY OPS
  - Recommendations
    - Add switchgear to isolate campus from HECO
    - Off grid operations, full utilization of battery storage
    - Implement a program to consolidate all UH Maui College owned PV system with JCI PV systems;
      - One monitoring system
      - Implement Pm/PdM programs
- BUILDINGS
  - Recommendations
    - Develop long range repainting schedule & funding
      - New color codes
    - Develop long range water leak repair schedule & funding
    - Develop long range roof repair schedule and funding
    - Develop long range drainage/gutter repair/replace schedule & funding
    - Develop long range spalling repair schedule and funding
  - No PM or PdM programs
- LANDSCAPING (GROUNDS, TREES & SHRUBS)
  - New utility tractor purchased to increase productivity and decrease safety concerns
  - Requirements
    - Purchase new Chipper shredder to implement composting
      - Compost all compostable material
    - Sea grape/Kiawe cutting and trimming started 12/2023
    - Develop long range Tree Trimming schedule and funding
    - Develop long range turf replacement program
    - Develop long range Hard-scape, Soft-scape & Native planting schedule
    - Implement tree planting per County of Maui plan

- Recommendations
    - Design & implement seashore turf planting inventory program
  - Update Schematics and drawings
  - No PM or PdM programs
- JANITORIAL
- Purchase new floor cleaning and vacuuming equipment to enhance safety and productivity
  - Consolidated operations – no upper and lower campus designation
  - New inventory process to minimize to eliminate running out of supplies
  - Recommendations
    - Need new & new replacement equipment;
      - Floor polishers (4)
      - Floor Scrubber (1)
    - Remove all carpeting and reinstall laminate flooring
    - Remove all cloth type furniture and replace with plastic or similar
  - Update Schematics and drawings
  - No PM or PdM programs
- SEWER DISPOSAL SYSTEM
- Service pumps, controls and floats (Pm)
  - Build contingency backup plans
  - Ensure policy is in place for what cannot be flushed in the toilets
  - Update Schematics and drawings
  - No PM or PdM programs
- WALKWAYS, RAMPS & LOADING ZONES
- ADA evaluation and action plan completed
    - Kupaa ramp schedule to be upgraded in 2024
  - Backfill all walk way edging with soil media to reduce potential falls and sprains
  - Level walkways to less than ¼ inch difference to reduce potential trips
  - Repair all cracks, breaks and failures
  - Update Schematics and drawings
  - No PM or PdM programs
- TWO WAY RADIOS
- Update and service campus repeater system
  - Add new channels to eliminate the one channel chatter
- FENCING
- Re- Fencing project started Jan 2024 for AG & CTHAR
  - Replace O&M fencing, lava rock wall on Kaahumanu avenue, all perimeter fencing and internal specialized fencing
- ROADS, PARKING, SPEED BUMPS & SIGNAGE
- Recommendations
    - Add signage
      - Flood area please drive slowly
    - Update signage that meets campus directive
      - Marc Antosch projects
    - Add photo sensing LED lights (caution, warning and advisement)
    - Paint reflective paint on all speed bumps (on going)
    - Level grade unpaved parking area (next to security office adjacent NOII)

- Continuous and ongoing repainting of campus parking, ADA, load zones
- No PM or PdM programs
- FIRE SYSTEMS/STANDPIPES/HYDRANTS
  - Edwards & Simplex-grinnell repairs in 2024 to ensure fire compliance
  - Repair standpipes (major)
  - Implement PdM for all standpipes/hydrants/Fire systems
    - Quarterly testing of “water gong’s”
    - Quarterly/Semi-annual “testing of all valves”
  - Annual testing of fire equipment and apparatus
  - Recommendation
    - Implement Central Fire monitoring system for entire campus
- AC SYSTEMS
  - Work with JCI to cleanup Metasys system
    - Alarms, warnings, update buildings, controls
    - Train O&M Building Maintenance team on HVAC systems and Metasys
    - Get Ikelea and Central Plant chiller systems and associated equipment function at optimal efficient levels
    - Kalama AC system completed, Laulima May 2025 and Hookipa soon after
    - Recommendations;
      - Remove & Replace all Trane systems
      - Work with JCI performance team on optimal utilization at lowest cost
      - Replace all deteriorating insulation
      - Replace valves and transmission lines where applicable
      - Replace & update all AHU’s and install UV sanitizing equipment
      - Replace all deteriorated drip pans and associated discharge lines
      - Update control and hard wiring were applicable
      - Replace all ventilation fans & motors
      - Balance buildings & rooms
  - No PM or PdM programs
- MOLOKAI
  - Improved/upgrade irrigation system – 2024 design
  - Tree trimming done by part time UH worker
  - Farm cleaning done by part time UH worker
  - Consolidating inventory supplies, Maui is hub
  - Mel visit quarterly
  - No PM or PdM programs
- LANAI
  - Mel need to visit
  - BMW have done some repairs to Lanai facility
  - Consolidating inventory supplies, Maui is hub
  - No PM or PdM programs
- EQUIPMENT PURCHASES
  - Two new scissors lift
  - One utility tractor
  - One street sweeper/ vacuum
  - Landscaping Battery technology

## **GENERAL OVERVIEW:**

O&M (Operations & Maintenance) Department is a support function for UH Maui College and its Outreach operations...

This annual performance report provides a “bird’s eye view” of our campus from an O&M perspective. As shown, we have opportunities to implement for achieving a goal to become a campus of “first choice” for our potential students; Traditional, Non-traditional and foreign countries.

Our journey continues to be beneficial to our staff and leaders in all functions of O&M from both a personal and work practices growth. These O&M enhancements will provide the resources and support that is required to meet our campus directive for optimal student learning outcomes/results. This will allow for our Maui County community economic, environmental and social equities to progress forward in the ever-changing global mission & vision...